

Enbridge Gas Distribution 500 Consumers Road North York, Ontario M2J 1P8

November 15, 2016

#### **VIA RESS, EMAIL and COURIER**

Ms Kirsten Walli Board Secretary Ontario Energy Board 2300 Yonge Street, Suite 2700 Toronto, Ontario, M4P 1E4

Dear Ms Walli:

Re: Enbridge Gas Distribution Inc. ("Enbridge")
Cap and Trade Application ("Application")
Ontario Energy Board ("Board") File Number EB-2016-0300

As directed by the Ontario Energy Board in the Report of the Board dated September 26, 2016, enclosed please find two copies of the public portions of Enbridge's Application and Evidence for its Cap and Trade Framework Application EB-2016-0300.

Please note that supporting evidence includes a number of documents that are Market Sensitive or Auction Confidential and therefore filed under separate cover.

This request for confidential treatment is made pursuant to the government's *Climate Change Mitigation and Low-carbon Economy Act, S.O. 2016, c.7,* ("Climate Change Act") and addressed in the *Board's Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities,* EB-2015-0363, September 26, 2016 (the "Framework").

The Application has been filed through the Board's Regulatory Electronic Submission System and will be available on the Enbridge website at: <a href="https://www.enbridgegas.com/ratecase">www.enbridgegas.com/ratecase</a>.

Please contact the undersigned if you have any questions.

Yours truly,

[original signed]

Andrew Mandyam
Director, Regulatory Affairs and Financial Performance

cc: Mr. D. O'Leary, Aird & Berlis LLP
 Mr. D. Stevens, Aird & Berlis LLP
 All Interested Parties EB-2016-0215 (via email)

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 1 Page 1 of 7

### **EXHIBIT LIST**

### A – ADMINISTRATIVE DOCUMENTS

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>A</u>	1	1	Table of Contents	
		2	Executive Summary	A. Langstaff J. Murphy F. Oliver-Glasford
	2	1	Administration/Application	A. Mandyam F. Oliver-Glasford
	3	1	Confidentiality	S. Mills F. Oliver-Glasford
	4	1	Curriculum Vitae	
		2	Curriculum Vitae – Consultant	
	5	1	Glossary of Terms	

# **B – FORECASTS**

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>B</u>	1	1	Forecasting Period	A. Langstaff J. Murphy F. Oliver-Glasford
	2	1	Volume Forecasts	R. Cheung R. DiMaria J. Murphy M. Suarez
			Appendix A – Cap and Trade Declaration Form	R. DiMaria A. Langstaff J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 1 Page 2 of 7

### **EXHIBIT LIST**

# **B-FORECASTS**

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>B</u>	3	1	GHG Emissions Forecasts	J. Murphy
	4	1	Annual Carbon Price Forecasts	A. Langstaff J. Murphy F. Oliver-Glasford

# C - COMPLIANCE PLAN DOCUMENTS

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>C</u>	1	1	Overview of Compliance Plan	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn
			Appendix A –Carbon Market Report	Alpha Inception - Consultant
			Appendix B –Carbon Strategy Report	Alpha Inception - Consultant
	2	1	Compliance Option Analysis and Optimization of Decision-making	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 1 Page 3 of 7

# **EXHIBIT LIST**

### C - COMPLIANCE PLAN DOCUMENTS

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>C</u>	3	1	Performance Metrics and Cost Information	A. Langstaff J. Murphy F. Oliver-Glasford
		2	Compliance Plan – Allowance Purchase	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn
		3	Compliance Plan – Offset Credits	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn
		4	Compliance Plan – Abatement Activities – Customer	M. Lister S. Mills F. Oliver-Glasford D. Teichroeb J. Tideman
		5	Compliance Plan – Abatement Activities – Facility	J. Murphy E. Naczynski
		6	Administrative Costs	A. Langstaff D. McIlwraith F. Oliver-Glasford R. Small E. Vangelova

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 1 Page 4 of 7

Witness(es)

#### **EXHIBIT LIST**

# C - COMPLIANCE PLAN DOCUMENTS

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>C</u>	4	1	Risk Management – Identification and Mitigation	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn
	5	1	Longer Term Investments	A. Langstaff J. Murphy F. Oliver-Glasford
	6	1	New Business Activities	S. McGill

# **D – MONITORING AND REPORTING**

Exhibit Tab Schedule Contents

2017 Op	perating	<u>Costs</u>		
<u>D</u>	1	1	Annual Monitoring and Reporting Reports	A. Langstaff J. Murphy F. Oliver-Glasford

#### **E – CUSTOMER OUTREACH**

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>E</u>	1	1	Customer Outreach and Information	R. DiMaria C. Meyer D. McIlwraith F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 1 Page 5 of 7

# **EXHIBIT LIST**

### **E – CUSTOMER OUTREACH**

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>E</u>	1	1	Appendix A – Enbridge Gas Distribution – 2017 Cap and Trade Outreach Communication Plan	R. DiMaria C. Meyer D. McIlwraith F. Oliver-Glasford
			Appendix B – Connecting with our Customers	R. DiMaria C. Meyer D. McIlwraith F. Oliver-Glasford
			Appendix C – Learn How Cap and Trade will Affect your Bill	R. DiMaria C. Meyer D. McIlwraith F. Oliver-Glasford
			Appendix D – Envelope – Learn How Ontario's Cap and Trade will Affect your Bill	R. DiMaria C. Meyer D. McIlwraith F. Oliver-Glasford
			Appendix E – January 2017 Bill Mock Up	R. DiMaria C. Meyer D. McIlwraith F. Oliver-Glasford
			Appendix F – The Ontario Cap and Trade Program	R. DiMaria C. Meyer F. Oliver-Glasford
			Appendix G – Regulatory Update	R. DiMaria A. Kacicnik C. Meyer F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 1

Page 6 of 7

### **EXHIBIT LIST**

#### **E – CUSTOMER OUTREACH**

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>E</u>	1	1	Appendix H – Regulation Update	R. DiMaria C. Meyer F. Oliver-Glasford

### F – DEFERRAL AND VARIANCE ACCOUNTS

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>E</u>	1	1	Deferral Account Statements	R. Craddock A. Langstaff J. Murphy F. Oliver-Glasford R. Small

### **G – COST RECOVERY**

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>G</u>	1	1	Cost Recovery Statements	A. Kacicnik A. Langstaff J. Murphy
			Appendix A – Cap and Trade Exhibits Enbridge Estimated Floor Price	A. Kacicnik A. Langstaff J. Murphy
			Appendix B – Rate Schedules	A. Kacicnik A. Langstaff J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 1 Page 7 of 7

# **EXHIBIT LIST**

### **G - COST RECOVERY**

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	Contents	Witness(es)
<u>G</u>	1	2	Alternate Cost Recovery Statements	A. Kacicnik A. Langstaff J. Murphy
			Appendix A – Cap and Trade Exhibits OEB Methodology	A. Kacicnik A. Langstaff J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 2 Page 1 of 5

#### **EXECUTIVE SUMMARY**

- 1. Enbridge Gas Distribution Inc. ("Enbridge" or the "Company") has prepared this 2017 Cap and Trade Compliance Plan in accordance with and in response to the Ontario Energy Board's (the "Board") Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities (the "Framework") issued on September 26, 2016. Enbridge respectfully submits this Compliance Plan addresses all of the Framework's guiding principles and satisfies all of its requirements and as such, should be approved and accepted by the Board.
- 2. Enbridge's 2017 Compliance Plan is a starting point from which the Company will build upon over the course of the first Cap and Trade program compliance period of 2017 to 2020. Given that the carbon market is nascent in North America, and particularly in Ontario, there is an obvious and recognized learning curve for all parties involved regarding aspects of carbon market strategy design and implementation. There are also a number of market uncertainties including whether Ontario will link with the California and Québec carbon markets in 2018 and whether the Cap and Trade program will continue in California post 2020. As such, Enbridge has focused on creating a well-conceived and thorough one-year Compliance Plan which focuses on a number of critical areas including governance processes, risk mitigation, transparency, monitoring and reporting, cost prudency and customer outreach.
- 3. Enbridge determined that a prudent course of action in developing its Compliance Plan would involve engaging a third-party carbon market expert. Enbridge conducted a comprehensive request for proposal ("RFP") review process through which a successful candidate, Alpha Inception ("AI") was selected. As part of this

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 2 Page 2 of 5

engagement, Al provided the Company with a Carbon Market Report and a Carbon Strategy Report which were extensively used to inform the development of the Compliance Plan. Given that these documents contain confidential information and data, in compliance with the prohibition against disclosure of certain information under the *Climate Change Act* and the confidentiality rules established by the Board, both of these documents have been filed confidentially and are intended for the Board's consideration only.

- The Carbon Market Report (the "Report") includes commercial, market and other information that was helpful and relied upon in preparing the Company's risk mitigation procedures and carbon procurement strategy.
- The Carbon Strategy Report provides suggested options for compliance, as well as related analysis that Enbridge used in the development of its ultimate strategy.
   Enbridge's recommended strategy is outlined in robust and transparent detail in this filing.
- 6. In this 2017 Compliance Plan, Enbridge has considered all options for meeting its compliance obligation including market instruments and emission abatement activities. Each instrument employed and abatement activity considered has been detailed and discussed. All details around which, how and when market instruments are to be utilized are filed confidentially as these are an integral part of the Company's procurement strategy. In addition to market-based instruments, Enbridge has identified that its current Green Investment Fund ("GIF") activities, namely the whole home retrofit program, are incremental to its approved Demand Side Management ("DSM") plan for 2017. Such activities will follow the same rigorous evaluation, measurement and verification protocols as DSM projects. As

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 2 Page 3 of 5

GIF is forecasted to have verifiable and incremental impacts on the Province's greenhouse gas ("GHG") reduction targets, these impacts are identified for the purposes of the Company's 2017 Compliance Plan.

- 7. Looking ahead to 2018 and beyond, Enbridge will continue to explore both customer-related and facility-related emission abatement activities including the development and implementation of longer-term investments discussed in Exhibit C, Tab 5, Schedule 1, Table 1. It is the Company's understanding that DSM will be addressed independently in the DSM Mid-Term Review. Approval for these longer-term capital investments will be the subject of appropriate future rate applications or leave to construct applications.
- 8. Enbridge has developed a governance management system following the 'Plan, Do, Check, Act' model familiar to the Company that will ensure due diligence is taken throughout the procurement process. Information will be compiled for all activities undertaken by Enbridge in fulfilment of its Compliance Plan. The information for 2017 will be compiled using the annual report templates outlined in Exhibit D, Tab 1, Schedule 1 which will be submitted to the Board by August 1, 2018.
- 9. To develop our 2017 Compliance Plan, Enbridge followed the guidance in the Framework to develop its volumetric forecast and related forecasted greenhouse gas ("GHG") emission obligations. Enbridge worked collaboratively with customers to refine volume forecasts including the addition of forecast volumes for the natural gas power producers and the subtraction of volumes related to Large Final Emitters ("LFEs") and those customers who have chosen to voluntarily "opt-in" to the Cap and Trade program.

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 2 Page 4 of 5

- 10. Exhibit G, Tab 1, Schedule 1, Attachment A, Table A3, identifies the Cap and Trade Unit Rate for Customer-Related and Facility-Related obligations according to rate class. These values have been calculated based on forecasted GHG emission obligations and Enbridge's estimated auction reserve, or floor, price of \$17.70 per emission allowance. For information regarding the derivation of this price, please refer to Exhibit G, Tab 1, Schedule 1.
- 11. The Company has included a rate schedule prepared with the average of the ICE 21-day settlement prices of a California Carbon Allowance for each day of the forecasted period for each month of the forecast year ("21-day ICE Price") as identified in Section 5.2.3 of the Framework. The ICE forecast, while relevant in a linked market, is not appropriate for an unlinked Ontario-only market. As identified in Exhibit B, Tab 4, Schedule 1, the 21-day ICE Price results in a forecast which is below the forecasted 2017 Ontario auction floor. For discussion regarding the carbon allowance price used for rate setting purposes, refer to Exhibit B, Tab 4, Schedule 1.
- 12. As identified in Exhibit G, Tab 1, Schedule 1, Enbridge requests approval for the use of the Company's estimated auction reserve price.
- 13. Enbridge has set out the necessary regulatory accounting treatment for the various components of costs that will be arise customer-related costs, facility-related costs, and administrative costs. Reference Exhibit F, Tab 1, Schedule 1.
- 14. Enbridge recognizes the tight timelines associated with the implementation of Cap and Trade relative to other regulatory proceedings. However, the Company believes that it is in the best interests of customers to have an interim Cap and

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 1 Schedule 2

Page 5 of 5

Trade rate for Customer-related obligations and Facility-related obligations in place as soon as possible. In order to include cap and trade costs in the billing system by January 1, 2017, Enbridge respectfully asks the Board to approve an interim tariff by December 2, 2016.

15. During the past year, Enbridge has proactively communicated with its residential and business customers regarding the potential impacts of Cap and Trade. Communications have included advising customers about the Company's energy savings programs to help customers minimize their GHG emissions and Cap and Trade costs before the launch of the government's Cap and Trade program on January 1, 2017.

16. This Application seeks the specific relief as sought out in the Application filed at Exhibit A, Tab 2, Schedule 1. In summary, this Executive Summary has briefly reviewed the many of the areas identified in the Application and as required by the Board.

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 2 Schedule 1

Page 1 of 7

**ONTARIO ENERGY BOARD** 

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c.

15, Sched. B, as amended;

**AND IN THE MATTER OF** an Application by Enbridge Gas Distribution Inc. for an order or orders approving and/or accepting its Cap and Trade Compliance Plan and approving or fixing rates and/or charges to recover

the costs incurred undertaking its Cap and Trade Compliance Plan.

**APPLICATION** 

1. The Applicant, Enbridge Gas Distribution Inc. ("Enbridge", or the "Company"), is an Ontario

corporation with its head office in Toronto, Ontario. It carries on the business of selling, distributing,

transmitting and storing natural gas within Ontario.

2. The relevant persons affected by this Application are the customers of Enbridge, with the

exception of Large Final Emitters ("LFE"), i.e., facilities that emit more than 25,000 tonnes of carbon

dioxide equivalent ("tCO2e"), as well as "voluntary participants" in the cap and trade program who emit

between 10,000 and 25,000 tCO2e and purchase their own emissions allowances however would still

incur applicable facility-related and administrative costs. It is impractical to set out the names and

addresses of the relevant customers because they are too numerous.

3. On May 18, 2016, the Climate Change Mitigation and Low-carbon Economy Act, 2016 ("Climate

Change Act") received Royal Assent. Under the Climate Change Act, Enbridge has compliance

obligations and will incur costs to meet these obligations:

a. Customer-related obligation costs: costs which Enbridge will incur to acquire the

necessary emission allowances to meet its compliance obligations under the Cap and

Trade program for natural gas-fired generators and residential, commercial and industrial

customers who are not Large Final Emitters ("LFEs") or voluntary participants and any

resulting increase to financing costs;

Witness: A. Mandyam

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 2 Schedule 1

Page 2 of 7

b. Facility-related obligation costs: costs to acquire the necessary emission allowances

associated with the Company's facilities and operation of its gas distribution system and

any resulting increase to financing costs; and

c. Incremental administrative and program costs: including, but not limited to costs

associated with salary and benefits of management and staff required to oversee and

undertake all necessary administrative functions; changes to Enbridge's billing systems;

costs to retain external consultants, such as emission allowance acquisition strategists,

external legal counsel, external accounting support; costs payable in respect of current and future cap and trade Ontario Energy Board (the "Board") regulatory proceedings;

costs for measurement, verification and reporting of Greenhouse Gas ("GHG")

emissions; and the resulting incremental impact on customer-related bad debt, customer

care and/or customer communication expenses.

4. On September 26, 2016, the Board issued the Report of the Board: Regulatory Framework for the

Assessment of Costs of Natural Gas Utilities' Cap & Trade Activities (EB-2015-0363) (the "Framework").

The Framework states that the Board expects Enbridge to file its Compliance Plan by November 15, 2016

in order for the Board to set interim rates to allow for the recovery of 2017 Cap and Trade compliance

costs. The Framework further states that the Board will assess Enbridge's Compliance Plan (the

"Compliance Plan") for cost effectiveness, reasonableness and optimization and ultimately to determine

whether to approve the associated Cap and Trade costs for recovery from customers.<sup>2</sup>

5. In EB-2012-0459, Enbridge received approval effective January 1, 2014 for a five-year Custom

Incentive Regulation ("Custom IR") Plan which determines how rates are set in the years 2014 - 2018

inclusive. Enbridge is currently operating under this Custom IR plan with 2017 being the fourth year of its

five-year term. Neither the Custom IR plan, nor the 2017 Rate Adjustment Application (EB-2016-0215)

provide for the recovery of the costs which Enbridge will incur undertaking Cap and Trade Compliance

Plan Activities in 2017 and beyond. This Application therefore seeks the appropriate orders, approvals

and acceptances by the Board to establish rates and/or charges over and above those set pursuant to

Enbridge's Custom IR plan and the 2017 Rate Adjustment Application.

<sup>1</sup> Framework, page 38 <sup>2</sup> Framework, page 1

Witness: A. Mandyam

Filed: 2016-11-15 EB-2016-0300

Exhibit A Tab 2

Schedule 1 Page 3 of 7

6. Enbridge hereby applies to the Board for a determination that the Company's Compliance Plan is

compliant with the Framework and is accepted by the Board because:

a. The term of the Compliance Plan, being one-year, is appropriate;

b. It is reasonable and has prudently optimized decision-making to achieve efficiency and to

reasonably manage risk given the legislative framework, the tools available at this time,

and the lack of data around Ontario's nascent carbon market;

c. It demonstrates that Enbridge's planned investment decisions have been prudently

prioritized and paced including proposed long-term investments;

d. it will result in reasonable, predictable rates arising from Enbridge's Cap and Trade

activities as much as is possible based on the uncertainty inherent in the unknown, new

Ontario carbon market;

e. It includes an appropriate degree of transparency and documentation;

f. It provides for the appropriate levels of flexibility which will allow Enbridge to adapt to

changing market conditions;

g. It includes an appropriate Customer Outreach and Communication Plan;

h. It includes appropriate monitoring and reporting mechanisms and requirements; and,

i. It provides for continuous improvement over time.

7. Enbridge further applies to the Board pursuant to Section 36 of the Ontario Energy Board Act,

1998, as amended (the "Act") for such final, interim or other orders or accounting orders as may be

necessary or appropriate to approve the following:

a. 2017 Customer-related and Facilities-related Tariffs (the "Cap and Trade Tariffs") to

recover the costs of meeting Enbridge's obligations related to GHG emissions from

relevant customers and Company facilities;

b. The methodology used to determine the Cap and Trade Tariffs including:

Witness: A. Mandyam

Filed: 2016-11-15 EB-2016-0300

Exhibit A Tab 2 Schedule 1

Page 4 of 7

 i. the forecasting methodology and resulting 2017 forecast of Delivery Volumes and Facility Use Volumes including the impact on such forecasts of Enbridge's

Green Investment Fund (GIF) and Demand Side Management (DSM) activities;

ii. the forecasting methodology and resulting 2017 forecast of GHG emissions

resulting from the Delivery Volumes and Facility Use Volumes forecasts;

iii. the forecasting methodology and resulting 2017 forecast for the cost of emission

allowances;

iv. the forecasting methodology and resulting forecast of the costs to meet

Enbridge's Customer and Facility-related obligations; and

v. the cost allocation and rate design methodologies used to derive the proposed

2017 Cap and Trade Tariffs.

c. Interim Cap and Trade Tariffs, to be approved on or before December 2, 2016 in order

that the Interim Cap and Trade Tariffs can be included with Enbridge's Quarterly Rate

Adjustment Mechanism (QRAM) Application and implemented as of the Cap and Trade

start date of January 1, 2017;

d. The establishment of a new variance account to record the differences that occur in 2017

between the actual revenues received from the Cap and Trade Tariffs and the actual

costs Enbridge incurs to meet its 2017 obligations related to GHG emissions from

relevant customers and Company facilities. This new variance account will ensure that

the Company neither over or under-recovers its Customer-related obligation costs and

Facility-related obligation costs; and

e. The use of the 2017 Greenhouse Gas Emissions Impact Deferral Account ("GGEIDA") to

record the administrative and overhead costs incurred by Enbridge in respect of its Cap

and Trade activities for future recovery from ratepayers.

f. The illustrative bill impacts of a typical residential customer that include the sum of Cap

and Trade charges for Customer-related and Facility-related costs found at Exhibit G Tab

1 Schedule 1.

Witness: A. Mandyam

Filed: 2016-11-15 EB-2016-0300

Exhibit A Tab 2

Schedule 1 Page 5 of 7

8. Enbridge requests confidential treatment of documentation, data and information ("Documents")

pursuant to the Board's Rules of Practice and Procedure and the Practice Direction on Confidential

Filings and Documents marked "Auction Confidential" or "Market Sensitive" or as specified in the

Confidentiality exhibit in this filing at Exhibit A, Tab 3, Schedule 1, and in accordance with the Climate

Change Act, O. Reg. 144/16: The Cap and Trade Program ("Cap and Trade Regulation" or "the

Regulation"), and the Framework.

9. Enbridge further applies to the Board, pursuant to the provisions of the Climate Change Act, the

Cap and Trade Regulation and the Board's Rules of Practice and Procedure, for such final, interim or

other Orders and directions as may be appropriate in relation to the Application and the proper conduct of

this proceeding.

10. Where there have been deviation(s) from the Framework, Enbridge has provided an explanation

and reasons why those deviation(s) are just and reasonable in the appropriate Exhibit. A summary of the

deviation(s), is as follows:

a. Enbridge has utilized the auction reserve, or floor, price of the Ontario market in 2017 for

allowance price forecasting for rate making purposes instead of the Intercontinental

Exchange 21-day strip settlement price of the California Carbon Allowance for delivery in

each of the 12 months of the forecast year. - Exhibit B-Tab 4-Schedule 1

11. Enbridge requests that a copy of every document filed with the Board in this proceeding be

served on the Applicant and the Applicant's counsel, as follows:

Witness: A. Mandyam

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 2 Schedule 1 Page 6 of 7

The Applicant:

Regulatory Contact: Mr. Andrew Mandyam Director, Regulatory Affairs, Financial Planning and Analysis Enbridge Gas Distribution Inc.

Address for personal service: 500 Consumers Road

Willowdale, Ontario M2J 1P8

Mailing address: P. O. Box 650

Scarborough, Ontario M1K 5E3

Telephone: 416-495-5499 or 1-888-659-0685

Fax: 416-495-6072

Email: <u>EGDRegulatoryProceedings@enbridge.com</u>

Primary Carbon Strategy Contact: Ms. Fiona Oliver-Glasford Manager Carbon Strategy Enbridge Gas Distribution Inc.

Address for personal service: Suite 410, 2255 Sheppard Avenue East

North York, ON M2J 4Y1

Mailing address: P. O. Box 650

Scarborough, Ontario M1K 5E3

Telephone: 416-753-4664

Email: <u>fiona.oliverglasford@enbridge.com</u>

Witness: A. Mandyam

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 2 Schedule 1 Page 7 of 7

The Applicant's counsel:

Mr. Dennis M. O'Leary Aird & Berlis LLP

Address for personal service and mailing address

Brookfield Place, P.O. Box 754 Suite 1800,181 Bay Street Toronto, Ontario M5J 2T9

Telephone: 416-865-4711 Fax: 416-863-1515

DATED: November 15, 2016 at Toronto, Ontario

ENBRIDGE GAS DISTRIBUTION INC.

Per: \_\_\_\_\_[original signed]\_\_\_\_\_

Andrew Mandyam Director, Regulatory Affairs, Financial Planning and Analysis

Witness: A. Mandyam

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 1 of 8

#### **CONFIDENTIALITY**

- 1. It is clear from both the The Climate Change Mitigation and Low-carbon Economy Act, 2016 ("Climate Change Act") and from the Report of the Board in respect of the Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities (EB-2015-0363) ("Framework") that certain activities which Enbridge will necessarily undertake to meet its Cap and Trade obligations must be done in a manner which ensures the integrity of the market and is in confidence. The Climate Change Act contains specific prohibitions against conduct which would constitute a market fraud or market manipulation. It also contains specific prohibitions against the disclosure of certain types of information under Section 32. Specifically, sub-sections 32(6) and (7) state as follows:
  - (6) No person shall disclose whether or not the person is participating in an auction.
  - (7) No person shall disclose information relating to the person's participation in an auction, including the person's identity, bidding strategy, the amount of the person's bids for a specified quantity of emission allowances and the financial information provided to the Director in connection with the auction.
- 2. Subsection 32(9) reads: Subsection (6), (7) and (8) do not apply with respect to a disclosure to such persons as may be prescribed. Under Section 65 to Ontario Regulation 144/16 "The Cap and Trade Program" the Board is a prescribed person. It is therefore a statutory requirement that the information identified in subsections 32(6) and (7) must not be disclosed to any person other than the Board.
- The Framework recognizes these disclosure limitations and notes at page 9:

The OEB recognizes that the Ontario Cap and Trade market is still nascent, and that the protocols and procedures surrounding confidential information must evolve as the market matures. The OEB believes that, in the early stages of the market's development, the appropriate approach must not only comply with the *Climate Change Act* and

Witnesses: S. Mills

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 2 of 8

associated regulations, it should also be cautious and have regard to market integrity in order to protect customers from undue costs while still making appropriate information publicly available where possible.

- 4. The Board has set two categories of strictly confidential Cap and Trade Information: Auction Confidential and Market Sensitive Confidential information. Specifics and examples of such information are included at page 10 of the Framework. Enbridge notes that where information is either Auction Confidential or Market Sensitive, it will be automatically treated as confidential and will only be reviewed by the Ontario Energy Board.
- 5. Enbridge further notes that the Framework requires that the utilities file redacted versions of Auction Confidential and Market Sensitive Confidential information. Where this is appropriate, Enbridge has done so but notes that in respect of some filings, there would be no practical benefit in filing a redacted document, given the extensiveness of the redacting.
- 6. Enbridge agrees with the Board that the Ontario Cap and Trade market is still nascent and that the protocols and procedures surrounding confidential information must evolve as the market matures. Enbridge also agrees that it is appropriate to exercise caution at this stage. This is of particular importance in 2017 when the Cap and Trade market will be limited to Ontario. Enbridge believes it is important to provide a period of time where all parties can become more familiar with the Cap and Trade markets, as well as regulatory and compliance protocols. Once parties have gained experience, compliance protocols and procedures can evolve appropriately.
- 7. The Board has also recognized that in addition to Auction Confidential and Market Sensitive information, there may be other information, specifically information that is commercially and strategically sensitive, that may impact Enbridge's competitive

Witnesses: S. Mills

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 3 of 8

position, that should be treated in confidence. In cases where Enbridge wishes to keep commercial and/or strategic information confidential, a request will be made in accordance with the Board's existing Rules and Practice Direction if and when applicable. Enbridge requests that at this early stage of the Cap and Trade market, the Board should err on the side of caution in making its determination about the appropriateness of treating information confidentially.

- 8. In California there has been an evolution in respect of Confidentiality protocols. In a recent Application before the Public Utilities Commission of the State of California (13-08-002) involving an application by Southern California Edison Company (U338E) for Approval of its Greenhouse Gas Cap and Trade Program Costs and Revenue Allocation, the Commission ordered changes relative to previous applications with respect to confidentiality protocols. The Commission held that Total forecast GHG costs or revenue requirements using a proxy price should no longer be treated in confidence. Pursuant to Attachment A of document D-14-10-033, the Commission held that this information should be made public.<sup>1</sup>
- 9. Despite the decision of the California Commission, Enbridge is of the view that at this early stage of the Ontario market, such information should be treated and received in confidence. Releasing market sensitive information could provide inappropriate advantages to market participants that could ultimately increase the costs of compliance to Enbridge's customers.
- 10. The information below outlines the various exhibits within this filing to which Enbridge is requesting confidential treatment. The exhibits are divided amongst the three categories: Auction Confidential, Market Sensitive Confidential and

Witnesses: S. Mills

<sup>&</sup>lt;sup>1</sup> Decision on Application 13-08-002 Before the Public Utilities Commission of the State of California a Matter of the Application of Southern California Edison Company (U338E) for Approval of Greenhouse Gas Cap-and-Trade Program Cost and Revenue Allocation.Page 1

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 4 of 8

Commercially Sensitive information. In respect of each of the exhibits, Enbridge includes a note as to why such information should be classified as either Auction Confidential or Market Sensitive or, in the case of commercially sensitive information, why a request for confidential treatment should be approved in accordance with the Board's Practice Direction on Confidential Filings. It should be noted that several Exhibits contain both Auction Confidential and Market Sensitive Confidential information and thus appear in each of the subject tables below.

11. The table below outlines the treatment of Confidentiality by Exhibit item. Where an Exhibit has been determined to be Confidential the Exhibit in its entirety is deemed Confidential and will be filed in confidence for the Board's consideration only. Where an Exhibit has sections of the information determined to be Confidential it has been Redacted and the redacted version will be filed on the public record. All other Exhibits are considered to be Public.

Witnesses: S. Mills

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 5 of 8

Table 1: Treatment of Exhibits

Exhibit Item	Treatment
A-1-1	Public
A-1-2	Public
A-2-1	Public
A-3-1	Public
A-4-1	Public
A-4-2	Public
A-5-1	Public
B-1-1	Public
B-2-1	Public
B-2-1 Appendix A	Public
B-3-1	Public
B-4-1	Confidential
C-1-1	Confidential
C-1-1 Appendix A	Confidential
C-1-1 Appendix B	Confidential
C-2-1	Confidential
C-3-1	Confidential
C-3-2	Confidential

	I <u> </u>
Exhibit Item	Treatment
C-3-3	Confidential
C-3-4	Public
C-3-5	Redacted
C-3-6	Public
C-4-1	Confidential
C-5-1	Public
C-6-1	Public
D-1-1	Public
E-1-1	Public
E-1-1 Appendices A through H	Public
F-1-1	Redacted
G-1-1	Public
G-1-1 Appendix A	Confidential
G-1-1 Appendix B	Public
G-1-1 Appendix C	Public
G-1-2	Confidential

Witnesses: S. Mills

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 6 of 8

# Table 2: Auction Confidential

Cap and	Information related to emissions allowances that is prohibited				
Trade	from disclosure by s. 32 of the Climate Change Act (except to				
Framework	'prescribed persons')				
Page 10:					
	Information will remain strictly confidential even after the				
confidential	transactions are concluded.				
classification					
Exhibit	Reference /	Extent of	Confidential		
	Description	Disclosure	Determination		
B-4-1	Annual Carbon Price	Enbridge Gas			
	Forecasts	Distribution,			
		OEB	Each of these Exhibits		
C-1-1 &	Overview of	Enbridge Gas	respond to the Board's		
Appendices	Compliance Plan	Distribution,	filing requirements which		
A & B		OEB	require in respect of		
C-2-1	Compliance Option	Enbridge Gas	allowances the following:		
	Analysis and	Distribution,	i. Number of allowances		
	Optimization of	OEB	to be procured		
	Decision-making		ii. Price of allowances		
C-3-1	Performance Metrics	Enbridge Gas	iii. Timing of procurement		
	and Cost Information	Distribution,	iv. Total forecasted cost		
		OEB	v. Forecasted cost per		
C-3-2	Compliance Plan –	Enbridge Gas	tonne of GHG" <sup>2</sup> .		
	Allowance Purchase	Distribution,			
	Performance Metrics	OEB			
	and Cost Information				
C-4-1	Risk Management –	Enbridge Gas			
	Identification	Distribution,			
		OEB			

Witnesses: S. Mills

<sup>&</sup>lt;sup>2</sup> EB-2015-0363 Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities Appendix A: Filing Guidelines for Natural Gas Utility Cap and Trade Compliance Plans, Page viii

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 7 of 8

#### Table 3: Market Sensitive

Cap and Trade	Information relating to	transactions of e	missions units on	
Framework	secondary or tertiary r	markets or offset of	credits. Information	
Provision	relating to compliance instruments used by a Utility to meet its			
	GHG obligations.3			
Confidential	Market Sensitive			
Classification				
Time period of	Market Sensitive infor	mation will remair	n strictly confidential even	
confidential	after the transactions	are concluded.		
classification				
Exhibit	Reference /	Extent of	Confidential	
	Description	Disclosure	Determination	
B-4-1	Annual Carbon Price	Enbridge Gas	These Exhibits respond	
	Forecasts	Distribution,	to the Board's filing	
		OEB	requirements and contain	
C-1-1 &	Overview of	Enbridge Gas	information which relate	
Appendices	Compliance Plan	Distribution,	to bidding strategies in	
A & B		OEB	future market activities,	
C-2-1	Compliance Option	Enbridge Gas	secondary and tertiary	
	Analysis and	Distribution,	markets, offset credits,	
	Optimization of	OEB	compliance instruments,	
	Decision-making		forecast costs which are	
C-3-1	Performance Metrics	Enbridge Gas	market sensitive and	
	and Cost Information	Distribution,	other information which if	
		OEB	disclosed could	
C-3-3	Compliance Plan –	Enbridge Gas	compromise the integrity	
	Offset Credits	Distribution,	of the markets contrary	
		OEB	to the provisions of the	
C-4-1	Risk Management –	Enbridge Gas	Climate Change Act"4	
	Identification	Distribution,		
		OEB		

<sup>&</sup>lt;sup>3</sup>EB-2015-0363 Report of the Board Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities, Page 10

EB-2015-0363 Report of the Board Regulatory Framework for the Assessment of Costs of Natural Gas Utilities'

Witnesses: S. Mills

Cap and Trade Activities, Page 13

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 8 of 8

G-1-1	Cap and Trade	Enbridge Gas	
Appendix A	Exhibits	Distribution,	
		OEB	
G-1-2	Cost Recovery	Enbridge Gas	
	Statements	Distribution,	
		OEB	

Witnesses: S. Mills

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 1 of 26

#### CURRICULUM VITAE OF RYAN CHEUNG

Experience: <u>Enbridge Gas Distribution Inc.</u>

Advisor, Economic Analysis

2016

Advisor, Economics and Business Performance

2016

Senior Analyst, Gas Accounting and Analytics

2014

Senior Budget Analyst, Budget and Planning

2010

Supervisor, Margin Planning and Analytics

2006

Analyst, Volumetric Analysis and Budgets

2004

TD Canada Trust

Financial Service Advisor

2000

Education: Bachelor of Arts, in Economic and Statistics

University of Toronto

Appearances: (Ontario Energy Board)

EB-2016-0142 EB-2014-0195 EB-2012-0459

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 2 of 26

# CURRICULUM VITAE OF ROD CRADDOCK

Experience: <u>Enbridge Inc.</u>

Senior Manager/Technical Advisor, Treasury

July 2014

Controller, Enbridge Income Fund

November 2012

Manager, Enbridge Income Fund Accounting

July 2011

Education: CA (2002)

B. Comm. University of Saskatchewan (1999)

Memberships: Institute of Chartered Accountants of Alberta

Appearances: (Ontario Energy Board)

EB-2016-0215 EB-2015-0114 EB-2014-0276

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 3 of 26

# CURRICULUM VITAE OF ROB DIMARIA

Experience: Enbridge Gas Distribution Inc.

Manager, Large Volume Customer Strategy and Direct Purchase

2014

Manager, Key Accounts and Vendor Relationships

2009

**Account Executive** 

2006

Senior Marketing Specialist

2003

Residential Program Manager

2001

Senior Analyst, Planning and Evaluation

2000

Rate Research Analyst

1998

Plant Accounting Chief Clerk

1994

**Accounting Trainee** 

1992

Education: Bachelor of Administration, Business Management, Athabasca University

Diploma in Accounting and Financial Management, Centennial College

Appearances: (Ontario Energy Board)

EB-2014-0323 EB-2001-0032

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 4 of 26

# CURRICULUM VITAE OF ANTON KACICNIK

Experience: Enbridge Gas Distribution Inc.

Manager Rates

2016

Manager, Rate Research & Design

2007

Manager, Cost Allocation

2003

Program Manager, Opportunity Development

1999

Project Supervisor, Technology & Development

1996

Pipeline Inspector, Construction & Maintenance

1993

Education: Bachelor of Applied Science (Civil Engineering)

University of Waterloo, 1996

Memberships: Professional Engineers of Ontario

Appearances: (Ontario Energy Board)

EB-2016-0142	EB-2015-0114
EB-2015-0122	EB-2014-0276
EB-2013-0046	EB-2012-0055
EB-2011-0354	EB-2011-0277
EB-2011-0008	EB-2010-0146
EB-2010-0042	EB-2009-0172
EB-2009-0055	EB-2008-0106
EB-2008-0219	EB-2007-0615
EB-2007-0724	EB-2006-0034
EB-2005-0551	EB-2005-0001

(RÉGIE DE L'ÉNERGIE)

R-3969-2016	R-3924-2015
R-3884-2014	R-3840-2013
R-3793-2012	R-3758-2011
R-3724-2010	R-3665-2008
R-3637-2007	R-3621-2006
R-3587-2006	R-3537-2004

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 5 of 26

# CURRICULUM VITAE OF MATTHEW KIRK

Experience: Enbridge Gas Distribution Inc.

Gas Supply Regulation Specialist, Gas Supply & Strategy

2016

Gas Supply Regulation Specialist, Energy Supply & Policy

2015

Cost Allocation Manager, Regulatory Affairs

2012

Senior Rate Design Analyst, Regulatory Affairs

2010

Rate Design Analyst, Regulatory Affairs

2009

Market Analyst, Economic and Market Analysis

2006

Education: Master of Arts (Economics)

Wilfrid Laurier University, 2006

Bachelor of Arts (Honours Economics)

McMaster University, 2005

Memberships: Canadian Association of Business Economists (CABE)

Appearances: (Ontario Energy Board)

EB-2016-0215 EB-2015-0114 EB-2015-0122 EB-2014-0323 EB-2014-0276 EB-2014-0195 EB-2013-0046 EB-2012-0459 EB-2012-0055 EB-2011-0354

(Régie de L'Energie)

R-3924-2015 R-3884-2014 R-3840-2013 R-3793-2012

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 6 of 26

# CURRICULUM VITAE OF ANDREW LANGSTAFF

Experience: Enbridge Gas Distribution Inc.

