

Andrew Mandyam Director Regulatory Affairs and Financial Performance tel 416-495-5499 fax 416-495-6072 EGDRegulatoryProceedings@enbridge.com Enbridge Gas Distribution 500 Consumers Road North York, Ontario M2J 1P8 Canada

January 18, 2017

## 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 Compliance Plan ("Application") <u>Ontario Energy Board ("OEB" or "Board") File Number: EB-2016-0300</u>

On November 15, 2016, Enbridge filed its Cap and Trade Compliance Plan with the Board (EB-2016-0300). In accordance with the Report of the Board: Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities (EB-2015-0363), Enbridge identified in its filing those exhibits of its Compliance Plan filing that contain information which falls into one of the two categories of Strictly Confidential information which under the *Climate Change Mitigation and Low-carbon Economy Act, 2016* ("Climate Change Act") are reviewable only by the Board (i.e. Auction Confidential and Market Sensitive Confidential).

On January 11, 2017, the OEB wrote to Enbridge noting that certain portions of its evidence were filed confidentially in their entirety, rather than being redacted. The Board stated that: "Redaction would allow certain non-confidential information contained within certain documents for which confidentiality is otherwise requested to be placed on the public record in redacted form". The Board then listed a number of exhibits and sections therein (the "Listed Evidence") and asked Enbridge, subject to any objection and explanations as to why the Listed Evidence should not be on the public record, to file a redacted version of the identified exhibits which would allow the Listed Evidence identified by the Board to be placed on the public record.

Enbridge has reviewed the identified exhibits and the Listed Evidence identified in the Board's letter of January 11, 2017 and has in response prepared an updated redacted version of its evidence which it is filing contemporaneously with this letter. While Enbridge accepts that some of the Listed Evidence can be placed on the public record, it does not believe given the Climate Change Act that it is in a position to place all of the Listed Evidence on the public record.

January 18, 2017 Ms. Kirsten Walli Page 2

Given that the prohibitions against disclosure in the Climate Change Act are intended to protect the integrity of the carbon market and thereby Enbridge and its ratepayers from the negative consequences of third parties inappropriately making use of Strictly Confidential information, Enbridge has taken a conservative approach in its review of the Listed Evidence. It therefore believes that a number of items included within the Listed Evidence should not be disclosed and must be treated as Strictly Confidential.

Enbridge has identified these items and provided explanations as to why these portions of the Listed Evidence should not be on the public record in an updated version of the Exhibit titled "Confidentiality" which can be found at Exhibit A, Tab 3, Schedule 1 which is also being filed today. Enbridge notes that as these items are Strictly Confidential, the Board's Rules and Practice Direction on Confidential Filings are inapplicable.

The Updated Application has been filed through the Board's Regulatory Electronic Submission System and will be available on the Enbridge website at: www.enbridgegas.com/ratecase.

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-2016-0300 (via email)

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 1 of 10

## CONFIDENTIALITY

 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.

- 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.
- 3. 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

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 2 of 10

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 strictly 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 strictly 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.

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 3 of 10

- 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 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 strictly 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 strict confidence. Releasing market sensitive information could provide inappropriate advantages to market participants that could ultimately increase the costs of compliance to Enbridge's customers.

<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

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 4 of 10

- 10. The information below outlines the various exhibits within this filing to which Enbridge is requesting strictly confidential treatment. The exhibits are divided amongst the three categories: Auction Confidential, Market Sensitive Confidential and 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. In its January 11, 2017 letter to Enbridge, the Board asked Enbridge to review areas of evidence it outlined which it proposed be placed on the public record (the "Listed Evidence") and file either updated redacted versions of the documents or provide any objections and explanations why any portions of the Listed Evidence should not be on the public record. Table A identifies with high-level reasons those sections identified from the Listed Evidence in the Board's letter which Enbridge Gas believes must remain strictly confidential due to prohibitions against the disclosure of auction and market sensitive information under the Climate Change Act and/or Regulations.
- 12. There are numerous reasons why the Company believes that some of the items included in the Listed Evidence identified by the Board are strictly confidential and should not be disclosed. In a number of instances, to state the reason(s) specifically would amount to revealing the very information that should not be disclosed and hence it is inappropriate to state in a public document. What can be stated which is applicable to all of the items that Enbridge believes are strictly confidential is that it believes that the information which has been redacted, either on its own or in

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 5 of 10

combination with information found elsewhere on the public record, could be used by a third party to take actions which could negatively affect the Company's ability to minimize the costs of its Compliance Plan and/or it would provide information about the procurement option strategies that the Company has considered and is proposing. For example, the fact that the Company is or is not pursuing a particular strategy or the extent to which it is proposing a particular strategy in part are matters that should not be disclosed. To the extent that third parties are able to take steps based on information disclosed which results in an increase in the cost of Enbridge meeting its compliance obligations, then ratepayers will be negatively affected. It is Enbridge's view, particularly given that 2017 is the first year of market operation in Ontario and given that the carbon market only operates in Ontario in 2017 that a conservative approach should be taken to what information is disclosed. Accordingly, where items included in the Listed Evidence could provide any indication of Enbridge's auction and Compliance Plan strategies, Enbridge believes that the information must necessarily be strictly confidential consistent with the requirements of the Climate Change Act.

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 6 of 10

Exhibit Item	Reference	Paragraph (unless otherwise noted)	Treatment (extent of disclosure)	Rationale
C-1-1	Overview of Compliance Plan	10 (last sentence), 14 (first two sentences), and 63 (sentence 2).	Strictly Confidential (OEB, Enbridge Gas)	Market Confidential
C-1-1	Overview of Compliance Plan	6 (last sentence), 8 (last sentence) 24 (first two sentences), and 29 (after "approved").	Strictly Confidential (OEB, Enbridge Gas)	Market Confidential and Auction Confidential
C-1-1, Appendix A	Carbon Market Report	Pages 9 to 10,	Strictly Confidential (OEB, Enbridge Gas)	Market Confidential
C-2-1	Compliance Option Analysis and Optimization of Decision- Making	35 (second half of the first sentence, after the word "options"), 38, and 40.	Strictly Confidential (OEB, Enbridge Gas)	Market Confidential
C-3-5	Compliance Plan – Abatement Activities Facilities	9	Strictly Confidential (OEB, Enbridge Gas)	Market Confidential and Auction Confidential
C-4-1	Risk Management – Identification and Mitigation	4 (bullet c)), 9, 11, 32 (item 2) in second sentence), 37, 45, 48, 55 (last sentence), 60 (second sentence), 62, 66 (first sentence after	Strictly Confidential (OEB, Enbridge Gas)	Market Confidential and Auction Confidential

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 7 of 10

Exhibit Item	Reference	Daragraph	Treatment	Rationale
	Reference	Paragraph		Rationale
		(unless	(extent of	
		otherwise noted)	disclosure)	
		"necessary"), 69,		
		75 (last		
		sentence and		
		footnote), 87		
		(first sentence to		
		"the Cap…"), 89		
		(last sentence		
		after		
		"allowances"),		
		106, 107, 108		
		(last two		
		sentences), 109		
		(second		
		sentence), 114,		
		115, 118, 122,		
		125 (first two		
		sentences)		
F-1-1	Deferral and	6 (mid	Strictly	Auction
1 - 1 - 1	Variance		Confidential	Confidential
		paragraph, short		Connuential
	Accounts	redaction after	(OEB, Enbridge	
		"estimated at")	Gas)	

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

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 8 of 10

# 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	Redacted
C-1-1	Redacted
C-1-1 Appendix A	Strictly Confidential
C-1-1 Appendix B	Redacted
C-2-1	Redacted
C-3-1	Redacted
C-3-2	Strictly Confidential

Exhibit Item	Treatment
C-3-3	Strictly Confidential
C-3-4	Public
C-3-5	Redacted
C-3-6	Public
C-4-1	Redacted
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	Strictly Confidential
G-1-1 Appendix B	Public
G-1-1 Appendix C	Public
G-1-2	Public

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 9 of 10

# Table 2: Auction Confidential

Cap and Trade Framework Page 10: Time period of confidential classification Exhibit		32 of the Climate	ances that is prohibited e Change Act (except to ntial even after the Confidential
EXHIBIT	Description	Disclosure	Determination
B-4-1	•	Enbridge Gas Distribution,	
C-1-1 & Appendices A & B	Overview of Compliance Plan	OEB	Each of these Exhibits
C-2-1	Compliance Option Analysis and Optimization of Decision-making		respond to the Board's filing requirements which require in respect of allowances the following: i. Number of allowances
C-3-1	Performance Metrics and Cost Information		to be procured ii. Price of allowances
C-3-2	Compliance Plan – Allowance Purchase Performance Metrics and Cost Information		ii. Price of allowances iii. Timing of procurement iv. Total forecasted cost v. Forecasted cost per tonne of GHG" <sup>2</sup> .
C-4-1	Risk Management – Identification		
F-1-1	Deferral and Variance Accounts		

<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

Revised: 2017-01-18 EB-2016-0300 Exhibit A Tab 3 Schedule 1 Page 10 of 10

## Table 3: Market Sensitive

Cop and Trada	Information relating to	transactions of a	missiona unita an				
	Information relating to transactions of emissions units on						
Framework	secondary or tertiary markets or offset credits. Information relating to compliance instruments used by a Utility to meet its						
Provision		instruments use	d by a Utility to meet its				
	GHG obligations. <sup>3</sup>						
Confidential	Market Sensitive						
Classification							
Time period of	Market Sensitive infor	mation will remain	n strictly confidential even				
confidential	after the transactions a	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				
C-1-1 &	Overview of	OEB	requirements and contain				
Appendices	Compliance Plan		information which relate				
A & B			to bidding strategies in				
C-2-1	Compliance Option	-	future market activities,				
	Analysis and		secondary and tertiary				
	Optimization of		markets, offset credits,				
	Decision-making		compliance instruments,				
C-3-1	Performance Metrics	-	forecast costs which are				
	and Cost Information		market sensitive and				
C-3-3	Compliance Plan –		other information which if				
	Offset Credits		disclosed could				
C-4-1	Risk Management –	-	compromise the integrity				
	Identification		of the markets contrary				
			to the provisions of the				
G-1-1	Cap and Trade		Climate Change Act"4				
Appendix A	Exhibits						
			4				

<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 <sup>4</sup> EB-2015-0363 Report of the Board Regulatory Framework for the Assessment of Costs of Natural Gas Utilities'

Cap and Trade Activities, Page 13

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit B Tab 4 Schedule 1 Page 1 of 8

## ANNUAL CARBON PRICE FORECASTS

- Enbridge recognizes that there are numerous inputs and factors that go into the pricing of emission unit compliance options. As the market develops, Enbridge will continue to develop its ability to forecast compliance option prices. This application addresses only the forecast pricing for 2017 compliance options.
- 2. In the Board's Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities (the "Framework"), Section 6.2 states that:

The OEB has decided that the customer-related and facility-related charges will be set based on the annual weighted average cost of the Utilities' proposed compliance options.

The annual weighted average cost of compliance options is calculated by

 determining the number of emission units or equivalent units required,
 identifying the price of each compliance option, iii) multiplying the compliance option price by quantity of each compliance option and iv) summing the resultant in
 and dividing by total quantity of compliance obligations.

# 5. In Appendix A, Exhibit 3 of the Framework, the Board identifies that the price of allowances available at auctions, through bilateral agreements and over-thecounter transactions should be priced using either the annual forecast or the Board's 10-year carbon price forecast.

Witnesses: A. Langstaff J. Murphy F. Oliver-Glasford

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit B Tab 4 Schedule 1 Page 2 of 8

- 6. At the time of this filing, the Board's 10-year filing was not available.
- 7. In Appendix A, Exhibit 2 of the Framework, the Board states that:

The applicant must include: The forecast, which will be set using the average of the Intercontinental Exchange ("ICE") daily settlement prices of a California Carbon Allowance for each day of the forecast period for each month of the forecast year. The forecast period shall be 21 business days and should be as close as possible to the forecast year.

# ICE Forecast Price

- 10. In response to the Board's direction, Enbridge has calculated a carbon forecast price using the ICE settlement prices.
- Enbridge has obtained daily settlement prices from October 2 to October 31, 2016 for delivery in each month of 2017. The resulting price is \$13.04 USD or \$16.90 CAD. This currency conversion assumes a USD/CAD exchange rate of 1.2959 as submitted in Enbridge's 2017 Rate Adjustment case<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> The exchange rate of 1.2959 was used in Enbridge's 2017 Rate Adjustment case for gas supply purposes. Refer to EB-2016-0215, Exhibit D1, Tab 2, Schedule 10.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit B Tab 4 Schedule 1 Page 3 of 8