Carbon Strategy Business Readiness Specialist

2016

Lead, Business Readiness, Carbon Strategy

2016

Assistant Construction Manager, GTA Project

2015

Senior Engineer, GTA Project

2014

**Engineering Project Manager** 

2013

**NOVA Chemicals Corporation** 

Process Engineer, Marcellus Shale Gas Conversion Project

2010

Area Contact Engineer (Process Engineer)

2010

Area Contact Engineering (Process Engineering)

2006

Education: York University – Schulich School of Business

Masters of Business Administration, 2014

University of Waterloo

Bachelor of Applied Science, Chemical Engineering - Co-op Program, 2006

Memberships: Professional Engineers of Ontario

Appearances: (Ontario Energy Board)

None

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 7 of 26

# CURRICULUM VITAE OF MICHAEL LISTER

Experience: Enbridge Gas Distribution Inc.

Manager, Market Development

2016

Sr. Manager, Market Policy & Research

2016

Sr. Manager, Energy Solutions

2014

Manager, Regulatory Policy & Strategy

2010

Manager, Investment Planning

2006

Manager, Volumetric & Market Analysis

2004

Supervisor, Volumetric & Market Analysis

2003

Sr. Market Analyst, Volumetric & Market Analysis

2002 - 2003

NRI Industries Inc.

Production Scheduler, Logistics

1999-2000

Fairlee Fruit Juices Ltd.

Raw Materials Coordinator

1998

Coats Canada Inc.

Production Planner, Materials & Logistics

1996-1997

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 8 of 26

Education: Chartered Financial Analyst

CFA Institute, 2005

Master of Business Administration

York University, 2002

Bachelor of Commerce St. Mary's University, 1996

Memberships: CFA Institute

Toronto CFA Society

Appearances: (Ontario Energy Board)

EB-2015-0049 EB-2015-0245
EB-2014-0134 EB-2013-0301
EB-2012-0459 EB-2011-0354
EB-2010-0060 EB-2009-0172
EB-2009-0084 EB-2007-0615
EB-2005-0001 RP-2003-0203

(New York Public Service Commission)

05-G-1635

(New York Public Service Commission)

08-G-1392

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 9 of 26

# CURRICULUM VITAE OF STEVE MCGILL

Experience: Enbridge Gas Distribution Inc.

Business Development, Senior Strategist 2016

Sr. Manager Business Development System Expansion

Sr. Manager, Sustainable Growth & Market Development Strategy 2015

Sr. Manager, Customer Care Finance & Contracts 2014

Manager, Billing & Customer Systems 2005

Manager, Strategic Projects & Market Analysis 2003

Manager, Customer Support & Advocacy 2000

Manager, Customer Accounting Projects 1995

Manager, Large Volume Billing 1992

Manager, Industrial Sales, Metropolitan Toronto 1990

Manager, Rate & Contract Administration 1987

Rate Research Analyst 1985

Market Analyst 1981

Distribution Planner 1979

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 10 of 26

### TransCanada Pipelines Limited

Junior Statistician

Junior Draftsman

Education: Bachelor of Arts (Honours Geography), University of Toronto, 1978

Miscellaneous short courses in Public Utility Management,

General Management and Accounting

Other: Member of the Board of Directors and Treasurer of the Oshawa Ski Club o/a

Brimacombe

Appearances: (Ontario Energy Board)

EB-2016-0004 EB-2015-0029 EB-2015-0049 EB-2012-0459 EB-2012-0055 EB-2011-0354 EB-2011-0226 EB-2011-0277 EB-2006-0034 EB-2005-0001 RP-2003-0203 RP-2002-0133 RP-2001-0032 RP-2000-0040 RP-1999-0058 RP-1999-0001 EBRO 497-01 **EBRO 497 EBRO 492 EBRO 495** EBRO 490 **EBRO 487** 

EBO 179-14/15

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 11 of 26

# CURRICULUM VITAE OF DARREN MCILWRAITH

Experience: <u>Enbridge Gas Distribution Inc.</u>

Manager, Customer Care

2016

Senior Manager, Customer Care, Finance and Contract Management

2014

Enbridge Gas Distribution Inc.

Senior Manager, Business Development and DSM Technology

2009

Enbridge Solutions Inc.

Manager, Product Development

2006

**Direct Energy Marketing Limited** 

Director, Customer Analytics

2004

Director, Financial Services

2002

Enbridge Commercial Services Inc.

Director, Financial Services

2001

Enbridge Gas Distribution Inc.

Manager, Budgets

2000

Supervisor, Budgets & Forecasts

1998

**Economic Analyst** 

1996

Education: Master of Arts: Business Economics, Wilfrid Laurier University – 1996

Bachelor of Commerce, University of Guelph - 1994

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 12 of 26

Appearances: (Ontario Energy Board)

EB-2015-0114 EB-2014-0276 EB-2012-0459

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 13 of 26

#### CURRICULUM VITAE OF CHRIS MEYER

Experience: <u>Enbridge Gas Distribution Inc.</u>

Stakeholder Relations and Communication Specialist

2016

Stakeholder Relations and Communication Manager, Carbon Strategy

2015

energy4everyone Foundation

**Acting Executive Director** 

2014

Enbridge Gas Distribution Inc.

Manager, External Communications

2011

Manager, Executive Communication Support

2008

Senior Communication Advisor

2001

Education: Strategic Communication Management Certificate

(Ithaca College), 2008

Bachelor of Applied Arts, Journalism

(Ryerson), 1990

Memberships: International Association of Business Communicators (Accredited)

Appearances: (Ontario Energy Board)

EB-2012-0459 EB-2011-0354

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 14 of 26

# CURRICULUM VITAE OF SUZETTE MILLS

Experience: <u>Enbridge Gas Distribution Inc.</u>

Integrated Resource Planning Lead, Carbon Strategy & IRP

2016

Senior Market Policy Advisor, DSM EM&V

2012

Senior Analyst, DSM Research & Evaluation

2012

Analyst - Intermediate Analyst, DSM Research & Evaluation

2001

Customer Attachment / Sales Coordinator

1997

Active / Final Collections Representative, Customer Service Representative,

Small Claims litigation representative

1990

Education: BA – York University

Certificate - Université Canadienne en France

Appearances: (Ontario Energy Board)

EB-2015-0049

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 15 of 26

# CURRICULUM VITAE OF JENNIFER MURPHY

Experience: Enbridge Gas Distribution Inc.

Environmental Senior Advisor, Carbon Strategy

2016

**Environmental Advisor** 

2015

**Environmental Specialist** 

2007

SKD Automotive Group

**Environmental Management System Coordinator** 

2002

Education: Bachelor of Science in Environmental Engineering (B.Sc.(Eng)

University of Guelph, 2003

**Environmental Science Technician** 

Sheridan College, 1997

Appearances: (Ontario Energy Board)

None

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 16 of 26

# CURRICULUM VITAE OF ERIK NACZYNSKI, P.Eng

Experience: Enbridge Gas Distribution Inc.

Manager, Asset Management and Optimization

2014

Manager, System Analysis and Design

2010

Manager, Records and GIS

2009

Project Manager, Major Projects

2006

**Engineering Project Leader** 

2005

**Union Gas** 

Distribution Planning EIT

2003

Education: Bachelor of Engineering and Management

Memberships: Professional Engineers Ontario

Appearances: (Ontario Energy Board)

EB-2012-0459 EB-2012-0451 EB-2007-0692 EB-2006-0305

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 17 of 26

# CURRICULUM VITAE OF FIONA OLIVER-GLASFORD

Experience: <u>Enbridge Gas Distribution Inc.</u>

Manager, Carbon Strategy

2016

Senior Manager, Carbon Strategy and IRP

2016

Senior Manager, Market Policy and DSM

2013

**Union Gas Distribution** 

Manager, CDM Business Development and Policy

2010

Manager, DSM Strategy

2008

Manager, DSM EM&V

2007

Manager, DSM Programs/Marketing

2006

Manager, Market Research & Analysis

2005

Canadian Energy Efficiency Alliance

Director, Operations

Summerhill Group

Marketing Manager

Corus Entertainment

Marketing Manager, YTV, Documentary Channel and

Scream TV

**Towers Watson** 

Associate/Analyst

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 18 of 26

Education: York University – Schulich School of Business

Masters of Business Administration

With an International Exchange at Copenhagen School of Business

Western University - Huron College

Bachelor of Arts

Appearances: (Ontario Energy Board)

EB-2015-0049	EB-2014-0277
EB-2014-0276	EB-2013-0352
EB-2013-0075	EB-2013-0430
EB-2012-0451	EB-2012-0459
EB-2012-0441	EB-2008-0346

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 19 of 26

# CURRICULUM VITAE OF RYAN SMALL

Experience: Enbridge Gas Distribution Inc.

Manager, Revenue and Regulatory Accounting

2016

Manager, Regulatory Accounting

2014

Senior Analyst, Regulatory Accounting

2006

Analyst, Regulatory Accounting

2004

Supervisor, Gas Cost Reporting

2001

Senior O&M Clerk

2000

Bank Reconciliation Clerk

1999

**Accounting Trainee** 

1998

Education: Chartered Professional Accountant, Certified Management Accountant

Chartered Professional Accountants of Ontario, 2014

The Society of Management Accountants of Ontario, 2003

Diploma in Accounting,

Wilfrid Laurier University, 1997

Bachelor of Arts in Economics

The University of Western Ontario, 1996

Appearances: (Ontario Energy Board)

EB-2016-0215 EB-2016-0142 EB-2015-0144 EB-2015-0049 EB-2015-0122 EB-2014-0276 EB-2014-0195 EB-2012-0459 EB-2012-0055 EB-2011-0354

EB-2011-0008

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 20 of 26

# CURRICULUM VITAE OF MARGARITA SUAREZ-SHARMA

Experience: Enbridge Gas Distribution Inc.

Manager, Economics & Business Performance

2014

Manager, Economic & Market Analysis

2012

Manager, Cost Allocation

2008

Manager, DSM Reporting & Analysis

2005

Analyst, Rate Design

2004

Senior Analyst, DSM Planning and Evaluation

2002

Senior Economic Analyst, Economic & Financial Studies

1998

Margaret Chase Smith Center for Public Policy

Research Assistant

1995

Education: Master of Arts in Economics

University of Maine, 1995

Bachelor of Arts in Economics University of Maine, 1993

Appearances: (ONTARIO ENERGY BOARD)

EB-2016-0215 EB-2015-0114 EB-2015-0122 EB-2014-0276 EB-2012-0459 EB-2011-0354 EB-2011-0277 EB-2010-0146 EB-2009-0172 EB-2008-0219

EB-2008-0106

(RÉGIE DE L'ÉNERGIE)

R-3758-2011 R-3724-2010 R-3692-2009 R-3665-2008

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 21 of 26

### CURRICULUM VITAE OF DAVID TEICHROEB

Experience: Enbridge Gas Distribution Inc.

Senior Strategist – Low Carbon Energy Solutions

2016

Manager Business Development - New Ventures

2015

Manager Business Development Implementation

2015

Enbridge Inc.

Business Development - Emerging Technologies

2012

Manager, Fuel Cell Markets – Alternative Technology

2008

Enbridge Gas Distribution Inc.

Manager, New Technology Development

2004

Manager - Sales and Work Management Centre

2003

Regional Manager – Enbridge Atlantic Energy Services

2001

Manager - Market Development Sales

2000

Manager - Commercial Sales

1997

Commercial / Industrial Utilization Representative

1993

Education: Chartered Industrial Gas Consultant – Institute of Gas Technology

1997

Mechanical Engineering Technology - Niagara College

1990

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 22 of 26

Memberships: Canadian Hydrogen Fuel Cell Association Energy Storage Canada

Appearances: N/A

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 23 of 26

# CURRICULUM VITAE OF JOHN TIDEMAN

Experience: <u>Enbridge Gas Distribution Inc.</u>

Senior Manager, Green Investment Fund

2016

Senior Manager, Organisational Change Management, WAMS Project 2014

Senior Manager, DSM Sales and Marketing

2013

Senior Manager, Commercial Sales and Marketing

2012

Manager, Business Development

2009

**Enbridge Electric Connections Inc** 

Manager, Business Development

2006

**Direct Energy** 

Manager, Business Development

2003

Total Fina Elf Gas and Power

Sales Manager

1995

Education: Kingston University Business School

Master of Business Administration degree.

**Durham College** 

Business Administration Diploma; Marketing

Memberships: Member and Director of Mabel Hart & Marion Hill Foundation

Appearances: (Ontario Energy Board)

EB-2012-0394

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 24 of 26

# CURRICULUM VITAE OF EVGENIA VANGELOVA, BA, CPA, CGA

Experience: <u>Enbridge Gas Distribution Inc.</u>

Senior Manager, Tax Services

2011

**Baxter Corporation** 

Manager, Tax and Treasury

2008

Manager, Income Tax

2007

Federal Express Canada

Tax Accountant

2003

Canadian Tire Corporation, Ltd.

Tax Accountant

2001

S. A. Armstrong Ltd.

Cost Analyst

2000

Accounts Receivable Analyst

1998

Education: Chartered Professional Accountant (CPA), 2014

CICA In-Depth Tax Course, 2009

Certified General Accountant (CGA), 2007

Bachelor of Arts in Economics, University of Economics, Varna (1994)

Memberships: Chartered Professional Accountants Canada

Certified General Accountants of Ontario

Tax Executives Institute

Canadian Tax Foundation

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 25 of 26

# CURRICULUM VITAE OF ANDREW WELBURN

Experience: Enbridge Gas Distribution Inc.

Manager Gas Supply and Strategy

2014

Manager Upstream Business Partners

2012

Manager Contract Relationships

2008

Manager Operations Performance Reporting

2006

Manager Contract Support and Compliance

2001

Manager Transactional Services Sales

2000

Supervisor Gas Control

1997

Leak Surveyor

1997

Supervisor Pipeline Inspector

1994

**Operations Engineer** 

1994

Load Research Technician

1992

Education: Bachelor of Applied Science in Civil Engineering

University of Waterloo

Memberships: Professional Engineer Ontario

Ontario Society of Professional Engineers

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 1 Page 26 of 26

Appearances: (Ontario Energy Board)

EB-2014-0289 EB-2015-0049 EB-2015-0122 EB-2015-0175 EB-2015-0238 EB-2016-0142

(National Energy Board)

MH-001-2013 RH-001-2016

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 2 Page 1 of 2

### CURRICULUM VITAE OF KRISTOPHER ANDRE TEMPLEMAN

Experience: Alpha Inception, LLC.

Owner and Managing Director

2012

Macquarie Energy LLC

Senior Vice President

Head of Power Origination - WECC and ERCOT

2008

Goldman, Sachs and Co.

Vice President

**WECC Power Origination** 

2007

Iberdrola Renewables

Manager Power Origination

2004

**Duke Energy Trading and Marketing** 

Manager Power Origination

2001

Enron Canada Corp.

Manager, Energy Marketing

1999

Education: Master of Business Administration with Distinction

University of Western Ontario, 1999

Bachelor of Arts York University, 1995

Appearances: (Ontario Energy Board)

None

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 4 Schedule 2 Page 2 of 2

# CURRICULUM VITAE OF MARK ANDREW STRUK

Experience: Alpha Inception, LLC.

Senior Vice President

2012

Macquarie Energy LLC

Senior Manager, Power & Natural Gas Derivatives Sales

2009

Talisman Energy, Inc.

Joint Venture Accountant, North American Finance

2003

Education: Master of Business Administration with Distinction

ESADE Business School, 2009

Bachelor of Arts, Economics - Applied Energy

University of Calgary, 2007

Appearances: None

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 5 Schedule 1 Page 1 of 3

#### GLOSSARY OF TERMS

AUCTION CONFIDENTIAL – As stipulated in the Climate Change Act.

AUCTION RESERVE PRICE – the minimum price that may be paid for an allowance at auction. In this document also referred to as "floor price".

CAPPED PARTICIPANT – As defined under the Cap and Trade regulation "means a mandatory participant or a voluntary participant."

WESTERN CLIMATE INITIATIVE ("WCI") – In this document generally refers to the linked cap and trade markets of California and Québec.

CLASS 1 EMISSION ALLOWANCE – As defined under the Cap and Trade regulation "means an Ontario emission allowance that has been classified as having a vintage year that is equal to either the auction year or an earlier year."

CLASS 2 EMISSION ALLOWANCE – As defined under the Cap and Trade regulation "means an Ontario emission allowance that has been classified as having a vintage year that is later than the auction year."

CLIMATE CHANGE MITIGATION AND LOW-CARBON ECONOMY ACT, 2016 ("CLIMATE CHANGE ACT") –The Ontario Government legislation related to climate change, which enables the Cap and Trade regulation.

COMMERCIALLY SENSITIVE – Confidential information of a commercially sensitive nature about Enbridge or a customer.

COMPLIANCE PERIOD – The first compliance period for Ontario's Cap and Trade program is from January 1, 2017 to December 31, 2020.

CUSTOMER-RELATED OBLIGATIONS – The Cap and Trade obligation related to GHG emissions associated with the natural gas delivered by Enbridge and used by customers.

FACILITY-RELATED OBLIGATIONS – The Cap and Trade obligation associated with the GHG emissions associated with the natural gas used by Enbridge to operate its facilities and deliver natural gas to customers.

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 5 Schedule 1 Page 2 of 3

GUIDELINES FOR QUANTIFICATION, REPORTING AND VERIFICATION OF GREENHOUSE GAS EMISSIONS ("GUIDELINES") – The Ontario government guidelines related to the Ontario Regulation 143/16 "Quantification, Reporting and Verification of Greenhouse Gas Emissions" ("O.Reg 143/16").

GREENHOUSE GAS ("GHG") – As set out in Ontario Regulation 143/16 "Quantification, Reporting and Verification of Greenhouse Gas Emissions."

LARGE FINAL EMITTER ("LFE") – Large Final Emitter ("LFE") refers to a customer who is a mandatory participant in Ontario's Cap and Trade program as per *Ontario Regulation 144/16, The Cap and Trade Program*.

MANDATORY PARTICIPANT – Mandatory participant in Ontario's Cap and Trade program as per *Ontario Regulation 144/16, The Cap and Trade Program*.

MARKET PARATICIPANT – As defined under the Cap and Trade regulation means a Cap and Trade participant who is not an owner, operator or employee of a mandatory or voluntary participant.

MARKET SENSITITVE CONFIDENTIAL – As stipulated in the Framework.

ONTARIO REGULATION 143/16 "QUANTIFICATION, REPORTING AND VERIFICATION OF GREENHOUSE GAS EMISSIONS' ("O.REG 143/16") – The Ontario government regulation governing Greenhouse Gas (GHG) emissions in the province.

ONTARIO REGULATION 144/16, THE CAP AND TRADE PROGRAM ("Cap and Trade") – The Ontario government regulation establishing Ontario's Cap and Trade program.

REGULATORY FRAMEWORK FOR THE ASSESSMENT OF COSTS OF NATURAL GAS UTILITIES' CAP AND TRADE ACTIVITIES (EB-2015-0363) ("Framework") – Ontario Energy Board proceeding providing regulatory requirements to natural gas utilities in Ontario regarding implementation and participation in Cap and Trade.

TONNES OF CARBON DIOXIDE EQUIVALENT ("t CO<sub>2</sub>e") – The unit of measure of greenhouse gas emissions as per Ontario Regulation 143/16 "Quantification, Reporting and Verification of Greenhouse Gas Emissions."

VOLUNTARY PARTICIPANT – Voluntary, or opt-in, participant in Ontario's Cap and Trade program as per *Ontario Regulation 144/16, The Cap and Trade Program*.

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit A Tab 5 Schedule 1 Page 3 of 3

ONTARIO ENERGY BOARD'S PRACTICE DIRECTION ON CONFIDENTIAL FILINGS – Outlines existing Board Guidelines for the filing of confidential information as part of the regulatory process.

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 1 Schedule 1 Page 1 of 1

### **FORECASTING PERIOD**

- 1. Enbridge elects to file a one-year Compliance Plan for 2017 at this time.
- 2. The Climate Change Mitigation and Low-carbon Economy Act, 2016 ("Climate Change Act") and compliance obligations are new to Enbridge, as well as Ontario. The ability to file a one-year Compliance Plan for 2017 will allow Enbridge to continue to gain market intelligence and operational experience.
- 3. After Enbridge has the opportunity to gain market experience, received the 10-year carbon price forecast and marginal abatement cost curve from the Board, and the Western Climate Initiative ("WCI") linkage is confirmed, the Company will be in a better position to determine whether the subsequent Compliance Plan will be for one-year, i.e., 2018, or three years, covering the remainder of the first Cap and Trade program compliance period to the end of 2020.
- 4. In either situation, Enbridge understands that its next Compliance Plan will be required to be submitted to the Board by August 1, 2017.

Witnesses: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 2 Schedule 1 Page 1 of 7 Plus Appendix A

### **VOLUME FORECASTS**

- 1. This evidence sets out Enbridge's 2017 forecast of natural gas volumes to ascertain the forecast of greenhouse gas ("GHG") obligation costs. Enbridge is required to prepare forecasts of the Customer-related volumes and the Company Facility-related volumes as part of its Cap and Trade compliance obligations. These forecasts are key inputs in the development of the Compliance Plan, and are necessary for the purposes of cost allocation and rate-setting.
- Customer-related and Facility-related volumetric forecasts were derived as
  consistent with Board-approved methodologies currently in effect under the Custom
  Incentive Regulation ("CIR") mechanism which was recently used by Enbridge in its
  2017 Rate Application (EB-2016-0215, Exhibit C1, Tab 2, Schedule 1).

### <u>Customer-Related Volume Forecast</u>

- 3. The total Customer-related obligation was determined by using the 2017 volumetric natural gas forecast for all customers, adjusted for gas-fired generation, Demand Side Management ("DSM"), incremental customer-related abatement, mandatory and voluntary participants, as well as those volumes derived from biomass, or consumed outside of Ontario. The derivation of the final Customer-related obligation can be found in Table 1 of this exhibit.
- 4. The forecast of natural gas sales and transportation volumes in Enbridge's 2017 Rate Application is 11,752,200 10<sup>3</sup>m<sup>3</sup>, which excludes unbundled Rate 125 and Rate 300 customers. Evidence on Enbridge's 2017 customer gas volume forecast is set out in Exhibit C1, Tab 2, Schedule 1 of EB-2016-0215.

Witnesses: R. Cheung

R. DiMaria J. Murphy

M. Suarez

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 2 Schedule 1 Page 2 of 7 Plus Appendix A

- 5. Under Ontario Regulation 144/16, The Cap and Trade Program (the "Regulation"), natural gas utilities are the point of regulation for natural gas fired power generators. This means that Enbridge is required to procure allowances to cover the volume of natural gas used by the natural gas fired power generators on its distribution system. Enbridge has developed a forecast for the unbundled Rate 125 and Rate 300 customers of 631,427 10³m³, which is included in the volumes shown on Table 1 of this exhibit. Although the Company's grassroots forecast methodology for contract market customers includes power generators, the nature of Rate 125 contracts only require a forecast of peak demand, not annual demand. As a result, not all Rate 125 volumes included for the purpose of forecasting obligation were provided by customers. In cases where a customer declined to provide an annual forecast, historical consumption was used. In the future, Enbridge will continue to work with its customers and endeavor to work with the Independent Electricity System Operator ("IESO") to develop a more accurate annual forecast for the power generators.
- 6. The volume in the 2017 Rate Application is after DSM volume reductions are applied. The total customer-related volume, including the forecast for unbundled customers and before DSM volumes are removed is 12,411,973 10<sup>3</sup>m<sup>3</sup>, as shown on Table 1 of this exhibit. To provide transparency, DSM volumes have been shown separately in this application and constitute a 28,445 10<sup>3</sup>m<sup>3</sup> partially effective volumetric reduction.
- 7. In addition to the DSM volumes, the Framework also prescribes that customerrelated abatement, which is incremental to the existing DSM plan, be shown
  separately. Enbridge has received proceeds from the government's Green
  Investment Fund ("GIF") to conduct customer-related abatement activity (outlined in

Witnesses: R. Cheung

R. DiMaria

J. Murphy

M. Suarez

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 2 Schedule 1 Page 3 of 7 Plus Appendix A

more detail in Exhibit C, Tab 2, Schedule 1). The GIF-funded customer-related abatement is incremental to anything that has been built into volumes for 2017 and incremental to Enbridge's approved DSM plan. The volume reductions associated with this program have not been included in Table 1, as they are minor relative to the total volumes and are not confirmed at this time. It is anticipated that the volume reduction will be approximately 13,000 10<sup>3</sup>m<sup>3</sup>, however, this is a test case on reporting and submitting verified volume reductions and will be documented in the annual monitoring and reporting submitted to the Board and used for true up purposes.

- 8. As per the Regulation, mandatory participants, otherwise known as Large Final Emitters ("LFEs"), are customers with facilities that emit more than 25,000 tonnes of carbon dioxide equivalent ("tCO<sub>2</sub>e") per year. Voluntary participants are customers with facilities that emit above 10,000 tCO<sub>2</sub>e, but less than the mandatory participant level of 25,000 tCO<sub>2</sub>e per year, and who voluntarily "opt-in" to the government's Cap and Trade program. Mandatory and voluntary participants are collectively referred to as "capped" participants who are responsible for their own Cap and Trade compliance obligations. Capped participants will be required to obtain allowances, either through free allocation from the Government or by purchasing allowances, to match their annual GHG emissions. These customers will not be billed for Customer-related obligations by Enbridge.
- 9. Volumetric forecasts were provided for those facilities that are on a draft Capped Participants List that was provided to Enbridge by the Ministry of the Environment and Climate Change ("MOECC") on October 7, 2016. This list includes mandatory participants, or LFEs, and voluntary participants who were known to MOECC as of

Witnesses: R. Cheung

R. DiMaria

J. Murphy M. Suarez

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 2 Schedule 1 Page 4 of 7 Plus Appendix A

October 7, 2016. As this date is prior to the registration deadline of November 30, 2016 for mandatory participants, this list is subject to change.

- 10. Where customers on the Capped Participants List had multiple locations or multiple meters, customers were contacted by Enbridge's Account Executives to clarify which locations and meters are included in the customers' GHG reporting and therefore included in the customers' Cap and Trade obligations. The total amount forecasted for all capped participants known as of October 7, 2016, is 1,024,744 10<sup>3</sup>m<sup>3</sup>. This amount was subtracted from the 2017 total forecast gas volume.
- 11. In November, Enbridge reached out more formally to customers who are capped participants with a customer Cap and Trade Declaration Form. The form will create a second layer of confidence in the forecasted GHG emission obligation. The customer Declaration Form is attached as Appendix A to Exhibit B, Tab 2, Schedule 1.
- 12. As per the Regulation, Enbridge is not required to acquire GHG allowances associated with the use of natural gas derived from biomass, such as landfill gas. The total amount forecasted for landfill gas is 34,992 10<sup>3</sup>m<sup>3</sup> as billed on Rate 300. This amount was subtracted from the 2017 total forecast gas volume.
- 13. Similarly, Enbridge is not required to acquire GHG allowances for natural gas distributed to downstream natural gas distribution companies, including those that are out-of-province like Gazifère which is an Enbridge subsidiary in Québec. Subsequently, the total amount forecasted for Gazifère is 170,843 10<sup>3</sup>m<sup>3</sup> as billed on Rate 200. This amount was subtracted from the 2017 total forecast gas volume.

Witnesses: R. Cheung

R. DiMaria

J. Murphy

M. Suarez

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 2 Schedule 1 Page 5 of 7 Plus Appendix A

14. With the exclusions of total volumes of 1,230,579 10<sup>3</sup>m<sup>3</sup> as noted in the preceding paragraphs, the total customer-related volume is 11,152,950 10<sup>3</sup>m<sup>3</sup>.

#### Facility-Related Volume Forecast

- 15. The forecast of gas volumes for Enbridge's Facility-related obligations is based on forecast requirements of the amount of natural gas required for Enbridge to operate its facilities. This represents Company use volumes (natural gas used for boilers at distribution gate stations, building heating, natural gas fleet vehicles, etc.) as well as compressor fuel related to natural gas storage and unaccounted for gas ("UFG" or "UAF") as reflected in part in the Company's Gas Cost to Operations and System Requirements (EB-2016-0215, Exhibit D1 Tab 2 Schedule 5).
- 16. In total, Enbridge forecasts its facility-related gas volumes for 2017 to be 122,407 10<sup>3</sup>m<sup>3</sup>. A detailed breakdown of forecast facility-related gas volumes is provided in Table 2 of this evidence.

#### Total 2017 Volume Forecast

17. The total volume forecast, inclusive of both the customer-related and Company facility-related volumes, is 11,275,357 10<sup>3</sup>m<sup>3</sup>. A summary of all of the volumes included in this calculation is included in Table 3 of this evidence.

Witnesses: R. Cheung

R. DiMaria J. Murphy

M. Suarez

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 2 Schedule 1 Page 6 of 7 Plus Appendix A

### $\frac{\text{TABLE 1: 2017 CUSTOMER-RELATED VOLUMES}}{(10^3 \text{m}^3)}$

		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6
Line	Rate	Budget Forecast Volumes Before DSM	DSM Volume	Customer Abatement Volume	Capped Participant Volumes	Other Exempt Gas Volume <sup>1</sup>	Net Volumes <sup>2</sup>
1.1	1	4,917,009.6	5,531.7	0.0	0.0	0.0	4,911,477.9
1.2	6	4,879,281.2	17,012.0	0.0	120,126.9	0.0	4,742,142.3
1.3	9	262.8	0.0	0.0	0.0	0.0	262.8
1.4	100	0.0	0.0	0.0	0.0	0.0	0.0
1.5	110	864,132.9	2,698.1	0.0	403,080.8	0.0	458,354.0
1.6	115	492,449.6	2,157.7	0.0	304,439.5	0.0	185,852.4
1.7a	125	305,896.4	0.0	0.0	0.0	0.0	305,896.4
1.7b	125D <sup>3</sup>	325,082.3	0.0	0.0	0.0	0.0	325,082.3
1.8	135	60,984.4	85.4	0.0	0.0	0.0	60,899.0
1.9	145	63,702.7	384.5	0.0	14,091.0	0.0	49,227.2
1.10	170	296,888.2	575.2	0.0	183,005.6	0.0	113,307.4
1.11	200	170,842.7	0.0	0.0	0.0	170,842.7	0.0
1.12	300	35,440.4	0.0	0.0	0.0	34,992.0	448.4
1	Total Customer-Related	12,411,973.2	28,444.6	0.0	1,024,743.8	205,834.7	11,152,950.1

#### Notes

(1) Includes volumes delivered to downstream distributor and landfill gas

(2) Col. 1 - Col. 2 - Col. 3 - Col. 4 - Col. 5

(3) Dedicated unbundled customers

# TABLE 2: 2017 FACILITY-RELATED VOLUMES (10<sup>3</sup>m<sup>3</sup>)

Line		<u>Volumes</u>
1.	Company Use - Buildings	1,505.9
2.	Company Use - Boilers	3,930.2
3.		5,436.2
4.	Company Use - Fleet	1,500.0
5.	Total Company Use	6,936.2
6.	Unaccounted For Gas (UAF)	98,279.0
7.	Compressor Fuel	17,191.8
8.	Total Facility-Related	122,407.0

Witnesses: R. Cheung

R. DiMaria J. Murphy M. Suarez

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 2 Schedule 1 Page 7 of 7 Plus Appendix A

### TABLE 3: 2017 SUMMARY OF CUSTOMER-RELATED AND FACILITY-RELATED FORECAST VOLUMES

<u>Line</u>	<u>Description</u>	2017 Forecast
Custo	omer-Related Volume Forecast	
1	Gross Volumes before DSM and Customer Abatement (10 <sup>3</sup> m <sup>3</sup> )	12,411,973
2	Less: Demand Side Management (DSM) (10 <sup>3</sup> m <sup>3</sup> )	(28,445)
3	Less: Customer Abatement (10 <sup>3</sup> m <sup>3</sup> )	0
4	Subtotal: Net Volumes (10 <sup>3</sup> m <sup>3</sup> )	12,383,529
5	Less: Throughput to Capped Participants (10 <sup>3</sup> m <sup>3</sup> )	(1,024,744)
6	Less: Gas to Other Exempt Customers (10 <sup>3</sup> m <sup>3</sup> )	(205,835)
7	Net Customer Related Volumes to end users (10 <sup>3</sup> m <sup>3</sup> )	11,152,950
<u>Facil</u>	ity-Related Volume Forecast	
8.a.	Company Use Gas - Building (10 <sup>3</sup> m <sup>3</sup> )	1,506
8.b.	Company Use Gas - Boiler (10 <sup>3</sup> m <sup>3</sup> )	3,930
8.c.	Company Use Gas - Fleet (10 <sup>3</sup> m <sup>3</sup> )	1,500
8	Total Company Use Gas (10 <sup>3</sup> m <sup>3</sup> )	6,936
9	Unaccounted for Gas (10 <sup>3</sup> m <sup>3</sup> )	98,279
10	Compressor Fuel (10 <sup>3</sup> m <sup>3</sup> )	17,192
11	Net Facility-Related Volumes (10 <sup>3</sup> m <sup>3</sup> )	122,407
12	Total Customer-Related and Facility-Related Volumes (Line 7 + Line 11) (10 <sup>3</sup> m <sup>3</sup> )	11,275,357

Witnesses: R. Cheung

R. DiMaria J. Murphy M. Suarez Filed: 2016-11-15, EB-2016-0300, Exhibit B, Tab 2, Schedule 1, Appendix A, Page 1 of 2



Enbridge Gas Distribution 500 Consumers Road North York, Ontario M2J 1P8 Canada

#### **Overview**

It is important that you, the Customer, review and complete the information below to advise Enbridge Gas Distribution Inc. ("Enbridge") if the Customer will be participating in Ontario's Cap and Trade Program, as governed by *Ontario Regulation* 144/16, The Cap and Trade Program and by the Climate Change Mitigation and Low-carbon Economy Act, 2016.

Declaration Forms not received by Enbridge by December 7, 2016 advising of the Customer's participation in the Cap and Trade Program will result in Enbridge obtaining and surrendering emission allowances in respect of the Customer's emissions generated from the natural gas delivered by Enbridge.

#### Cap and Trade Declaration Form:

The purpose of this form is for the Customer to provide direction to Enbridge regarding their participation in Ontario's Cap and Trade program. This form will be used to identify whether a customer's facility or facilities will participate directly in Ontario's Cap and Trade program as per *Ontario Regulation 144/16, The Cap and Trade Program*.

#### Cap and Trade Charges:

Enbridge has divided the Cap and Trade charges into two main components: customer-related obligations and facility-related obligations. These charges will be included in the "Delivery to You" line on your Enbridge bill.

All customers, regardless of program participation, will be charged all or a portion of facility-related obligations according to the services provided by Enbridge. For more information, please refer to Enbridge's Rate Handbook, which will contain all Cap and Trade rates, when available.

Once completed, this form will be used to update Enbridge's billing systems to ensure customers are accurately billed Cap and Trade charges. Those customers that participate directly in Ontario's Cap and Trade program (either as mandatory participants or as voluntary participants) as per *Ontario Regulation 144/16*, *The Cap and Trade Program*, will be excluded from the customer-related obligations component of the Cap and Trade charges on their natural gas bill.

Further information regarding Ontario's Cap and Trade program is available at: www.ontario.ca/capandtrade. When available, Enbridge's Cap and Trade rates can be found at www.enbridgegas.com/capandtrade.

#### Definitions:

CUSTOMER-RELATED OBLIGATIONS – Emissions generated through the use of natural gas delivered by Enbridge only.

COMPLIANCE PERIOD – The first compliance period for Ontario's Cap and Trade program is from January 1, 2017 to December 31, 2020.

FACILITY-RELATED OBLIGATIONS – Emissions generated through the use of natural gas in order for Enbridge to operate its facilities and deliver natural gas. All customers will bear all or some of Enbridge's facility-related obligation costs.

MANDATORY PARTICIPANT – Mandatory participant in Ontario's Cap and Trade program as per *Ontario Regulation* 144/16, The Cap and Trade Program.

VOLUNTARY PARTICIPANT – Voluntary participant in Ontario's Cap and Trade program as per *Ontario Regulation* 144/16, The Cap and Trade Program.

1

Filed: 2016-11-15, EB-2016-0300, Exhibit B, Tab 2, Schedule 1, Appendix A, Page 2 of 2



Enbridge Gas Distribution 500 Consumers Road North York, Ontario M2J 1P8 Canada

### **Cap and Trade Declaration Form**

Please complete, sign and return to Enbridge at <a href="mailto:contractsupportandcompliance@enbridge.com">contractsupportandcompliance@enbridge.com</a> by Wednesday, December 7, 2016.

One form must be completed for each of the Customer's facilities that reports or voluntarily reports emissions as per *Ontario Regulation 143/16, Quantification, Reporting and Verification of Greenhouse Gas Emissions.* 

"Facility" includes all buildings, structures and stationary items, such as surfaces and storage piles, that are owned or operated by the same person, and (a) are located on a single site, or (b) on two or more adjacent sites that function as a single integrated site.