## 12. Refer to Table 1 for derivation of the ICE forecast price.

						Delivery	Date					
Trade Date	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
10/31/16	12.99	13.02	13.04	13.07	13.09	13.12	13.14	13.16	13.19	13.21	13.24	13.26
10/28/16	12.99	13.02	13.04	13.07	13.09	13.12	13.14	13.16	13.19	13.21	13.24	13.26
10/27/16	12.98	13.01	13.03	13.06	13.08	13.11	13.13	13.15	13.18	13.20	13.23	13.25
10/26/16	12.98	13.01	13.03	13.06	13.08	13.11	13.13	13.15	13.18	13.20	13.23	13.25
10/25/16	12.98	13.01	13.03	13.06	13.08	13.11	13.13	13.15	13.18	13.20	13.23	13.25
10/24/16	12.96	12.99	13.01	13.04	13.06	13.09	13.11	13.13	13.16	13.18	13.21	13.23
10/21/16	12.89	12.92	12.94	12.97	12.99	13.02	13.04	13.06	13.09	13.11	13.14	13.16
10/20/16	12.88	12.91	12.93	12.95	12.98	13.00	13.02	13.05	13.07	13.09	13.12	13.14
10/19/16	12.87	12.90	12.92	12.94	12.97	12.99	13.01	13.04	13.06	13.08	13.11	13.13
10/18/16	12.89	12.92	12.94	12.96	12.99	13.01	13.03	13.06	13.08	13.10	13.13	13.15
10/17/16	12.86	12.89	12.91	12.93	12.96	12.98	13.00	13.03	13.05	13.07	13.10	13.12
10/14/16	12.86	12.89	12.91	12.93	12.96	12.98	13.00	13.03	13.05	13.07	13.10	13.12
10/13/16	12.88	12.91	12.93	12.96	12.98	13.01	13.03	13.05	13.08	13.10	13.13	13.15
10/12/16	12.88	12.91	12.93	12.96	12.98	13.01	13.03	13.05	13.08	13.10	13.13	13.15
10/11/16	12.88	12.91	12.93	12.96	12.98	13.01	13.03	13.05	13.08	13.10	13.13	13.15
10/10/16	12.87	12.90	12.92	12.95	12.97	13.00	13.02	13.04	13.07	13.09	13.12	13.14
10/7/16	12.86	12.89	12.91	12.94	12.96	12.99	13.01	13.03	13.06	13.08	13.11	13.13
10/6/16	12.87	12.90	12.92	12.95	12.97	13.00	13.02	13.04	13.07	13.09	13.12	13.14
10/5/16	12.89	12.92	12.94	12.97	12.99	13.02	13.04	13.06	13.09	13.11	13.14	13.16
10/4/16	12.89	12.92	12.94	12.97	12.99	13.02	13.04	13.06	13.09	13.11	13.14	13.16
10/3/16	12.91	12.94	12.96	12.99	13.01	13.04	13.06	13.08	13.11	13.13	13.16	13.18

Table 1: ICE Price Forecasting Method

Sum: Data Points:	:	3129.49 240
Average Price (USD): Exchange Rate (USD/CAD) <sup>1</sup> :	\$	13.04 1.2959
Allowance Price (CAD)	\$	16.90

## Weighted Average Cost of Compliance Price

13. As outlined in Exhibit C, Tab 1, Schedule 1, Enbridge has retained Alpha Inception LLC ("AI") for the development of its procurement strategy. Al has provided a Carbon Market Report and a Carbon Strategy Report, which can be found in Appendix A and B to Exhibit C, Tab 1, Schedule 1.

Witnesses: A. Langstaff J. Murphy F. Oliver-Glasford

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit B Tab 4 Schedule 1 Page 4 of 8

14. In the Carbon Strategy Report, AI has provided several price forecasts for a variety of risk-based scenarios which focus on linkage with the Western Climate Initiative ("WCI") Cap and Trade market partners, California and Quebec, as well as the outcome of the California Cap and Trade program post 2020. The scenarios are further outlined in Exhibit C, Tab 1, Schedule 1.

		-
Witnesses:	A. Langstaff	
	J. Murphy	
	J. Murphy F. Oliver-Glasford	

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit B Tab 4 Schedule 1 Page 5 of 8



# Auction Reserve Price

20. 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:

Witnesses: A. Langstaff J. Murphy F. Oliver-Glasford

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit B Tab 4 Schedule 1 Page 6 of 8

"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."

- 21. 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"*.
- 22. As of the last WCI auction, which was held in August 2016, the WCI auction reserve price was \$12.73 USD or \$16.45 CAD<sup>3</sup>. This price is based on the California auction reserve price, which was the higher of California and Quebec.
- 23. Based on the 2016 California auction reserve price above, Enbridge has forecasted the 2017 WCI 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>4</sup>.
- 24. Refer to Table 3 for derivation of the Ontario auction reserve forecast price.

<sup>&</sup>lt;sup>3</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>4</sup> As filed in to EB-2016-0215, Exhibit D1, Tab 2, Schedule 10.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit B Tab 4 Schedule 1 Page 7 of 8

#### Table 3: Ontario Auction Reserve Price Forecasting Method

Year	2016 Actual Auction Reserve Price	CPI Percent Change <sup>1</sup>	USD/CAD Exchange Rate <sup>2</sup>	2017 Forecast Auction Reserve Price (USD)	2017 Forecast Auction Reserve Price (CAD)	
California	\$ 12.73	2.30	1.2959	\$ 13.66	\$ 17.70	
Quebec	\$ 12.82	1.70	N/A	N/A	\$ 13.68	

Forecasted Ontario Auction Reserve Price (2017) <sup>3</sup> \$	\$ 17.70
---	----------

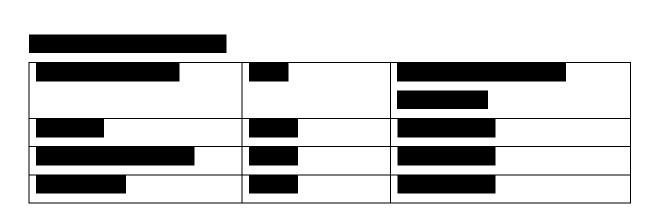
Notes:

(1) Forecasted US and Quebec Consensus Consumer Price Index

(2) US exchange rate from EB-2015-0215, Exhibit D1, Tab 2, Schedule 10

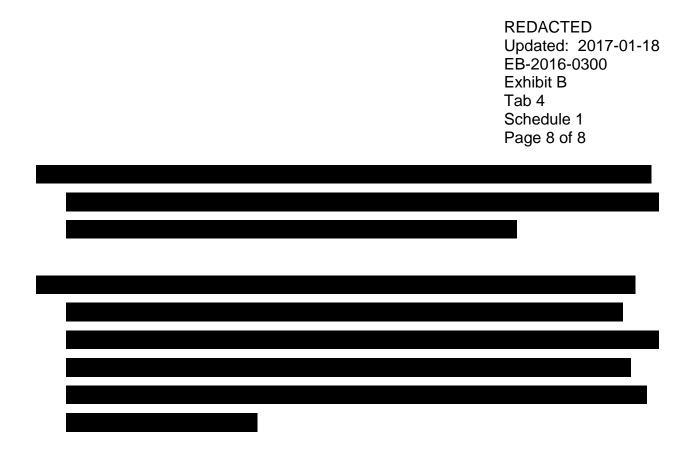
(3) Ontario floor price is the higher of Quebec or California

## Discussion on Appropriate Price for Rate Setting





Witnesses: A. Langstaff J. Murphy F. Oliver-Glasford



29. At Exhibit G, Tab 1, Schedule 1, Enbridge sets out the derivation of its Cap and Trade Unit Rates for customer-related and facility-related costs. These Cap and Trade Unit Rates are calculated in two ways – (i) using the auction reserve price forecast of \$17.70 CAD per allowance; and (ii) using the ICE price forecast of \$16.90 CAD per allowance.

Witnesses: A. Langstaff J. Murphy F. Oliver-Glasford

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 1 of 18 Plus Appendices

## OVERVIEW OF COMPLIANCE PLAN

- In April 2015, the Ontario government announced that it would be implementing a Cap and Trade system as part of its climate change strategy targeted to achieve emission reductions from 1990 levels of 18% by 2020 and 80% emission reductions by 2050.
- On May 18, 2016, the government received Royal Assent on its Climate Change Mitigation and Clean Economy Act (the "Act"), followed by approval of *Ontario Regulation 144/16, The Cap and Trade Program* (the "Regulation") on May 19, 2016.
- 3. Board Staff issued a Cap and Trade discussion paper on May 25, 2016 to address a broad range of topics. On July 28, 2016, the Board issued an early determination on billing issues, including the design of charges to recover Cap and Trade costs and the communication of those costs on customers' bills in response to requests from the Utilities for business readiness purposes. In particular, the Board issued decisions around cost allocation, bill presentment and communications objectives.
- 4. On the basis of the guidance received, Enbridge was able to start development work towards an IT billing system that is responsive to cost allocation and bill presentment requirements. Although Enbridge did not advocate for the route taken in the interim guidance to fold Cap and Trade costs into the delivery charge line item on customer bills, it respected the guidance and proceeded accordingly.

Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

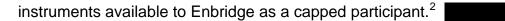
REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 2 of 18 Plus Appendices

- 5. Before the interim guidance Enbridge had started high level communications with its customers about Cap and Trade, and continued that process with outreach to large customers and smaller business customers – those that would not reach the threshold as a large final emitter nor be a candidate for voluntary opt-in status – as well as its residential customers. Those communications were shared with the Board prior to distribution for information purposes.
- Upon receiving the Final Cap and Trade Framework (EB-2016-0363) on September 26, 2016, Enbridge set to work developing its Compliance Plan. Enbridge's 2017 Compliance Plan is a starting point upon which to build over the coming years and compliance periods.

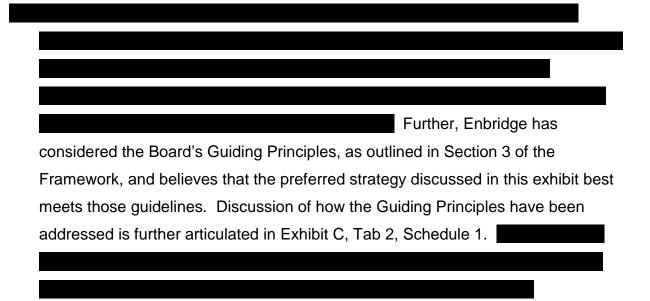
- 7. During the development of its 2017 Compliance Plan, the Company sought the assistance of a recognized third-party carbon market expert. Enbridge vetted proposals from several consultants with experience in various carbon markets in North America and Europe. In August 2016 Alpha Inception LLC ("AI"), was retained by Enbridge<sup>1</sup>.
- AI produced two reports which have been filed as appendices to this Exhibit.
   Appendix A, the Carbon Market Report, is a comprehensive overview of the Ontario
   Cap and Trade Market, discussing basic program facts and defining the compliance

<sup>&</sup>lt;sup>1</sup> Al's credentials and experience are outlined in Exhibit C, Tab 1, Schedule 1 Appendix B, page 4. Witnesses: M. Kirk

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 3 of 18 Plus Appendices



9. The Compliance Plan described in the following sections was developed by Enbridge based on the recommendations from AI. Al's recommendations are described at length in Appendix B, while specific passages from Appendix A and Appendix B are referenced throughout this Exhibit C, Tab 1, Schedule 1 and Exhibit C, Tab 2, Schedule 1 where appropriate.



Witnesses: M. Kirk

- A. Langstaff
- J. Murphy
- F. Oliver-Glasford
- A. Welburn

<sup>&</sup>lt;sup>2</sup> "Capped participant" refers to both mandatory and voluntary participants, as outlined in the Cap and Trade regulation.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 4 of 18 Plus Appendices

The Compliance Plan overview is illustrated in Table 1.	
Table 1: 2017 Compliance Plan Overview <sup>3</sup>	
[TABLE DELETED]	
Table 2:	
[TABLE DELETED]	

Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 5 of 18 Plus Appendices

Table 3:		
[TABLE DE	LETED]	
L		
Witnesses:	M. Kirk	
	A. Langstaff	
	J. Murphy	
	F. Oliver-Glasford	
	A. Welburn	

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 6 of 18 Plus Appendices

Discussion on

abatement activities is outlined in Exhibit C, Tab 2, Schedule 1, Exhibit C, Tab 3, Schedule 4, Exhibit C, Tab 3, Schedule 5, and Exhibit C, Tab 6, Schedule 1.

## Governance and Accountability

14.

16. Enbridge recognizes the nascent nature of Ontario's Cap and Trade market. To ensure proper governance and guidance in the development and implementation of

Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 7 of 18 Plus Appendices

Enbridge's Cap and Trade program, the Company has assembled a team of employees to form the Carbon Procurement Governance Group ("CPGG").

- 17. The CPGG will consist of non-voting and voting members. By position only, the team's composition along with voting status is listed below:
  - Vice President, Market Development and Public and Government Affairs (voting)
  - Vice President, Finance, Gas Distribution and Power (voting)
  - Vice President, Energy Supply and Customer Care (voting)
  - Vice President, Gas Distribution Law (voting)
  - Director, Regulatory Affairs, Financial Planning and Analysis (voting)
  - Director, Energy Supply and Policy (non-voting)
  - Director, Business Development (non-voting)
  - Manager, Carbon Strategy (non-voting)
  - Manager, Gas Supply and Strategy (non-voting)
  - Manager, Gas Supply, GD Procurement & Reporting (non-voting)
  - Gas Supply Regulatory Specialist (non-voting)
  - Gas Supply Optimization Specialist (non-voting)
  - Business Readiness Specialist, Carbon Strategy (non-voting)
  - Senior Environmental Advisor, Carbon Strategy (non-voting)
- Subject to organizational changes, the membership of CPGG may change. The Board will be provided with updates on team membership during the Company's annual filing.
- Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 8 of 18 Plus Appendices

- CPGG team membership encompasses individuals from varied groups within Enbridge. The team has representation from Market Development, Finance, Energy Supply, Legal, Carbon Strategy and Regulatory Affairs.
- 20. Three members from each group, voting and non-voting, are required to establish quorum. Meetings will not be conducted without quorum.
- 21. The group's primary responsibility will be to ensure the successful and costeffective implementation of Enbridge's Cap and Trade program, inclusive of its Compliance Plan.
- 22. In 2017, the team's primary mandates will include: development and maintenance of carbon procurement procedures and policies; implementation of Enbridge's carbon procurement strategy; execution of procedures and policies and ensuring policies are suitable and operational.
- 23. The CPGG will also use these meetings as an opportunity to review and discuss all relevant carbon policies and market developments. This will ensure that the team is current on all carbon-related information, including regulatory activity, lending itself to the implementation of a flexible Compliance Plan as detailed in the Guiding Principles.
- 24.
- Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 9 of 18 Plus Appendices

Additional meetings may be scheduled to review the annual Compliance Plan submission to the Board in August. Meetings will follow a set agenda and be documented.