Legal Company Name :					
Mailing Address (main office):					
F'1'(-N	216.31\ 26				
Facility Name or Identifier ("Fac	ility"), if applicable:				
Facility Address:					
Contact Name:	Email Address:	Phone Number:			
Account Number	Account Name (if different from Customer name)	MOECC GHG ID			
Please select type of program pa	<u>articipant below (MANDATORY or VOLUNTARY):</u>	-			
☐ Under Ontario Regulation 1/1/	16, The Cap and Trade Program, the facility identifie	VAOTAGUAM e si avode b			
PARTICIPANT for the compliance		d above is a MANDATORT			
Traction rate for the compliance	portion.				
☐ Under Ontario Regulation 144/	16, The Cap and Trade Program, the facility identifie	d above is a <b>VOLUNTARY</b>			
PARTICIPANT and will opt-in to the	ne Government's cap and trade program for the com	pliance period.			
	hat the Customer will be responsible for acquiring ar tion 144/16, The Cap and Trade Program, associate				
	d. I recognize that Enbridge will charge facility-relate				
	natural gas on the accounts included in this form.	d obligations cost associated with			
<b>3</b>	J				
	Cap and Trade Program agree to notify my Enbridge				
during the compliance period I decided to longer participate as a voluntary participant and instead elect Enbridge to purchase and surrender my emissions allowances on my behalf.					
purchase and surrender my emiss	ions allowances on my benair.				
By:					
Name:					
Title:					

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 3 Schedule 1 Page 1 of 5

### **GHG EMISSIONS FORECASTS**

- 1. This evidence sets out an overview of Enbridge's 2017 forecast of Greenhouse Gas ("GHG") emissions.
- 2. Under Ontario Regulation 143/16 "Quantification, Reporting and Verification of Greenhouse Gas Emissions" ("O.Reg 143/16") and the associated "Guidelines for Quantification, Reporting and Verification of Greenhouse Gas Emissions" ("Guidelines"), Enbridge as a natural gas distributor, is required to report emissions from the distribution of natural gas (ON.400). Enbridge is also required to report emissions from stationary combustion (ON.20) and from the operation of equipment related to natural gas (ON.350). It should be noted that 2016 is the first year that reporting under sections ON. 400 and ON.350 is required for natural gas utilities.
- 3. Enbridge has prepared 2017 forecasts of GHG emissions related to customers use of natural gas. These are referred to as "Customer-related obligations". It has also prepared forecasts of emissions related to the operation of its distribution, transmission and storage systems. These are referred to as "Facility-related obligations."
- 4. In order to estimate GHG emissions, forecasted natural gas volumes were converted to GHG emissions in tonnes of carbon dioxide equivalent ("tCO<sub>2</sub>e"), using the methodology, emission factors and global warming potentials provided in the O.Reg 143/16 and the Guidelines.

#### <u>Customer-Related Emissions Forecast</u>

5. The total customer-related emissions for 2017 based on the customer-related volume forecast is 20,907,621 tCO<sub>2</sub>e, accounting for approximately 99% of the total

Witness: J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 3 Schedule 1 Page 2 of 5

forecasted carbon compliance obligation. The methodology, source and assumptions for the volume forecast can be found in Exhibit B, Tab 2, Schedule 1 and the assumptions and the derivation of customer-related GHG emission forecast is set out in Table 1 and 2 of this exhibit.

### Facility-Related Emissions Forecast

6. The total facility-related emissions for 2017 based on the facility-related volume forecast is 229,145 tCO<sub>2</sub>e, accounting for approximately 1% of the total forecasted carbon compliance obligation. The methodology, source and assumptions for the volume forecast can be found in Exhibit B, Tab 2, Schedule 1 and the assumptions and derivation of the facility-related GHG emissions forecast is set out in Table 3 and 4 of this exhibit.

### Total 2017 GHG Emissions Forecast

7. The total GHG emissions forecast, inclusive of both the customer-related and facility-related volumes is 21,236,767 tCO<sub>2</sub>e. A summary of the GHG emissions is included in Table 5 of this evidence.

Witness: J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 3 Schedule 1 Page 3 of 5

#### TABLE 1: 2017 CUSTOMER-RELATED EMISSIONS BY RATE CLASS

Col. 1 Col. 2 Col. 3 Col. 4 Col. 5

Line	Rate	Net Volumes <sup>1</sup>	CO <sub>2</sub> Emissions <sup>2</sup>	CH₄ Emissions <sup>3</sup>	N₂O Emissions <sup>4</sup>	Net CO₂e Emissions <sup>5</sup>
		(10 <sup>3</sup> m <sup>3</sup> )	(Tonnes CO <sub>2</sub> )	(Tonnes CH <sub>4</sub> )	(Tonnes N <sub>2</sub> O)	(Tonnes CO <sub>2</sub> e)
1.1	1	4,911,477.9	9,150,083.3	181.7	171.9	9,207,189.1
1.2	6	4,742,142.3	8,834,611.1	175.5	166.0	8,889,748.0
1.3	9	262.8	489.6	0.0	0.0	492.7
1.4	100	0.0	0.0	0.0	0.0	0.0
1.5	110	458,354.0	853,913.5	17.0	16.0	859,242.8
1.6	115	185,852.4	346,243.0	6.9	6.5	348,403.9
1.7a	125	305,896.4	569,885.0	11.3	10.7	573,441.7
1.7b	125D	325,082.3	605,628.3	12.0	11.4	609,408.1
1.8	135	60,899.0	113,454.8	2.3	2.1	114,162.9
1.9	145	49,227.2	91,710.3	1.8	1.7	92,282.6
1.10	170	113,307.4	211,091.7	4.2	4.0	212,409.1
1.11	200	0.0	0.0	0.0	0.0	0.0
1.12	300	448.4	835.37	0.02	0.02	840.6
1	Total Customer-Related	11,152,950.1	20,777,946.0	412.7	390.4	20,907,621.4

#### Notes

(1) Exhibit B, Tab 2, Schedule 1, Table 1, Col. 6

(2) Col. 1 x Table 2, Line 2, Col. 1 x 1000

(3) Col. 1 x Table 2, Line 2, Col. 2 x 1000

(4) Col. 1 x Table 2, Line 2, Col. 3 x 1000

(5) Col. 2 + (Col. 3 x Table 2, Line 3, Col. 2) + (Col. 4 x Table 2, Line 3, Col. 3)

#### TABLE 2: CONVERSION FACTORS

Col. 1 Col. 2 Col. 3

Line		CO <sub>2</sub> Emission Factor <sup>6</sup>	CH <sub>4</sub> Emission Factor <sup>7</sup>	N <sub>2</sub> O Emission Factor <sup>7</sup>
2 Tonne/m <sup>3</sup>		0.001863	0.00000037	0.00000035

Line		Methane <sup>8</sup>	Nitrous Oxide8
3	Global Warming Potential for Carbon Dioxide Equivalent	21	310

#### Notos

(6) Ontario Ministry of Environment and Climate Change's "Guideline for Quantification, Reporting and Verification for GHG Emissions - January 2016", Table 400-2

(7) Ontario Ministry of Environment and Climate Change's "Guidelines for Quantification, Reporting and Verification for GHG Emissions - January 2016", Table 20-4

(8) Ontario Regulation 143/16 "Quantification, Reporting and Verification of Greenhouse Gas Emissions", Schedule 1

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 3 Schedule 1 Page 4 of 5

#### TABLE 3: 2017 FACILITY-RELATED EMISSIONS

		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
Line		Volumes <sup>1</sup>	CO <sub>2</sub> Emissions <sup>2</sup>	CH <sub>4</sub> Emissions <sup>3</sup>	N <sub>2</sub> O Emissions <sup>4</sup>	CO <sub>2</sub> e Emissions <sup>5</sup>
		(10 <sup>3</sup> m <sup>3</sup> )	(Tonnes CO <sub>2</sub> )	(Tonnes CH <sub>4</sub> )	(Tonnes N <sub>2</sub> O)	(Tonnes CO <sub>2</sub> e)
1.	Company Use - Buildings	1,505.9	2,805.5	0.1	0.1	2,823.0
2.	Company Use - Boilers	3,930.2	7,262.9	0.1	0.1	7,307.8
3.		5,436.2	10,068.4	0.2	0.2	10,130.8
4.	Company Use - Fleet	1,500.0	2,794.5	0.1	0.1	2,811.9
5.	Total Company Use	1,500.0	12,862.9	0.3	0.2	12,942.8
6.	Unaccounted For Gas (UAF)	98,279.0	183,093.8	3.6	3.4	184,236.5
7.	Compressor Fuel	17,191.8	31,769.4	0.6	0.6	31,966.0
8.	Total Facility-Related	116,970.8	227,726.1	4.5	4.3	229,145.2

#### Notes:

#### TABLE 4: CONVERSION FACTOR

			Col. 1	Col. 2	Col. 3
Line		Units	CO <sub>2</sub> Emission Factor <sup>6, 10</sup>	CH <sub>4</sub> Emission Factor <sup>7</sup>	N₂O Emission Factor <sup>7</sup>
1	Fleet, Buildings & Unaccounted For Volumes (UAF)	Tonne/m³	0.001863	0.00000037	0.000000035
2	Boilers & Compressor Fuel Volumes	Tonne/GJ	0.04903	0.000000966	0.000000913
3	Budget Heat Value <sup>8</sup>	$GJ/10^3 m^3$	37.69	37.69	37.69
Line				Methane <sup>9</sup>	Nitrous Oxide <sup>9</sup>
4	Global Warming Potential for Carbon Dioxide Equivalent			21	310

#### Notes:

Witness: J. Murphy

<sup>(1)</sup> Exhibit B, Tab 2, Schedule 1, Table 2, Col. 1

<sup>(2)</sup> Col. 1 x Table 4, Line 1, Col. 1 x 1000 (For Boilers and Compressor Fuel: Col. 1 x Table 4, Line 2, Col. 1 x Table 4, Line 3, Col. 1)

<sup>(3)</sup> Col. 1 x Table 4, Line 1, Col. 2 x 1000 (For Boilers and Compressor Fuel: Col. 1 x Table 4, Line 2, Col. 2 x Table 4, Line 3, Col. 2)

<sup>(4)</sup> Col. 1 x Table 4, Line 1, Col. 3 x 1000 (For Boilers and Compressor Fuel: Col. 1 x Table 4, Line 2, Col. 3 x Table 4, Line 3, Col. 3)

<sup>(5)</sup> Col. 2 + (Col. 3 x Table 4, Line 5, Col. 2) + (Col. 4 x Table 4, Line 5, Col. 3)

<sup>(6)</sup> Ontario Ministry of Environment and Climate Change's "Guideline for Quantification, Reporting and Verification for GHG Emissions - January 2016", Table 400-2

<sup>(7)</sup> Ontario Ministry of Environment and Climate Change's "Guidelines for Quantification, Reporting and Verification for GHG Emissions - January 2016", Table 20-4

<sup>(8)</sup> Assumed Budget Heat Value = 37.69 GJ/10<sup>3</sup>m<sup>3</sup>. This value should be assumed as a placeholder. In calculating actual emissions, higher heating value will be used.

<sup>(9)</sup> Ontario Regulation 143/16 "Quantification, Reporting and Verification of Greenhouse Gas Emissions", Schedule 1

<sup>(10)</sup> CO<sub>2</sub> Emission Factor for 'Boilers & Compressor Fuel': Ontario Ministry of Environment and Climate Change's "Guidelines for Quantification, Reporting and Urification for GHG Emissions - January 2016", Table 20-3

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 3 Schedule 1 Page 5 of 5

#### TABLE 5: 2017 SUMMARY OF CUSTOMER-RELATED AND FACILITY-RELATED FORECAST GHG EMISSIONS

<u>Line</u>	<u>Description</u>	2017 Forecast
Cus	stomer-Related GHG Emissions Forecast	
1	Customer-related Forecast Volume (10 <sup>3</sup> m <sup>3</sup> )	11,152,950
2	ON.400 Emission Conversion Factor (tonnes CO <sub>2</sub> e/m³)	0.001875
3	Customer-Related Emissions (tonnes CO2e)	20,907,621
Fac 4	Facility-related Forecast Volume (10 <sup>3</sup> m <sup>3</sup> )	116.971
5	ON.20 Emission Conversion Factor (tonnes CO₂e/m³)	0.001859
6	Facility-Related Emissions (tonnes CO2e)	229,145
Tota	al Compliance Obligation	
7	Total Compliance Obligation (tonnes CO2e)	21,136,767

Filed: 2016-11-15 EB-2016-0300 Exhibit B Tab 4 Schedule 1 Page 1 of 1

# ANNUAL CARBON PRICE FORECASTS

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Langstaff J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 1 of 1 Plus Appendicies

## **OVERVIEW OF COMPLIANCE PLAN**

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Appendix A Page 1 of 1

# ENBRIDGE GAS DISTRIBUTION INC. CARBON MARKET REPORT

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Appendix B Page 1 of 1

# ENBRIDGE GAS DISTRIBUTION INC. CARBON STRATEGY REPORT FINAL

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 1 of 1

# COMPLIANCE OPTION ANALYSIS AND OPTIMIZATION OF DECISION-MAKING

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 1 Page 1 of 1

# PERFORMANCE METRICS AND COST INFORMATION

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 2 Page 1 of 1

# <u>COMPLIANCE PLAN – ALLOWANCE PURCHASE</u>

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 3 Page 1 of 1

# <u>COMPLIANCE PLAN – OFFSET CREDITS</u>

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 4 Page 1 of 7

#### COMPLIANCE PLAN – ABATEMENT ACTIVITIES – CUSTOMER

- 1. Enbridge anticipates that renewable natural gas, low-carbon technologies and energy efficiency will play a role in future compliance plans where possible and appropriate.
- 2. As also noted in Exhibit C, Tab 2, Schedule 1 of the Framework, the Board lists a number of Potential GHG Abatement Measures for consideration including:

Table 1 – Customer-related and facility-related emission abatement opportunities

Measure	Applicability to Utilities
Customer abatement activities	Customer emissions
Renewable energy and fuel switching	Facility and customer emissions
New technologies	Facility and customer emissions
Building retrofits	Facility and customer emissions
Measures to mitigate and reduce fugitive emissions	Facility emissions
Biogas, renewable natural gas <sup>1</sup>	Facility and customer emissions

3. The Board goes on to state in section 5.3 that in its evaluation of the cost consequences of the Utilities' Compliance Plans it will consider whether the utility has "engaged in strategic decision-making and risk mitigation," "whether the Utility has considered a diversity (portfolio) of compliance options" and "whether a Utility has selected GHG abatement activities and investments that, to the extent possible, align with other broad investment requirements and priorities of the Utility in order to extract the maximum value from the activity or investment."

Witnesses: M. Lister

S. Mills

F. Oliver-Glasford

D. Teichrob

<sup>&</sup>lt;sup>1</sup> Enbridge notes that biogas and renewable natural gas should be broadened to include renewable hydrogen and other renewable content as applicable for natural gas pipelines.

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 4 Page 2 of 7

4. Lastly, the Board notes in section 5.6 of the Framework that the introduction of abatement activities under the Cap and Trade program "creates the potential for significant overlap between existing DSM programs and future Compliance Plans." The Board concludes that "The DSM Framework also includes a mid-term review provision (to be completed by June 1, 2018) that will provide an appropriate opportunity to assess the DSM Framework in light of the Cap and Trade program."

## A. Demand Side Management ("DSM")

- 5. Enbridge shares the Board's view regarding the potential for overlap between DSM programs and future Cap and Trade Compliance Plans.
- 6. Further, the Company agrees that the DSM Mid-Term Review will provide ample opportunity to consider the relationship between DSM programs and other future customer abatement activities, which should include a review of DSM's role within the Company's overall compliance planning activities. A focused evaluation of the level, pacing, and cost effectiveness of DSM as a compliance tool within the DSM Mid-Term Review will allow the Company to consider the inclusion of DSM within a Compliance Plan beyond 2017, while also avoiding disruption of the Company's existing DSM programs currently in market.
- 7. Given the timing of the release of the Framework, the Company has not had sufficient time to plan, design, or implement any proposals for additional rate payer funded DSM customer abatement activities within its 2017 Compliance Plan. As stated above, this is a topic area that the Company believes is more appropriately dealt with during the DSM Mid-Term Review.
- 8. While the Company has not incorporated incremental ratepayer funded abatement activities into its 2017 Compliance Plan, the forecast presented in Exhibit B, Tab 2,

Witnesses:

M. Lister

S. Mills

F. Oliver-Glasford

D. Teichrob

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 4 Page 3 of 7

Schedule 1 does, however, include incremental customer abatement activities as part of the Green Investment Fund (GIF) program, that has been funded by taxpayers.

- 9. In 2016 Enbridge entered into an agreement with the Ministry of Energy ("MOE") to offer an advanced home energy audit and retrofit program over the course of three years through the GIF. The primary objective of this program is to help homeowners save on their energy bills year after year while also reducing overall GHG emissions. The whole home retrofit program was designed to be similar to Enbridge's existing DSM offer, the Home Energy Conservation program, and is available to all customers regardless of primary fuel type. In addition, the funding was also meant to increase the deployment of the Adaptive Thermostats offer, also consistent with the Company's DSM program, as well as funding to pursue educational and behavioural-based GHG reductions.
- 10. For illustrative purposes the following table, Table 2, outlines the forecasted lifetime savings related to the incremental GIF program:

Table 2 – Green Investment Fund Forecasted Results

Program Impacts	Unit	2016	2017	TOTAL
Budget	\$ Millions	\$9.70	\$22.70	\$32.40
Number of Participants	Homes	3,000	10,000	13,000
Total GIF Program Savings <sup>1</sup>	Annual m <sup>3</sup>	2,059,500	10,984,000	13,043,500
Total GIF Program Savings	Lifetime m <sup>3</sup>	61,785,000	205,950,000	267,735,000
Total Lifetime CO₂e Reductions	Tonnes	115,847	386,156	502,003
Estimated CO₂e Reductions Taking Place in Each Year¹	Tonnes	3,862	20,595	24,457

<sup>1.</sup> CO<sub>2</sub>e reductions and volume savings taking place in each year include the 50% of the impact of annual reductions achieved in the current year and 100% of the reductions achieved in past years. This methodology is intended to roughly capture the reality that participants do not all begin reducing emissions on Jan. 1st of a given year; they are enrolled throughout the year. For example, in the 2017 calendar year the full 100% impact of 2016 achievement and 50% of 2017 achievement has been included. The "TOTAL" column listed for this row represents the total annual CO2e reductions and volumes that will persist in 2019 and beyond.

Witnesses: M. Lister

S. Mills

F. Oliver-Glasford

D. Teichrob J. Tideman

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 4 Page 4 of 7

- 11. The numbers shown in Table 2 represent the forecasted m³ volumes and CO₂e reductions for this 2017 compliance period. The forecasted 2016 values have been presented along with 2017, as the anticipated program impacts (due to the timing launch of the program) will be most notable in the 2017 compliance period. For the purposes of determining impact on the annual carbon compliance, 502,003 tonnes in CO₂e reductions is the best estimate of the lifetime savings attributable to the GIF program delivered by Enbridge.
- 12. In summary, the Company believes that DSM should be considered a vital part of its overall long-term Compliance Plan. This is especially so where the results from conservation and energy efficiency can be shown to be more cost effective over the long term than the purchase of compliance instruments. Given the timing of the release of the Framework, and given the scheduled Mid-Term Review for the Company's DSM Framework, the Company believes the issue of including the existing and any incremental DSM activity into the Company's compliance planning acitivities is best suited for the Mid-Term Review.

#### B. Renewable Content Objectives for Natural Gas Pipelines

13. Enbridge believes that establishing a renewable content objective for natural gas pipeline systems can provide a flexible low-carbon solution that offers good value to customers because it leverages the existing natural gas transmission, distribution and storage infrastructure as well as the heating, water heating and other gas-fired equipment used by our customers. Next to conservation, the addition of a renewable content objective, for natural gas pipelines, is expected to offer one of the more cost-effective carbon abatement measures for Ontario to broadly meet its GHG reduction and climate change mitigation goals.

Witnesses: M. Lister

S. Mills

F. Oliver-Glasford

D. Teichrob

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 4 Page 5 of 7

- 14. Several near-term opportunities exist to establish renewable gas supplies for pipeline networks. Today, various biogas supplies are derived from landfill operations, municipal water treatment facilities, and anaerobic digestion of municipal organic collection programs and farm/agricultural wastes. These biogas supplies are typically flared or converted into electricity at relatively low efficiencies of 40% or less. A more compelling use of this biogas involves upgrading the gas to pipeline quality standards and injecting this into the natural gas network where it can be utilized at thermal efficiencies of up to 96%. This upgraded biogas is referred to as Renewable Natural Gas ("RNG").
- 15. Other near-term renewable gas supplies that can help Ontario increase the renewable content in natural gas pipelines is electrolytic hydrogen. This renewable hydrogen is derived from surplus and off-peak electricity in a process known as power-to-gas, and the hydrogen can be injected into the natural gas network to decarbonize pipeline fuel. In effect, power-to-gas plants can become a new energy intertie that connects Ontario's wholesale electricity grid to the province's wholesale natural gas network. The result is Ontario can leverage the pipeline network's seasonal storage capability to store low-carbon energy from the electricity grid that would have otherwise been curtailed or exported. Power-to-gas offers a means for Ontario to ensure its abundant low-carbon power supplies are used for the province's competitive advantage under Cap and Trade rather than exporting this low-carbon energy.
- 16. Over the medium and long-term, natural gas pipeline systems can achieve deep decarbonization with renewable content through the commercialization of methanation technologies and the development of solar fuel technologies. These technologies are not commercially ready today but their ongoing development can

Witnesses: M

M. Lister

S. Mills

F. Oliver-Glasford

D. Teichrob

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 4 Page 6 of 7

ensure the renewable content in pipelines can grow significantly beyond the nearterm market opportunities that will focus on RNG and power-to-gas.

- 17. Enbridge has been actively supporting the industry's efforts to understand the market potential related to renewable pipeline fuels, including technical assessments and feasibility studies related to bringing renewable gas supplies to market. RNG has similar environmental benefits when compared to renewable electricity, but it offers some unique benefits. These include improved costeffectiveness for renewable energy, when measured on an equivalent energy basis. RNG and power-to-gas also offer the ability to leverage existing, cost-effective energy storage so this renewable energy can be storage until the market demand is real and carbon abatement can be guaranteed. Since the early supplies of renewable pipeline fuel will be predominantly derived from waste streams, RNG can help reduce GHG emissions through both the displacement of conventional natural gas and also through the creation of carbon offsets that account for the capture of biogenic created methane that would otherwise have been vented to atmosphere as a fugitive emission. RNG development represents an innovative way for Ontarians to turn a waste product into a useful energy source and lower GHG emissions at the same time.
- 18. Many jurisdictions are ahead of Ontario in moving to renewable natural gas, and several models exist for delivering it to customers. European markets are actively developing renewable pipeline fuels through both RNG and power-to-gas developments. In North America, California, British Columbia and Quebec have all moved forward with the early development of RNG to complement the renewable energy options that have traditionally been focused on the electricity grid. British Columbia's model also includes a voluntary opt-in model where Fortis BC

Witnesses: M. Lister

S. Mills

F. Oliver-Glasford

D. Teichrob

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 4 Page 7 of 7

customers have the option to buy RNG as some or all of the gas they use. Customers who choose RNG also receive a carbon tax credit on their bill.

19. The typical development timeline for RNG and power-to-gas projects is expected to range from 18 to 30 months. Some potential producers of renewable gas supplies are at the early stage of project development in anticipation of market opportunities developing in Ontario. As a result, this 2017 Compliance Plan does not include renewable natural gas volumes; however, Enbridge anticipates that renewable content will play an increasing role future compliance plans as these projects are developed and brought into commercial operations.

## C. Natural Gas Transportation

20. In partnership with the government, the Company also plans to increase in the use of natural gas for vehicles used in activities such as waste collection, trucking, and transit. It should be noted that while this initiative will see total natural gas volumes increase, GHG emissions will decrease significantly as natural gas displaces diesel, a more carbon intensive fuel. The province has committed up to \$270m in their Climate Change Action Plan ("CCAP") to "increase the use of low-carbon trucks and buses", which includes but is not limited to those powered by natural gas. The CCAP states that:

The province intends to work with the Ontario Trucking Association, Union Gas, Enbridge and others to establish a network of natural gas and low- or zero carbon fueling stations. It will work with utilities to ensure the recovered biogas content of the fuel provided is increased over time to further lower the carbon footprint of this alternative fuel. Natural gas has a lower carbon content than diesel and also burns cleaner, producing less local air pollution.

As natural gas use for vehicles becomes more prominent, it is important that natural gas volumes not be considered in a vacuum, but rather in the broader context of provincial GHG impact and government policy objectives.

Witnesses:

M. Lister

S. Mills

F. Oliver-Glasford

D. Teichrob

Redacted Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 5

Page 1 of 3

# COMPLIANCE PLAN - ABATEMENT ACTIVITIES - FACILITY

- 1. Enbridge recognizes that abating Greenhouse Gas ("GHG") emissions from its own operations is part of helping the province reach its GHG emission targets, as well as a tool to reduce Enbridge's overall Cap and Trade compliance obligation. Enbridge has already completed several key projects that have reduced facility-related GHG emissions to 20% below what they were in 1990. This includes the complete replacement of cast iron pipe, replacement of pneumatic controllers, and efforts to reduce fugitive emissions through damage prevention and improved leak detection and repair programs.
- 2. Enbridge also recognizes that GHG abatement may be required to meet the proposed federal methane regulations. These regulations are expected to be available in draft format in 2017, with phase in of the regulation as early as 2018 to 2020, and are expected to cover Enbridge's gas storage facilities. Although Enbridge understands that distribution is excluded from the covered sectors in the initial phase of the regulations, it may be included in future years.
- 3. Enbridge notes that its facility related obligations represent approximately only 1% of its total obligations under the Regulation.
- 4. As part of Enbridge's asset management program, ongoing asset replacement and upgrade projects are undertaken. Often these measures have the added benefit of reducing gas loss from distribution assets. Enbridge will leverage these projects to maximize the existing investment that is already built into the Company's Custom Incentive Regulation.

Witnesses: J. Murphy

E. Naczynski

Redacted

Filed: 2016-11-15

EB-2016-0300

Exhibit C Tab 3

Schedule 5 Page 2 of 3

5. Enbridge has developed a multi-department team to discuss abatement

opportunities for facility-related GHG emissions. This team is working to develop a

list of potential abatement opportunities. These opportunities may include asset

replacement or upgrade, improved asset or work management practices and

implementation of new technologies in order to decrease fugitive, vented,

combustion or flared emissions.

6. Facility-related abatement opportunities identified will be reviewed for feasibility.

The feasibility review will include determining the potential amount of GHG

emissions reductions that could be achieved with the project and capital and

operating cost requirements. This will then be used to determine the cost per tonne

of GHG emissions for the project. Further analysis will include a review of additional

factors, including but not limited to safety, training requirements, and ongoing

maintenance requirements.

7. The outcome of this effort will be a list of facility-related abatement opportunities that

includes a feasibility analysis and a cost per tonne of GHG reductions. This list will

be used to prioritize the opportunities for inclusion in future year Compliance Plans.

It is expected that this will be an ongoing effort that will be updated on a frequent

basis as new opportunities present themselves or if/when regulatory requirements,

such as the introduction of new methane regulations, change.

8. In addition to the development of the facility-related abatement opportunities,

Enbridge is working to develop a mechanism to begin reviewing the impact on GHG

emissions of all asset management projects. This is expected to be completed in

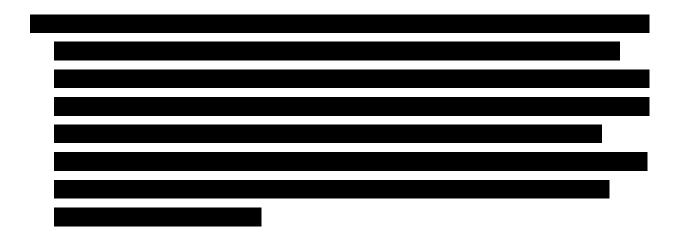
2017.

Witnesses: J. Murphy

E. Naczynski

Redacted Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 5

Page 3 of 3



Witnesses: J. Murphy E. Naczynski

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 1 of 13

#### ADMINISTRATIVE COSTS

- 1. Enbridge has been engaged in taking all the necessary steps to be business ready for the implementation of Ontario's Cap and Trade Program on January 1, 2017. As filed in EB-2015-0114, Exhibit I.D2.EDGI.CCC.3 on November 9, 2015, Enbridge's administrative costs will include, but not limited to: consulting costs; IT billing system changes; costs of completing measurement, verification and reporting of greenhouse gas ("GHG") emissions; costs for implementation of a carbon strategy; legal and consulting support; customer communication and education efforts; employee education; and Ontario Energy Board Framework Consultation costs.
- This Exhibit will provide transparency around the administrative costs incurred and forecasted up until January 1, 2017. It will also forecast costs to be incurred during 2017.
- 3. As further discussed in Exhibit F, Tab 1, Schedule 1, the Board approved the Greenhouse Gas Emissions Impact Deferral Account ("GGEIDA") in Enbridge's Custom Incentive Regulation ("CIR") proceeding (EB-2012-0459) in recognition of the potential for a future government program to reduce GHG emissions.
- 4. Enbridge has and will continue to record administrative costs incurred until January 1, 2017 for implementation of its Cap and Trade program in the 2016 GGEIDA. Moreover, the Company will track administrative costs incurred from January 1, 2017 to December 31, 2017 in a 2017 GGEIDA, as discussed in Exhibit F, Tab 1, Schedule 1. Enbridge will seek approval from the Board for disposition of the 2016 GGEIDA in 2017 as part of its 2016 deferral and variance

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6

Page 2 of 13

account clearance application or when filing the next Compliance Plan application by August 1, 2017. Similarly, the Company will seek recovery of the 2017 GGEIDA in 2018 as part of its 2017 deferral and variance account clearance application or as part of the Company's 2019 Compliance Plan filing in August of 2018.

- 5. Recognizing that a Cap and Trade program is incremental to the Company's current business, but also recognizing that some costs around GHG reporting are already in place and captured through the existing rates, Enbridge is seeking to take a systematic approach to reviewing costs to determine if they are currently captured in existing rates.
- 6. Enbridge has applied a key criterion for the purpose of determining the appropriateness of including costs in the GGEIDA. The criterion is that all costs included in the GGEIDA be incremental to the Company's current business and required for the purposes of the Company meeting its Cap and Trade requirements.
- 7. At the time of this filing, Enbridge recognizes that it has and will incur administrative costs for both 2016 and 2017. Enbridge seeks to be as transparent as possible in identifying incremental Cap and Trade costs in this Exhibit. Section A below identifies the administrative costs that will be incurred or have been incurred in 2016. Section B outlines the estimated administrative costs that will be incurred in 2017.

### A. 2016 Administrative Costs

8. Costs undertaken to date and through to the end of 2016 associated with business readiness include: IT billing system updates, resourcing for implementation, carbon

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 3 of 13

market knowledge, customer education and outreach, consulting support on carbon strategy development, and external counsel and regulatory support.

#### IT Billing System

9. In order to be business ready for January 1, 2017, Enbridge required an update to its IT billing systems for mass market, unbundled and bundled customers. The work involved development, coding and testing. The capital cost of the updates is forecasted to be \$516,000 in 2016, with an in-service date of January 1, 2017. The capital costs incurred in 2016 will not be sought for recovery through the 2016 GGEIDA. The annual revenue requirement associated with the IT billing system update will be captured and sought for recovery through the GGEIDA, until the impact can be incorporated into Enbridge's delivery rates, which is expected in 2019. The 2017 revenue requirement is further articulated in Section B: 2017 Administrative Costs.

#### Staffing Resources

- 10. Enbridge has devoted a significant amount of staff and managerial time and effort to ensure the business is ready on January 1, 2017. In 2016, Enbridge assembled a Cap and Trade focused team of four employees at a forecasted cost of \$750,000 which will be sought for recovery through the 2016 GGEIDA. The aforementioned costs cover governance development, Compliance Instrument Tracking System Service registration, overall portfolio development, business readiness, stakeholder relations and communications, regulation review and translation relative to Cap and Trade, and carbon procurement related accounting research.
- 11. Other employees from within the organization have provided part-time Cap and Trade readiness assistance. Additional assistance cannot be precisely quantified

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 4 of 13

but is estimated at approximately two to three FTEs, spread out between a number of employees in Regulatory, Finance, Gas Supply, Legal, IT, Public and Government Affairs and Customer Care. The Company is not seeking cost recovery in relation to the additional assistance through the GGEIDA but reserves the right to articulate the additional work absorbed by non-incremental employees as productivity gains.

#### Market Intelligence and Consulting Support

- 12. To assist Enbridge in the development of its Compliance Plan, inclusive of its procurement strategy, Enbridge has retained an expert third party Procurement Consultant (the "Consultant"). The Consultant provided the following: a Carbon Market Report and a Carbon Strategy Report. Enbridge will also be provided with one year of GHG Market and Regulatory Monitoring Services and expert witness support, as necessary. These costs will amount to \$84,000 USD, plus any relevant costs associated with expert witness support prior to December 31, 2016.
- 13. ICF International ("ICF") was retained to provide Enbridge assistance in the analysis and review of the Ontario government's Climate Change Mitigation and Low-carbon Economy Act, 2016 and related Cap and Trade Regulation. These services were retained to ensure that Enbridge had a strong foundational understanding and interpretation of the Ontario government's Climate Change Policy and Cap and Trade Regulation. The total cost for ICF's support is \$187,000.
- 14. In order to effectively implement a Cap and Trade program, Enbridge has developed a Cap and Trade market intelligence which will allow it to remain abreast of market and policy activity that impact both the Ontario and other Cap and Trade markets. To this end, Enbridge joined the International Emissions Trading

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 5 of 13

Association ("IETA") in early 2016 in order to gain broad and market specific intelligence on carbon trading, offsets and related policy developments. These areas of knowledge will allow Enbridge to provide thoughtful input into the development of its Compliance Plan. Enbridge negotiated a prorated amount for its 2016 membership that took account of the March 1 start date at a cost of \$20,000 CAD. This membership is effective until December 31, 2016. Enbridge has taken full advantage of this membership in gaining market and offset insight through attendance at working group meetings and their recent conference, "Ontario's Carbon Opportunity".

- 15. Enbridge has also subscribed to a market intelligence service platform provided by Californiacarbon.info ("CC"). CC is a web based information platform that provides up to date information on California's over-the-counter market, offsets, price forecasts, and carbon and environmental policy related news. Currently, the service focuses on the California market; however, in discussion with CC, it intends to incorporate Ontario-specific information once available. The prorated cost of this service in 2016 is \$4,500 USD.
- 16. As this new market in Ontario develops, Enbridge must remain current on carbon market and environmental related information as well as regulatory and legislative changes. The Company acknowledges that this market is complex and will continue to develop. Enbridge believes that CC and IETA will help the Company remain at the leading edge of the carbon market. This market knowledge will further lend to the development of a cost effective and flexible Compliance Plan.
- 17. Enbridge estimates an amount of \$16,000 for participation in educational events pertaining to the Ontario and other jurisdiction's Cap and Trade programs. These

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 6 of 13

funds were/will be used to allow employees to attend conferences and trade shows, inclusive of incidental fees. Ontario's Cap and Trade program is new. It is important for Enbridge to remain current with industry information. Such trade shows and conferences will provide this avenue. Armed with most current information, Enbridge will be able to make informed decisions based on the current and future outlook of Ontario's Cap and Trade market.

#### <u>Customer Education and Outreach</u>

18. Enbridge has incurred approximately \$46,000 associated with its customer outreach and education activities in 2016. This cost is comprised of two components: 1) customer focus groups; and 2) design and printing of customer bill inserts. Focus groups were completed to gain knowledge regarding utility-specific Cap and Trade messaging. Such knowledge was used to help craft and communicate messages prior to implementation of the Ontario government's Cap and Trade program. The standalone Cap and Trade bill insert was provided with November bills to educate all customers about Cap and Trade.

### External Legal Counsel

19. Enbridge estimates that it will incur approximately \$125,000 in external legal counsel fees in 2016. Services provided to Enbridge include: assistance with its Regulatory submissions and detailed analysis of all Cap and Trade regulatory documents.

## OEB Cap and Trade Framework Regulatory Proceedings

20. No proceedings have taken place or are anticipated for the Cap and Trade file in 2016. As such, Enbridge has not anticipated any application of costs by the Board in the 2016 budget below.

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 7 of 13

21. Table 1 below outlines each cost element and the forecasted amount.

Table 1: 2016 Cost Elements and Forecasted Amounts<sup>1</sup>

Cost Element	Forecasted Amount
IT billing system	\$516,000
Staffing resources	\$750,000
Market Intelligence, and Consulting Support	\$335,000
Customer Education and Outreach	\$46,000
External Legal Counsel	\$125,000
OEB Cap and Trade Framework Regulatory Proceedings	\$0
TOTAL	\$1,772,000

#### B. 2017 Administrative Costs

22. Enbridge is proposing to record administrative costs incurred, commencing January 1, 2017, in the 2017 GGEIDA. While certain costs are unknown at this time (for example, costs payable in respect of this Cap and Trade Compliance Plan proceeding), the Company is in a position to estimate certain administrative costs that will be incurred in 2017. Given that there are certain costs which cannot be identified or fully known, Enbridge is proposing the continuance of the GGEIDA, which is appropriate as Enbridge's CIR did not include any administrative costs in respect of Cap and Trade. As stated above, the Company will seek approval for disposition of all 2017 GGEIDA costs in 2018 as part of its 2017 deferral and

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

<sup>&</sup>lt;sup>1</sup> Where costs have been converted from USD to CAD, a 1.2959 exchange rate has been applied.

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 8 of 13

variance account clearance application or as part of the Company's 2019 Compliance Plan filing in August of 2018.

# Revenue Requirement Implication of IT Billing System Upgrades and Potential Future Changes

- 23. As outlined in respect of 2016 administrative costs, Enbridge incurred costs to reconfigure its IT billing systems to be business ready for January 1, 2017. It is proposed that Enbridge record in the 2017 GGEIDA, the 2017 revenue requirement implications of these 2016 capital upgrades, which has been estimated at \$76,100. Consistent with other IT billing system upgrades, these costs will be depreciated over approximately five years, beginning January 1, 2017. The Company notes that additional IT system changes may be required in 2017. At this time, the extent of these costs is unknown. Any revenue requirement implications of any eligible spending would also be recorded in the 2017 GGEIDA.
- 24. Following the implementation of the IT billing system on January 1, 2017, the Company will enter the warranty period. The costs associated with this warranty period are not included in Table 1. Warranty costs cannot be estimated.

#### Staff Resources

25. As noted in respect of 2016 administrative costs, the Company has a team dedicated to the Cap and Trade program. Although some activity will start to evolve as Enbridge moves from business readiness activity to implementation and sustainment, Cap and Trade devoted staff are still necessary to maintain statutory compliance and there will be a requirement to hire additional staff.

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 9 of 13

26. Enbridge estimates that it will require seven full time equivalents ("FTEs"). Most of these staff were in place in 2016 and their ongoing effort will be needed in 2017 and beyond. The salary and benefits of these staff to ensure statutory compliance will be added to the 2017 GGEIDA. This staff will have responsibility of overall portfolio management and monitoring, customer outreach and communication, Cap and Trade related policy engagement, incremental GHG reporting and verification, development and continuous improvement of an emission allowance procurement strategies, Board required monitoring and reporting activity, related accounting, and administrative functions. This will also include future Board regulatory filings and proceedings that require Cap and Trade intelligence. The Company notes that these positions are critical to the sustainment of Enbridge's Cap and Trade program. The launch of the Cap and Trade program represents a new complex financial market. In order for Enbridge to continue to develop and maintain an effective portfolio for its customers, the Company must maintain diligent and dedicated oversight of the developing carbon market and any associated regulation. Enbridge maintains that this can only be completed provided that a dedicated team is assigned to the Cap and Trade program.

## Implementation, Market Intelligence and Consulting Support

27. Enbridge recognizes that it will incur implementation, market intelligence and consulting support for the continued evolution of its carbon strategy in 2017. It is important to note that these activities have been estimated, based on experience in 2016, and the anticipation of future costs in 2017, at \$561,000. In 2017, the Company will continue all market intelligence and monitoring services initiated in 2016. Additionally, Enbridge has identified implementation components that include development of a Company specific marginal abatement cost curve, brokerage services, assistance with offset regulations and implementation, administrative

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 10 of 13

support including additional IT upgrades for carbon procurement tracking, attendance at applicable Cap and Trade conferences, and consulting support in the development of a procurement strategy for its 2018 Compliance Plan. Enbridge acknowledges that administrative costs will be captured in the 2017 GGEIDA and will be sought for clearance to rates in 2018 as part of its 2017 deferral and variance account clearance application or as part of the Company's 2019 Compliance Plan filing in August of 2018.

# External Legal Counsel & OEB Cap and Trade Framework and Other Regulatory Proceedings

28. Enbridge acknowledges that it will incur external legal costs in respect of the Cap and Trade Framework proceeding. This amount has been estimated at \$125,000 based on forecasted 2016 costs and will be recorded in the 2017 GGEIDA when realized. Additional external legal costs may be incurred in respect of the Cap and Trade Framework proceeding as well as costs payable to the Board and other participating parties. These additional costs are unknown and hence not forecasted at this time.

## Incremental Cap and Trade related GHG Reporting and Verification

29. Ontario Regulation 143/16, Quantification, Reporting and Verification of Greenhouse Gas Emissions require that natural gas distribution companies begin quantifying, verifying and reporting customer-related and operational GHG emissions. In 2017, Enbridge will report emission associated with combustion (ON.20), emissions from venting/flaring/fugitive (ON.350) and customer-related emissions (ON.400). The Ministry only requires that combustion emissions (ON.20) are verified in 2017; however, Enbridge intends to complete a pre-assurance verification audit of customer-related emissions to ensure readiness for subsequent

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 11 of 13

years' third party verification audits. To enable this pre-assurance audit, Enbridge forecasts to incur an additional cost of \$20,000 in 2017.

#### <u>Customer Education and Outreach</u>

- 30. As detailed in Exhibit E, Tab 1, Schedule 1, Enbridge will continue to communicate with its customers regarding the impacts of Cap and Trade in 2017. In order to assist customers in reducing their GHG footprint and ultimately assist in achieving the Province's GHG reduction goal, Enbridge will continue to inform customers about energy efficiency programs and opportunities. A communication plan is available at Appendix B, to Exhibit E, Tab 1, Schedule 1.
- 31. The Company estimates that it will incur approximately \$115,000 in customer outreach and education costs during 2017. This forecast amount includes call centre training, bill inserts and/or messaging, customer research including focus groups around Cap and Trade messaging, and miscellaneous outreach activity (e.g., printing materials for trade shows, etc.). The continuation of Enbridge's customer outreach and education initiatives will help ensure that customers are kept informed about the program and its greater impacts.

#### **Bad Debt Provision**

32. In Enbridge's 2014-2018 CIR proceeding (EB-2012-0459), the Company did not anticipate or forecast any bad debt expense that will arise due to the Cap and Trade regime. Given the material impact that customer and facility-related costs will necessarily have on customer bills, Enbridge has estimated the forecast impact on the bad debt expense at \$900,000. This estimate is based upon a 10% increase in billed revenue as a result of Cap and Trade, and then applying that 10% increase to the Company's forecasted bad debt for 2017 of \$9.796 million as filed in

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 12 of 13

EB-2012-0459. Enbridge proposes that incremental bad debt amounts be recorded in the 2017 GGEIDA.

## **Income Tax Implication**

33. Enbridge recognizes that there may be income tax implications associated with the Company's Cap and Trade program. To the extent that any income tax implications are realized that need to be reflected through the rate-setting process, Enbridge will seek to address such amounts through a future Compliance Plan filing. In effect, Enbridge will seek to address any required income tax implications associated with its 2017 Cap and Trade activities, through its 2019 Compliance Plan filing, in August 2018. With respect to the 2017 administrative costs the following elements are anticipated: revenue requirements for billing system changes, staff resources, market intelligence and consulting support, conference, trade shows and incidental fees, external legal counsel, regulatory proceedings, customer education and outreach, bad debt and income tax implications. Table 2 summarizes the most current estimate of such costs, recognizing that there are still costs that are unknown and subject to change.

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 3 Schedule 6 Page 13 of 13

Table 2: 2017 Forecasted Cost Elements and Amounts<sup>2</sup>

Cost Element	Forecasted Amount
Revenue requirement implications of IT billing system upgrades and potential future changes	\$76,100
Staffing Resources	\$1,120,000
Implementation, Market Intelligence, and Consulting Support <sup>3</sup>	\$561,000
External Legal Counsel	\$125,000
OEB Cap and Trade Framework and Other Regulatory Proceedings	Unknown at this time
Incremental Cap and Trade related GHG Reporting and Verification	\$20,000
Customer Education and Outreach	\$115,000
Bad Debt Provision	\$900,000
Income Tax Implication	Unknown at this time
TOTAL	\$2,917,100

<sup>2</sup> Where costs have been converted from USD to CAD, a 1.2959 exchange rate has been applied.

Witnesses: A. Langstaff

D. McIlwraith

F. Oliver-Glasford

R. Small

<sup>&</sup>lt;sup>3</sup> Implementation, Market Intelligence and Consulting Support have been provided on a best guess basis, recognizing that the Company does not have experience with implementing Cap and Trade and thus may have under or over forecasted at this time.

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 1 of 1

## <u>RISK MANAGEMENT – IDENTIFICATION</u>

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: M. Kirk

A. Langstaff J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 5 Schedule 1 Page 1 of 4

#### LONGER TERM INVESTMENTS

- 1. Although Enbridge's Compliance Plan is for 2017 only, the Company recognizes that there is a longer-term context within which it exists. Seeking to project out beyond the one-year Compliance Plan into the five to 10-year timeframe is an important aspect of developing the Company's market understanding and a critical step in its preparation for subsequent Compliance Plan submissions. The information detailed below includes examples of the type of long-term compliance and investment options that Enbridge may consider in subsequent years. The Company acknowledges that this information is being presented for contextual purposes, and notes that Enbridge is not looking for approval from the Board with respect to these options at this time.
- 2. Enbridge will divide its longer-term investments into two segments: customer-related investments and Company facility-related investments.
- 3. Inherently, any longer-term investment that Enbridge undertakes will aim to either reduce the absolute natural gas throughput or natural gas usage intensity. Enbridge adds numerous natural gas customers to its distribution network annually. Natural gas intensity is a metric that will enable Enbridge to identify usage per customer as opposed to total throughput. Said another way, Enbridge's total throughput may increase annually due to new customer additions. Customer-related abatement investments would therefore, aim to reduce customer natural gas intensity (or natural gas usage per customer).
- 4. A full discussion of risks, with a focus on shorter-term risks, is included in Exhibit C, Tab 4, Schedule 1.

Witness: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 5 Schedule 1 Page 2 of 4

- 5. Enbridge recognizes the need and its role in reducing Greenhouse Gas ("GHG") emissions. The company is interested in delivering long-term strategies and energy solutions that foster the development of a low-carbon economy. These areas of interest include:
  - a. Publicly tracking and reporting on efforts to reduce direct and indirect GHG emissions;
  - b. Delivering residential, commercial and industrial Demand Side Management ("DSM") programs, fuel switching options, low-carbon technology support and renewable energy integration for our natural gas customers to help them use energy more wisely, reducing their energy, carbon-related costs and individual carbon footprint;
  - c. Investigating, in the context of the ongoing Integrated Resource Planning ("IRP") study, the broad-based DSM impacts and planning forecasts on infrastructure investment, the potential direct impact of DSM on subdivision planning, and the potential direct impact through targeted DSM to defer reinforcement projects;
  - d. Building a portfolio of investments in renewable energy projects;
  - e. Investing in the development and construction of decarbonization technologies, such as Power-to-Gas; and
  - f. Working with governments, businesses, environmental organizations and communities on new solutions to address climate challenges.

Witness: A. Langstaff

J. Murphy

F. Oliver-Glasford

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 5 Schedule 1 Page 3 of 4

### 6. Long-term compliance options may include:

Compliance Option	Description	OEB MACC
Renewable Natural Gas	The injection of pipeline grade biogas – created as a bi-product of agricultural activity, wastewater treatment sites, and refuse disposal sites – into the natural gas pipeline for use by all customers.	N/A
Demand Side Management (DSM) and Low- carbon technologies	The delivery of energy efficiency programming after the completion of the Board approved 2016 – 2020 DSM Plan. This may include initiatives in all market sectors representing energy efficiency retrofits for homes and businesses, control systems and behavioural programming, high efficiency/low carbon technology upgrades, and industrial process efficiency programs. Incorporating the effects of DSM, and potential other factors that may result in a reduction in natural gas throughput, and on future infrastructure planning efforts.	N/A
Fuel Switching	Fuel switching non-customers currently on propane and heating oil to either natural gas or electricity-based options; or switching current customers onto net negative emission solutions that may include geothermal, air source heat pumps, other renewables such as solar and wind, and district energy.	N/A
Fugitive/Venting Emission Reductions	Enbridge is reviewing opportunities to reduce fugitive and venting emissions, which may include asset replacement or upgrade projects, improved asset or work management practices and implementation of new technologies.	N/A
Other	Enbridge is constantly looking for and is open to ideas on other long-term emission reduction opportunities.	N/A

7. Enbridge has begun the process of considering long-term strategies to reduce facility-related and customer-related GHG emissions, as laid out in Exhibit C, Tab 3, Schedule 4, Exhibit C, Tab 3, Schedule 5, and Exhibit C, Tab 6, Schedule 1. It is the Company's expectation that any plans for longer-term investments will be

Witness: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 5 Schedule 1 Page 4 of 4

presented to the Board for consideration as part of future rate applications or projectspecific leave to construct applications.

Witness: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 6 Schedule 1 Page 1 of 2

### NEW BUSINESS ACTIVITIES

- 1. In response to the Climate Change Mitigation and Low-carbon Economy Act, 2016 ("Climate Change Act") and the Province's Climate Change Action Plan ("CCAP"), Enbridge has begun the process of evaluating longer-term Greenhouse Gas ("GHG") emission reduction strategies, some of which would entail the investment in capital assets and infrastructure. This infrastructure is likely to be long lived and as such it would be appropriate to recover the cost of these assets and their related operating and maintenance costs over a number of years. This has been contemplated by the Board in its Framework, where the Board indicates that it expects natural gas distribution utilities to make longer-term investments related to GHG mitigation. The Board also states that where the life of these investments or activities is to extend beyond three years or longer, or at least as long as a single Compliance Period, the Board will consider such investments or activities as part of a utility's long-term strategy for compliance.
- 2. As noted, Enbridge has begun to investigate potential longer-term GHG emission mitigation strategies. Some are likely to entail the investment in plant and equipment designed to either reduce fugitive emissions stemming from the operation of the Company's natural gas distribution system. Others are intended to result in reduced GHG emissions due to reduced consumption of natural gas by its customers. Although the Company has a number of potential GHG mitigation initiatives currently under consideration, Enbridge is not in a position to present specific proposals related to these initiatives to the Board at this time.
- 3. The Company expects that over the course of the next year, specific plans for GHG mitigation programs and projects will evolve to the point where they can be presented to the Board with intended implementation in the next compliance

Witness: S. McGill

Filed: 2016-11-15 EB-2016-0300 Exhibit C Tab 6 Schedule 1 Page 2 of 2

periods. Such plans will set out elements of the Company's longer-term GHG mitigation strategy and include forecasts of planned capital and operating expenditures related to such programs or projects. It is the Company's expectation that these plans and related investments will be presented to the Board for consideration as part of a future rate application or project specific leave to construct application.

4. As contemplated in the Framework, certain of the proposals to reduce emissions brought before the Board for consideration by the Company may constitute new business activities. Enbridge has not included any new business activities in this Compliance Plan. The Company expects that some of the carbon abatement initiatives it proposes in the future may constitute new business activities that may not necessarily fit within the scope of the Company's current regulatory construct. If such activities are proposed in a later compliance plan, the Company will seek the required authorization from the Board and/or the provincial government before commencing with such activities.

Witness: S. McGill

Filed: 2016-11-15 EB-2016-0300 Exhibit D Tab 1 Schedule 1 Page 1 of 5

### MONITORING AND REPORTING

- 1. In its Framework, the Board sets out a requirement for annual reporting by the Utilities on the results of their Cap and Trade activities to support the Ontario Energy Board's (the "Board") assessment of future plans for cost-effectiveness and to identify whether the Utilities are improving their planning and delivering greater value to customers. As noted at page xi of Appendix A: Filing Guidelines for Natural Gas Utility Cap and Trade Compliance Plans, annual reports are required to include:
  - Auction transactions (including quantity, bidding price, settlement price and total cost)
  - Summaries of offsets and secondary market transactions
  - Any other cap and trade activities that the applicant participated in
  - Costs per tonne (\$/tCO<sub>2</sub>e) of each compliance instrument or activity
  - A comparison of costs of investing in GHG abatement activities versus procuring emissions units over the short-term and long-term
- 2. To address these metrics Enbridge proposes three report templates as a starting point, as illustrated later in this schedule for the annual monitoring report. The annual report will include a spreadsheet to capture all compliance instrument transactions throughout the year, a summary of the various compliance instruments noting their respective costs per tonne, and a review of the Compliance Plan forecasts versus actuals with a section to capture variance explanations. Supporting qualitative and quantitative documentation will also be submitted with the annual report which will allow the Board to better understand the execution and performance of the Compliance Plan.
- 3. In addition to these three report templates, Enbridge has proposed an additional performance metric in Exhibit C, Tab 3, Schedule 1 that it is prepared to provide in

Witness: A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit D Tab 1

Schedule 1 Page 2 of 5

its annual report. Enbridge will also disclose in the annual report its fulfillment of the governance that has been outlined in Exhibit C, Tab 1, Schedule 1. This will provide transparency about the Company's processes that promote plan optimization and prudency in decision making all of which is intended to protect the interests of consumers.

- 4. As set out in the Framework, Enbridge will file its 2017 annual monitoring report by August 1, 2018, to align with the Company's next Cap and Trade Compliance Plan. Furthermore, Enbridge will highlight legislated requirements for confidentiality when filing annual reports with the Ontario Energy Board.
- 5. As Enbridge becomes more familiar with Cap and Trade, it will work with the Utilities and the Board-established working group to consider and refine the metrics and facilitate monitoring and reporting activities.

Witness: A. Langstaff J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit D Tab 1 Schedule 1 Page 3 of 5

### **Proposed Reporting Templates**

### 6. Compliance Instrument Transaction Ledger

The Compliance Instrument Transaction Ledger outlines the pertinent details to instrument transactions during the year including transaction date, compliance instrument type, quantity, bid price, settlement price per tCO<sub>2</sub>e, total cost of the transaction, a cumulative total of the GHG emission units in Enbridge's possession, and the running weighted average cost of compliance ("WACC")<sup>1</sup>. The Compliance Instrument Transaction Ledger template will expand to cover each month of the year. At the end of the year, it will provide a full record of the transactions undertaken.

1. Compl	iance Instrum	ent Transaction	Ledger					
Month	Transaction Date	Compliance Instrument	Quantity (tCO2e)	Bidding Unit Price (\$/tCO2e)	Settlement Unit Price (\$/tCO2e)	Total Cost (\$)	Cumulative Inventory Balance (tCO2e)	Cumulative WACC (\$/tCO2e)
Jan-17								
Jan-17								
Jan-17								
Jan-17								
Jan-17								
Feb-17								
Feb-17								
Feb-17								
Feb-17								
Feb-17								
*January and February shown for illustrative reasons, additional months to be added in submitted annual report								

Witness: A. Langstaff J. Murphy

<sup>&</sup>lt;sup>1</sup> WACC is the weighted average cost of compliance (instruments).

Filed: 2016-11-15 EB-2016-0300 Exhibit D Tab 1 Schedule 1 Page 4 of 5

### 7. Compliance Instrument Summary

The Compliance Instrument Summary provides an aggregated view of each compliance instrument. It outlines for each compliance instrument, the total quantity purchased during the year, the percentage that it makes up of the portfolio, the total cost and the cost per tonne.

2. Compliance Instrument Summary				
	Total Quantity Purchased	Percentage of Portfolio	Total Cost	Cost per Tonne (\$/tCO2e)
Auction Allowances				
Allowance Bi-laterals				
Allowance Futures				
Allowance Forwards				
Offsets				
Offset Futures				
Allowance Derivatives				
Totals				

### 8. Compliance Plan – Forecast versus Actual Summary

The Compliance Plan – Forecast versus Actual Summary is formatted based on the outline provided in the Framework. In the Company's annual report, both the "Plan" and the "Actual" columns will be populated for a consistent assessment of forecast versus actuals on a number of metrics. Enbridge also expects that in addition to quantitative data, qualitative information shall be provided where necessary to provide context on activities undertaken.

Witness: A. Langstaff J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit D Tab 1 Schedule 1 Page 5 of 5

**Actual** 

### 3. Compliance Plan - Forecast versus Actual

Allowances (Auction Confidential and Market Sensitive)
# of allowances procured
Price of allowances

<u>Plan</u>

Timing of procurement Total cost

Cost per tonne of GHG

Offset credits (Market Sensitive)
# of offset credits procured
Price of allowances
Timing of procurement
Total cost
Cost per tonne of GHG

Abatement activities - customer-related
Type of program
Total cost
 GIF volume
 GIF price
GHG reduction
Cost per tonne of GHG reduction

Abatement activities - facility-related Type of program Total cost GHG reduction Cost per tonne of GHG reduction

Witness: A. Langstaff J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Page 1 of 7 Plus Appendices

### **CUSTOMER OUTREACH AND INFORMATION**

- Enbridge is committed to communicating with customers about changes that are expected to impact them and their bills. As a result, the Company proactively began communicating with customers about Cap and Trade in 2016.
- 2. In the Framework on page 35, the Ontario Energy Board ("Board") indicates that it "considers appropriate customer outreach and information to be essential as customers need to understand the Cap and Trade program and the way in which the program will affect their bills." Enbridge agrees.
- 3. The Framework specifically recognizes the "Utilities' direct and ongoing relationship with their customers." Given this, the Utilities have been entrusted with the determination about how best to communicate with their customers about Cap and Trade. Enbridge has duly noted the Board's outreach objectives in developing its customer information plan. These objectives include:
  - a. Improve customer awareness of the government's climate change actions including the Cap and Trade program;
  - b. Provide an explanation of the Utilities' role in relation to emissions reduction, and the two types of emissions – facility-related and customerrelated;
  - c. Provide an understanding of the regulatory review and approval of Utility costs of compliance that will occur before customers will be charged; and,
  - d. Provide customers with information on how to manage their GHG emissions and reduce their bills by reducing gas consumption.

### Cap and Trade Customer Outreach and Information 2016

Witnesses: R. DiMaria

D. McIlwraith

C. Meyer

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Page 2 of 7 Plus Appendices

- Enbridge began communicating about Cap and Trade with customers in 2016.
   Messages in 2016 included the following:
  - a. Cap and Trade is a new government program intended to reduce GHGs with funds collected directed to GHG reduction initatives
  - b. Cap and Trade will impact natural gas bills starting in January 2017
  - c. Company energy efficiency programs and tips can help reduce GHGs and costs
  - d. The Company is required to acquire GHG allowances to cover the emissions for the natural gas consumed by residential and business customers; some businesses with large emissions may need, or will be able, to acquire their own emission allowances
  - e. The Board will review and approve Cap and Trade rates before we pass it through to customers
  - f. Business customers need to understand what Cap and Trade means to them and have been directed to: Ontario.ca/capandtrade
- 5. As additional details about Cap and Trade are known, the Company will update its messages.
- 6. The channels used to deliver messages in 2016 include bill inserts, the call centre, the bill and bill envelope and the Enbridge website. See attached August 2016 customer newsletter (Exhibit E, Tab 1, Schedule 1, Appendix B), November 2016 bill insert (Exhibit E, Tab 1, Schedule 1, Appendix C), the December 2016/January 2017 bill envelope message (Exhibit E, Tab 1, Schedule 1, Appendix D), and sample bill mock ups (Exhibit E, Tab 1, Schedule 1, Appendix E).

Witnesses: R. DiMaria

D. McIlwraith

C. Meyer

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Page 3 of 7 Plus Appendices

- 7. Enbridge provided information about Cap and Trade broken out by business and residential customers on its website.
- 8. Enbridge reached out to large volume businesses since cap and trade may affect these customers differently than mass market or business customers not eligible to participate in Cap and Trade directly.
- 9. In 2016, Enbridge shared information about Cap and Trade with large volume customers with volumes of more than 4 million cubic metres (m³) of natural gas in an effort to ensure that customers that potentially emit more than 10,000 tonnes of carbon dioxide equivalent (CO₂e) were aware that they may have to or may be able to voluntarily acquire their own customer-related allowances under Cap and Trade. The utility used a lower volume in an effort to capture large volume customers who may have other emissions the Company is not aware of since the Company recognizes that it does not have knowledge of total customer emissions from all sources.
- 10. The Company has asked these large volume customers to advise Enbridge if they are mandatory or voluntary participants in Cap and Trade.
- 11. Participation in Cap and Trade, as either a mandatory or a voluntary participant, will be confirmed with a declaration letter to make clear in which accounts the customer will hold customer-related Cap and Trade obligations. This will help minimize any risk that the Company and a customer both acquire allowances for the same facility.
- 12. To raise awareness with business customers who may be mandatory participants or able to apply to be cap and trade participants, the Company provided updates by email and shared copies of the Ministry of the Environment and Climate Change

Witnesses: R. DiMaria

D. Mcllwraith

C. Meyer

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Page 4 of 7 Plus Appendices

("MOECC") Cap and Trade fact sheet with customers when it became available. The fact sheet included Cap and Trade deadlines and contact information for Ontario businesses with questions about GHG reporting requirements, the Compliance Instrument Tracking System Service ("CITSS") system for Cap and Trade participants and the Cap and Trade program.

13. Enbridge also included Cap and Trade as a topic in its annual in person large volume customer meetings in June 2016. The Company invited the Ministry of the Environment and Climate Change's Manager of the Cap and Trade Section, Air Policy Instruments and Program Design Branch, Climate Change and Environmental Policy Division to speak to customers at the event and participate in a question and answer period. The presentation is included in Exhibit E, Tab 1, Schedule 1, Appendix H. Enbridge presentations were also delivered to business customers to highlight the potential customer and facility-related rate impacts and the role of energy efficiency in reducing both Cap and Trade costs that they would otherwise pay as well as GHGs. The Enbridge presentations are included in Exhibit E, Tab 1, Schedule 1, Appendix F and Exhibit E, Tab 1, Schedule 1, Appendix G. Following these presentations, customers were also able to ask questions of presenters. The presentations were posted on the industrial customer portal for customers who did not attend in person. Customers were directed to Ontario.ca/capandtrade for specific Cap and Trade related questions including questions about GHG reporting.

### **Cap and Trade Customer Outreach and Information 2017**

14. Enbridge will continue its efforts to proactively communicate about the Cap and Trade program. Attached in Exhibit E, Tab 1, Schedule 1, Appendix A is the 2017

Witnesses: R. DiMaria

D. McIlwraith

C. Meyer

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Page 5 of 7 Plus Appendices

communication plan. This plan will be updated as additional information about Cap and Trade is known, including as the regulatory process evolves and as the Company receives customer feedback.

- 15. The Company will continue to leverage existing communication channels including the Company's website via a dedicated landing page (enbridgegas.com/capandtrade), through the call centre and via bill inserts.
- 16. As proposed by the Board, Enbridge will include a new message on the bill to advise customers that applicable Cap and Trade costs will be included in the Delivery line on the bill. Starting in December 2016 a temporary message will be included on page 1 of the bill under the "Messages from Enbridge" section of customer bills. A Cap and Trade message will then shift to a permanent location as part of bill presentment anticipated in April 2017. Exhibit E, Tab 1, Schedule 1, Appendix E consists of draft layouts that illustrate the tentative location and progression of on bill messages. The message will highlight that applicable Cap and Trade charges are part of the 'Delivery to You' line on customer bills and direct customers to the website for information.
- 17. As directed by the Board in its July 28, 2016 early determination and subsequently released Framework, Enbridge will include both the customer-related and facility-related Cap and Trade rates in the tariff sheets available on the Company's website.
- 18. Research will be used where necessary to help ensure that Company communications about Cap and Trade are clear and resonate with customers.

Witnesses: R. DiMaria

D. Mcllwraith

C. Meyer

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Page 6 of 7 Plus Appendices

### Large volume customer communications and outreach

- 19. The Board has noted that it is important to provide large volume customers with the information they need to better understand energy costs so that they can make appropriate choices about their energy use.
- 20. Enbridge will also ensure that tailored communications for large volume customers continue and are further developed and implemented to update them as necessary about rate changes and any other pertinent information. Communication will occur via direct communication through the Customer's Enbridge Account Executive, the website, email as well as large volume customer annual meetings. A webinar is planned to educate large volume customer about their bill and Cap and Trade charge. Future webinars may be held based on customer feedback. Business Account Executives will also be available to discuss specific billing questions with individual customers.
- 21. The Board requires the Utilities to separately identify charges associated with the recovery of Cap and Trade program compliance on their tariff sheets which are posted on Utility websites. Utilities are also expected to notify industrial and other large natural gas customers, along with gas-fired electricity generators, of the charges and any revisions to them.

To do this, Enbridge will leverage and expand existing communication processes for its Large Natural Gas Customers to include Cap and Trade information and updates. This communication will be led by Account Executives and will include regular email updates about rate changes listed in tariff sheets and other relevant information, one-on-one meetings and making annual requests for forecasted

Witnesses: R. DiMaria

D. McIlwraith

C. Meyer

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Page 7 of 7 Plus Appendices

volumes in the subsequent calendar year. (Prior to Cap and Trade, forecasted volumes were requested from all large volume customers with the exception of unbundled power generators.)

- 22. These same channels will be used to reach direct purchase agent broker markets which manage some of Enbridge's large volume customers.
- 23. Enbridge will also engage with large volume customers through their respective industry Associations such as the Industrial Gas Users Association ("IGUA") and the Association of Power Producers of Ontario ("APPrO").
- 24. Activities undertaken in 2016 will continue in 2017 and these efforts will be refined as Enbridge becomes more familiar with Cap and Trade and receives feedback from Large Volume Customers, direct purchase agent broker markets and large volume customer Associations.

Witnesses: R. DiMaria

D. McIlwraith

C. Meyer

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Appendix A Page 1 of 5

### **Enbridge Gas Distribution**

### 2017 Cap and Trade Customer Outreach and Communication Plan

### Context

Enbridge takes communication with its customers seriously and is committed to proactively communicating with customers about changes that will affect them.

In May 2016, the Government of Ontario passed the Climate Change Mitigation and Low-carbon Economy Act, 2016 and posted its related Cap and Trade regulation. These changes are part of its intention to lower greenhouse gas emissions (GHGs) as part of the province's climate change strategy. The Cap and Trade program begins on January 1, 2017. Enbridge Gas Distribution has a compliance obligation set out in both the law and regulation.

As a result of Cap and Trade, there will be costs related to the GHG emissions from natural gas used in Ontario homes and businesses. In its February 2016 Budget, the Ontario government estimated the cost of Cap and Trade will be about 3.3 cents per cubic metre (m³). The rate charged to customers will be determined through a regulatory process, and be reviewed and approved by the Ontario Energy Board (OEB) before it is passed through to customers.

Most customers will experience this as a new cost in the Delivery charge of their natural gas bills. There will be Cap and Trade costs related the natural gas that Enbridge facilities use in the business to deliver natural gas to customers and the natural gas that a customer uses.

Some business customers with large emissions will be required, or will be able, to acquire their own customer-related allowances. The Company would not charge these customers for the customer-related Cap and Trade costs as a result.

Cap and Trade is new in Ontario and as a result the Company will refine this plan as it and its customers become more familiar with the program, as details of Cap and Trade unfold and as it receives feedback from customers.

### **Objectives**

The Ontario Energy Board has set out four Cap and Trade-related communication and outreach objectives:

- a. Improve customer awareness of the government's climate change actions including the Cap and Trade program;
- b. Provide an explanation of the Utilities' role in relation to emissions reduction, and the two

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Appendix A Page 2 of 5

types of emissions – facility-related and customer-related;

- c. Provide an understanding of the regulatory review and approval of Utility costs of compliance that will occur before customers will be charged; and,
- d. Provide customers with information on how to manage their GHG emissions and reduce their bills by reducing gas consumption.

### **Target Audiences**

Cap and Trade program customer communications in 2017 will be focused on audiences including:

- Internal (primarily customer-facing staff)
  - Call centre/Large Volume Customer Account Executives
- Mass market customers
  - Residential customers
  - Low-income residential customers
  - Small business customers
- Business customers
  - o Gas-fired power generators
  - Mandatory Cap and Trade participants
  - o Customers who choose to opt-in as voluntary Cap and Trade participants
  - Potential Cap and Trade participants
- Customer Intervenors and Associations
- Media

### **Communication Themes**

To deliver on the Board's communication objectives, Enbridge will focus on Cap and Trade as it relates to its natural gas customers.

- 1. How Cap and Trade will affect customer bills
  - The Company will communicate to customers about
    - How Cap and Trade fits into the government's climate change actions, how it will
      impact customer bills and that the government has indicated that the funds
      collected through Cap and Trade will go to programs to reduce GHG emissions.
    - o The role of the Company including an explanation of facility-related costs
    - The Ontario Energy Board role in reviewing and approving Cap and Trade costs before they are passed through to customers and the annual true up process.
    - Link to Ontario.ca/capandtrade

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Appendix A Page 3 of 5

### 2. Ways to reduce GHGs and costs

• Since GHGs and the cost of Cap and Trade to customers is largely determined by the amount of natural gas a customer uses and costs related to Enbridge facility use of natural gas, the utility will highlight the role of energy efficiency in helping to reduce the GHG costs customers would otherwise pay.

### **Communications Strategy**

Information will be shared with customers across a variety of existing and relatively cost effective communication channels including but not limited to:

- Call centre and employee scripts and messages
- Website
  - Enbridgegas.com/capandtrade (residential and business pages) with embedded government video about Cap and Trade and link to Ontario.ca/capandtrade
  - o Interactive bill (add Cap and Trade reference to "Delivery to You" description)
- Tariff Sheets
- Bill insert(s)
- On bill messages
- On bill envelope message
- Media communications
- Presentations
- Engagement with social agencies delivering programs to low income customers and representatives such as the Low-Income Energy Network (LIEN) and Vulnerable Energy Consumers Coalition (VECC)
- Links to the Government's Cap and Trade website (Ontario.ca/capandtrade) for general information including GHG reporting and Cap and Trade help desk contact information for business customers
- Specific communication with large volume customers including the annual Large Volume
  Customer Meeting, Account Executive interactions such as one-on-one meetings, regular
  email updates, business Cap and Trade webpage and through engagement with associations
  such as the Industrial Gas Users Association (IGUA) and the Association of Power Producers
  of Ontario (APPrO)

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Appendix A Page 4 of 5

### **Timelines**

Communication about cap and trade began in 2016 and will continue in 2017 and throughout the Cap and Trade compliance period which extends to the end of 2020. The 2017 schedule below will be updated in part based on customer feedback. For example, a bill insert is budgeted however timing will be determined based on customer feedback so that its content can target any areas requiring clarification or additional information.

Month	Communication tactics include:
December 2016	<ul> <li>Account Executives email rate update to large volume customers including gas fired generators</li> <li>Tentative large volume customer webinar</li> <li>On bill message</li> <li>On bill envelope message</li> <li>Update website as required</li> <li>Update call centre scripts as required</li> <li>Cap and Trade rates in tariff sheets on website (when approved)</li> <li>Tentative large volume customer webinar</li> </ul>
January 2017	<ul> <li>On bill message</li> <li>On bill envelope message</li> <li>Updated website including cap and trade reference in interactive bill</li> <li>Update call centre scripts as required</li> <li>Update in existing email to large volume customers including gas fired generators if required</li> </ul>
February 2017	<ul> <li>Update in existing email to large volume customers including gas fired generators if required</li> <li>On bill message</li> </ul>
March 2017	<ul> <li>On bill message</li> <li>Update in existing email to large volume customers including gas fired generators if required</li> </ul>
April	<ul> <li>Bill presentment updated to include ongoing cap and trade message on bill</li> <li>Update in existing email to large volume customers including gas fired generators if required</li> </ul>
May	<ul> <li>Fall large volume customer meeting (Date TBC)</li> <li>Update in existing email to large volume customers including gas fired generators if required</li> </ul>
June	Update in existing email to large volume customers including gas fired generators if required
July	Update in existing email to large volume customers including gas fired generators if required

Filed: 2016-11-15 EB-2016-0300 Exhibit E Tab 1 Schedule 1 Appendix A Page 5 of 5

Month	Communication tactics include:
August	<ul> <li>Budget billing program communications to help customers create rate predictability</li> <li>Update in existing email to large volume customers including gas fired generators if required</li> </ul>
September	Update in existing email to large volume customers including gas fired generators if required
October	Update in existing email to large volume customers including gas fired generators if required
November	Update in existing email to large volume customers including gas fired generators if required
December	Update in existing email to large volume customers including gas fired generators if required



### Is Your Heating System Ready for Winter?

With summer's warm weather, you're probably not thinking about heating your home. However, your family's safety and comfort depends on the condition of your heating system.

Having your furnace and other natural gas appliances inspected by a certified technician will help identify any repairs or adjustments to be made before the cold weather arrives.

A well-maintained furnace is less likely to create dangerous carbon monoxide (CO) inside your home or to break down on the coldest days of the year. It will also run more efficiently, helping you use less natural gas and save money.

We don't inspect or service natural gas appliances, but we do have tips to help you find a technician at **enbridgegas.com/findcontractor**.





### Did you know?

- CO is a leading cause of accidental poisonings in Ontario every year.
- · CO alarms are the law in Ontario.

Learn more at **enbridgegas.com/cosafety**.

### Follow Us



Follow **@enbridgegasnews** to stay up to date with company news, events, natural gas safety tips and energy saving programs.



We recently launched our Instagram account. Search for 'enbridgegas' on the app or website to follow us.

Filed: 2016-11-15, EB-2016-0300, Exhibit E, Tab 1, Schedule 1, Appendix B, Page 2 of 2

### **Budget Billing Plan - Manage Winter Heating Costs**



Typically, about 60 per cent of natural gas use occurs between December and March, and our Budget Billing Plan (BBP) can help you avoid higher bills in those months. BBP doesn't reduce your yearly gas charges, but spreads them out more evenly over 10 installments from September to June.

In July, you're billed a final BBP installment, which reflects the difference between the installments you were billed through your plan and your charges for gas used. In August, you're billed for the gas you use.

Not already on BBP? Now is the best time to register to maximize the benefits of the plan.

### September 2016 Budget Billing Plan (BBP) Installments

If you are already on BBP, the new plan starts automatically in September. We review and revise monthly BBP installment amounts for the new plan.

The new monthly installment will be calculated to reflect normal winter gas usage and anticipated natural gas rates. You may see that your BBP amount has increased compared to the end of 2015-2016 plan. This is mainly a result of a warmer than normal winter in 2015-2016.

To learn more, or to register, visit enbridgegas.com/BBP.

### Cap and Trade in Ontario

### What is cap and trade?

Starting in 2017, the Province of Ontario will begin a cap and trade program for greenhouse gas (GHG) emissions which is intended to help fight climate change by reducing the emissions allowed across Ontario.

The government has indicated that it will then use the money generated from the sale of GHG allowances to pay for environmental initiatives that reduce GHGs, such as energy efficiency retrofits which help reduce energy use.

### How will cap and trade affect you?

As a natural gas distributor, Enbridge Gas
Distribution will be required by the government
to buy GHG allowances to cover the total GHG
emissions for the natural gas consumed by all of our
residential and most of our business customers.

The cost of these purchases will be passed back to customers. The government has estimated that

the cost of cap and trade on natural gas bills will be about 3.3 cents per cubic metre—that's about \$79 per year for a typical Enbridge residential customer\*. The rate will be adjusted periodically to reflect changes in the cost of GHG allowances that we have to purchase. The cost to you will depend on the actual price of allowances and how much natural gas you use. The Ontario Energy Board will review and approve cap and trade costs.

Some businesses with large GHG emissions may need, or will be able, to purchase their own emissions allowances. So, it's important for business customers to understand what it means to them.

Visit **enbridgegas.com/energyefficiency** for energy saving tips and how, together, we can help you lower your carbon footprint and save money.

For more information about cap and trade, watch for updates with your bill and visit **enbridgegas.com/capandtrade** or **ontario.ca/capandtrade**.

\*Calculations are based on estimated allowance costs only, do not include administration costs and assume that a typical residential customer uses about 2,400 cubic metres of natural gas a year for home and water heating.



### Visit Us

enbridgegas.com

Register for myEnbridge to manage your account online.





### In An Emergency

1-866-763-5427

Call us 24/7 to report the smell of gas or any other natural gas emergencies.



CallUs

1-877-362-7434

© Enbridge Gas Distribution Inc. 2016. Articles in this newsletter or any portion of it may not be copied or reprinted without the written permission of Enbridge Gas Distribution Inc. If you have any comments, questions or suggestions about this newsletter, please write to Public and Government Affairs, Enbridge Gas Distribution, P.O. Box 650, Scarborough, Ontario MIK 5E3, or email: enbridgesanews@enbridge.com.

CG.030.617 (Aug. 2016) 30264-I-0655

### Learn how cap and trade will affect your bill and what you can do to manage it.



In January, Ontario begins a cap and trade program as part of changes intended to lower levels of greenhouse gas (GHG) emissions across the province. As part of the program, there will be costs related to the GHG emissions from natural gas used in homes and businesses.