- 25. Employees on the CPGG team will be privy to confidential information. To ensure all CPGG members are aware of the confidential material exchanged at these meetings, all members will be required to confirm their obligation to treat the auction and market confidential information with the upmost sensitivity.
- 26. Enbridge will apply the Plan-Do-Check-Act/Review ("PDCA") model for the implementation and review of its Compliance Plan.

## <u>Plan</u>

- 27. The 'Planning' stage will consist of the non-voting members identifying and detailing multiple options to achieving Enbridge's compliance obligations.
- 28. The non-voting members of the CPGG will rely primarily on the following input in the development of their annual strategies:
  - Natural gas forecast and actual volumes;
  - Demand Side Management ("DSM") volumes;
  - Natural gas reductions associated with customer-related abatement projects;
- Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 10 of 18 Plus Appendices

- Natural gas volume reduction associated with facility-related abatement projects; and,
- Carbon market intelligence, including OTC pricing data from ICE.
- 29. Annually, the non-voting members will recommend a strategy to the voting members. A risk assessment of each strategy will be completed and outlined to the voting members. The CPGG will approve an annual strategy, which will be revisited, revised as necessary and approved
- 30. The voting members will review and discuss the strategy with the non-voting members. Assuming the strategy is acceptable, voting members of the CPGG will provide their approval.
- 31. All approvals will be documented by email. These emails will be retained in a central repository.
- 32. In addition to the approval emails, this central repository will also include meeting minutes for the purposes of auditability.

Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 11 of 18 Plus Appendices

<u>Do</u>			
Witnesses	s: M. Kirk		

A. Langstaff J. Murphy

- F. Oliver-Glasford
- A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 12 of 18 Plus Appendices

#### <u>Check</u>

42. Non-voting members will compile and review the past month's carbon procurement activities, if any, and provide notification to the CPGG. Actual GHG emissions versus forecast GHG emissions will be collected and compared in order to identify if Compliance Plan updates are required.

- 44. All carbon-related market developments will be summarized in the form of a market report. This market report will be distributed to all CPGG members on a monthly basis and prior to any meeting.
- 45. To ensure a cost effective strategy, Enbridge will maintain key focus on the development of offsets and its market as well as any regulatory or legislative changes. Offset developments and information regarding past projects will be summarized.
- Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 13 of 18 Plus Appendices

46. As identified in Exhibit C, Tab 3, Schedule 1, Compliance Plan performance metrics will be calculated. These metrics will identify the cost-effectiveness, flexibility and efficacy of the compliance strategy. A full summary of the Compliance Plan's forecast versus actuals and other key information will be provided in the annual monitoring report. A discussion of these results will also be provided.

#### Review/Act

- 47. Regular meetings will be scheduled with the voting and non-voting CPGG members.
- 48. The data compiled and performance metrics calculated as identified in the 'Check' phase, and which are consistent with what Enbridge has proposed to provide in its annual monitoring report, will be reviewed and discussed with the team. The market report will be discussed to ensure that all members remain current on carbon-related issues.
- 49. Future carbon procurement activities will be reviewed against the above mentioned data. The members will also reflect on the approved annual compliance strategy. If necessary, Compliance Plan adjustments will be made and approved.
- 50. Future transactions will be discussed at these meetings and approved via email.

Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 14 of 18 Plus Appendices

#### Carbon Procurement Procedures and Policies

- 51. The Cap and Trade program at Enbridge continues to evolve. Enbridge recognizes that this program impacts many groups within the Company.
- 52. A mandate of the CPGG is to ensure the development of sufficient and appropriate procedures and policies for the procurement of Enbridge's carbon compliance options. The Cap and Trade activities largely impact the Finance, Taxation, Regulatory and Regulatory Accounting groups.
- 53. To ensure that Enbridge is compliant with current internal processes and practices, the Company has identified key financial and regulatory processes, which will be impacted by the implementation of the Cap and Trade Program.
- 54. Flow charts are being developed for the budgeting of the carbon allowance as well as accounting for the purchases.
- 55. Enbridge also recognizes that if it plans to participate in a government auction, there are certain activities that must be completed to enable auction participation. To ensure that Enbridge has the ability to participate in any auction, processes will be developed to ensure that CITSS documentation is maintained and current. The table below outlines Enbridge's understanding of the requirements to be 'auction-ready'.

Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 15 of 18 Plus Appendices

Table 4: Auction-Ready Requirements:

Section in Regulation	Activities	Days Before (-) or After (+) Auction
60	Auction Notice Released	-60
67(1) 1.	Deadline to make changes in CITSS to any information required to be updated as a condition of registration	-40
66	Changes to the allocation of holding and purchase limits after this date prohibit participation in auction	-39
67(1) 2.	Deadline to apply for permission to bid in auction	-30
67(1) 3.	Deadline to submit financial assurance	-12
71(3)	Auction exchange rate set	-1
	Auction Held	0
63(1)	Payment required for successful bids	+7
61(1) 2.	Earliest date for bid guarantee expiration	+26
64(2)	Summary of auction posted no later than	+45

56. As identified in Table 4, Enbridge must submit its financial assurance at least 12 days prior to the auction. Enbridge must request its financial assurance from its parent, Enbridge Inc. A proposed amendment to the Regulation was posted to the Environmental Registry on November 4, 2016. This amendment will permit a Participant to communicate with its parent regarding auction participation for the purposes of obtaining financial assurance without fear of being in contravention of section 32 of the *Climate Change Act*. Enbridge will work with Enbridge Inc.'s Treasury department to develop the proper protocols for the issuance of financial assurance.

## **Resources and Capabilities**

- 57. Business readiness for the Cap and Trade program has been a top priority for Enbridge since early 2016. To that end, the Company has noted the various key
- Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 16 of 18 Plus Appendices

elements necessary for successful implementation of the Cap and Trade program starting January 1, 2017. Those elements include:

- Addressing incremental GHG reporting activities necessary to document the additional customer-related emissions starting in 2017;
- Familiarizing resources with the Cap and Trade Regulation as well as with relevant market tools, information sources, and key stakeholders;
- Completion of CITSS application;
- Ensuring appropriate trading personnel are Cap and Trade ready;
- Development and deployment of billing programs to collect customers' Customer-related and Facility-related obligations associated with the Cap and Trade program; and,
- Preparation of internal reporting requirements.
- 58. Enbridge has been attending and speaking at numerous conferences and events to learn and hear information about Cap and Trade policy and market development. For example, Enbridge attended the joint International Emissions Trading Association ("IETA")/CaliforniaCarbon.info/Ontario Chamber of Commerce's two-day Cap and Trade conference in October 2016. This provided significant access to carbon market professionals and insights on new compliance instruments. Enbridge has also been active on the Ontario Energy Association's ("OEA") Environmental Committee, Ontario Sustainable Energy Association's Cap and Trade Committee, IETA's Canadian and Ontario Committees and on the Canadian Energy Partnership for Environmental Innovation ("CEPEI"). Enbridge has and will continue to establish relationships with policy makers and market makers including carbon allowance and offset brokers, and offset developers.

Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 17 of 18 Plus Appendices

- 59. Enbridge has an experienced and qualified employee who is responsible for GHG reporting. This employee is a Professional Engineer, with a degree in environmental engineering, and the individual has also completed a post-graduate certificate in Climate Change Policy and Practice. The individual is also working towards achieving certification as a GHG quantifier through CSA. The individual has been indirectly involved in GHG reporting for Enbridge since 2007, with direct responsibility for the GHG inventory since 2011. As such, the individual is able to adeptly review and decode GHG reporting regulations, a skill which has been and will continue to be valuable to Enbridge and its ratepayers.
- 60. To ensure readiness for participation in primary and secondary Cap and Trade markets, Enbridge has successfully completed both phases of the CITSS registration process, submitting Phase 2 of the application, the company or "Participant" registration documents, on October 13, 2016.
- 61. As a result of the changes in *Ontario Regulation 143/16, Quantification, Reporting and Verification of Greenhouse Gas Emissions*, the Company is in the process of discussing a submission for the adjustment of its holding limits with the Ministry of the Environment and Climate Change ("MOECC") pursuant to Section 41 of the Regulation.
- 62. Enbridge will leverage its vast expertise in the natural gas market to ensure the successful implementation of the Company's Cap and Trade Compliance Plan. The Company's gas supply team employs traders well versed in the methods and platforms used in commodity markets, and those methods and platforms have direct applicability to the market for Cap and Trade allowances. For example, the Board

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 1 Schedule 1 Page 18 of 18 Plus Appendices

references the Intercontinental Exchange ("ICE") as a "large, liquid and public market exchange" in its Framework. Members of Enbridge's gas supply team frequently transact on ICE and understand the nuances of the platform. Enbridge will also ensure it attends and participates in the government led auction practice sessions currently scheduled for December 6, 2016. Should additional training be required, Enbridge will ensure it does what is necessary to be ready.

63. Enbridge recognizes that as the market develops, so too might its resource requirements.

Keeping expertise in-house has long-term benefits to the ratepayers. As the market knowledge of Enbridge's internal personnel increases, the Company and its ratepayers benefit from the continuous improvement in the execution of its Compliance Plan. It is abundantly clear though, that the carbon market is not a "perfect market" and does requires substantial attention to a number of different inputs to ensure an appropriate and optimal Compliance Plan is developed and implemented.

Assessment of Creditworthiness of Counter-Parties and Financial Intermediaries

64. Upon signals that the Ontario Cap and Trade market is formally linked with California and Québec, compliance options will become more diverse. With that diversity, there will be additional complexity.

Redacted, Filed: 2017-01-18, EB-2016-0300, Exhibit C, Tab 1, Schedule 1, Appendix B, Page 1 of 4

The attached Exhibit C, Tab 1, Schedule 1, Appendix B contains the covering page and pages 4 and 5 of 35 only. All other pages of this document remain strictly confidential.

Redacted, Filed: 2017-01-18, EB-2016-0300, Exhibit C, Tab 1, Schedule 1, Appendix B, Page 2 of 4

# STRICTLY CONFIDENTIAL

## **ENBRIDGE GAS DISTRIBUTION, INC. (EGD)**

CARBON STRATEGY REPORT

lpha Inception LLC

November 10, 2016

STRICTLY CONFIDENTIAL

## Ontario Carbon Strategy Report

#### **INTRODUCTION**

Alpha Inception (AI) has been engaged by Enbridge Gas Distribution, Inc. (EGD) to conduct analysis of the Ontario and Western Climate Initiative (WCI) Cap and Trade programs and to conduct independent analysis of multiple procurement strategies that could be considered in a Cap and Trade compliance plan. AI's vast experience in environmental markets and qualitative analytic abilities qualify it to provide such analysis.

AI provided the Carbon Market Report, which included key observations, such as analysis of the market fundamentals of supply and demand for allowances in each of the jurisdictions, and an overview and analysis of the regulatory and market environments. The Carbon Strategy Report is a complement to the Carbon Market Report, relying upon such analysis to provide the basis for the strategic recommendations contained herein. AI has independently evaluated multiple strategic options and provides this analysis for discussion and consideration.

This report is strictly confidential as it contains auction confidential information as this term is defined by the Ontario Energy Board (OEB). AI understands that EGD may, at its sole discretion, file this report with the OEB though EGD shall in no circumstance disclose to AI its internal analysis of these recommendations or any details concerning the confidential strategy that is ultimately pursued by EGD except whereby such information is disclosed publicly or through regulatory filings.

#### **ALPHA INCEPTION**

Since early 2012, Alpha Inception has advised Utilities, Independent Power Producers, Asset Developers, Industrials, and Financial Institutions on executed transactions, business development, and commodity hedging strategies across various North American environmental markets, including Carbon Emissions Trading programs (Western Climate Initiative and the Regional Greenhouse Gas Initiative), Renewable Energy Credits (RECs), offsets and other energy-related environmental products. With a combined 25+ years of relevant experience at market leading firms such as Goldman Sachs and Macquarie Bank, and a broad network of market participants, Alpha's Senior Officers represent a best-in-class commercial team with a proven capability to develop and execute successful strategies.

Andre Templeman founded Alpha Inception in 2012. He has over 15 years of experience in commodity structuring, trading and origination with Macquarie Bank, Goldman Sachs, Duke Energy and Iberdrola Renewables. He has developed, built and led origination businesses while at Macquarie and Goldman Sachs. He has extensive experience developing and executing innovative hedge structures for end users with a specific focus on renewables and natural gas-fired power plants. Andre holds an MBA from the Ivey School of Business at the University of Western Ontario and a BA from York University.

Andre has been deeply involved in the Carbon and Renewable markets as they have emerged from a regulatory concept to fullfledged commodity markets and is consulted frequently by regulators, governments and regulated market participants. Alpha Inception is one of the leading consulting firms in trading, investment and compliance cost management in California and Quebec's Cap and Trade Program, RGGI, and other environmental and related markets.

#### PORTFOLIO OVERVIEW

#### **ENBRIDGE GAS DISTRIBUTION**

Enbridge Gas Distribution, Inc. (EGD) is Canada's largest gas distribution utility and serves over two million natural gas customers across central and eastern Ontario. EGD is a rate-regulated utility that distributes and sells natural gas in the residential, commercial, and industrial markets. As historic emissions reductions in Ontario have resulted from the phase out of Ontario's coal-fired power plants over the years, future reductions under Ontario's Cap and Trade will come from energy

lpha Inception LLC

efficiency improvements, transportation fuels, and from natural gas consumers. EGD is responsible for emissions of its customers as well as for its own facilities and operations.