The government has indicated that the funds collected through cap and trade will go to programs – like energy conservation – to reduce GHG emissions.



We have information and programs that may help you reduce energy use and your overall energy and GHG emission costs. Learn more at **enbridgegas.com/capandtrade** and watch your bill for updates.



For our customers, cap and trade means you will pay for GHG emissions related to your use of natural gas. As your natural gas distributor, the government requires us to acquire GHG allowances to cover the emissions for the natural gas consumed by our residential and business customers. The cost of these allowances will be determined in part by the market and passed through to customers based on the amount of natural gas they use. Some businesses with large emissions may need, or will be able, to acquire their own emission allowances.

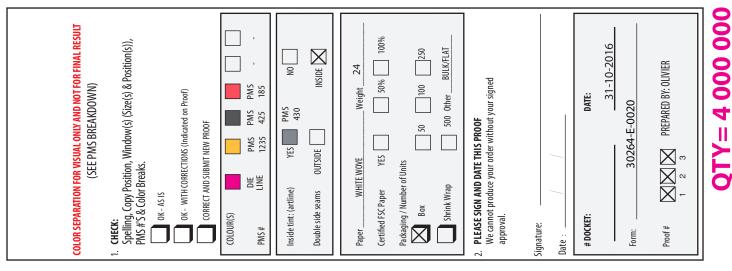
The government estimates that cap and trade will cost about 3.3 cents per cubic metre (m³)\*. The cost to you will be determined by multiplying the cap and trade rate by the number of m³ you use.

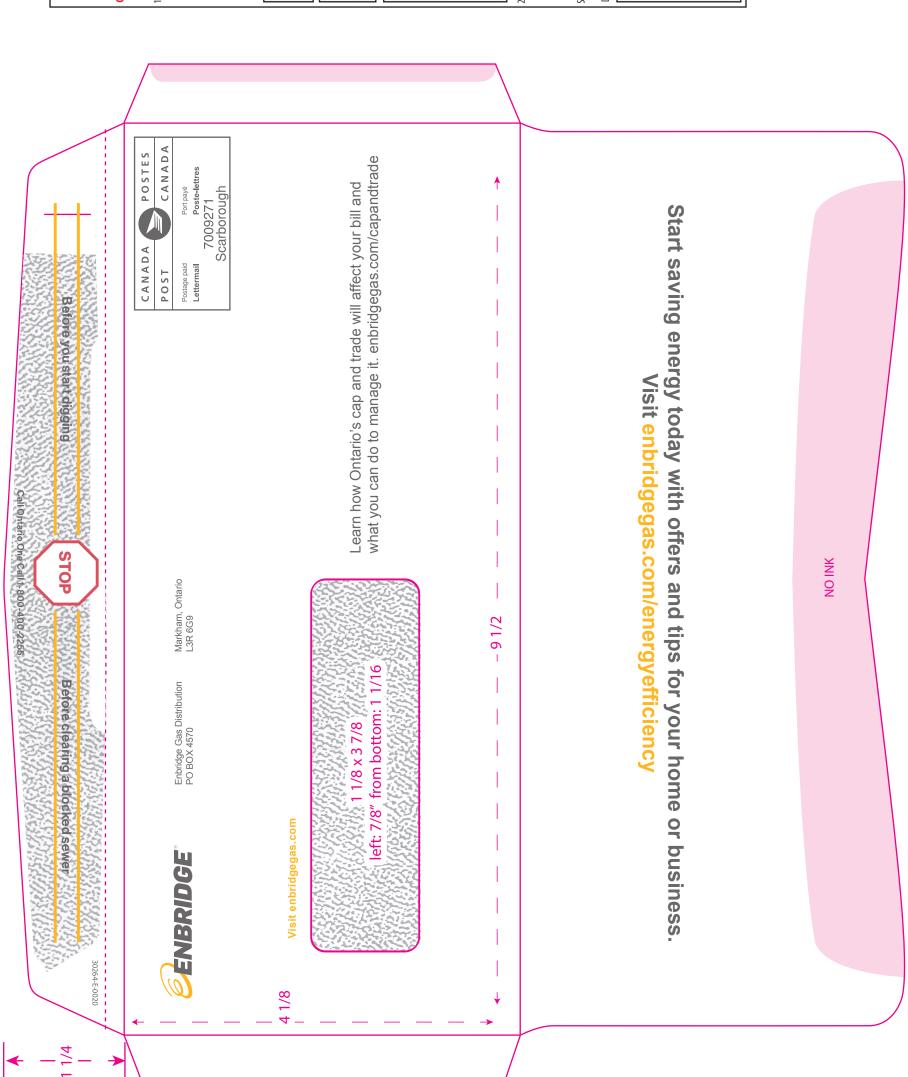
The amount of natural gas you use is shown on your bill. The Ontario Energy Board will review and approve cap and trade rates before we pass it through to you. The charges to recover emission costs will be included in the Delivery to You charge on your bill. If the charges we collect are higher or lower than the actual costs, your bill will be adjusted accordingly. Approved cap and trade rates will be available on our website

Did you know? Natural gas is the cleanest burning conventional fuel. It is also affordable, costing about 65% less than electricity and oil for home and water heating.\*\*

<sup>\*</sup>Estimated cap and trade cost only. A typical residential customer uses 2,400 m<sup>3</sup> of natural gas for home and water heating per year.

<sup>\*\*</sup>On average over five years based on Enbridge Gas residential rates October 1, 2016, Toronto May 1, 2016 electricity rates and Statistics Canada oil prices as of August 2016. Calculated for the equivalent energy consumed by a typical residential customer. Includes all service, delivery and energy charges. Excludes HST.





Sample Rate 1 January 2017 bill (illustration only)
Filed: 2016-11-15, EB-2016-0300, Exhibit E, Tab 1, Schedule 1, Appendix E, Page 1 of 2

Page 1 of 4

000001 000000003

Life Takes Energy

JANE DOE 500 CONSUMERS RD. NORTH YORK ON M2J 1P8

**Bill Date** 

**Account Number** 00 00 00 00000 0

**Billing Period** 

**Service Address** 500 CONSUMERS RD. NORTH YORK ON M2J 1P8



### **Summary of All Charges (Taxes Included)**

Balance from previous bill

**Payment Received** 

Balance forward & past due

if paid, thank you

**BBP Installment** 

Amount due now

Late payment effective date\*



### enbridgegas.com



### **Contact Us**

**Enbridge Gas Distribution Inc.** 

**EMERGENCY, SUCH AS THE SMELL OF** GAS: 1-866-763-5427

For all other Enbridge Inquiries:

Call: 1-877-362-7434

Email: customercare@enbridge.com

Fax: 1-888-711-1211

Mail: PO Box 650, Scarborough

ON, M1K 5E3



### **Messages From Enbridge**

Under Ontario's cap and trade program, there are now costs to you for greenhouse gas (GHG) emissions related to your natural gas use and delivery of gas to you. 'Delivery to You' includes applicable cap and trade charges. Visit enbridgegas.com/capandtrade.

All payments made to Enbridge are accepted under the express condition that the Company may demand payment of account deficiencies irrespective of any conditions attached to the payment by the customer.

IMPORTANT NOTICE GAS RATES HAVE CHANGED Please see the enclosed notice for further

Make Payments to: PO Box 644 Scarborough ON M1K 5H1

### Sample Rate 1 Future Bill Presentment of Cap and Trade (illustration only)

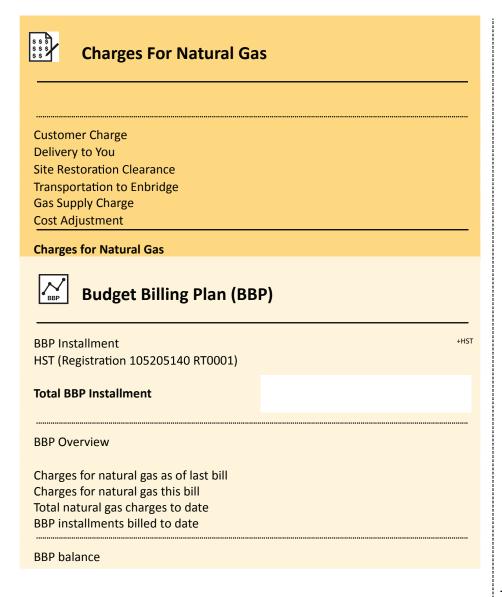
Filed: 2016-11-15, EB-2016-0300, Exhibit E, Tab 1, Schedule 1, Appendix E, Page 2 of 2



**Bill Date** 

**Billing Period** 

Page 2 of 4





### Meter Reading Information

Meter Number Estimated Reading Previous Reading

Gas used this period (m³)

PEF Value Adjusted m<sup>3</sup>

Your Bill is based on either actual metered consumption or estimated consumption.

'Delivery to You' includes applicable cap and trade charges. enbridgegas.com/capandtrade



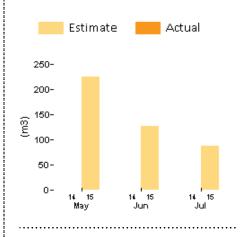
### Natural Gas Supply Information

Natural gas supplied by Enbridge Your gas supply rate Gas cost adjustment

Total effective gas supply rate



### **Comparing Your Gas Consumption**





## CUSTOMERS and trade

A natural gas distribution perspective

June 2016

Chris Meyer, Manager, Communications and Stakeholder Relations, Carbon Strategy **Enbridge Gas Distribution** 

## Outline



Types of participants

Potential costs

Key dates & resources

Lower-carbon future



The material contained in this presentation is being provided change. Participants are encouraged to seek specific advice as general information only and is not intended as specific based on currently available information and is subject to market or legal advice. Information in this presentation is and guidance from their own advisors.



**ENBRIDGE** 

# Fundamentals

allowances or credits, to match their greenhouse gas "Capped participants" must acquire permits, called (GHG) emissions





# "Cap" and "trade"

The total number of allowances created by the government goes down ~4.5% each year (the "cap")

2050	80% below 1990
2030	37% below 1990
2020	15% below 1990

All allowances are created by the government and entities can sell allowances to other entities (the "trade")

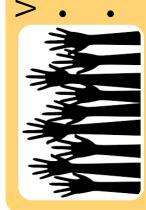


# Participants in cap and trade



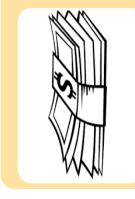
Mandatory "capped" participants

- Fuel distributors (Oil, Propane, Diesel) and NG distributors
- Electricity Importers
- Large Final Emitters (>25K tonnes CO<sub>2</sub>e per year)



Voluntary "opt-in" participants

- Emitters between 10 25K tonnes CO<sub>2</sub>e per year may decide to opt-in as a participant
- If not, NG utility responsible for acquiring NG related allowances



## Market participants

Any entity that wants to play in the carbon market (i.e. banks, etc.)



### **ENBRIDGE**

## Free allowances/ early reduction credits

**Free Allowances** 

- Only for eligible cap and trade participants who apply
- Details posted on government's EBR Registry

Early Reduction Credits (ERCs)

- Details expected this year
- Under draft regulation natural gas utilities not eligible

METHODOLOGY FOR THE
DISTRIBUTION OF ONTARIO
EMISSION ALLOWANCES FREE
OF CHARGE

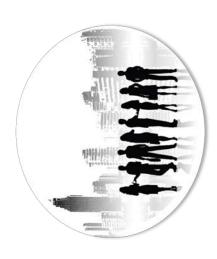
May 16, 2016

# Non cap and trade participants

- Enbridge responsible for acquiring NG-related allowances for customers <25,000 tCO,e/year
- Costs on natural gas bill (volumetric basis)

### **Exceptions:**

- Customers between 10,000 and 25,000 tCO<sub>2</sub>e/year who "opt-in" as voluntary participants
- Natural gas fired generators cannot opt-in





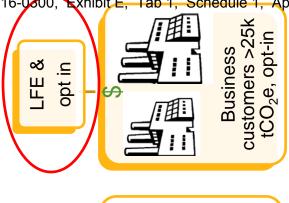
# Potential cost scenarios

<b>.</b>				25.	S.
Potential annual cap and trade cost (customer manages)				ALLOWANCES?	AL\$20304,468ES
Potential annual cap and trade charge (on NG bill)	879	\$746	\$329,212		
Annual volume ("typical customer")	2,400 m <sup>3</sup>	<b>14   14   15   15   16   16   16   16   16   16</b>	9,976,120 m <sup>3</sup>	9,976,120 m <sup>3</sup>	69,832,850 m <sup>3</sup>
Customer type	A) Residential	B) Light Industrial	C) Medium Industrial (not voluntary participant)	D) Medium Industrial (voluntary participant)	E) Large Industrial

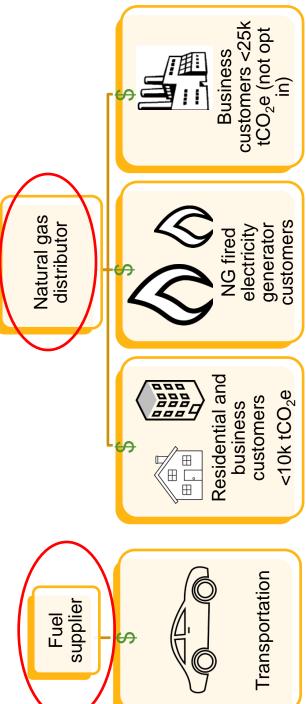
- Based on \$0.033/m<sup>3</sup> of natural gas estimated by government
- Dollar amounts shown do not include free allowances, early reduction credits, energy conservation, admin costs etc.
  - Assumes cap and trade costs charged to non-capped customers by Enbridge would be based on actual metered natural gas consumption
- Costs may change over time

Filed: 2016-11-15, EB-2016-0300, Exhibit E, Tab 1, Schedule 1, Appendix F, Page 11 of 17

## compliance obligation Point of regulation/

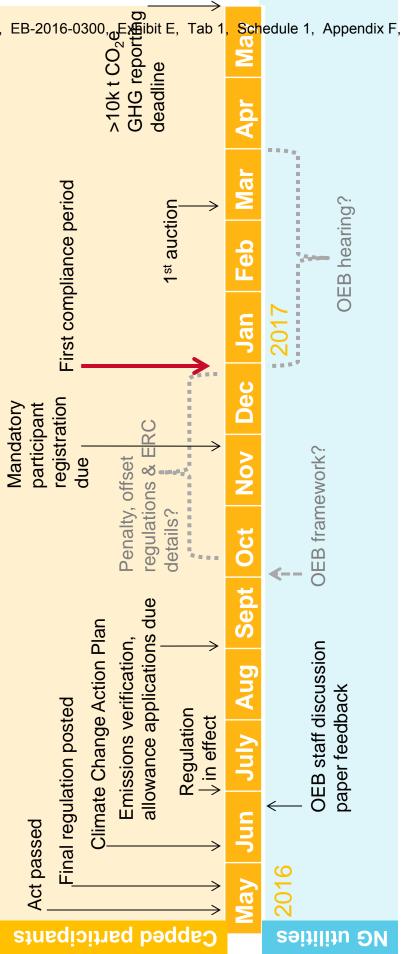






## Select timelines

Capped participants need to be aware of key dates in 2018







# **Enbridge Gas levers for a**

lower carbon economy

- Enbridge is positioned to provide our customers solutions and maintain a sustainable business
- Enbridge has several key levers for demonstrating and implementing carbon reduction
- These levers assist our customers transition to a lower carbon economy

Energy
Efficiency
and
Conservation

Greening the Natural Gas Grid

and Technology Development

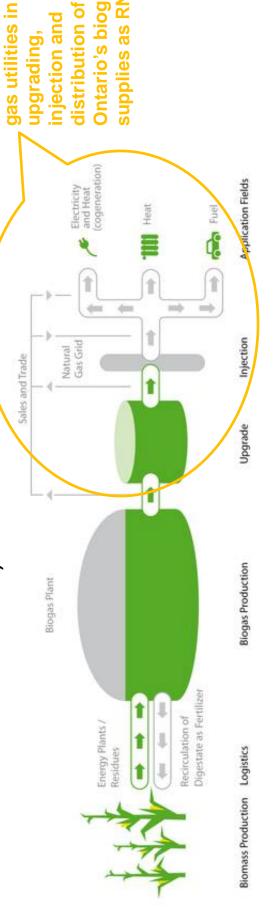


Natural Gas Vehicles

## Greening the NG arid

Renewable natural gas (RNG) can be part of a diversified supply to meet Ontario's renewable energy needs

Role for natu municipal organic waste, agricultural waste, wastewater Can be created from different sources (i.e. landfill, treatment facilities)



Filed: 2016-11-15, EB-2016-0300, Exhibit E, Tab 1, Schedule 1, Appendix F, Page 15 of 17

Ш

# Greening the NG grid (con't)

in Ontario's pipeline incorporating RNG Benefits of network:

RENEWABLE NATURAL GAS CYCLE

 Uses existing infrastructure  Less expensive than renewable electricity

not need to be backed up Not intermittent / does

Can easily be stored



Landfill systems collect biogas.



trucks contribute to greener communities.

6. Near zero emission

Biogas is purified to







## NG for transportation

- NG for transportation

  Transportation = ~34% of Ontario's total emissions

  Natural gas has up to 25% lower GHG emissions and is upplied GHG emissions reduction potential in manufacturing and freight as well as rail and marine

  If 10% of transportation fuel replaced by NG, Ontario could marine reduce GHG emissions b/w 1.5 and 4.2 Mt CO<sub>2</sub>e/yr

  Results depend on levels of renewable gas blending (up to 40%)







# Cap and trade resources

- **Government:**
- Ontario.ca/capandtrade
- Specific industry associations
- **Enbridge Gas:**
- Enbridgegas.com/capandtrade
- Enbridgegas.com/businesses/energy-management



#### Agenda

Regulatory Update

2016 Final Rates (July 2016)

July 2016 Quarterly Rate Adjustment (QRAM) (July 2016)

Disposition of 2015 Deferral & Variance Account Balances (October and November 2016)

Implementation of Cap & Trade Charges (January 2017)



#### **2016 Rates** Regulatory Update

• 2007 Cost of Service (COS)

Incentive Regulation (IR) from 2008-2012

2013 Cost of Service (COS)

• 2014 – 2018 Custom IR

2016 impact mostly a function of the GTA project and an increased DSM budget

June 2016-11-	15, EB-2016	3-0300, Ex	chibit E, Ta	ab 1, Sched	lule 1, App	pendix G,	Page 3 o	f 15
June	Average Impacts	~3.0%	~0.5%	%0~	~ (1.0)%	~ 1.0%	~ 5.0%	
	Year	2007	2008-12	2013	2014	2015	2016	

### ENBRIL

### **2016 Rates**

Regulatory Update

2016 Interim Rates: Implemented January 1, 2016

Revenue deficiency of \$79.3 M

DSM Decision: Will be implemented July 1, 2016

Additional deficiency of \$21.3 M

2016 Final Rates:

Total Deficiency of \$100.9

7	<u> </u>
9	9
0	
C	
Z	
C	2
C	Į

June 2016 Eiled:	2016-11-15,	EB-2016-			xhib	it E,	Та	ab 1	, So	chec	dule	1, 4	Appe	ndix G, P	age 5	ENBRIDGE 15 of 15
		Col. 3 Total	T-Service Rate Impact	5.1%	5.4%	1.1%	1.7%	2.9%	2.6%	5.8%	5.3%	2.6%	3.0%	<u>Delivery Rate</u> <u>Impact</u>	10.4%	3.0%
		Col. 2 Final	T-Service Rate Impact	0.8%	1.3%	%0.0	%0.0	1.0%	1.6%	3.5%	3.4%	1.2%	0.1%	<u>Delivery Rate</u> <u>Impact</u>	0.5%	%0.0
		Col. 1 Interim	T-Service Rate Impact	4.3%	4.1%	1.1%	1.7%	1.9%	1.1%	2.3%	1.9%	1.4%	2.9%	<u>Delivery Rate</u> <u>Impact</u>	%6.6	3.0%
Jpdate	Rates		Rate Class	~	9	O	100	110	115	135	145	170	200		125	300

### ENBRID

### (in conjunction with July 2016 QRAM) Final Rate Implementation

Regulatory Update

Rider E: Revenue Adjustment Rider

Applicable to volumes from July to September 2016

Recovers \$14.2 M of the \$21.3 M. This amount represents the revenue for the January to June 2016 period

For LV customers Rider E unit rates approx. 0.25 c/m<sup>3</sup>.

## July 2016 Quarterly Rate Adjustment (QRAM)

Regulatory Update

- Quarterly review of upstream cost changes and adjustment of rates to reflect market changes
- Increase in gas supply charges from April 1, 2016 QRAM to July 1, 2016 QRAM
- Increase from approx. 9.2  $\&/\text{m}^3$  to 9.6  $\&/\text{m}^3$
- Increase in Transportation and Load Balancing charges
- Decrease to Rider C (Gas Cost Adjustment Rider) for most customers



### Regulatory Update

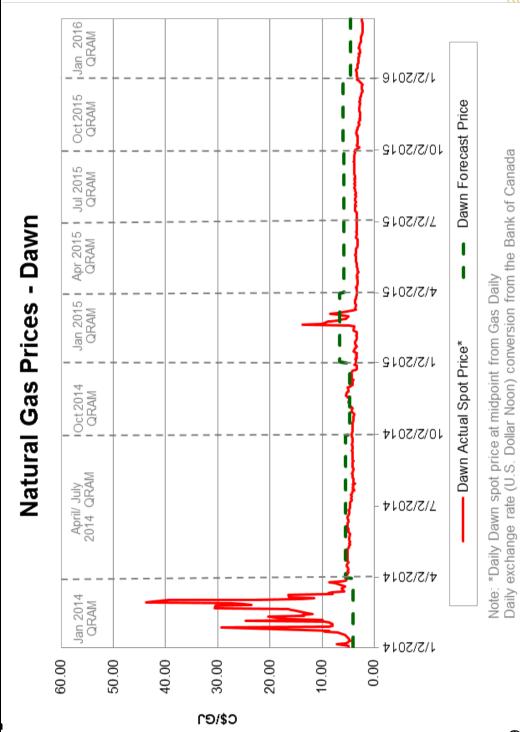
## July 2016 Quarterly Rate Adjustment (QRAM)

July 2016	July 2016 Quarterly Rate Adjustment (QRAM)	nt (QRAM)
	July 1, 2016 QRAM Typical	Typical Bill Impact (%)
	Sales Customers	T-Service Customers
Rate 1	3.1%	2.5%
Rate 6	4.2%	%8'E
Rate 100	4.1%	3.4%
Rate 110	5.1%	2.2%
Rate 115	2.6%	%5'9
Rate 135	6.6%	%0'6
Rate 145	6.1%	%8'.2
Rate 170	%0'9	%8'.



## ral Gas Spot Price - Dawn Hub

2014 through 2016



Regulatory Update

တ

## ral Gas Spot Price - AECO Hub





Note: \*Daily AECO spot price at midpoint from Gas Daily

Regulatory Update

Rider C: Gas Cost Adjustment that was in place for 24 months to recover the cost from winger 2014 will expire on June 30ths 2014 will expire on June 30ths in Rider C unit rates.

The result is a large decrease in Rider C unit rates. The component of Rider C

					RIDER C	col-			
	July	July 2016 QF	QRAM	April	April 2016 Q	QRAM		Variance	<b>a</b>
Rate	Sales (¢/m³)	WTS (¢/m³)	OTS (¢/m³)	Sales (¢/m³)	WTS (¢/m³)	OTS (¢/m³)	Sales (¢/m³)	WTS (¢/m³)	OTS (¢/m³)
_	0.3	0.3	0.3	3.9	1.7	1.7	(3.6)	(1.4)	(1.4)
9	0.3	0.3	0.3	8.8	9:	1.5	(3.5)	(1.3) -82%	(1.3) -83%
6	(0.9)	0.0	0.0	7.	0.0	0.0	(2.0)	(0.0)	(0.0)
100	0.3	0.3	0.3	3.8	1.6	1.5	(3.5)	(1.3) -82%	(1.3) -83%
110	(0.6)	0.1	0.1	1.7	0.3	0.3	(2.3)	(0.2)	(0.2)
115	(6:0)	0.0	0:0	1:2	0.1	0.1	(2.1)	(0.1) -65%	(0.1)
135	(0.9)	0.0	0.0	7.	0.0	0.0	(2.0)	0.0	0.0
145	(0.1)	0.5	0.1	2.7	0.8	0.8	(2.8)	(0.7)	(0.7)
170	(0.2)	0.1	0.1	2.3	0.5	0.4	(2.5)	(0.4)	(0.4)
200	0.3	0.3	0.2	3.5	1.2	1.2	(3.2)	(1.0) -79%	(1.0)

## Deferral & Variance Accounts Disposition

Regulatory Update

## 2015 Deferral & Variance Account Clearing

Includes accounts such as Earnings Sharing, Transactional Services (TS), DSM, unaccounted for gas, etc.
 The Application to dispose of 2015 Deferral and Variance Account balances

has been filed with the Ontario Energy Board (OEB)

EGD is proposing to clear the balances in two equal installments (Oct. and Nov. 2016)

Billing adjustments can be debits or credits depending on customer class and type of service used by customers (Sales, Western-T, or Ontario-T) For most LV customers billing adjustments will be within the \$2,000 to (\$18,000) range...two equal installments



### Cap & Trade

Regulatory Update

### Cap & Trade Charges

Cap & Trade charges will recover the costs of:

## **Customer-related emission obligations:**

➤ Emissions related to the customers' natural gas usage

## Facility-related emission obligations:

Femissions related to the distribution of natural gas such as emissions from fugitive and leaked gas and emissions from the utility's facilities and operations

### Administrative:

verification of emissions, purchasing/trading functions, changes to the The cost of compliance obligations, such as monitoring, reporting and billing or IT systems



Regulatory Update				June 2016 Filed: 2
Cap & Trade Charges				2016-11-1
	Costs for Customer-related Obligations	Costs for Facility-related Obligations	Administrative Costs	5, EB-2016-0300, E
	>	>	>	Exhibit E,T
Commercial	>	>	>	ab 1, Sche
	>	>	>	edule 1, A <sub>l</sub>
		>	>	opendix G,
	~3.0 c/m³	~0.03 c/m³	? c/m³	Page 14 of
			EN	ENBRIDGE 51

Regulatory Update

Anton Kacicnik

(416) 495-6087

anton.kacicnik@enbridge.com

## **Greenhouse Gas Cap and Trade Program:** Transition to Implementation

Ministry of the Environment and Climate Change

June, 2016

# 1. Legislative and Regulatory Framework

<u>Note</u>: This presentation has been produced for information purposes. It is necessary to consult the regulation for comprehensive references.

### Ontario

## **Context and Status**

- Between May 2015 and April 2016, MOECC met extensively with stakeholders on cap and trade to gather information to inform key program design decisions.
- MOECC received 794 sets of comments from stakeholders over the course of these consultations.
- 158 comments were submitted regarding the latest cap and trade regulatory proposal which was posted for comment to the Environmental Registry for 47 days.
- On May 18th, 2016 the Climate Change Mitigation and Low-carbon Economy Act, 2016 received Royal Assent.
- This legislation provides the authority to implement a cap and trade program
- became law the Cap and Trade Program Regulation (O.Reg. 144/16) and the Quantification, On May 19<sup>th</sup>, 2016 two regulations that form the backbone of the cap and trade program Reporting and Verification of Greenhouse Gas Emissions Regulation (O.Reg. 143/16),
- The Cap and Trade Program Regulation is effective July 1, 2016
- The Quantification, Reporting and Verification of Greenhouse Gas Emissions Regulation takes effect January 1, 2017

#### ) Ontaric

# Cap and Trade and Reporting Regulations

- The final Cap and Trade Program Regulation (O.Reg 144/16) outlines a number of program elements, including:
- Caps
- Compliance periods and requirements
- Auction and sale rules
- Strategic reserve of allowances
- Market rules
- Allocations
- The new quantification, reporting and verification regulation (O.Reg 143/16):
  - Under the new Act
- Facilitates the opt-in provisions for facilities with annual emissions between 10,000 and 25,000 tonnes;
- collection of additional product, process and energy use information to support the Refinements to support implementation of the Cap and Trade Regulation (e.g., calculations for free allowance allocations)

### Ontario

## Key Changes from Draft Regulation

The final regulation:

- provides free allowances for both the steam and electricity produced onsite or purchased directly from a generation facility
- Adjusts the cap adjustment factor for combustion emissions based on biomass fuel use
- Several additional facilities being allocated under the history based method instead of the energy use method.

## **Mandatory Participants**

- register no later than November 30, 2016 as a mandatory participant: A person who meets one of the following descriptions is required to
- A person who was required to prepare and verify an emissions report under reporting regulation as it read on January 1, 2015 (2015 EPA Regulation)
- electricity generators covered upstream are excluded
- A person who was required to report under the reporting regulation as it read on January 1, 2016 (2016 EPA Regulation) but excluded from the requirement to have the report verified 7
- fuel suppliers/distributors, electricity importers, magnesium producers, electricity transmission
- Electricity generators that receive natural gas directly from an international or inter-provincial natural gas transmission pipeline ω.



### Ontari

## Voluntary Participants - Exceptions

- A person who meets the following criteria may apply in 2016 to register as a voluntary participant (i.e., opt in):
- Industrial facilities with emissions between 10,000 and 25,000 tonnes per year (see slide 6)
- The person is not required to register as a mandatory participant in respect of the specified GHG activities engaged in at the facility
- An emissions report and positive or qualified positive verification statement has been submitted to the Director in accordance with the January 1, 2016 version of O.Reg. 452/09. ო
- Electricity generators whose emissions are covered upstream at the natural gas distributor are not eligible to opt-in into the program

#### Ontaric

## **Eligibility for Free Allowances**

- Mandatory participants or eligible voluntary participants may apply for allowances in respect of the specified GHG activities engaged in at the facility
- Eligible specified GHG activities include activities listed in Schedule 2 of the new reporting regulation with the exception of the following:
- electricity transmission (Item 18 of Schedule 2)
- natural gas transmission and distribution (Item 19 of Schedule 2)
- Other exclusions
- Electricity generators that are covered directly because they receive natural gas from an interprovincial or international pipeline
- Mandatory participants who permanently ceased engaging in all specified GHG activities at the facility in the year prior to the vintage year of allowances
- e.g., facilities that ceased specified GHG activities in 2016 are not eligible for 2017 allowances
- withdrawn by giving written notice to the Minister no later than December 31 in the year the If specified GHG activities ceased after the application was made, the application must be application was made

### Ontaric

### Output Benchmarks, Energy Use and Historical **Allocation Methods**

Methods A through E set out in Methodology for the Distribution of Ontario Emission Allowances Free of Charge. More than one method may be applied to calculate the number of Ontario The number of allowances a facility may receive each year will be determined according to emission allowances for a facility.

- Method A: Product Output Benchmark Method
- Tables 1 a, 1b or 1 c in the Methodology indicate the products on which eligible facilities' allocations will be based
- Method B: Energy Use-Based Method
- Exclusions are outlined in Section 2.2.2 of the Methodology (e.g., coal used in a coke oven to produce coke; coal, coke and other carbon material charged into the blast furnace as a
- Method C: History-Based Method
- Facilities described in Table 3 of the Methodology will have allocations based on absolute amounts (i.e., not based on either production, energy use or emissions)
- Facilities described in either Table 2a or 2b of the Methodology will be eligible to receive allowances according to their output and a facility-specific emissions intensity

### Ontario

## Allocation Methods Direct Emissions and Indirect Steam

- Method D: Direct Method
- Method D applies in respect of the following facilities:
- A facility that is set out in Table 4a or 4b or 4c of the Methodology; or
- A facility that is not set out in Table 4a or 4b or 4c and that meets one of the following criteria:
- The facility is an institution; or
- The facility incinerates municipal or hazardous waste, as those wastes are defined in O. Reg. 347 made under the under the Environmental Protection Act.
- Method E: Indirect Steam (Useful Thermal Energy) Method 5.
- Method used to calculate allocations to facilities that take useful thermal energy generated at another facility
- Exception: Method E does not apply to a facility that receives and uses useful thermal energy from another facility that is eligible to receive Ontario emission allowances under another method for that same useful thermal energy.

## **Distribution of Allowances**

Assistance factor will be 1 for each year in the first compliance period.

The cap adjustment factor and the assistance factor will be applied to the base number of allowances under each Method.

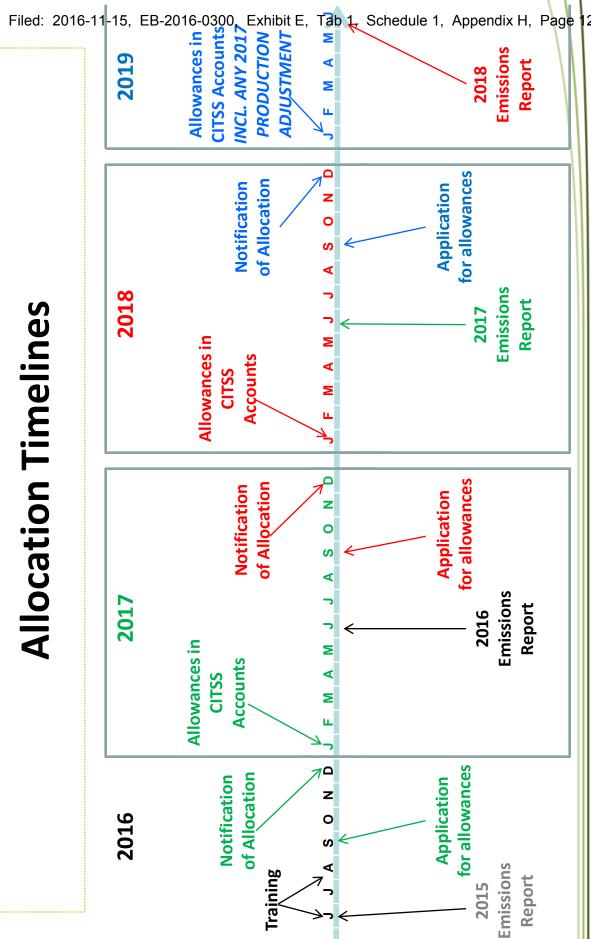
Capped Emitter	Cap and Adjustment Factor for fixed process emissions	Cap and Adjustment Factor for combustion emissions
Institutions <b>or</b> facilities that incinerates municipal or hazardous waste and that generates electricity	n/a	7-
Other facilities eligible for free allocation	1	4.57% decline annually adjusted for biomass fuel use

adjustment ( $\mathbf{B}_{\mathrm{adi}\ \mathrm{t}}$ ) starting with applications in 2018 for 2019 allowances Allowances distributed free of charge will include a production

o The production adjustment will account for changes between actual production, energy or process parameters and the estimates used in prior applications



#### Tab ≥ 4



**Allocation Timelines** 



Filed: 2016-11-15, EB-2016-0300, Exhibit E, Tab 1, Schedule 1, Appendix H, Page 13 of 19

## 2. Implementation

### Ontario

## Background

# Cap-and-Trade Systems and Western Climate Initiative, Inc.

- •Ontario will deliver its cap-and-trade program through infrastructure established by Western Climate Initiative, Inc. (WCI, Inc.)
- •WCI, Inc. is a not-for-profit corporation established in 2011 to provide infrastructure and services to support the implementation of state and provincial cap-and-trade programs.
- California and Quebec deliver their cap-and-trade program using WCI, Inc. infrastructure and

## WCI, Inc. Core infrastructure and services:

- A compliance instrument tracking system service (CITSS).
- CITSS tracks the ownership, sale, transfer and retirement of allowances and offset credits, and allowa for the creation and retirement of compliance instruments)
- An Auction platform
- •Auction related financial services (escrow/ settlement), known as the Financial Services

## **Administrator**

- •Third party **Market Monitor** services (monitors compliance related to auctions and trading/ holdings of allowances)
- •Help desk (for technical, system-related questions, e.g., password resets)

### Ontar

## Key Dates

## **Emissions Reporting (Annually)**

- Report by June 1
- Verification Statement by September 1

## Allowance Distribution Outreach Activity

- Webinars, by invitation, planned for:
- Free Allowance methodology—week of June 13
- Free Allowance application—mid July/ early August

## Allowance Market Activities

- CITSS Training Mid-July to early August. Three separate training sessions.
- CITSS Registration *(see overview on next slide)* Early August to November 30<sup>th</sup> regulatory deadline.
- Part 1: Recognition as an Account Agent
- Part 2: Participant Registration
- Auction Notice January 2017
- 4. Auction March 2017

## Ontaric

# Overview of CITSS Registration

Part 1: Recognition as an Account Agent

Initiate application online

Print, complete forms



Part 2: Participant Registration

Initiate application online Print, complete forms Mail in forms and supporting documentation (including corporate association information)

Jurisdiction (MOECC) Verification

Participant Registered in CITSS with appropriate account(s)

Jurisdiction (MOECC) Verification

documentation (including notarization)

Mail in forms and supporting

Agent (User) authorized in CITSS

# Part 1: Recognition of Account Agent (RAA)

### Purpose

To verify and confirm an applicant's identity through the collection and validation of personal information prior to granting them access to the CITSS

## Requirements:

- Individuals who will be account agents (users) on a participant's (entity's) account must apply and be approved under the RAA process. Process includes Know Your Customer checks.
- Two account agents are required to initiate a Participant Registration.

### Outcome:

Recognized Account Agents receive a CITSS User ID, enabling them to perform Part 2: Participant Registration requirements.



### Ontaric

# Part 2: Participant Registration

### Purpose:

(mandatory or voluntary/opt-in) or 'market participant' in CITSS. Participants are To register participants (entities). Participants are either 'capped participant' assigned appropriate accounts.

## Requirements:

- All participants of the Ontario Cap and Trade program require an account in CITSS.
- company ownerships). Enables monitoring of regulatory allowance holding limits. Participant Registration includes the disclosure of corporate associations (inter-

### Outcome:

- All Participants receive a holding account
- 'Capped' participants also receive a compliance account

### **Ontaric**

# Key Auction Processes & Next Steps

## **Key Auction Processes**

- Auction Notice January 2017
- Posted 60 days in advance
- Details of auction, requirements to participate
- **Auction Registration**
- Declare intent to Participate
- Open account with Financial Services Administrator (FSA)
- Post Bid Guarantee with FSA
- Auction March 2017
- Post Auction
- Settlement, reconciliation, distribution of allowances

## Next Steps – Implementation

- Watch Ontario's Cap and Trade website at https://www.ontario.ca/page/cap-and-trade for updates on allocation distribution activity and registration instructions for training sessions (scheduled to begin mid-July 2016) and other program updates
- For questions specific to the cap and trade program, excluding emissions reporting and technical help for the Compliance Instrument Tracking System Service (CITSS), please contact CThelp@Ontario.ca

REDACTED
Filed: 2016-11-15
EB-2016-0300
Exhibit F
Tab 1
Schedule 1
Page 1 of 2

### **DEFERRAL AND VARIANCE ACCOUNTS**

- As part of the Company's 2017 Cap and Trade Compliance Plan, Enbridge is proposing the use of two Cap and Trade related deferral accounts: the Greenhouse Gas Emissions Impact Deferral Account ("GGEIDA"), and the Greenhouse Gas Emissions Customer and Facility Costs Variance Account ("GGECFCVA").
- 2. The Board approved the Greenhouse Gas Emissions Impact Deferral Account ("GGEIDA") in Enbridge's Custom Incentive Regulation ("CIR") proceeding (EB-2012-0459). The account was approved in recognition of the potential for a government program to reduce greenhouse gas ("GHG") emissions. No costs related to any such program were included in the budgets used to set Allowed Revenues under Enbridge's CIR ratemaking model. The Board described the GGEIDA on page 70 of its Decision with Reasons in the CIR proceeding as follows:

[t]he GGEIDA would be used to record the impacts of provincial and federal regulations related to greenhouse gas emission requirements along with the impacts resulting from the sale of, or other dealings in, earned carbon dioxide offset credits.

- Enbridge has and will continue to record administrative costs, incurred in relation to the implementation of the Cap and Trade program, in the 2016 GGEIDA, for clearance in 2017.
- 4. Given the development of Ontario's Cap and Trade program, Enbridge anticipates that it will incur additional administrative costs in 2017, with regards to program implementation, launch, and ongoing administration and compliance requirements. Enbridge proposes to continue to record incremental administrative costs incurred in 2017 in the 2017 GGEIDA. A forecast of these costs has been included in Exhibit C, Tab 3, Schedule 6, Table 2.

Witnesses: R. Craddock

A. Langstaff J. Murphy

F. Oliver-Glasford

R. Small

REDACTED
Filed: 2016-11-15
EB-2016-0300
Exhibit F
Tab 1
Schedule 1
Page 2 of 2

- 5. Enbridge will seek cost recovery for the 2016 administrative costs in 2017 at the same time as it clears other 2016 deferral and variance accounts or as part of the August 2017 Cap and Trade Compliance Plan filing. Enbridge sees merit in clearing the 2016 GGEIDA at either time and looks for direction from the Board. Administrative costs incurred in 2017 will be recorded in the 2017 GGEIDA and the Company will seek recovery of same in 2018 as part of its 2017 deferral and variance account clearance application or as part of the Company's 2019 Compliance Plan filing in August of 2018.
- 6. In order to ensure that the Company neither over- or under-recovers its Customer-related obligation costs and Facility-related obligation costs, Enbridge proposes the establishment of a new variance account entitled the Greenhouse Gas Emissions Customer and Facility Costs Variance Account ("GGECFCVA"). This account will allow for recovery or credit of any difference between actual Customer and Facility-related obligation costs incurred in 2017,

and the actual amount which is recovered through rates, being the aggregate of the revenues from the Cap and Trade Unit Rates for Customer-related and Facility-related costs. Enbridge's systems will be able to apportion the amounts collected between Customer-related obligations and Facility-related obligations. Any variance recorded in the 2017 GGECFCVA will be sought for clearance as part of the Company's 2018 True-Up filing, or at the Board's discretion.

7. Simple interest will be calculated on the opening monthly balances of the GGEIDA and GGECFCVA using the Board Approved EB-2006-0117 interest rate methodology. Any interest due or payable in relation to the 2017 GGEIDA and GGECFCVA balances will be sought for clearance at the time that the Board considers the balance in the account, or at the Board's discretion.

Witnesses:

R. Craddock

A. Langstaff

J. Murphy

F. Oliver-Glasford

R. Small

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Page 1 of 7

### **COST RECOVERY STATEMENTS**

1. In this proceeding, Enbridge requests approval of the Customer-related and Facilities-related unit rates (the "Cap and Trade Unit Rates") to recover the cost of meeting Enbridge's obligations under the Cap and Trade regulation related to Greenhouse Gas ("GHG") emissions from relevant customers and Company facilities. Enbridge also requests approval of the methodology used to determine the Cap and Trade Unit Rates. Details about the Cap and Trade Unit Rates are included below, with the supporting calculations and the Unit Rates themselves detailed in the Schedules to this evidence. Refer to Appendix A, Table A1 through A5 to Exhibit G, Tab 1, Schedule 1.

### Cap and Trade Unit Rates for 2017 (Customer-related and Facility-related)

2. Under the Climate Change Act and Cap and Trade Regulation, Enbridge is required to acquire sufficient emission allowances related to GHG emissions from its customers' natural gas use and natural gas used in its own operations. The costs for those emission allowances will be recovered from customers through the Cap and Trade Unit Rates. As determined in the Board's Early Determination, the Customer-related costs will be recovered from all customers except for Large Final Emitters ("LFE"), i.e., facilities that emit more than 25,000 tonnes of carbon dioxide equivalent ("tCO<sub>2</sub>e"), "voluntary participants" in the Cap and Trade program who purchase their own emissions allowances. Natural gas derived from biomass, and natural gas distributed to downstream or out of province natural gas distributors are also excluded from Customer-related costs. Facility-related costs will be recovered from all customers.

Witnesses: A. Langstaff

A. Kacicnik

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Page 2 of 7

- 3. In order to determine the Cap and Trade Unit Rates, a first step is the determination of the forecast gas volumes to be consumed by customers (exclusive of LFEs, voluntary participants, volumes of natural gas derived from biomass, and volumes of natural gas delivered to downstream or out of province natural gas distributors) and for the Company's own operations. These volumes are then used for two purposes to forecast the costs to acquire the necessary emission allowances and to determine the Cap and Trade Unit Rates needed to recover those costs.
- 4. Enbridge's volume forecast is available in Exhibit B, Tab 2, Schedule 1.
- 5. Enbridge's greenhouse gas emission forecast is available in Exhibit B, Tab 3, Schedule 1.
  - (i) Costs to meet Customer-related and Facility-related obligations
- 6. In order to estimate GHG emissions, natural gas volumes are converted to GHG emissions, in tCO<sub>2</sub>e, using the equations and default emission factors from the methodology outlined in Sections ON.20 and ON.400 of the Guidelines for Quantification, Reporting and Verification of Greenhouse Gas Emissions and the global warming potentials listed in Schedule 1 of Ontario Regulation 143/16 Quantification, Reporting and Verification of Greenhouse Gas Emissions.
- 7. The forecast of costs for Enbridge to meet Customer-related and Facility-related obligations is determined by: (i) calculating the GHG emissions (Exhibit B, Tab 3, Schedule 1) associated with forecast volumes (Exhibit B, Tab 2, Schedule 1); (ii) establishing a forecasted cost of an emission allowance; and (iiii) multiplying the GHG emissions by the price determined in ii).

Witnesses: A. Langstaff

A. Kacicnik

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Page 3 of 7

- 8. Enbridge has forecasted the cost of an emission allowance based on the auction reserve, or floor, price at the Ontario auctions in 2017. The auction reserve price is calculated based on Section 71(1) of Ontario Regulation 144/16, *The Cap and Trade Program* (the "Regulation"), which states "The minimum price of an emission allowance in an auction is the higher of the annual auction reserve prices most recently established, as of the day of the auction, for each of Quebec and California".
- 9. As the actual WCI auction reserve price will not be known until early 2017 when it is published by the Auction Administrator, Enbridge has estimated it by using the methodology provided in the Cap and Trade regulations for each jurisdiction, and determining which will be the higher.
- 10. The auction reserve price in California is determined in accordance with California Code of Regulations Title 17, §95911, subsection (c)(3) California Cap On Greenhouse Gas Emissions and Market-Based Compliance Mechanisms, which states "The Auction Reserve Price in U.S. dollars shall be the U.S. dollar Auction Reserve Price for the previous calendar year increased by 5 percent plus the rate of inflation as measured by the most recently available twelve months of the Consumer Price Index for All Urban Consumers."
- 11. The auction reserve price in Quebec is determined using the same methodology as California, as per Section 49 of the Quebec's "Regulation respecting a cap-and-trade system for greenhouse gas emission allowances".

Witnesses: A. Langstaff

A. Kacicnik

Exhibit G

Tab 1

Schedule 1

Page 4 of 7

12. As of the last WCl auction, which was held in August 2016, the WCl auction reserve price was \$12.73 USD or \$16.45 CAD<sup>1</sup>. This price is based on the California auction reserve price, which was the higher of California and Quebec.

13. Based on the 2016 California auction reserve price above, Enbridge has forecasted the 2017 WCl auction reserve price to be \$17.70. This price is based on a U.S. Consumer Price Index of 2.3%, and an exchange rate of 1.2959<sup>2</sup>.

14. The total Customer-related emissions for 2017 based on the Customer-related volume forecast is 20,907,621 tCO<sub>2</sub>e. The derivation of that amount is set out in the Table 1, which is included at Exhibit B, Tab 3, Schedule 1.

15. The total Facility-related emissions for 2017 based on the Facility-related volume forecast is 229,145 tCO<sub>2</sub>e. The derivation of that amount is set out in Table 3, which is included at Exhibit B, Tab 3, Schedule 1.

16. The costs to meet Customer-related and Facility-related obligations are determined by multiplying the forecast emissions for each category by the estimated price for emissions allowances.

17. As set out in Appendix A, Table A1, which is included at Exhibit G, Tab 1, Schedule 1, Enbridge's forecast Customer-related obligation costs in 2017 total \$370,064,899 (20,907,621 tCO<sub>2</sub>e \* \$17.70 CAD/t CO<sub>2</sub>e).

Witnesses: A. Langstaff

A. Kacicnik

<sup>&</sup>lt;sup>1</sup> August 2016 price in CAD is based on exchange rate of 1.2922 as posted by the California Air Resources Board.

<sup>&</sup>lt;sup>2</sup> As filed in to EB-2016-0215, Exhibit D1, Tab 2, Schedule 10.

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Page 5 of 7

18. As set out in Appendix A, Table A2, which is included at Exhibit G, Tab 1, Schedule 1, Enbridge's forecast Facility-related obligation costs in 2017 total \$4,055,870 (229,145 tCO<sub>2</sub>e \* \$17.70/t CO<sub>2</sub>e).

### (ii) Cap and Trade Unit Rates

- 19. The derivation of the Cap and Trade Unit Rates for customer-related and facilityrelated obligations is based on several sets of information and is organized in the following manner:
  - (a) Appendix A, Table A1, which is found at Exhibit G, Tab 1, Schedule 1 summarizes, by rate class, the 2017 forecast gas volumes for Customer-related obligations and shows the derivation of CO<sub>2</sub>e emission costs as well as the Cap and Trade Unit Rate for Customer-related obligations based on an Enbridge's estimated 2017 auction reserve price for carbon emission allowances and net CO<sub>2</sub>e emissions.
  - (b) Appendix A, Table A2, which is found at Exhibit G, Tab 1, Schedule 1 summarizes, by component, the 2017 forecast gas volume for Facility-related obligations and presents the derivation of CO<sub>2</sub>e emission costs as well as the Cap and Trade Unit Rates for Facility-related obligations based on Enbridge's estimated 2017 auction reserve price for carbon emission allowances and CO<sub>2</sub>e emissions.
  - (c) Appendix A, Table A3, which is found at Exhibit G, Tab 1, Schedule 1, summarizes the Cap and Trade Unit Rates for Customer-related and Facility-related obligations.

Witnesses: A. Langstaff

A. Kacicnik

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1

Page 6 of 7

(d) Appendix A, Table A4, which is found at Exhibit G, Tab 1, Schedule 1, is a summary of the 2017 Cap and Trade Unit Rates by rate class for LFEs and Non-LFEs.

- (e) Appendix A, Table A5, which is found at Exhibit G, Tab 1, Schedule 1 details the breakdown of the 2017 Cap and Trade Unit Rates by rate class for LFEs and Non-LFEs.
- 20. As directed by the Board in the Early Determination in EB-2015-0363, "the customer-related costs will be recovered through a volumetric (m³) rate charged to each customer based on their consumption. This rate will be separately identified on the Utility tariff sheet." The Board has also determined that "the rate for facility-related costs will also be separately identified on the Utility tariff sheet."
- 21. Accordingly, the Cap and Trade Unit Rates for customer-related and facility-related costs are separately identified in the Company's Rate Schedules as follows: Cap and Trade Customer-Related Charge (if applicable) and Cap and Trade Facility-Related Charge. Both of these charges are shown on the Rate Schedules for each rate class. Refer to Appendix B, found at Exhibit 1, Tab 1, Schedule 1.
- 22. In the Early Determination, the Board also determined how Cap and Trade charges should be reflected on customers' natural gas bills. The Board has directed that "charges related to the recovery of Cap and Trade Program costs will be included in the Delivery charge on the bill."
- 23. The Company confirms that Cap and Trade charges will be included in the Delivery charges on customers' bills.

Witnesses: A. Langstaff

A. Kacicnik

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Page 7 of 7

- 24. For a typical residential customer consuming 2,400 m<sup>3</sup> of natural gas per year, the sum of Cap and Trade charges for customer-related and facility-related costs will equal about \$80 in 2017 based on Enbridge's estimated auction reserve price.
- 25. Enbridge submits that for rate making purposes, it did not include any administrative or financing costs in the derivation of its Cap and Trade unit rates, such costs will be recovered through the GGEIDA and GGECFCVA, respectively. The Board's Staff Discussion Paper on a Cap and Trade Regulatory Framework for the Natural Gas Utilities notes, "Since administrative cost will form part of the utility's on-going business, staff suggests they be allocated in the same manner as similar existing administrative costs." Enbridge will seek cost recovery of its 2015 and 2016 administrative costs associated with the Cap and Trade program during its 2017 Compliance Plan filing, in August 2018 or as directed by the Board.
- 26. For an estimate of the administrative costs associated with the Cap and Trade program, refer to Exhibit C, Schedule 3, Tab 6.

Witnesses: A. Langstaff

A. Kacicnik

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Appendix A Page 1 of 10

# TABLE 1: 2017 CUSTOMER-RELATED VOLUMES, EMISSIONS, COST OF EMISSIONS AND UNIT RATE

Col. 7	Unit Rate <sup>7</sup>	(¢/m³)														3.3181
Col. 6	Cost of CO <sub>2</sub> e Emissions <sup>6</sup>	(\$)	162,967,246.7	157,348,539.5	8,719.9	0.0	15,208,597.3	6,166,749.5	10,149,917.2	10,786,522.6	2,020,683.5	1,633,402.7	3,759,641.3	0.0	14,878.3	370,064,898.6
Col. 5	Assumed Cost of Allowances <sup>5</sup>	(\$/tonne CO <sub>2</sub> e)	17.70	17.70	17.70	17.70	17.70	17.70	17.70	17.70	17.70	17.70	17.70	17.70	17.70	17.70
Col. 4	Net CO <sub>2</sub> e Emissions <sup>4</sup>	(Tonnes CO <sub>2</sub> e)	9,207,189.1	8,889,748.0	492.7	0.0	859,242.8	348,403.9	573,441.7	609,408.1	114,162.9	92,282.6	212,409.1	0.0	840.6	20,907,621.4
Col. 3	Net Volumes <sup>3</sup>	(10³m³)	4,911,477.9	4,742,142.3	262.8	0.0	458,354.0	185,852.4	305,896.4	325,082.3	0.668,09	49,227.2	113,307.4	0.0	448.4	11,152,950.1
Col. 2	LFE, Voluntary Participant and Other Exempt Gas Volumes <sup>2</sup>	(10³m³)	0.0	120,126.9	0.0	0.0	403,080.8	304,439.5	0.0	0.0	0.0	14,091.0	183,005.6	170,842.7	34,992.0	1,230,578.5
Col. 1	Budget Forecast Volumes <sup>1</sup>	(10³m³)	4,911,477.9	4,862,269.2	262.8	0.0	861,434.8	490,291.9	305,896.4	325,082.3	0.889.0	63,318.2	296,313.0	170,842.7	35,440.4	12,383,528.6
	Rate		-	9	0	100	110	115	125	125D <sup>8</sup>	135	145	170	200	300	Total Customer-Related
	Line		1.	1.2	1.3	1.4	1.5	1.6	1.7a	1.7b	1.8	1.9	1.10	1.11	1.12	7

(1) Exhibit B, Tab 2, Schedule 1, Table 1, Col. 1 - Col. 2
(2) Exhibit B, Tab 2, Schedule 1, Table 1, Col. 4 and Col. 5. Rate 300 is landfill gas volume.
(3) Col. 1 - Col. 2
(4) Exhibit B, Tab 3, Schedule 1, Table 1, Col. 5
(5) Internal forecast of carbon allowance pricing based on past auction data and Cap and Trade Regulation

(6) Col. 4 x Col. 5 (7) (Col. 6 / (Col. 3 x 1000)) x 100 (8) Dedicated unbundled customers

## Customer-Related Unit Rate Calculation

Cap and Trade Customer Related Charge = Cost of CO,e Emissions / Net Volumes = \$ 370,064,898.6 / 11,152,950.1  $10^3$ m³ = 3.3181 ¢/m³

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Appendix A Page 2 of 10

# TABLE 2: 2017 FACILITY-RELATED VOLUMES, EMISSIONS, COST OF EMISSIONS AND UNIT RATES

Col. 5

Col. 4

Col. 3

Col. 2

Sol. 1

Unit Rate	(¢/m³)				0.0018 5	0.0271 s	0.0048 7	0337
U	)				0	0	0.	C
Cost of CO <sub>2</sub> e Emissions <sup>4</sup>	(\$)	49,771.3	49,967.6	129,348.0	229,086.9	3,260,985.5	565,797.5	4 055 970 0
Assumed Cost of Allowances <sup>3</sup>	(\$/tonne CO <sub>2</sub> e)	17.70	17.70	17.70	17.70	17.70	17.70	77.70
${\sf CO}_2$ e Emissions $^2$	(Tonnes CO <sub>2</sub> e)	2,811.9	2,823.0	7,307.8	12,942.8	184,236.5	31,966.0	0.00 4.45.0
Volumes <sup>1</sup>	(10³m³)	1,500.0	1,505.9	3,930.2	6,936.2	98,279.0	17,191.8	0 404 004
		Fleet			Company Use	Unaccounted For Gas (UAF)	Compressor Fuel	Total Pacifix: Dalatad
Line		2.1.1			2.1	2.2	2.3	c

- (1) Exhibit B, Tab 2, Schedule 1, Table 2
- (2) Exhibit B, Tab 3, Schedule 1, Table 3, Col. 5
- (3) Internal forecast of carbon allowance pricing based on past auction data and Cap and Trade Regulation
- (4) Col. 2 x Col. 3
- (5) Cost of CO<sub>2</sub>e emissions / Total customer-related volume = [Col. 4 / (Exhibit A1, Table 1, Line 1, Col. 1 x 1000)] x 100
- (6) Cost of CO2e emissions / (Total customer-related volume Rate 125D customers landfill gas volume) = [Co1. 4 / ((Exhibit A1, Table 1, Line 1, Co1. 1 Line 1, 7b, Co1. 1 Line 1.12, Co1. 2) x 10000] x 100
  - (7) Cost of CO2e emissions / (Total customer-related volume excluding unbundled customers (Rates 125 and 300) + Rate 325 Volume) = [Col. 4 / ((Exhibit A1, Table 1, Line 1, Col. 1 Line 1, Zol. 1 Zol. 2 Zol. 1 Zol. 2 Zol.

## - Line 1.7b, Col. 1 - Line 1.12, Col. 1 + $190,328 \ 10^3 \ m^3$ ) x 1000] x 100

## Facility-Related Unit Rate Calculations

Company Use = Cost of CO $_2$ e Emissions for Company Use / Total Customer-Related Volume = \$ 229,086.9 / 12,383,528.6  $10^3 m^3$  = 0.0018  $e/m^3$ 

Unaccounted For Gas Volumes = Cost of CO<sub>2</sub>e Emissions for Unaccounted For Gas / (Total Customer-Related Volume Excluding Rate 125D and Landfill Gas) = \$ 3,260,985.5 / (12,383,528.6 - 325,082.3 - 34,992.0) 10<sup>3</sup>m<sup>3</sup> = 0.0271 ¢/m<sup>3</sup>

Compressor Fuel Volumes = Cost of CO<sub>2</sub>e Emissions for Compressor Fuel / (Total Customer-Related Volume Excluding Unbundled Customers + Rate 325 Volume) = \$565,797.5 / (12,383,528.6 - 305,896.4 - 325,082.3 - 35,440.4 + 190,328.0)  $10^3$ m<sup>3</sup> = 0.0048  $\phi$ /m<sup>3</sup>

Facility-Related Charge =  $0.0018 + 0.0271 + 0.0048 \ \phi/m^3$ =  $0.0337 \ \phi/m^3$ 

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Appendix A Page 3 of 10

### **TABLE A3**

TABLE 3: 2017 CAP & TRADE UNIT RATE SUMMARY

Col. 1

		~		2	က	4	2	i	9
Unit Rate	(ø/m <sub>3</sub> )	3.3181		0.0018	0.0271	0.0048	0.0337		3.3518
		Customer-Related	Facility-Related:	Company Use	UAF	Compressor Fuel	Facility-Related		Total
Line		~		2.1	2.2	2.3	7		3

(1) Exhibit A1, Table 1, Line 1, Col. 8
(2) Exhibit A2, Table 2, Line 2.1, Col. 5
(3) Exhibit A2, Table 2, Line 2.2, Col. 5
(4) Exhibit A2, Table 2, Line 2.3, Col. 5
(5) Line 2.1 + Line 2.2 + Line 2.3
(6) Line 1 + Line 2

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 1 Appendix A Page 4 of 10

### **TABLE A4**

### TABLE 4: 2017 CAP AND TRADE UNIT RATE SUMMARY BY RATE CLASS

Rate Class	Non-Large Final Emitter (¢/m³)	Large Final Emitter <sup>1</sup> (¢/m³)
Rate 1	3.3518	0.0337
Rate 6	3.3518	0.0337
Rate 9	3.3518	0.0337
Rate 100	3.3518	0.0337
Rate 110	3.3518	0.0337
Rate 115	3.3518	0.0337
Rate 125	3.3471	0.0290
Rate 125 Dedicated	3.3199	0.0018
Rate 135	3.3518	0.0337
Rate 145	3.3518	0.0337
Rate 170	3.3518	0.0337
Rate 200	0.0337	0.0337
Rate 300	3.3471	0.0290
Rate 300 Interruptible	3.3471	0.0290
Rate 315	0.0048	0.0048
Rate 316	0.0048	0.0048
Rate 320	0.0000	0.0000
Rate 325	0.0066	0.0066
Rate 330	0.0066	0.0066
Rate 331	0.0018	0.0018
Rate 332	0.0018	0.0018

<sup>(1)</sup> Includes Voluntary Participants and Other Exempt Gas Volumes

Exhibit G

### Tab 1 Schedule 1 Appendix A Page 5 of 10

### TABLE A5

		Non-Large Final	
Rate Class		Emitter	Large Final Emitter <sup>1</sup>
		(¢/m³)	(¢/m³)
Rate 1	Customer-Related	3.3181	
Nate 1	Customer-Netated	3.3101	
	Facility-Related:		
	Company Use	0.0018	0.0018
	UAF	0.0271	0.0271
	Compressor Fuel	0.0048	0.0048
	Facility-Related	0.0337	0.0337
	Total	3.3518	0.0337
Deta C	Overtown Deleted	2 2404	_
Rate 6	Customer-Related	3.3181	
	Facility-Related:		
	Company Use	0.0018	0.0018
	UAF	0.0271	0.0271
	Compressor Fuel	0.0048	0.0048
	Facility-Related	0.0337	0.0337
	Total	3.3518	0.0337
Rate 9	Customer-Related	3.3181	
	Facility-Related:		
	Company Use	0.0018	0.0018
	UAF	0.0271	0.0271
	Compressor Fuel	0.0048	0.0048
	Facility-Related	0.0337	0.0337
	Total	3.3518	0.0337
Rate 100	Customer-Related	3.3181	
	Facility-Related:		
	Company Use	0.0018	0.0018
	UAF	0.0271	0.0271
	Compressor Fuel	0.0048	0.0048
	Facility-Related	0.0337	0.0337
	Total	3.3518	0.0337

TABLE 5: 2017 CAP AND TRADE UNIT RATE BREAKDOWN BY RATE CLASS

Exhibit G Tab 1 Schedule 1

### TABLE 5: 2017 CAP AND TRADE UNIT RATE BREAKDOWN BY RATE CLASS

TABLE A5

Appendix A Page 6 of 10

Rate Class		Non-Large Final Emitter (¢/m³)	Large Final Emitter <sup>1</sup> (¢/m³)
Rate 110	Customer-Related	3.3181	
	Facility-Related: Company Use UAF Compressor Fuel	0.0018 0.0271 0.0048	0.0018 0.0271 0.0048
	Facility-Related	0.0337	0.0337
	Total	3.3518	0.0337
Rate 115	Customer-Related	3.3181	
	Facility-Related: Company Use UAF Compressor Fuel Facility-Related	0.0018 0.0271 0.0048 0.0337	0.0018 0.0271 0.0048 0.0337
	Total	3.3518	0.0337
Rate 125	Customer-Related	3.3181	
	Facility-Related: Company Use UAF Compressor Fuel Facility-Related	0.0018 0.0271 	0.0018 0.0271 
	Total	3.3471	0.0290
Rate 125 Dedicated	Customer-Related	3.3181	
- 21-23-2-2	Facility-Related: Company Use UAF Compressor Fuel Facility-Related	0.0018 0.0000 0.0000 0.0018	0.0018 0.0000 0.0000 0.0018
	Total	3.3199	0.0018

Exhibit G Tab 1 Schedule 1

### TABLE 5: 2017 CAP AND TRADE UNIT RATE BREAKDOWN BY RATE CLASS

Appendix A Page 7 of 10

Rate Class		Non-Large Final Emitter (¢/m³)	Large Final Emitter <sup>1</sup> (¢/m³)
Rate 135	Customer-Related	3.3181	
	Facility-Related: Company Use UAF Compressor Fuel Facility-Related	0.0018 0.0271 0.0048 0.0337	0.0018 0.0271 0.0048 0.0337
	Total	3.3518	0.0337
Rate 145	Customer-Related	3.3181	
	Facility-Related: Company Use UAF Compressor Fuel Facility-Related	0.0018 0.0271 0.0048 0.0337	0.0018 0.0271 0.0048 0.0337
	Total	3.3518	0.0337
Rate 170	Customer-Related	3.3181	
	Facility-Related: Company Use UAF Compressor Fuel Facility-Related	0.0018 0.0271 0.0048 0.0337	0.0018 0.0271 0.0048 0.0337
	Total	3.3518	0.0337
Rate 200	Customer-Related	0.0000	
	Facility-Related: Company Use UAF Compressor Fuel Facility-Related	0.0018 0.0271 0.0048 0.0337	0.0018 0.0271 0.0048 0.0337
_	Total	0.0337	0.0337

Exhibit G Tab 1 Schedule 1

Appendix A Page 8 of 10

### TABLE 5: 2017 CAP AND TRADE UNIT RATE BREAKDOWN BY RATE CLASS

**TABLE A5** 

Rate Class		Non-Large Final Emitter (¢/m³)	Large Final Emitter <sup>1</sup> (¢/m³)
Rate 300	Customer-Related	3.3181	
	Facility-Related: Company Use	0.0018	0.0018
	UAF	0.0271	0.0271
	Compressor Fuel	0.0000	0.0000
	Facility-Related	0.0290	0.0290
	Total	3.3471	0.0290
Rate 300 Interruptible	Customer-Related	3.3181	
	Facility-Related:		
	Company Use	0.0018	0.0018
	UAF	0.0271	0.0271
	Compressor Fuel	0.0000	0.0000
	Facility-Related	0.0290	0.0290
	Total	3.3471	0.0290
Rate 315	Customer-Related	0.0000	
	Facility-Related:		
	Company Use	0.0000	0.0000
	UAF	0.0000	0.0000
	Compressor Fuel	0.0048	0.0048
	Facility-Related	0.0048	0.0048
	Total	0.0048	0.0048
Rate 316	Customer-Related	0.0000	
	Facility-Related:		
	Company Use	0.0000	0.0000
	UAF	0.0000	0.0000
	Compressor Fuel	0.0048	0.0048
	Facility-Related	0.0048	0.0048
	. domity reduced	0.0010	3.30 10
	Total	0.0048	0.0048

Exhibit G Tab 1 Schedule 1

### TABLE 5: 2017 CAP AND TRADE UNIT RATE BREAKDOWN BY RATE CLASS

TABLE A5

Appendix A Page 9 of 10

Rate Class		Non-Large Final Emitter (¢/m³)	Large Final Emitter <sup>1</sup> (¢/m³)
Rate 320	Customer-Related	0.0000	
	Facility-Related: Company Use UAF	0.0000 0.0000	0.0000 0.0000
	Compressor Fuel	0.0000	0.0000
	Facility-Related	0.0000	0.0000
	Total	0.0000	0.0000
Rate 325	Customer-Related	0.0000	
	Facility-Related: Company Use	0.0018	0.0018
	UAF	0.0000	0.0000
	Compressor Fuel	0.0048	0.0048
	Facility-Related	0.0066	0.0066
	Total	0.0066	0.0066
Rate 330	Customer-Related	0.0000	
	Facility-Related:		
	Company Use	0.0018	0.0018
	UAF	0.0000	0.0000
	Compressor Fuel	0.0048	0.0048
	Facility-Related	0.0066	0.0066
	Total	0.0066	0.0066
Rate 331	Customer-Related	0.0000	
	Facility-Related: Company Use	0.0018	0.0018
	UAF	0.0000	0.0000
	Compressor Fuel	0.0000	0.0000
	Facility-Related	0.0018	0.0018
	Total	0.0018	0.0018

Exhibit G

Tab 1

Schedule 1

### TABLE 5: 2017 CAP AND TRADE UNIT RATE BREAKDOWN BY RATE CLASS

**TABLE A5** 

Appendix A Page 10 of 10

Rate Class		Non-Large Final Emitter (¢/m³)	Large Final Emitter <sup>1</sup> (¢/m³)
Rate 332	Customer-Related	0.0000	
	Facility-Related: Company Use UAF Compressor Fuel Facility-Related Total	0.0018 0.0000 0.0000 0.0018	0.0018 0.0000 0.0000 0.0018

<sup>(1)</sup> Includes Voluntary Participants and Other Exempt Gas Volumes

RATE NUMBER:	RESIDENTIAL SERVICE
I I	RESIDENTIAL SERVICE

### APPLICABILITY:

To any Applicant needing to use the Company's natural gas distribution network to have transported a supply of natural gas to a residential building served through one meter and containing no more than six dwelling units ("Terminal Location").

### RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m³.

Monthly Customer Charge	Billing Month January to December \$20.00
Monthly Customer Charge	\$20.00
Delivery Charge per cubic metre	
For the first 30 m³ per month	10.1617 ¢/m³
For the next 55 m³ per month	9.6141 ¢/m³
For the next 85 m³ per month	9.1852 ¢/m³
For all over 170 m³ per month	8.8656 ¢/m³
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.5839 ¢/m³
Cap and Trade Customer Related Charge	3.3181 ¢/m³
Cap and Trade Facility Related Charge	0.0337 ¢/m³

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". Also, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F".

The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

### **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

### TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

### **EFFECTIVE DATE:**

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 1
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 10



RATE NUMBER: 6	GENERAL SERVICE
O	GENERAL SERVICE

### APPLICABILITY:

To any Applicant needing to use the Company's natural gas distribution network to have transported a supply of natural gas to a single terminal location ("Terminal Location") for non-residential purposes.

### RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m<sup>3</sup>.

•	Billing Month
	January
	to
	December
Monthly Customer Charge	\$70.00
Delivery Charge per cubic metre	
For the first 500 m³ per month	9.7415 ¢/m³
For the next 1050 m <sup>3</sup> per month	7.8075 ¢/m³
For the next 4500 m³ per month	6.4531 ¢/m³
For the next 7000 m³ per month	5.5829 ¢/m³
For the next 15250 m³ per month	5.1963 ¢/m³
For all over 28300 m³ per month	5.0992 ¢/m³
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.6060 ¢/m³
Cap and Trade Customer Related Charge (If applicable) Cap and Trade Facility Related Charge	3.3181 ¢/m³ 0.0337 ¢/m³

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". Also, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

### **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

### TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

### **EFFECTIVE DATE:**

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 1
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 11



RATE NUMBER	CONTAINER SERVICE
9	CONTAINER SERVICE

### APPLICABILITY:

To any Applicant needing to use the Company's natural gas distribution network to have transported a supply of natural gas to a single terminal location ("Terminal Location") at which, such gas is authorized by the Company to be resold by filling pressurized containers.

### RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m<sup>3</sup>.

до година и по то	Billing Month January to December
Monthly Customer Charge	\$235.95
Delivery Charge per cubic metre For the first 20,000 m³ per month For all over 20,000 m³ per month	10.8157 ¢/m³ 10.1250 ¢/m³
Transportation Charge per cubic metre (If applicable) Transportation Dawn Charge per cubic metre (If applicable)	5.6186 ¢/m³ 1.1335 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.5499 ¢/m³
Cap and Trade Customer Related Charge (If applicable) Cap and Trade Facility Related Charge	3.3181 ¢/m³ 0.0337 ¢/m³

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". In addition, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

### **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

### TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

### **EFFECTIVE DATE:**

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 1
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 12



RATE NUMBER: 100 FIRM CONTRACT SERVICE

### APPLICABILITY:

To any Applicant who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation, to a single terminal location ("Terminal Location"), to be delivered at a specified maximum daily volume of not less than 10,000 cubic metres and not more than 150,000 cubic metres.

### **CHARACTER OF SERVICE:**

Service shall be continuous (firm) except for events as specified in the Service Contract including force majeure.

### RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m<sup>3</sup>.

	Billing Month
	January
	to
	December
Monthly Customer Charge	\$122.01
Delivery Charge	
Per cubic metre of Contract Demand	36.0000 ¢/m³
Per cubic metre of gas delivered	0.1603 ¢/m³
Gas Supply Load Balancing Charge	1.5300 ¢/m³
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.6060 ¢/m³
Cap and Trade Customer Related Charge (If applicable)	3.3181 ¢/m³
Cap and Trade Facility Related Charge	0.0337 ¢/m³

Monthly Minimum Bill: The Monthly Customer Charge plus the Monthly Contract Demand Charge.

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". In addition, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

### **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

### **UNAUTHORIZED OVERRUN GAS RATE:**

When the Applicant takes Unauthorized Supply Overrun Gas, the Applicant shall purchase such gas at a rate of 150% of the highest price on each day on which an overrun occurred for the calendar month as published in the Gas Daily for the Niagara and Iroquois export points for the CDA and EDA respectively.

On the second and subsequent occasion in a contract year when the Applicant takes Unauthorized Demand Overrun Gas, a new Contract Demand will be established and shall be charged equal to 120% of the applicable monthly charge for twelve months of the current contract term, including retroactively based on the terms of the Service Contract.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 13



Dilling Manth

Filed: 2016-11-15, EB-2016-0300, Exhibit G, Tab 1, Schedule 1, Appendix B, Page 5 of 41

RATE NUMBER:	100	
--------------	-----	--

### TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

### **EFFECTIVE DATE:**

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 14



RATE NUMBER: 110

### LARGE VOLUME LOAD FACTOR SERVICE

### APPLICABILITY:

To any Applicant who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation, to a single terminal location ("Terminal Location"), of an annual supply of natural gas of not less than 146 times a specified maximum daily volume of not less than 1,865 cubic metres.

### **CHARACTER OF SERVICE:**

Service shall be continuous (firm) except for events as specified in the Service Contract including force majeure.

### RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m³.

	Billing Month
	January
	to
	December
Monthly Customer Charge	\$587.37
Delivery Charge	
Per cubic metre of Contract Demand	22.9100 ¢/m³
Per cubic metre of gas delivered	
For the first 1,000,000 m³ per month	0.7456 ¢/m³
For all over 1,000,000 m³ per month	0.5956 ¢/m³
Gas Supply Load Balancing Charge	0.3232 ¢/m³
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.5499 ¢/m³
Cap and Trade Customer Related Charge (If applicable) Cap and Trade Facility Related Charge	3.3181 ¢/m³ 0.0337 ¢/m³

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". In addition, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

### **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

### **UNAUTHORIZED OVERRUN GAS RATE:**

When the Applicant takes Unauthorized Supply Overrun Gas, the Applicant shall purchase such gas at a rate of 150% of the highest price on each day on which an overrun occurred for the calendar month as published in the Gas Daily for the Niagara and Iroquois export points for the CDA and EDA respectively.

On the second and subsequent occasion in a contract year when the Applicant takes Unauthorized Demand Overrun Gas, a new Contract Demand will be established and shall be charged equal to 120% of the applicable monthly charge for twelve months of the current contract term, including retroactively based on the terms of the Service Contract.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 15



Filed: 2016-11-15, EB-2016-0300, Exhibit G, Tab 1, Schedule 1, Appendix B, Page 7 of 41

RATE NUMBER: 110

### **MINIMUM BILL:**

Per cubic metre of Annual Volume Deficiency (See Terms and Conditions of Service):

6.6585 ¢/m3

In determining the Annual Volume Deficiency, the minimum bill multiplier shall not be less than 146.

### TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

### **EFFECTIVE DATE:**

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 16



RATE NUMBER: 115

### LARGE VOLUME LOAD FACTOR SERVICE

### APPLICABILITY:

To any Applicant who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation, to a single terminal location ("Terminal Location"), of an annual supply of natural gas of not less than 292 times a specified maximum daily volume of not less than 1,165 cubic metres.

### CHARACTER OF SERVICE:

Service shall be continuous (firm) except for events as specified in the Service Contract including force majeure.

### RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m<sup>3</sup>.

	Billing Month	
	January	
	to	
	December	
Monthly Customer Charge	\$622.62	
Delivery Charge		
Per cubic metre of Contract Demand	24.3600 ¢/m <sup>3</sup>	
Per cubic metre of gas delivered		
For the first 1,000,000 m³ per month	0.3778 ¢/m³	
For all over 1,000,000 m³ per month	0.2778 ¢/m³	
Gas Supply Load Balancing Charge	0.1164 ¢/m³	
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³	
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³	
System Sales Gas Supply Charge per cubic metre (If applicable)	9.5499 ¢/m³	
Cap and Trade Customer Related Charge (If applicable) Cap and Trade Facility Related Charge	3.3181 ¢/m³ 0.0337 ¢/m³	

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". In addition, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

### **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

### **UNAUTHORIZED OVERRUN GAS RATE:**

When the Applicant takes Unauthorized Supply Overrun Gas, the Applicant shall purchase such gas at a rate of 150% of the highest price on each day on which an overrun occurred for the calendar month as published in the Gas Daily for the Niagara and Iroquois export points for the CDA and EDA respectively.

On the second and subsequent occasion in a contract year when the Applicant takes Unauthorized Demand Overrun Gas, a new Contract Demand will be established and shall be charged equal to 120% of the applicable monthly charge for twelve months of the current contract term, including retroactively based on the terms of the Service Contract.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 17



Filed: 2016-11-15, EB-2016-0300, Exhibit G, Tab 1, Schedule 1, Appendix B, Page 9 of 41

RATE NUMBER: 115

### **MINIMUM BILL:**

Per cubic metre of Annual Volume Deficiency (See Terms and Conditions of Service):

6.0838 ¢/m<sup>3</sup>

In determining the Annual Volume Deficiency the minimum bill multiplier shall not be less than 292.

### TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

### **EFFECTIVE DATE:**

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 18



RATE NUMBER: 125

### **EXTRA LARGE FIRM DISTRIBUTION SERVICE**

### APPLICABILITY:

To any Applicant who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation, to a single terminal location ("Terminal Location"), of a specified maximum daily volume of natural gas. The maximum daily volume for billing purposes, Contract Demand or Billing Contract Demand, as applicable, shall not be less than 600,000 cubic metres. The Service under this rate requires Automatic Meter Reading (AMR) capability.

### CHARACTER OF SERVICE:

Service shall be firm except for events specified in the Service Contract including force majeure.

For Non-Dedicated Service the monthly demand charges payable shall be based on the Contract Demand which shall be 24 times the Hourly Demand and the Applicant shall not exceed the Hourly Demand.

For Dedicated Service the monthly demand charges payable shall be based on the Billing Contract Demand or the Contract Demand specified in the Service Contract. The Applicant shall not exceed an hourly flow calculated as 1/24th of the Contract Demand specified in the Service Contract.

### **DISTRIBUTION RATES:**

The following rates and charges, as applicable, shall apply for deliveries to the Terminal Location.

Monthly Customer Charge \$500.00

**Demand Charge** 

Per cubic metre of the Contract Demand or the Billing 9.7559 ¢/m³

Contract Demand, as applicable, per month

Cap and Trade Customer Related Charge (If applicable)

Cap and Trade Facility Related Charge

Cap and Trade Facility Related Charge

O.0290 ¢/m³

Dedicated

3.3181 ¢/m³

0.0018 ¢/m³

Direct Purchase Administration Charge \$75.00

Forecast Unaccounted For Gas Percentage 0.7%

Monthly Minimum Bill: The Monthly Customer Charge plus the Monthly Demand Charge

### TERMS AND CONDITIONS OF SERVICE:

 To the extent that this Rate Schedule does not specifically address matters set out in PARTS III and IV of the Company's HANDBOOK OF RATES AND DISTRIBUTION SERVICES then the provisions in those Parts shall apply, as contemplated therein, to service under this Rate Schedule.

### 2. Unaccounted for Gas (UFG) Adjustment Factor:

The Applicant is required to deliver to the Company on a daily basis the sum of: (a) the volume of gas to be delivered to the Applicant's Terminal Location; and (b) a volume of gas equal to the forecast unaccounted for gas percentage as stated above multiplied by (a). In the case of a Dedicated Service, the Unaccounted for Gas volume requirement is not applicable.

### 3. Nominations:

Customer shall nominate gas delivery daily based on the gross commodity delivery required to serve the customer's daily load plus the UFG. Customers may change daily nominations based on the nomination windows within a day as defined by the customer contract with TransCanada PipeLines (TCPL) or Union Gas Limited.

Schedule of nominations under Rate 125 has to match upstream nominations. This rate does not allow for any more flexibility than exists upstream of the EGD gas distribution system. Where the customer's nomination does not match the confirmed upstream nomination, the nomination will be confirmed at the upstream value.

Customer may nominate gas to a contractually specified Primary Delivery Area that may be EGD's Central Delivery Area (CDA) or EGD's Eastern Delivery Area (EDA) or other Delivery Area as specified in the applicable Service Contract. The Company may accept deliveries at a Secondary Delivery Area such as Dawn, at its sole discretion. Quantities of gas nominated to the system cannot exceed the Contract Demand, unless Make-up Gas or Authorized Overrun is permitted.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 19



Customers with multiple Rate 125 contracts within a Primary Delivery Area may combine nominations subject to system operating requirements and subject to the Contract Demand for each Terminal Location. For combined nominations the customer shall specify the quantity of gas to each Terminal Location and the order in which gas is to be delivered to each Terminal Location. The specified order of deliveries shall be used to administer Load Balancing Provisions to each Terminal Location. When system conditions require delivery to a single Terminal Location only, nominations with different Terminal Locations may not be combined.

The Company permits pooling of Rate 125 contracts for legally related customers who meet the Business Corporations Act (Ontario) ("OBCA") definition of "affiliates" to allow for the management of those contracts by a single manager. The single manager is jointly liable with the individual customers for all of their obligations under the contracts, while the individual customers are severally liable for all of their obligations under their own contracts.

## 4. Authorized Demand Overrun:

The Company may, at its sole discretion, authorize consumption of gas in excess of the Contract Demand for limited periods within a month, provided local distribution facilities have sufficient capacity to accommodate higher demand. In such circumstances, customer shall nominate gas delivery based on the gross commodity delivery (the sum of the customer's Contract Demand and the authorized overrun amount) required to serve the customer's daily load, plus the UFG. In the event that gas usage exceeds the gas delivery on a day where demand overrun is authorized, the excess gas consumption shall be deemed Supply Overrun Gas.

Such service shall not exceed 5 days in any contract year. Based on the terms of the Service Contract, requests beyond 5 days will constitute a request for a new Contract Demand level with retroactive charges. The new Contract Demand level may be restricted by the capability of the local distribution facilities to accommodate higher demand.

Automatic authorization of transportation overrun over the Billing Contract Demand will be given in the case of Dedicated Service to the Terminal Location provided that pipeline capacity is available and subject to the Contract Demand as specified in the Service Contract.

Authorized Demand Overrun Rate

0.32 ¢/m3

The Authorized Demand Overrun Rate may be applied to commissioning volumes at the Company's sole discretion, for a contractual period of not more than one year, as specified in the Service Contract.

#### 5. Unauthorized Demand Overrun:

Any gas consumed in excess of the Contract Demand and/or maximum hourly flow requirements, if not authorized, will be deemed to be Unauthorized Demand Overrun gas. Unauthorized Demand Overrun gas may establish a new Contract Demand effective immediately and shall be subject to a charge equal to 120 % of the applicable monthly charge for twelve months of the current contract term, including retroactively based on terms of Service Contract. Based on capability of the local distribution facilities to accommodate higher demand, different conditions may apply as specified in the applicable Service Contract. Unauthorized Demand Overrun gas shall also be subject to Unauthorized Supply Overrun provisions.

## 6. Unauthorized Supply Overrun:

Any volume of gas taken by the Applicant on a day at the Terminal Location which exceeds the sum of:

- any applicable provisions of Rate 315 and any applicable Load Balancing Provision pursuant to Rate 125, plus
- the volume of gas delivered by the Applicant on that day shall constitute Unauthorized Supply Overrun Gas.

The Company may also deem volumes of gas to be Unauthorized Supply Overrun gas in other circumstances, as set out in the Load Balancing Provisions of Rate 125.

Any gas deemed to be Unauthorized Overrun gas shall be purchased by the customer at a price (Pe), which is equal to 150% of the highest price in effect for that day as defined below\*.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 c	of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook	20



### 7. Unauthorized Supply Underrun:

Any volume of gas delivered by the Applicant on any day in excess of the sum of:

- any applicable provisions of Rate 315 and any applicable Load Balancing Provision pursuant to Rate 125, plus
- the volume of gas taken by the Applicant at the Terminal Location on that day shall be classified as Supply Underrun Gas.

The Company may also deem volumes of gas to be Unauthorized Supply Underrun gas in other circumstances, as set out in the Load Balancing Provisions of Rate 125.

Any gas deemed to be Unauthorized Supply Underrun Gas shall be purchased by the Company at a price (P<sub>u</sub>) which is equal to fifty percent (50%) of the lowest price in effect for that day as defined below\*\*.

\* where the price Pe expressed in cents / cubic metre is defined as follows:

 $P_{n} = (P_{m} * E_{r} * 100 * 0.03769 / 1.055056) * 1.5$ 

 $P_m$  = highest daily price in U.S. \$\text{mmBtu}\$ published in the Gas Daily, a Platts Publication, for that day under the column "Absolute", for the Niagara export point if the terminal location is in the CDA delivery area, and the Iroquois export point if the terminal location is in the EDA delivery area.

 $E_r$  = Noon day spot exchange rate expressed in Canadian dollars per U.S. dollar for such day quoted by the Bank of Canada in the following day's Globe & Mail Publication.

1.055056 = Conversion factor from mmBtu to GJ.

0.03769 = Conversion factor from GJ to cubic metres.

\*\* where the price P<sub>u</sub> expressed in cents / cubic metre is defined as follows:

 $P_{II} = (P_{I} * E_{r} * 100 * 0.03769 / 1.055056) * 0.5$ 

 $P_l$  = lowest daily price in U.S. \$/mmBtu published in the Gas Daily, a Platts Publication, for that day under the column "Absolute", for the Niagara export point if the terminal location is in the CDA delivery area, and the Iroquois export point if the terminal location is in the EDA delivery area.

#### **Term of Contract:**

A minimum of one year. A longer-term contract may be required if incremental contracts/assets/facilities have been procured/built for the customer. Migration from an unbundled rate to bundled rate may be restricted subject to availability of adequate transportation and storage assets.

## Right to Terminate Service:

The Company reserves the right to terminate service to customers served hereunder where the customer's failure to comply with the parameters of this rate schedule, including the load balancing provisions, jeopardizes either the safety or reliability of the gas system. The Company shall provide notice to the customer of such termination; however, no notice is required to alleviate emergency conditions.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 3 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 21



## LOAD BALANCING PROVISIONS:

Load Balancing Provisions shall apply at the customer's Terminal Location or at the location of the meter installation for a customer served from a dedicated facility. In the event of an imbalance any excess delivery above the customer's actual consumption or delivery less than the actual consumption shall be subject to the Load Balancing Provisions.

#### Definitions:

### **Aggregate Delivery:**

The Aggregate Delivery for a customer's account shall equal the sum of the confirmed nominations of the customer for delivery of gas to the applicable delivery area from all pipeline sources including where applicable, the confirmed nominations of the customer for Storage Service under Rate 316 or Rate 315 and any available No-Notice Storage Service under Rate 315 for delivery of gas to the Applicable Delivery Area.

#### **Applicable Delivery Area:**

The Applicable Delivery Area for each customer shall be specified by contract as a Primary Delivery Area. Where system-operating conditions permit, the Company, in its sole discretion, may accept a Secondary Delivery Area as the Applicable Delivery Area by confirming the customer's nomination of such area. Confirmation of a Secondary Delivery Area for a period of a gas day shall cause such area to become the Applicable Delivery Area for such day. Where delivery occurs at both a Terminal Location and a Secondary Delivery Area on a given day, the sum of the confirmed deliveries may not exceed the Contract Demand, unless Demand Overrun and/or Make-up Gas is authorized.

## **Primary Delivery Area:**

The Primary Delivery Area shall be delivery area such as EGD's Central Delivery Area (CDA) or EGD's Eastern Delivery Area (EDA), or other Delivery Area as specified in the applicable Service Contract.

#### Secondary Delivery Area:

A Secondary Delivery Area may be a delivery area such as Dawn where the Company, at its sole discretion, determines that operating conditions permit gas deliveries for a customer.

## **Actual Consumption:**

The Actual Consumption of the customer shall be the metered quantity of gas consumed at the customer's Terminal Location or in the event of combined nominations at the Terminal Locations specified.

## Net Available Delivery:

The Net Available Delivery shall equal the Aggregate Delivery times one minus the annually determined percentage of Unaccounted for Gas (UFG) as reported by the Company.

## **Daily Imbalance:**

The Daily Imbalance shall be the absolute value of the difference between Actual Consumption and Net Available Delivery.

#### **Cumulative Imbalance:**

The Cumulative Imbalance shall be the sum of the difference between Actual Consumption and Net Available Delivery since the date the customer last balanced or was deemed to have balanced its Cumulative Imbalance account.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 4 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 22



### **Maximum Contractual Imbalance:**

The Maximum Contractual Imbalance shall be equal to 60% of the customer's Contract Demand for non dedicated service and 60% of the Billing Contract Demand for dedicated service.

#### Winter and Summer Seasons:

The winter season shall commence on the date that the Company provides notice of the start of the winter period and conclude on the date that the Company provides notice of the end of the winter period. The summer season shall constitute all other days. The Company shall provide advance notice to the customer of the start and end of the winter season as soon as reasonably possible, but in no event not less than 2 days prior to the start or end.

### **Operational Flow Order:**

An Operational Flow Order (OFO) shall constitute an issuance of instructions to protect the operational capacity and integrity of the Company's system, including distribution and/or storage assets, and/or connected transmission pipelines.

Enbridge Gas Distribution, acting reasonably, may call for an OFO in the following circumstances:

- Capacity constraint on the system, or portions of the system, or upstream systems, that are fully utilized;
- Conditions where the potential exists that forecasted system demand plus reserves for short notice services provided by the Company and allowances for power generation customers' balancing requirements would exceed facility capabilities and/or provisions of 3rd party contracts;
- Pressures on the system or specific portions of the system are too high or too low for safe operations;
- Storage system constraints on capacity or pressure or caused by equipment problems resulting in limited ability to inject or withdraw from storage;
- · Pipeline equipment failures and/or damage that prohibits the flow of gas;
- Any and all other circumstances where the potential for system failure exists.

## **Daily Balancing Fee:**

On any day where the customer has a Daily Imbalance the customer shall pay a Daily Balancing Fee equal to:

(Tier 1 Quantity X Tier 1 Fee) + (Tier 2 Quantity X Tier 2 Fee) + (Applicable Penalty Fee for Imbalance in excess of the Maximum Contractual Imbalance X the amount of Daily Imbalance in excess of the Maximum Contractual Imbalance)

Where Tier 1 and 2 Fees and Quantities are set forth as follows:

- Tier 1 = 0.985 cents/m3 applied to Daily Imbalance of greater than 2% but less than 10% of the Maximum Contractual Imbalance
- Tier 2 = 1.182 cents/m3 applied to Daily Imbalance of greater than 10% but less than the Maximum Contractual Imbalance

In addition for Tier 2, instances where the Daily Imbalance represents an under delivery of gas during the winter season shall constitute Unauthorized Supply Overrun Gas for all gas in excess of 10% of Maximum Contractual Imbalance. Where the Daily Imbalance represents an over delivery of gas during the summer season, the Company reserves the right to deem as Unauthorized Supply Underrun Gas for all gas in excess of 10% of Maximum Contractual Imbalance. The Company will issue a 24-hour advance notice to customers of its intent to impose cash out for over delivery of gas during the summer season.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 5 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 23



For customers delivering to a Primary Delivery Area other than EGD's CDA or EGD's EDA, the Tier 1 Fee is applied to Daily Imbalance of greater than 0% but less than 10% of the Maximum Contractual Imbalance

The customers shall also pay any Limited Balancing Agreement (LBA) charges imposed by the pipeline on days when the customer has a Daily Imbalance provided such imbalance matches the direction of the pipeline imbalance. LBA charges shall first be allocated to customers served under Rates 125 and 300. The system bears a portion of these charges only to the extent that the system incurs such charges based on its operation excluding the operation of customers under Rates 125 and 300. In that event, LBA charges shall be prorated based on the relative imbalances. The Company will provide the customer with a derivation of any such charges.

Customer's Actual Consumption cannot exceed Net Available Delivery when the Company issues an Operational Flow Order in the winter. Net nominations must not be less than consumption at the Terminal Location. Any negative Daily Imbalance on a winter Operational Flow Order day shall be deemed to be Unauthorized Supply Overrun. Customer's Net Available Delivery cannot exceed Actual Consumption when the Company issues an Operational Flow Order in the summer. Actual Consumption must not be less than net nomination at the Terminal Location. Any positive Daily Imbalance on a summer Operational Flow Order day shall be deemed to be Unauthorized Supply Underrun.

The Company will waive Daily Balancing Fee and Cumulative Imbalance Charge on the day of an Operational Flow Order if the customer used less gas that the amount the customer delivered to the system during the winter season or the customer used more gas than the amount the customer delivered to the system during the summer season. The Company will issue a 24-hour advance notice to customers of Operational Flow Orders and suspension of Load Balancing Provisions.

#### **Cumulative Imbalance Charges:**

Customers may trade Cumulative Imbalances within a delivery area. Customers may also nominate to transfer gas from their Cumulative Imbalance Account into an unbundled (Rate 315 or Rate 316) storage account of the customer subject to their storage contract parameters.

Customers shall be permitted to nominate Make-up Gas, subject to operating constraints, provided that Make-up Gas plus Aggregate Delivery do not exceed the Contract Demand. The Company may, on days with no operating constraints, authorize Make-up Gas that, in conjunction with Aggregate Delivery, exceeds the Contract Demand.

The customer's Cumulative Imbalance cannot exceed its Maximum Contractual Imbalance. In the event that the customer's imbalance exceeds their Maximum Contractual Imbalance the Company shall deem the excess imbalance to be Unauthorized Supply Overrun or Underrun gas, as appropriate.

The Cumulative Imbalance Fee, applicable daily, is 1.0652 cents/m3 per unit of imbalance.

In addition, on any day that the Company declares an Operational Flow Order, negative Cumulative Imbalances greater than 10 % of Maximum Contractual Imbalance in the winter season shall be deemed to be Unauthorized Overrun Gas. The Company reserves the right to deem positive Cumulative Imbalances greater than 10% of Maximum Contractual Imbalance in the summer season as Unauthorized Supply Underun Gas. The Company will issue a 24-hour advance notice to customers of Operational Flow Orders including cash out instructions for Cumulative Imbalances greater than 10 % of Maximum Contractual Imbalance.

## **EFFECTIVE DATE:**

To apply to bills rendered for gas delivered on and after January 1, 2017. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184 effective July 1, 2016.

Page 6 of 6	REPLACING RATE EFFECTIVE:	BOARD ORDER:	IMPLEMENTATION DATE:	EFFECTIVE DATE:
Handbook 24	July 1, 2016	EB-2016-0215	January 1, 2017	January 1, 2017



RATE NUMBER: 135 SEASONAL FIRM SERVICE

### APPLICABILITY:

To any Applicant who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation, to a single terminal location ("Terminal Location"), of an annual supply of natural gas of not less than 340,000 cubic metres.

## CHARACTER OF SERVICE:

Service shall be continuous (firm) except for events as specified in the Service Contract including force majeure. A maximum of five percent of the contracted annual volume may be taken by the Applicant in a single month during the months of December to March inclusively.

## RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m<sup>3</sup>.

7	Billing	<b>Month</b>
	December	April
	to	to
	March	November
Monthly Customer Charge	\$115.08	\$115.08
Delivery Charge		
For the first 14,000 m³ per month	7.1019 ¢/m³	2.4019 ¢/m³
For the next 28,000 m³ per month	5.9019 ¢/m³	1.7019 ¢/m³
For all over 42,000 m³ per month	5.5019 ¢/m³	1.5019 ¢/m³
Gas Supply Load Balancing Charge	0.0000 ¢/m³	0.0000 ¢/m³
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³	5.6186 ¢/m³
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³	5.6186 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.5761 ¢/m³	9.5761 ¢/m³
Cap and Trade Customer Related Charge (If applicable)	3.3181 ¢/m³	3.3181 ¢/m³
Cap and Trade Facility Related Charge	0.0337 ¢/m³	0.0337 ¢/m³

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". In addition, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

## **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

The applicant has the option of delivering either Option a) a Mean Daily Volume ("MDV") based on 12 months, or Option b) a Modified Mean Daily Volume ("MMDV") based on nine months of deliveries. Authorized Volumes for the months of January, February and March would be zero under option b).

## **UNAUTHORIZED OVERRUN GAS RATE:**

When the Applicant takes Unauthorized Supply Overrun Gas, the Applicant shall purchase such gas at a rate of 150% of the highest price on each day on which an overrun occurred for the calendar month as published in the Gas Daily for the Niagara and Iroquois export points for the CDA and EDA respectively.

Failure to deliver a volume of gas equal to the Mean Daily Volume under Option a) set out in the Service Contract during the months of December to March inclusive may result in the Applicant not being eligible for service under this rate in a subsequent contract period, at the Company's sole discretion.

Failure to deliver a volume of gas equal to the Modified Mean Daily Volume under Option b) set out in the Service Contract during the month of December may result in the Applicant not being eligible for service under this rate in a subsequent contract period, at the Company's sole discretion.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 25



## SEASONAL CREDIT:

Rate per cubic metre of Mean Daily Volume from December to March

Rate per cubic metre of Modified Mean Daily Volume for December

\$ 0.77 /m³

0.77 /m³

#### SEASONAL OVERRUN CHARGE:

During the months of December through March inclusively, any volume of gas taken in a single month in excess of five percent of the annual contract volume (Seasonal Overrun Monthly Volume) will be subject to Seasonal Overrun Charges in place of both the Delivery and Gas Supply Load Balancing Charges. The Seasonal Overrun Charge applicable for the months of December and March shall be calculated as 2.0 times the sum of the Gas Supply Load Balancing Charge, Transportation Charge and the maximum Delivery Charge. The Seasonal Overrun Charge applicable for the months of January and February shall be calculated as 5.0 times the sum of the Load Balancing Charge, Transportation Charge and the maximum Delivery Charge.

Seasonal Overrun Charges:

December and March 25.4410 ¢/m³

January and February 63.6025 ¢/m³

#### MINIMUM BILL:

Per cubic metre of Annual Volume Deficiency (See Terms and Conditions of Service):

9.5582 ¢/m3

## TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

## **EFFECTIVE DATE:**

To apply to bills rendered for gas consumed by customers on and after January 1, 2017 under Sales Service and Transportation Service. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184, effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 26



RATE NUMBER: 145
INTERRUPTIBLE SERVICE

## APPLICABILITY:

To any Applicant who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation of a specified maximum daily volume of natural gas to a single terminal location ("Terminal Location") which can accommodate the total interruption of gas service as ordered by the Company exercising its sole discretion. The Company reserves the right to satisfy itself that the customer can accommodate the interruption of gas through either a shutdown of operations or a demonstrated ability and readiness to switch to an alternative fuel source. Any Applicant for service under this rate schedule must agree to transport a minimum annual volume of 340,000 cubic metres.

## **CHARACTER OF SERVICE:**

In addition to events as specified in the Service Contract including force majeure, service shall be subject to curtailment or discontinuance upon the Company issuing a notice not less than 16 hours prior to the time at which such curtailment or discontinuance is to commence. An Applicant may, by contract, agree to accept a shorter notice period.

## RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m³.

	Billing Month
	January
	to
	December
Monthly Customer Charge	\$123.34
Delivery Charge	
Per cubic metre of Contract Demand	8.2300 ¢/m³
For the first 14,000 m³ per month	2.9607 ¢/m³
For the next 28,000 m³ per month	1.6017 ¢/m³
For all over 42,000 m³ per month	1.0427 ¢/m³
Gas Supply Load Balancing Charge	0.6795 ¢/m³
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.5537 ¢/m³
Cap and Trade Customer Related Charge (If applicable)	3.3181 ¢/m³
Cap and Trade Facility Related Charge	0.0337 ¢/m³

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". In addition, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

## **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

## **CURTAILMENT CREDIT:**

Rate for 16 hours of notice per cubic metre of Mean Daily Volume from December to March \$ 0.50 /m³

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 27



In addition, if the Applicant is supplying its own gas requirements, the gas delivered by the Applicant during the period of curtailment shall be purchased by the Company for the Company's use. The purchase price for such gas will be equal to the price that is reported for the month, in the first issue of the Natural Gas *Market Report* published by Canadian Enerdata Ltd. during the month, as the "current" "Avg." (i.e., average) "Alberta One-Month Firm Spot Price" for "AECO 'C' and Nova Inventory Transfer" in the table entitled "Domestic spot gas prices", adjusted for AECO to Empress transportation tolls and compressor fuel costs.

For the areas specified in Appendix A to this Rate Schedule, the Company's gas distribution network does not have sufficient physical capacity under current operating conditions to accommodate the provision of firm service to existing interruptible locations.

## **UNAUTHORIZED OVERRUN GAS RATE:**

When the Applicant takes Unauthorized Supply Overrun Gas, the Applicant shall purchase such gas at a rate of 150% of the highest price on each day on which an overrun occurred for the calendar month as published in the Gas Daily for the Niagara and Iroquois export points for the CDA and EDA respectively.

Any material instance of failure to curtail in any contract year may result in the Applicant forfeiting the right to be served under this rate schedule.

In such case, service hereunder would cease, notwithstanding any Service Contract between the Company and the Applicant. Gas supply and/or transportation service would continue to be available to the Applicant pursuant to the provisions of the Company's Rate 6 until a Service Contract pursuant to another applicable Rate Schedule was executed.

Any Applicant taking a material volume of Unauthorized Supply Overrun Gas, during a period of ordered curtailment, may forfeit its curtailment credits for the respective winter season, December through March inclusive.

On the second and subsequent occasion in a contract year when the Applicant takes Unauthorized Demand Overrun Gas, a new Contract Demand will be established and shall be charged equal to 120% of the applicable monthly charge for twelve months of the current contract term, including retroactively based on the terms of the Service Contract.

### MINIMUM BILL:

Per cubic metre of Annual Volume Deficiency (See Terms and Conditions of Service):

9.2299 ¢/m3

## TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

#### **EFFECTIVE DATE:**

To apply to bills rendered for gas consumed by customers on and after January 1, 2017 under Sales Service and Transportation Service. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184, effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 28



## LARGE INTERRUPTIBLE SERVICE

Rilling Month

## APPLICABILITY:

To any Applicant who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation of a specified maximum daily volume of natural gas of not less than 30,000 cubic metres and a minimum annual volume of 5,000,000 cubic metres to a single terminal location ("Terminal Location") which can accommodate the total interruption of gas service when required by the Company. The Company reserves the right to satisfy itself that the customer can accommodate the interruption of gas through either a shutdown of operations or a demonstrated ability and readiness to switch to an alternative fuel source. The Company, exercising its sole discretion, may order interruption of gas service upon not less than four (4) hours notice.

## CHARACTER OF SERVICE:

In addition to events as specified in the Service Contract including force majeure, service shall be subject to curtailment or discontinuance upon the Company issuing a notice not less than 4 hours prior to the time at which such curtailment or discontinuance is to commence.

### RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m³.

	Billing Wonth
	January
	to
	December
Monthly Customer Charge	\$279.31
Delivery Charge	
Per cubic metre of Contract Demand	4.0900 ¢/m³
Per cubic metre of gas delivered	
For the first 1,000,000 m³ per month	0.5146 ¢/m³
For all over 1,000,000 m³ per month	0.3146 ¢/m³
Gas Supply Load Balancing Charge	0.3145 ¢/m³
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.5499 ¢/m³
Cap and Trade Customer Related Charge (If applicable)	3.3181 ¢/m³
Cap and Trade Facility Related Charge	0.0337 ¢/m³

The rates quoted above shall be subject to the Gas Cost Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". In addition, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable if the Applicant is not providing its own supply of natural gas for transportation.

## **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

## **CURTAILMENT CREDIT:**

Rate for 4 hours of notice per cubic metre of Mean Daily Volume from December to March \$ 1.10 /m³

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 29



In addition, if the Applicant is supplying its own gas requirements, the gas delivered by the Applicant during the period of curtailment shall be purchased by the Company for the Company's use. The purchase price for such gas will be equal to the price that is reported for the month, in the first issue of the Natural Gas *Market Report* published by Canadian Enerdata Ltd. during the month, as the "current" "Avg." (i.e., average) "Alberta One-Month Firm Spot Price" for "AECO 'C' and Nova Inventory Transfer" in the table entitled "Domestic spot gas prices", adjusted for AECO to Empress transportation tolls and compressor fuel costs.

For the areas specified in Appendix A to this Rate Schedule, the Company's gas distribution network does not have sufficient physical capacity under current operating conditions to accommodate the provision of firm service to existing interruptible locations.

## **UNAUTHORIZED OVERRUN GAS RATE:**

When the Applicant takes Unauthorized Supply Overrun Gas, the Applicant shall purchase such gas at a rate of 150% of the highest price on each day on which an overrun occurred for the calendar month as published in the Gas Daily for the Niagara and Iroquois export points for the CDA and EDA respectively.

Any material instance of failure to curtail in any contract year may result in the Applicant forfeiting the right to be served under this rate schedule.

In such case, service hereunder would cease, notwithstanding any Service Contract between the Company and the Applicant. Gas supply and/or transportation service would continue to be available to the Applicant pursuant to the provisions of the Company's Rate 6 until a Service Contract pursuant to another applicable Rate Schedule was executed.

Any Applicant taking a material volume of Unauthorized Supply Overrun Gas, during a period of ordered curtailment, may forfeit its curtailment credits for the respective winter season, December through March inclusive.

On the second and subsequent occasion in a contract year when the Applicant takes Unauthorized Demand Overrun Gas, a new Contract Demand will be established and shall be charged equal to 120% of the applicable monthly charge for twelve months of the current contract term, including retroactively based on the terms of the Service Contract.

### MINIMUM BILL:

Per cubic metre of Annual Volume Deficiency (See Terms and Conditions of Service):

6.4187 ¢/m<sup>3</sup>

#### TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

## EFFECTIVE DATE:

To apply to bills rendered for gas consumed by customers on and after January 1, 2017 under Sales Service and Transportation Service. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184, effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 30



RATE NUMBER: 200 WHOLESALE SERVICE

## APPLICABILITY:

To any Distributor who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation of an annual supply of natural gas to customers outside of the Company's franchise area.

## **CHARACTER OF SERVICE:**

Service shall be continuous (firm), except for events as specified in the Service Contract including force majeure, up to the contracted firm daily demand and subject to curtailment or discontinuance, of demand in excess of the firm contract demand, upon the Company issuing a notice not less than 4 hours prior to the time at which such curtailment or discontinuance is to commence.

## RATE:

Rates per cubic metre assume an energy content of 37.69 MJ/m<sup>3</sup>.

	9
	January
	to
	December
Monthly Customer Charge	
The monthly customer charge shall be	
negotiated with the applicant and shall not exceed:	\$2,000.00
Delivery Charge	
Per cubic metre of Firm Contract Demand	14.7000 ¢/m³
Per cubic metre of gas delivered	1.1382 ¢/m³
Gas Supply Load Balancing Charge	1.3639 ¢/m³
Transportation Charge per cubic metre (If applicable)	5.6186 ¢/m³
Transportation Dawn Charge per cubic metre (If applicable)	1.1335 ¢/m³
System Sales Gas Supply Charge per cubic metre (If applicable)	9.5499 ¢/m³
Buy/Sell Sales Gas Supply Charge per cubic metre (If applicable)	9.5302 ¢/m³
Cap and Trade Customer Related Charge (If applicable)	0.0000 ¢/m³
Cap and Trade Facility Related Charge	0.0337 ¢/m³

The rates quoted above shall be subject to the Gas Inventory Adjustment contained in Rider "C" and the Revenue Adjustment Rider contained in Rider "E". Also, meter readings will be adjusted by the Atmospheric Pressure Factor relevant to the customer's location as shown in Rider "F". The Gas Supply Charge is applicable to volumes of natural gas purchased from the Company. The volumes purchased shall be the volumes delivered at the Point of Delivery less any volumes, which the Company does not own and are received at the Point of Acceptance for delivery to the Applicant at the Point of Delivery.

## **DIRECT PURCHASE ARRANGEMENTS:**

Rider "A" or Rider "B" shall be applicable to Applicants who enter into Direct Purchase Arrangements under this Rate Schedule.

## **CURTAILMENT CREDIT:**

Rate for 4 hours of notice per cubic metre of Mean Daily Volume from December to March \$ 1.10 /m³

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 31



**Billing Month** 

In addition, if the Applicant is supplying its own gas requirements, the gas delivered by the Applicant during the period of curtailment shall be purchased by the Company for the Company's use. The purchase price for such gas will be equal to the price that is reported for the month, in the first issue of the Natural Gas *Market Report* published by Canadian Enerdata Ltd. during the month, as the "current" "Avg." (i.e., average) "Alberta One-Month Firm Spot Price" for "AECO 'C' and Nova Inventory Transfer" in the table entitled "Domestic spot gas prices", adjusted for AECO to Empress transportation tolls and compressor fuel costs.

For the areas specified in Appendix A to this Rate Schedule, the Company's gas distribution network does not have sufficient physical capacity under current operating conditions to accommodate the provision of firm service to existing interruptible locations.

## **UNAUTHORIZED OVERRUN GAS RATE:**

When the Applicant takes Unauthorized Supply Overrun Gas, the Applicant shall purchase such gas at a rate of 150% of the highest price on each day on which an overrun occurred for the calendar month as published in the Gas Daily for the Niagara and Iroquois export points for the CDA and EDA respectively.

Any material instance of failure to curtail in any contract year may result in the Applicant forfeiting the right to receive interruptible service under this rate schedule.

Any Applicant taking a material volume of Unauthorized Supply Overrun Gas, during a period of ordered curtailment, may forfeit its curtailment credits for the respective winter season, December through March inclusive.

On the second and subsequent occasion in a contract year when the Applicant takes Unauthorized Demand Overrun Gas, a new Contract Demand will be established and shall be charged equal to 120% of the applicable monthly charge for twelve months of the current contract term, including retroactively based on the terms of the Service Contract.

## **MINIMUM BILL:**

Per cubic metre of Annual Volume Deficiency (See Terms and Conditions of Service):

8.0918 ¢/m3

## TERMS AND CONDITIONS OF SERVICE:

The provisions of PARTS III and IV of the Company's **HANDBOOK OF RATES AND DISTRIBUTION SERVICES** apply, as contemplated therein, to service under this Rate Schedule.

## **EFFECTIVE DATE:**

To apply to bills rendered for gas consumed by customers on and after January 1, 2017 under Sales Service including Buy/Sell Arrangements and Transportation Service. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates as the Board Order, EB-2016-0184, effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 32



## FIRM OR INTERRUPTIBLE DISTRIBUTION SERVICE

#### APPLICABILITY:

To any Applicant who enters into a Service Contract with the Company to use the Company's natural gas distribution network for the transportation to a single Terminal Location of a specified maximum daily volume of natural gas. The Company reserves the right to limit service under this schedule to customers whose maximum contract demand does not exceed 600,000 m3. The Service under this rate requires Automatic Meter Reading (AMR) capability. Service under this schedule is firm unless a customer is currently served under interruptible distribution service or the Company, in its sole judgment, determines that existing delivery facilities cannot adequately serve the load on a firm basis.

The unitized Monthly Contract Demand Charge is also applicable to volumes delivered to any Applicant taking service under a Curtailment Delivered Supply contract with the Company. The unitized rate equals the applicable Monthly Contract Demand Charge times 12/365.

26.4239 ¢/m3

#### CHARACTER OF SERVICE:

The Service shall be continuous (firm) except for events specified in the Service Contract including force majeure. The Applicant is neither allowed to take a daily quantity of gas greater than the Contract Demand nor an hourly amount in excess of the Contract Demand divided by 24, without the Company's prior consent. Interruptible Distribution Service is provided on a best efforts basis subject to the events identified in the service contract including force majeure and, in addition, shall be subject to curtailment or discontinuance of service when the Company notifies the customer under normal circumstances 4 hours prior to the time that service is subject to curtailment or discontinuance. Under emergency conditions, the Company may curtail or discontinue service on one-hour notice. The Interruptible Service Customer is not allowed to exceed maximum hourly flow requirements as specified in Service Contract.

## **DISTRIBUTION RATES:**

Monthly Customer Charge \$500.00

Interruptible Service:

Minimum Delivery Charge 0.3849 ¢/m³ Maximum Delivery Charge 1.0425 ¢/m³

Cap and Trade Customer Related ChargeFirmInterruptibleCap and Trade Facility Related Charge3.3181 ¢/m³3.3181 ¢/m³Cap and Trade Facility Related Charge0.0290 ¢/m³0.0290 ¢/m³

Direct Purchase Administration Charge \$75.00

Forecast Unaccounted For Gas Percentage 0.7%

Monthly Minimum Bill: The Monthly Customer Charge plus the Monthly Contract Demand Charge.

## TERMS AND CONDITIONS OF SERVICE:

**Monthly Contract Demand Charge Firm** 

 To the extent that this Rate Schedule does not specifically address matters set out in PARTS III and IV of the Company's HANDBOOK OF RATES AND DISTRIBUTION SERVICES then the provisions in those Parts shall apply, as contemplated therein, to service under this Rate Schedule.

## 2. Unaccounted for Gas (UFG) Adjustment Factor:

The Applicant is required to deliver to the Company on a daily basis the sum of: (a) the volume of gas to be delivered to the Applicant's Terminal Location; and (b) a volume of gas equal to the forecast unaccounted for gas percentage as stated above multiplied by (a).

## 3. Nominations:

Customer shall nominate gas delivery daily based on the gross commodity delivery required to serve the customer's daily load plus the UFG, net of No-Notice Storage Service provisions under Rate 315, if applicable. The amount of gas delivered under No-Notice Storage Service will also be reduced by the UFG adjustment factor for delivery to the customer's meter.

Customers may change daily nominations based on the nomination windows within a day as defined by the customer contract with TransCanada PipeLines (TCPL) or Union Gas Limited.

Schedule of nominations under Rate 300 has to match upstream nominations. This rate does not allow for any more flexibility than exists upstream of the EGD gas distribution system. Where the customer's nomination does not match the confirmed upstream nomination, the nomination will be confirmed at the upstream value.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 33



Customer may nominate gas to a contractually specified Primary Delivery Area that may be EGD's Central Delivery Area (CDA) or EGD's Eastern Delivery Area (EDA) or other Delivery Area as specified in the applicable Service Contract. The Company may accept deliveries at a Secondary Delivery Area such as Dawn, at its sole discretion. Quantities of gas nominated to the system cannot exceed Contract Demand, unless Make-up Gas or Authorized Overrun is permitted.

Customers with multiple Rate 300 contracts within a Primary Delivery Area may combine nominations subject to system operating requirements and subject to the Contract Demand for each Terminal Location. For combined nominations the customer shall specify the quantity of gas to each Terminal Location and the order in which gas is to be delivered to each Terminal Location. The specified order of deliveries shall be used to administer Load Balancing Provisions to each Terminal Location. When system conditions require delivery to a single Terminal Location only, nominations with different Terminal Locations may not be combined.

#### 4. Authorized Demand Overrun:

The Company may, at its sole discretion, authorize consumption of gas in excess of the Contract Demand for limited periods within a month, provided local distribution facilities have sufficient capacity to accommodate higher demand. In such circumstances, customer shall nominate gas delivery based on the gross commodity delivery required to serve the customer's daily load, including quantities of gas in excess of the Contract Demand, plus the UFG. The Load Balancing Provisions and/or No-Notice Storage Service provisions under Rate 315 cannot be used for Authorized Demand Overrun. Failure to nominate gas deliveries to match Authorized Demand Overrun shall constitute Unauthorized Supply Overrun.

The rate applicable to Authorized Demand Overrun shall equal the applicable Monthly Demand Charge times 12/365 provided, however, that such service shall not exceed 5 days in any contract year. Requests beyond 5 days will constitute a request for a new Contract Demand level, with retroactive charges based on terms of Service Contract.

#### 5. Unauthorized Demand Overrun:

Any gas consumed in excess of the Contract Demand and/or maximum hourly flow requirements, if not authorized, will be deemed to be Unauthorized Demand Overrun gas. Unauthorized Demand Overrun gas will establish a new Contract Demand and shall be subject to a charge equal to 120 % of the applicable monthly charge for twelve months of the current contract term, including retroactively based on terms of Service Contract. Unauthorized Demand Overrun gas shall also be subject to Unauthorized Supply Overrun provisions. Where a customer receives interruptible service hereunder and consumes gas during a period of interruption, such gas shall be deemed Unauthorized Supply Overrun. In addition to charges for Unauthorized Supply Overrun, interruptible customers consuming gas during a scheduled interruption shall pay a penalty charge of \$18.00 per m3.

## 6. Unauthorized Supply Overrun:

Any volume of gas taken by the Applicant on a day at the Terminal Location which exceeds the sum of:

- i. any applicable Load Balancing Provision pursuant to Rate 300 and/or provisions of Rate 315, plus
- the volume of gas delivered by the Applicant on that day shall constitute Unauthorized Supply Overrun Gas.

The Company may also deem volumes of gas to be Unauthorized Supply Overrun gas in other circumstances, as set out in the Load Balancing Provisions of Rate 300.

Any gas deemed to be Unauthorized Overrun gas shall be purchased by the customer at a price (Pe), which is equal to 150% of the highest price in effect for that day as defined below\*.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 34



#### 7. Unauthorized Supply Underrun:

Any volume of gas delivered by the Applicant on any day in excess of the sum of:

- i. any applicable Rate 300 Load Balancing Provision pursuant to Rate 300 and/or provisions of Rate 315, plus
- the volume of gas taken by the Applicant at the Terminal Location on that day shall be classified as Supply Underrun Gas.

The Company may also deem volumes of gas to be Unauthorized Supply Underrun gas in other circumstances, as set out in the Load Balancing Provisions of Rate 300.

Any gas deemed to be Unauthorized Supply Underrun Gas shall be purchased by the Company at a price ( $P_u$ ) which is equal to fifty percent (50%) of the lowest price in effect for that day as defined below\*\*.

\* where the price Pe expressed in cents / cubic metre is defined as follows:

 $P_{\rm e} = (P_{\rm m} * E_{\rm r} * 100 * 0.03769 / 1.055056) * 1.5$ 

 $P_m$  = highest daily price in U.S. \$\text{/mmBtu}\$ published in the Gas Daily, a Platts Publication, for that day under the column "Absolute", for the Niagara export point if the terminal location is in the CDA delivery area, and the Iroquois export point if the terminal location is in the EDA delivery area.

 $E_r$  = Noon day spot exchange rate expressed in Canadian dollars per U.S. dollar for such day quoted by the Bank of Canada in the following days Globe & Mail Publication.

1.055056 = Conversion factor from mmBtu to GJ.

0.03769 = Conversion factor from GJ to cubic metres.

\*\* where the price P<sub>u</sub> expressed in cents / cubic metre is defined as follows:

 $P_{II} = (P_{I} * E_{r} * 100 * 0.03769 / 1.055056) * 0.5$ 

P<sub>I</sub> = lowest daily price in U.S. \$/mmBtu published in the Gas Daily, a Platts Publication, for that day under the column "Absolute", for the Niagara export point if the terminal location is in the CDA delivery area, and the Iroquois export point if the terminal location is in the EDA delivery area.

## Term of Contract:

A minimum of one year. A longer-term contract may be required if incremental assets/facilities have been procured/built for the customer. Migration from an unbundled rate to bundled rate may be restricted subject to availability of adequate transportation and storage assets.

## **Right to Terminate Service:**

The Company reserves the right to terminate service to customers served hereunder where the customer's failure to comply with the parameters of this rate schedule, including interruptible service and load balancing provisions, jeopardizes either the safety or reliability of the gas system. The Company shall provide notice to the customer of such termination; however, no notice is required to alleviate emergency conditions.

#### Load Balancing:

Any difference between actual daily-metered consumption and the actual daily volume of gas delivered to the system less the UFG shall first be provided under the provisions of Rate 315 - Gas Storage Service, if applicable. Any remaining difference will be subject to the Load Balancing Provisions.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 3 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 35



## LOAD BALANCING PROVISIONS:

Load Balancing Provisions shall apply at the customer's Terminal Location.

In the event of an imbalance any excess delivery above the customer's actual consumption or delivery less than the actual consumption shall be subject to the Load Balancing Provisions.

#### Definitions:

#### Aggregate Delivery:

The Aggregate Delivery for a customer's account shall equal the sum of the confirmed nominations of the customer for delivery of gas to the applicable delivery area from all pipeline sources plus, where applicable, the confirmed nominations of the customer for Storage Service under Rate 316 or Rate 315 and any available No-Notice Storage Service under Rate 315 for delivery of gas to the Applicable Delivery Area.

### **Applicable Delivery Area:**

The Applicable Delivery Area for each customer shall be specified by contract as a Primary Delivery Area. Where system-operating conditions permit, the Company, in its sole discretion, may accept a Secondary Delivery Area as the Applicable Delivery Area by confirming the customer's nomination of such area. Confirmation of a Secondary Delivery Area for a period of a gas day shall cause such area to become the Applicable Delivery Area for such day. Where delivery occurs at both a Terminal Location and a Secondary Delivery Area on a given day, the sum of the confirmed deliveries may not exceed Contract Demand, unless Demand Overrun and/or Make-up Gas is authorized.

#### **Primary Delivery Area:**

The Primary Delivery Area shall be delivery area such as EGD's Central Delivery Area (CDA) or EGD's Eastern Delivery Area (EDA), or other Delivery Area as specified in the applicable Service Contract.

#### Secondary Delivery Area:

A Secondary Delivery Area may be a delivery area such as Dawn where the Company, at its sole discretion, determines that operating conditions permit gas deliveries for a customer.

#### **Actual Consumption:**

The Actual Consumption of the customer shall be the metered quantity of gas consumed at the customer's premise.

#### Net Available Delivery:

The Net Available Delivery shall equal the Aggregate Delivery times one minus the annually determined percentage of Unaccounted for Gas (UFG) as reported by the Company.

### Daily Imbalance:

The Daily Imbalance shall be the absolute value of the difference between Actual Consumption and Net Available Delivery.

## **Cumulative Imbalance:**

The Cumulative Imbalance shall be the sum of the difference between Actual Consumption and Net Available Delivery.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 4 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 36



## **Maximum Contractual Imbalance:**

The Maximum Contractual Imbalance shall be equal to 60% of the customer's Contract Demand.

#### Winter and Summer Seasons:

The winter season shall commence on the date that the Company provides notice of the start of the winter period and conclude on the date that the Company provides notice of the end of the winter period. The summer season shall constitute all other days. The Company shall provide advance notice to the customer of the start and end of the winter season as soon as reasonably possible, but in no event not less than 2 days prior to the start or end.

#### **Operational Flow Order:**

An Operational Flow Order (OFO) shall constitute an issuance of instructions to protect the operational capacity and integrity of the Company's system, including distribution and/or storage assets, and/or connected transmission pipelines.

Enbridge Gas Distribution, acting reasonably, may call for an OFO in the following circumstances:

- Capacity constraint on the system, or portions of the system, or upstream systems, that are fully utilized:
- Conditions where the potential exists that forecasted system demand plus reserves for short notice services provided by the Company and allowances for power generation customers' balancing requirements would exceed facility capabilities and/or provisions of 3rd party contracts;
- Pressures on the system or specific portions of the system are too high or too low for safe operations;
- Storage system constraints on capacity or pressure or caused by equipment problems resulting in limited ability to inject or withdraw from storage;
- · Pipeline equipment failures and/or damage that prohibits the flow of gas;
- Any and all other circumstances where the potential for system failure exists.

## Daily Balancing Fee:

On any day where the customer has a Daily Imbalance the customer shall pay a Daily Balancing Fee equal to:

(Tier 1 Quantity X Tier 1 Fee) + (Tier 2 Quantity X Tier 2 Fee) + (Applicable Penalty Fee for Imbalance in excess of the Maximum Contractual Imbalance X the amount of Daily Imbalance in excess of the Maximum Contractual Imbalance)

Where Tier 1 and 2 Fees and Quantities are set forth as follows:

Tier 1 = Daily Imbalance of greater than 2% but less than 10% of the Maximum Contractual Imbalance and shall be subject to a charge of 0.985 cents/M3

Tier 2 = Daily Imbalance of greater than 10% but less than Maximum Contractual Imbalance shall be subject to a charge of 1.182 cents/m3

The customers shall also pay any Limited Balancing Agreement (LBA) charges imposed by the pipeline on days when the customer has a Daily Imbalance provided such imbalance matches the direction of the pipeline imbalance. LBA charges shall first be allocated to customers served under Rate 125 and 300. The system bears a portion of these charges only to the extent that the system incurs such charges based on its operation excluding the operation of customers under Rates 125 and 300. In that event, LBA charges shall be prorated based on the relative imbalances.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 5 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 37



A Daily Imbalance in excess of the Maximum Contractual Imbalance shall be deemed to be Unauthorized Supply Overrun or Underrun gas, as appropriate.

Customer's Actual Consumption cannot exceed Net Available Delivery when the Company issues an Operational Flow Order in the winter. Net nominations must not be less than consumption at the Terminal Location. Any negative Daily Imbalance on a winter Operational Flow Order day shall be deemed to be Unauthorized Supply Overrun. Customer's Net Available Delivery cannot exceed Actual Consumption when the Company issues an Operational Flow Order in the summer. Actual Consumption must not be less than net nomination at the Terminal Location. Any positive Daily Imbalance on a summer Operational Flow Order day shall be deemed to be Unauthorized Supply Underrun.

The Company will waive Daily Balancing Fee and Cumulative Imbalance Charge on the day of an Operational Flow Order if the customer used less gas that the amount the customer delivered to the system during the winter season or the customer used more gas than the amount the customer delivered to the system during the summer season. The Company will issue a 24-hour advance notice to customers of Operational Flow Orders and suspension of Load Balancing Provisions.

## **Cumulative Imbalance Charges:**

Customers may trade Cumulative Imbalances within a delivery area.

Customers shall be permitted to nominate Make-up Gas, subject to operating constraints, provided that Make-up Gas plus Aggregate Delivery do not exceed Contract Demand. The Company may, on days with no operating constraints, authorize Make-up Gas that, in conjunction with Aggregate Delivery, exceeds Contract Demand.

The customer's Cumulative Imbalance cannot exceed its Maximum Contractual Imbalance. The excess imbalance shall be deemed to be Unauthorized Supply Overrun or Underrun gas, as appropriate.

The Cumulative Imbalance Fee, applicable daily, is 0.6974 cents/m3 per unit of imbalance.

The customer's Cumulative Imbalance shall be equal to zero within five (5) days from the last day of the Service Contract.

### **EFFECTIVE DATE:**

To apply to bills rendered for gas delivered on and after January 1, 2017. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184 effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 6 of 6
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 38



GAS STORAGE SERVICE

### APPLICABILITY:

This rate is available to any customer taking service under Distribution Rates 125 and 300. It requires a Service Contract that identifies the required storage space and deliverability. In addition, the customer shall maintain a positive balance of gas in storage at all times or forfeit the use of Storage Services for Load Balancing and No-Notice Storage Service.

A daily nomination for storage injection and withdrawal except for No-Notice Storage Service, hereunder, which is used automatically for daily Load Balancing, shall also be required.

The maximum hourly injections / withdrawals shall equal 1/24<sup>th</sup> of the daily Storage Demand. No-Notice Storage Service is available up to the maximum daily withdrawal rights less the nominated withdrawal or the maximum daily injection rights less the nominated injections.

Storage space shall be based on either of two storage allocation methodologies: (customer's average winter demand - customer's average annual demand) x 151, or [(17 x customers's maximum hourly demand) / 0.1] x 0.57. Customers have the option to select from these two storage space allocation methods the one that best suits their requirements.

Maximum deliverability shall be 1.2% of contracted storage space. The customer may inject and withdraw gas based on the quantity of gas in storage and the limitations specified in the Service Contract. Both injection and withdrawal shall be subject to applicable storage ratchets as determined by the Company and posted from time to time.

## **CHARACTER OF SERVICE:**

Service shall be firm when used in conjunction with firm distribution service. Service is interruptible when used in conjunction with interruptible distribution service. All service is subject to contract terms and force majeure.

The service is available on two bases:

- (1) Service nominated daily based on the available capacity and gas in storage up to the maximum contracted daily deliverability; and
- (2) No-Notice Storage Service for daily Load Balancing consistent with the maximum hourly deliverability.

#### RATE:

The following rates and charges shall apply in respect to all gas received by the Company from and delivered by the Company to storage on behalf of the Applicant.

Monthly Customer Charge: \$150.00

**Storage Reservation Charge:** 

Monthly Storage Space Demand Charge 0.0504 ¢/m³

Monthly Storage Deliverability Demand Charge 23.9352 ¢/m³

Injection & Withdrawal Unit Charge: 0.3266 ¢/m³

Monthly Minimum Bill: The sum of the Monthly Customer Charge plus Monthly Demand Charges.

Cap and Trade Customer Related Charge (If applicable) 0.0000 ¢/m³
Cap and Trade Facility Related Charge 0.0048 ¢/m³

## **FUEL RATIO REQUIREMENT:**

The Fuel Ratio per unit of gas injected and withdrawn is 0.35%.

All Storage Space and Deliverability/Injection Demand Charges are applicable monthly. Injection and withdrawal charges are applicable to each unit of gas injected or withdrawn based on daily nominations and No-Notice Storage Service quantities.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 3
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 39



All deemed withdrawal quantities under the No-Notice Storage Service provisions of this rate will be adjusted for the UFG provisions applicable to the distribution service rates.

In addition, for each unit of injection or withdrawal there will be an applicable fuel charge adjustment expressed as a percent of gas.

## TERMS AND CONDITIONS OF SERVICE:

## 1. Nominated Storage Service:

Nominations under this rate shall only be accepted at the standard North American Energy Standards Board ("NAESB") nomination windows. The customer may elect to nominate all or a portion of the available withdrawal capacity for delivery to the applicable Primary Delivery Area, which may be EGD's Central Delivery Area (CDA) or EGD's Eastern Delivery Area (EDA). All volumes nominated from storage are delivered first for purposes of daily Load Balancing of available supply assets. When system conditions permit, the customer may nominate all or a portion of the available withdrawal capacity for delivery to Dawn or to the customer's Primary Delivery Area for purposes other than consumption at the customer's own meter.

Storage not nominated for delivery will be available for No-Notice Storage Service. The sum of gas nominated for storage injection and for the Terminal Location shall not exceed the customer's Contract Demand (CD).

The customer may also nominate gas for delivery into storage by nominating the storage delivery area as the Primary Delivery Area. Gas nominated for storage delivery will not be available for No-Notice Storage Service. The sum of gas nominated for storage injection and for the Terminal Location shall not exceed the customer's CD. Any gas in excess of the contract demand will be subject to cash out as injection overrun gas.

The Company reserves the right to limit injection and withdrawal rights to all storage customers in certain situations, such as major maintenance or construction projects, and may reduce nominations for injections and withdrawals over and above applicable storage ratchets. The Company will provide customers with one week's notice of its intent to limit injection and withdrawal rights, and at the same time, shall provide its best estimate of the duration and extent of the limitations.

In situations where the Company limits injection and withdrawal rights, the Company shall proportionately reduce the Storage Deliverability/Injection Demand Charge for affected customers based on the number of days the limitation is in effect and the difference between Deliverability/Injection Demand, subject to applicable storage ratchets, and the quantity of gas actually delivered or injected.

## 2. No-Notice Storage Service:

The Company, at its sole discretion based on operating conditions, may provide a No-Notice Storage Service that allows customers taking gas under distribution service rates to balance daily deliveries using this Storage Service. No-Notice Storage Service requires that the customer grant the Company the exclusive right to use unscheduled service available from storage to reduce the daily imbalance associated with the actual consumption of the customer.

No-Notice Storage Service is limited to the available, unscheduled withdrawal or injection capacity under contract to serve a customer. Where the customer serves multiple delivery locations from a single storage Service Contract, the customer shall specify the order in which gas is to be delivered to each Terminal Location served under a distribution Service Contract. The specified order of deliveries shall be used to administer Load Balancing Provisions to each Terminal Location.

The availability of No-Notice Storage Service is subject to and reduced by any service schedule from or to storage. To the extent that the quantity of gas available in storage is insufficient to meet the requirements of the customer under a No-Notice Storage Service, the customer will be unable to use the service on a no-notice basis for Load Balancing service. To the extent that the scheduled injections into storage plus No-Notice Storage Service exceed the maximum limit for injection, No-Notice Storage Service will be reduced and the remainder of the gas will constitute a daily imbalance. Gas delivered in excess of the maximum injection quantity shall be deemed injection overrun gas and cashed out at 50% of the lowest index price of gas.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 3
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 40



## Other provisions:

If the customer elects to use the contracted storage capacity at less than the full volumetric capacity of the storage, the Company may inject its own gas provided that such injection does not reduce the right of the customer to withdraw the full amount of gas injected on any day during the withdrawal season or to schedule its full injection right during the injection season.

## **Term of Contract:**

A minimum of one year.

A longer-term contract may be required if incremental contracts/assets/facilities have been procured/built for the customer.

## **EFFECTIVE DATE:**

To apply to bills rendered for gas delivered on and after January 1, 2017. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184 effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 3 of 3
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 41



## GAS STORAGE SERVICE AT DAWN

## APPLICABILITY:

This rate is available to any customer taking service under Distribution Rates 125 and 300. It requires a Service Contract that identifies the required storage space and deliverability. The customer shall maintain a positive balance of gas in storage at all times. In addition, the customer must arrange for pipeline delivery service from Dawn to the applicable Primary Delivery Area.

This service is not a delivered service and is only available when the relevant pipeline confirms the delivery.

The maximum hourly injections / withdrawals shall equal 1/24<sup>th</sup> of the daily Storage Demand.

Storage space shall be based on either of two storage allocation methodologies: (customer's average winter demand - customer's average annual demand) x 151, or [(17 x customers's maximum hourly demand) / 0.1] x 0.57. Customers have the option to select from these two storage space allocation methods the one that best suits their requirements.

Maximum deliverability shall be 1.2% of contracted storage space. The customer may inject and withdraw gas based on the quantity of gas in storage and the limitations specified in the Service Contract. Both injection and withdrawal shall be subject to applicable storage ratchets as determined by the Company and posted from time to time.

## CHARACTER OF SERVICE:

Service shall be firm when used in conjunction with firm distribution service. Service is interruptible when used in conjunction with interruptible distribution service. All service is subject to contract terms and force majeure.

The service is nominated based on the available capacity and gas in storage up to the maximum contracted daily deliverability.

## RATE:

The following rates and charges shall apply in respect to all gas received by the Company from and delivered by the Company to storage on behalf of the Applicant.

**Monthly Customer Charge:** 

\$150.00

**Storage Reservation Charge:** 

Monthly Storage Space Demand Charge

0.0504 ¢/m3

Monthly Storage Deliverability Demand Charge

5.2531 ¢/m3

Injection & Withdrawal Unit Charge:

0.1015 ¢/m3

Monthly Minimum Bill: The sum of the Monthly Customer Charge plus Monthly Demand Charges.

Cap and Trade Customer Related Charge (If applicable)

0.0000 ¢/m3

Cap and Trade Facility Related Charge

0.0048 ¢/m3

## **FUEL RATIO REQUIREMENT:**

The Fuel Ratio per unit of gas injected and withdrawn is 0.35%.

All Storage Space and Deliverability/Injection Demand Charges are applicable monthly. Injection and withdrawal charges are applicable to each unit of gas injected or withdrawn based on daily nominations.

In addition, for each unit of injection or withdrawal there will be an applicable fuel charge adjustment expressed as a percent of gas.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 42



## TERMS AND CONDITIONS OF SERVICE:

## **Nominated Storage Service:**

The customer shall nominate storage injections and withdrawals daily. The customer may change daily nominations based on the nomination windows within a day as defined by the customer contract with Union Gas Limited and TransCanada PipeLines (TCPL).

The customer may elect to nominate all or a portion of the available withdrawal capacity for delivery to the applicable Primary Delivery Area.

The Company reserves the right to limit injection and withdrawal rights to all storage customers in certain situations, such as major maintenance or construction projects, and may reduce nominations for injections and withdrawals over and above applicable storage ratchets. The Company will provide customers with one week's notice of its intent to limit injection and withdrawal rights, and at the same time, shall provide its best estimate of the duration and extent of the limitations.

In situations where the Company limits injection and withdrawal rights, the Company shall proportionately reduce the Storage Deliverability/Injection Demand Charge for affected customers based on the number of days the limitation is in effect and the difference between Deliverability/Injection Demand, subject to applicable storage ratchets, and the quantity of gas actually delivered or injected.

The customer may transfer the title of gas in storage.

## Other provisions:

If the customer elects to use the contracted storage capacity at less than the full volumetric capacity of the storage, the Company may inject its own gas provided that such injection does not reduce the right of the customer to withdraw the full amount of gas injected on any day during the withdrawal season or to schedule its full injection right during the injection season.

## **Term of Contract:**

A minimum of one year.

A longer-term contract may be required if incremental contracts/assets/facilities have been procured/built for the customer.

### **EFFECTIVE DATE:**

To apply to bills rendered for gas delivered on and after January 1, 2017. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184 effective July 1, 2016.

EFFECTIVE DA	ATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1,	2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 43



RATE NUMBER: 320 BACKSTOPPING SERVICE

#### APPLICABILITY:

To any Applicant whose delivery of natural gas to the Company for transportation to a Terminal Location has been interrupted prior to the delivery of such gas to the Company.

#### CHARACTER OF SERVICE:

The volume of gas available for backstopping in any day shall be determined by the Company exercising its sole discretion. If the aggregate daily demand for service under this Rate Schedule exceeds the supply available for such day, the available supply shall be allocated to firm service customers on a first requested basis and any balance shall be available to interruptible customers on a first requested basis.

#### RATE:

The rates applicable in the circumstances contemplated by this Rate Schedule, in lieu of the Gas Supply Charges specified in any of the Company's other Rate Schedules pursuant to which the Applicant is taking service, shall be as follows:

	Billing Month
	January
	to
	December
Gas Supply Charge	
Per cubic metre of gas sold	15.7976 ¢/m³
Cap and Trade Customer Related Charge (If applicable)	0.0000 ¢/m³
Cap and Trade Facility Related Charge	0.0000 ¢/m³

provided that if upon the request of an Applicant, the Company quotes a rate to apply to gas which is delivered to the Applicant at a particular Terminal Location on a particular day or days and to which this Rate Schedule is applicable (which rate shall not be less than the Company's avoided cost in the circumstances at the time nor greater than the otherwise applicable rate specified above), then the Gas Supply Charge applicable to such gas shall be the rate quoted by the Company.

## **EFFECTIVE DATE:**

To apply to bills rendered for gas consumed by customers on and after January 1, 2017 under Sales Service and Transportation Service. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184, effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 1
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 44



RATE NUMBER:	
10112 NOMBER 225	TDANGMISSION COMPRESSION AND DOOL STORAGE SERVICE
RATE NUMBER: <b>325</b>	TRANSMISSION, COMPRESSION AND POOL STORAGE SERVICE
020	

## APPLICABILITY AND CHARACTER OF SERVICE:

Service under this rate schedule shall apply to the Transmission and Compression Service Agreement with Union Gas Limited dated April 1, 1989, and the Transmission, Compression and Pool Storage Service Agreement with Centra Gas Ontario Inc. dated May 30, 1994. Service shall be provided subject to the terms and conditions specified in the Service Agreement.

#### RATE:

The Customer shall pay for service rendered in each month in a contract year, the sum of the following applicable charges:

	Transmission & Compression \$/10³m³	Pool Storage \$/10³m³
Demand Charge for: Annual Turnover Volume Maximum Daily Withdrawal Volume	0.2002 22.0216	0.1873 20.8192
Commodity Charge	0.8504	0.1417
Cap and Trade Customer Related Charge (If applicable) Cap and Trade Facility Related Charge		0.0000 ¢/m³ 0.0066 ¢/m³

## **FUEL RATIO REQUIREMENT:**

Fuel Ratio applicable to per unit of gas injected and withdrawn is 0.35%.

## **MINIMUM BILL:**

The minimum monthly bill shall be the sum of the applicable Demand Charges as stated in Rate Section above.

## **EXCESS VOLUME AND OVERRUN RATES:**

In addition to the charges provided for in the Rate Section above, the Customer shall pay, for services rendered, the sum of the following applicable charges as they are incurred:

## TERMS AND CONDITIONS OF SERVICE:

- 1. Excess Volumes will be billed at the total of the Excess Volume Charges as stated above.
- 2. Transmission and Compression, and Pool Storage Overrun Service will be billed according to the following:
  - (a) At the end of each month, in a contract year, the Company will make a determination, for each day in the month, of
    - the difference between the volume of gas actually delivered, exclusive of the fuel volume, for Customer's account into the Company System, at the Point of Delivery and the Customer's Maximum Daily Injection Volume, and
    - (ii) the difference between the volume of gas actually delivered, exclusive of the fuel volume, for Customer's account from the Company System, at the Point of Delivery, and the Customer's Maximum Daily Withdrawal Volume.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 45



	Excess Volume Charge \$/10³m³ / Year	Overrun Charge \$/10³m³ / Day
Transmission & Compression		
Authorized	2.6426	0.7240
Unauthorized	-	290.6851
Pool Storage		
Authorized	2.4724	0.6845
Unauthorized	-	274.8134

(b) For each day of the month, where any such differences exceed 2.0 percent of the Customer's relevant Maximum Daily Injection Volume and/or Maximum Daily Withdrawal Volume, the Customer shall pay a charge equal to the relevant Overrun rates, as stated above, for such differences.

## **BILLING ADJUSTMENT:**

- 1. Injection deficiency If at the beginning of any Withdrawal Period the Customer's Storage Balance is less than the Customer's Annual Turnover Volume, due solely to the Company's inability to inject gas for any reason other than the fault of the Customer, then the applicable Demand Charge for Annual Turnover Volume for the contract year beginning the prior April 1 as stated in Rate Section as applicable, shall be adjusted by multiplying each by a fraction, the numerator of which shall be the Customer's Storage Gas Balance as of the beginning of such Withdrawal Period and the denominator shall be the Customer's Annual Turnover Volume as it may have been established for the then current year.
- 2. Withdrawal deficiency If in any month in a contract year for any reason other than the fault of the Customer, the Company fails or is unable to deliver during any one or more days, the amount of gas which the Customer has nominated, up to the maximum volumes which the Company is obligated by the Agreement to deliver to the Customer, then the Demand Charge for maximum Contract Daily Withdrawal Volume in the contract year otherwise payable for the month in which such failure occurs, as stated in Rate Section above, as applicable, shall be reduced by an amount for each day of deficiency to be calculated as follows: The Demand Charge for maximum Contract Daily Withdrawal Volume for the contract year for the month will be divided by 30.4 and the result obtained will then be multiplied by a fraction, the numerator being the difference between the nominated volume for such day and the delivered volume for such day and the denominator being the Customer's maximum Contract Daily Withdrawal Volume for such contract year.

## TERMS AND EXPRESSIONS:

In the application of this Rate Schedule to each of the Agreements, terms and expressions used in this Rate Schedule have the meanings ascribed thereto in such Agreement.

## **EFFECTIVE DATE:**

To apply to bills rendered for gas delivered on and after January 1, 2017. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184 effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 46



RATE NUMBER: 330 TRANSMISSION AND COMPRESSION AND POOL STORAGE

#### APPLICABILITY:

To any Applicant who enters into a Storage Contract with the Company for delivery by the Applicant to the Company and re-delivery by the Company to the Applicant of a volume of natural gas owned by the Applicant.

## **CHARACTER OF SERVICE:**

Service under this rate is for Full Cycle or Short Cycle storage service; with firm or interruptible injection and withdrawal service, all as may be available from time to time.

## RATE:

The following rates and charges shall apply in respect of all gas received by the Company from and re-delivered by the Company to the Applicant.

	Fu	Full Cycle		Short Cycle	
	Firm	Interruptible		-	
	\$/10 <sup>3</sup> m <sup>3</sup>	\$/10 <sup>3</sup> m <sup>3</sup>	\$/10³ı	m³	
Monthly Demand Charge per unit of					
Annual Turnover Volume:					
Minimum	0.3875	0.3875	-		
Maximum	1.9375	1.9375	-		
Monthly Demand Charge per unit of					
Contracted Daily Withdrawal:					
Minimum	42.8408	34.2729	-		
Maximum	214.2040	171.3632	-		
Commodity Charge per unit of gas					
delivered to / received from storage:					
Minimum	0.9921	0.9921	0.3936		
Maximum	4.9605	4.9605	40.1107		
Cap and Trade Customer Related Char	ge (If applicable)		0.0000	¢/m³	
Cap and Trade Facility Related Charge	<b>5</b> ( appaa.io)		0.0066	¢/m³	

## **FUEL RATIO REQUIREMENT:**

The Fuel Ratio per unit of gas injected and withdrawn is 0.35%.

## TRANSACTING IN ENERGY:

The conversion factor is 37.74MJ/m3, which corresponds to Union Gas' System Wide Average Heating Value, as per the Board's RP-1999-0017 Decision with Reasons.

## MINIMUM BILL:

The minimum monthly bill shall be the sum of the applicable Demand Charges.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 47



## **OVERRUN RATES:**

The units rates stated below will apply to overrun volumes. The provision of Authorized Overrun service will be at the Company's sole discretion.

	Full Cycle		Short Cycle	
	Firm \$/10³m³	Interruptible \$/10³m³	\$/10³m³	
Authorized Overrun				
Annual Turnover Volume				
Negotiable, not to exceed:	40.1107	40.1107	40.1107	
Authorized Overrun				
Daily Injection/Withdrawal				
Negotiable, not to exceed:	40.1107	40.1107	40.1107	
Unauthorized Overrun				
Annual Turnover Volume				
Excess Storage Balance				
Excess Storage Balance	401.1073	401.1073	401.1073	
December 1 - October 31	40.1107	40.1107	40.1107	

Unauthorized Overrun Annual Turnover Volume Negative Storage Balance

## TERMS AND CONDITIONS OF SERVICE:

- All Services are available at the Company's sole discretion.
- 2. Delivery and Re-delivery of the volume of natural gas shall be from/to the facilities of Union Gas Limited and / or TransCanada PipeLines Limited in Dawn Township and/or Niagara Gas Transmission Limited in Moore Township.
- 3. The Customers daily injections or withdrawals will be adjusted to provide for the fuel ratio stated in the Fuel Ratio Section. In the event that a Short Cycle service does not require fuel for injection and/or withdrawal, the fuel ratio commodity charge may be waived.

## **EFFECTIVE DATE:**

To apply to bills rendered for gas delivered on and after January 1, 2017. This rate schedule is effective January 1, 2017 and replaces the identically numbered rate schedule that specifies implementation date, July 1, 2016 and that indicates the Board Order, EB-2016-0184 effective July 1, 2016.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 2 of 2
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 48



## **TECUMSEH TRANSPORTATION SERVICE**

## APPLICABILITY:

To any Applicant who enters into an agreement with the Company pursuant to the Rate 331 Tariff ("Tariff") for transportation service on the Company's pipelines extending from Tecumseh to Dawn ("Tecumseh Pipeline"). The Company will receive gas at Tecumseh and deliver the gas at Dawn. Capitalized terms used in this Rate Schedule shall have the meanings ascribed to those terms in the Tariff.

#### **CHARACTER OF SERVICE:**

Transportation service under this Rate Schedule may be available on a firm basis ("FT Service") or an interruptible basis ("IT Service"), subject to the terms and conditions of service set out in the Tariff and the applicable rates set out below.

## RATE:

The following rates, effective January 1, 2017, shall apply in respect of FT and IT Service under this Rate Schedule:

	Demand Rate \$/10³m³	Commodity Rate \$/10 <sup>3</sup> m <sup>3</sup>
FT Service	5.6430	-
IT Service	-	0.2230
Cap and Trade Customer Related Charge (If applicable) Cap and Trade Facility Related Charge		0.0000 ¢/m³ 0.0018 ¢/m³

**FT Service:** The monthly demand charge shall be the products obtained by multiplying the applicable Maximum Daily Volume by the above demand rate.

**IT Service:** The monthly commodity charge shall be the product obtained by multiplying the applicable Delivery Volume for the Month by the above commodity rate.

## TERMS AND CONDITIONS OF SERVICE:

The terms and conditions of FT and IT Service are set out in the Tariff. The provisions of PARTS I to IV of the Company's HANDBOOK OF RATES AND DISTRIBUTION SERVICES do not apply to Rate 331 service.

## **EFFECTIVE DATE:**

The Tariff was approved by the Board in Board Order EB-2010-0177, dated July 12, 2010, and is posted and available on the Company's website. In accordance with Section 1.6.2 of the Board's Storage and Transportation Access Rule, the Tariff does not apply to any Rate 331 service agreements executed prior to June 16, 2010.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 1
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 49



332

# PARKWAY TO ALBION KING'S NORTH TRANSPORTATION SERVICE

## APPLICABILITY:

To any Applicant who enters into an agreement with the Company pursuant to the Rate 332 Tariff ("Tariff") for transportation service on the Company's Albion Pipeline, as defined in the Tariff. Capitalized terms used in this Rate Schedule shall have the meanings ascribed to those terms in the Tariff.

### **CHARACTER OF SERVICE:**

Transportation service under this Rate Schedule shall be provided on a firm basis, subject to the terms and conditions set out in the Tariff and this Rate Schedule.

## RATE:

The following charges, effective January 1, 2017, shall apply for transportation service under this Rate Schedule:

Monthly Contract Demand Charge	\$ <del>/GJ</del> \$1.2075	<u>\$/103m3</u> 45.5107
Authorized Overrun Charge	<u>\$/GJ</u> \$0.0476	<u>\$/103m3</u> 1.7940
Cap and Trade Customer Related Charge (If applicable) Cap and Trade Facility Related Charge	0.0000 0.0018	¢/m³ ¢/m³

The Monthly Contract Demand charge is equal to the Daily Contract Demand of \$0.0397 per GJ or \$1.4963 per 10<sup>3</sup>m<sup>3</sup>.

**Monthly Minimum Bill:** The minimum monthly bill shall equal the applicable Monthly Contract Demand Charge times the Maximum Daily Quantity.

**Authorized Overrun Service**: The Company may, in its sole discretion, authorize transportation of gas in excess of the Maximum Daily Quantity provided excess capacity is available. The excess volumes will be subject to the Authorized Overrun Charge.

In addition to the rates quoted above, Applicants taking Rate 332 transportation service will be required to pay any charges resulting from Board approved dispositions of Deferral and Variance account balances pertaining to Rate 332.

### TERMS AND CONDITIONS OF SERVICE:

The terms and conditions of transportation service are set out in the Tariff.

The provisions of Parts I to IV of the Company's HANDBOOK OF RATES AND DISTRIBUTION SERVICES do not apply to Rate 332 transportation service.

## **EFFECTIVE DATE:**

The Tariff was approved by the Board in Board Order EB-2016-0028 available on the Company's website.

EFFECTIVE DATE:	IMPLEMENTATION DATE:	BOARD ORDER:	REPLACING RATE EFFECTIVE:	Page 1 of 1
January 1, 2017	January 1, 2017	EB-2016-0215	July 1, 2016	Handbook 50



Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 1 of 1

# ALTERNATE COST RECOVERY STATEMENTS

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Kacicnik

A. Langstaff

J. Murphy

Filed: 2016-11-15 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Appendix A Page 1 of 1

# CAP AND TRADE EXHIBITS OEB METHODOLOGY

This information has been filed in confidence with the Ontario Energy Board.

Witnesses: A. Kacicnik

A. Langstaff

J. Murphy