#### **EMISSIONS FORECAST**

A forecast for 2017 emissions was provided by EGD consistent with the Cap and Trade framework provided by the Ontario Energy Board (OEB) and the Ontario Ministry of Environment and Climate Change's (MOECC) Guideline for Quantification, Reporting and Verification for GHG Emissions. EGD is responsible for customer-related emissions in addition to its own facility emissions. The 2017 forecast provided by EGD is summarized below:

2017 Customer-related emissions (tCO2e):	20,907,621
2017 Facility emissions (tCO2e):	229,145
Total Projected Emisisons (tCO2e):	21,136,767

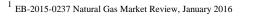
	ATED AND FACILITY EMISSIONS, 2017
$h_{1011ro} + h_{10Re} + \Delta N + (11N+101M+R-R)$	
I IEUICI, I OKLGASI GOSIOPILK-K	

Source: Enbridge Gas Distribution, Inc

At approximately 21,000,000 tCO2e per year, EGD's customers represent one of the largest group of emitters under the Cap and Trade program. EGD's customer-related portfolio shows that 80% of its emissions come from residential, commercial and institutional customer segments, with smaller entities, with less than 25,000 tCO2e annually, collectively responsible for 85% of EGD's total emissions<sup>1</sup>. Large Final Emitters (LFEs), above 25,000 tCO2e annually, will purchase their own allowances and have been excluded from the forecast. EGD is responsible for the allowance purchases of Small Emitters (between 10,000 – 25,000 tCO2e annually) unless such entities voluntarily opt-in to the Cap and Trade program to cover their own emissions obligations. Small Emitters who opt-in to the Cap and Trade can apply for free distributions of allowances. Voluntary participants known to EGD as of October 7th, based on a list of participants received from MOECC, have also been excluded from the forecast.

The risk of customers migrating from EGD's responsibility to self-responsibility may lead to future variability in emissions obligations for which EGD is responsible, though this is expected to be small in the earlier years of Cap and Trade, it may potentially grow larger as the program progresses to later years.

AI did not conduct any analysis of EGD's emissions abatement opportunities or its internal Marginal Abatement Cost Curve (MACC), though given the nature of the industry, abatement opportunities are expected to be limited. The greatest risk of deviations from the above forecast include customer migration and energy efficiency improvements.



REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 1 of 15

#### COMPLIANCE OPTION ANALYSIS AND OPTIMIZATION OF DECISION-MAKING

 Enbridge provided an overview of its Compliance Plan in the previous exhibit (Exhibit C, Tab 1, Schedule 1). However, this exhibit provides more in-depth discussion and analysis on why the Company landed on its particular proposed strategy for 2017.

## DESCRIPTION OF COMPLIANCE OPTIONS

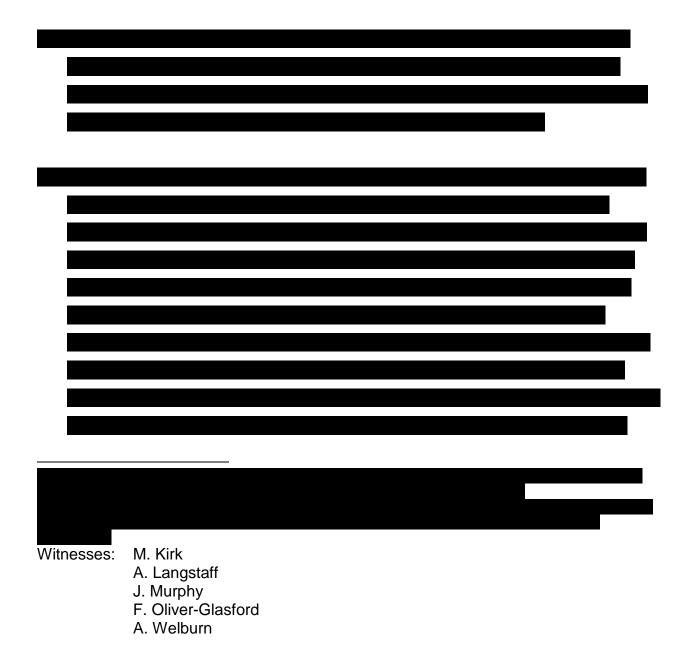
- AI provides descriptions of the compliance instruments available to Enbridge in the Carbon Market Report, which is included at Exhibit C, Tab 1, Schedule 1, Appendix A, on page 6 in the section titled "Compliance Instruments Under Ontario Cap and Trade".
- Detailed discussion of the compliance instruments included in this 2017 Compliance Plan is provided in the sections below.

### Allowances

4. An allowance represents the authorization for a capped participant – which includes large final emitters, natural gas and transportation fuel distributors and electricity importers – to emit one tonne of carbon dioxide equivalent ("tCO<sub>2</sub>e"). The total volume of allowances in the Cap and Trade market, made available by the Ministry of the Environment and Climate Change ("MOECC"), is equal to the annual greenhouse gas ("GHG") emissions cap for 2017. The Ontario cap is reduced by approximately 4% annually. Allowances can be obtained through i) submitting applications to the MOECC for free distribution, ii) purchase at quarterly auctions

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 2 of 15

administered by the MOECC, iii) purchase from the MOECC through strategic reserve sales, which operate similar to the quarterly allowance auctions, iv) purchase on the secondary market, and v) purchase from other Cap and Trade participants. In the Regulation it is outlined that the natural gas utilities would not be eligible for free distributions, and therefore all allowances required by Enbridge to meet its compliance obligation must be purchased from one of the sources outlined above.



REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 3 of 15

TABLE DELETED

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 4 of 15

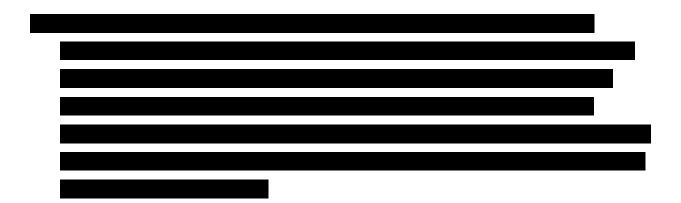
Table 2:	
TABLE DEL	ETED
Witnesses:	M. Kirk A. Langstaff
	J. Murphy F. Oliver-Glasford
	A. Welburn

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 5 of 15


	C C
Allowances	- Secondary Market
Witnesses:	M. Kirk
	A. Langstaff
	J. Murphy
	F. Oliver-Glasford
	A. Welburn

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 7 of 15

17. Al discusses ICE at length<sup>4</sup>, defining the exchange as "an electronic trading platform that offers access to regulated future exchanges, global OTC markets and clearinghouses in North America and Europe." Al also identifies ICE as "the most successful and liquid exchange platform for California Carbon Allowances ("CCA"), including futures and options." Enbridge frequently accesses ICE in its day-to-day natural gas trading activities and is investigating its carbon market interface.



### <u>Offsets</u>

19. An offset credit is similar to an allowance in that in can be retired to satisfy obligations under the Regulation. Similarly, one offset credit is equal to one tCO<sub>2</sub>e. Offset credits are created through a verified reduction or absorption of GHG emissions in a sector of the economy not covered by the Cap and Trade program. The reduction must demonstrate "additionality", the concept that the GHG reductions would not have occurred without the payment for the offset and would not have occurred under a business-as-usual scenario.

- Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford
  - A. Welburn

<sup>&</sup>lt;sup>4</sup> Exhibit C, Tab 1, Schedule 1, Appendix A, AI Market Report, page 16

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 8 of 15

- 20. The need for verification of offset credits presents an "invalidation risk", non-existent in the use of allowances. This represents the risk that offset projects may at some point after they are issued be found to have not reduced the stated GHG emissions, and offset credits may be rescinded by the issuing body. Invalidation risk for Ontario offset credits is dependent on how the compliance instruments are defined in the Ontario offset regulation. At the time of preparing this evidence, the MOECC has not released the regulations regarding offsets and offset protocols.
- 21. Under the Ontario Cap and Trade Regulation, Enbridge is permitted to use offsets to cover a maximum of 8% of its annual compliance obligation. Given the uncertainty around Ontario's offset regulation, the potential availability of offsets is difficult to approximate as it remains unclear if any offset credits will be available in Ontario in 2017.

Witnesses:	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 9 of 15

_	
Witnesses:	M. Kirk A. Langstaff J. Murphy

- J. Murphy F. Oliver-Glasford
- A. Welburn

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 10 of 15

APPLICATIO	ON OF GUIDING PRINCIPLES AND RATIONALE FOR STRATEGY
Table 3:	ETED
TABLE DEL	
Witnesses:	M. Kirk A. Langstaff
	J. Murphy
	F. Oliver-Glasford A. Welburn

		REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 11 of 15
Witnesses:	M. Kirk A. Langstaff J. Murphy	

- F. Oliver-Glasford
- A. Welburn

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 12 of 15

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 13 of 15

#### MARGINAL ABATEMENT COST CURVE

33. Enbridge understands that the Board will provide a ten-year marginal abatement cost curve ("MACC") to the utilities in mid-2017, which will be updated at the beginning of each three-year compliance period. As the MACC is not yet available to Enbridge, it was not used in consideration of abatement opportunities for the 2017 Compliance Plan. Enbridge may seek to establish its own MACC or similar analysis for its unique facility-related or customer-related abatement initiatives as appropriate.

#### ABATEMENT ACTIVITIES

34. On page 6 of the Framework the Board lists a number of Potential GHG Abatement Measures that the utilities may undertake to meet their compliance obligations, as captured in Table 4 below.

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	Facility and customer emissions

REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 14 of 15

35. Enbridge is committed to a diverse portfolio of compliance options

#### Customer-Related Abatement

- 36. In 2017, Enbridge's sole customer-related abatement activity is driven by home energy retrofits which are incremental to currently approved DSM programming and which were funded by the government through the Green Investment Fund ("GIF"). By considering this activity in this Compliance Plan, Enbridge is recognizing and maximizing the value of the GIF investment for ratepayers. The related emissions savings will be documented in the annual monitoring report upon verification. Enbridge agrees with the Board's conclusion that the DSM Framework and related mid-term review provision provide the appropriate opportunity to assess if and how demand side management ("DSM") interacts with future Cap and Trade Compliance Plans. This is discussed in more detail in Exhibit C, Tab 3, Schedule 4.
- 37. A number of the customer-related emission abatement opportunities are anticipated to be assessed and where appropriate included in future Compliance Plans, but as discussed in the New Business section of the evidence, Exhibit C, Tab 6, Schedule 1, will do so under separate applications or within leave to construct applications.

#### Facility-Related Abatement

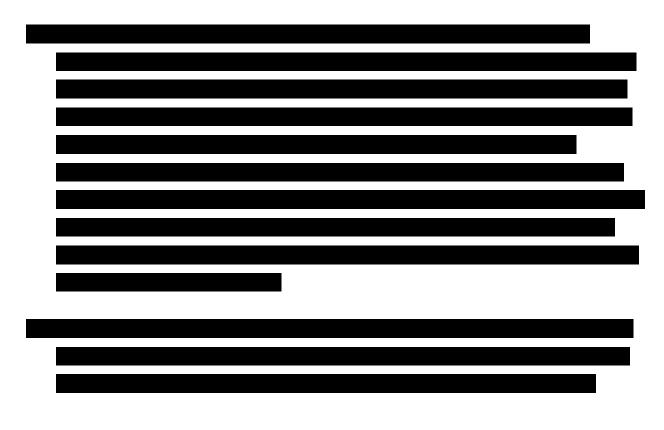
REDATED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 2 Schedule 1 Page 15 of 15

39. Enbridge will however leverage ongoing asset management projects to maximize the existing investment that is already built into the Company's Custom Incentive Regulation.

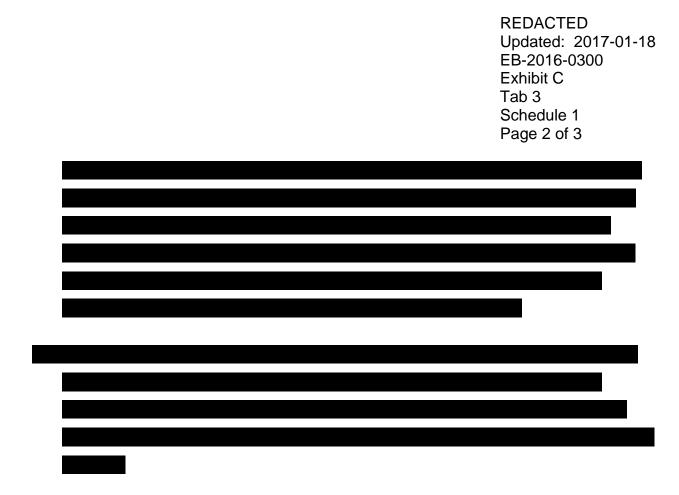
REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 3 Schedule 1 Page 1 of 3

#### PERFORMANCE METRICS AND COST INFORMATION

- Enbridge understands that the Board will assess Compliance Plans based on diversity of compliance options, value extraction from GHG abatement activity investment, cost-effectiveness, customer protection (compliance), flexibility and continuous improvement. This exhibit outlines the data and an additional performance metric in conjunction with anticipated contextual, qualitative insights that Enbridge anticipates to be required by the Board to assess Enbridge's Compliance Plan implementation performance and costs.
- As outlined in Exhibit B, Tab 1, Schedule 1, Enbridge has submitted a one-year Compliance Plan. As such, the forecast Compliance Plan costs that are shown in this exhibit are for 2017 only.



Witnesses: A. Langstaff J. Murphy F. Oliver-Glasford



- As requested in Appendix A: Filing Guidelines, Enbridge has drafted a template report for Compliance Plan Forecast versus Actuals which is illustrated in Exhibit D, Tab 1, Schedule 1 for purposes of the annual monitoring and reporting activity.
   2017 forecast or "plan" numbers are detailed in Exhibit C, Tab 3, Schedule 2, and Exhibit C, Tab 3 and Schedule 3.
- 7. After detailed review of both the Cap and Trade Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities and the accompanying Filing Guidelines for Natural Gas Utility Cap and Trade Compliance Plans, Enbridge proposes one additional performance metric at this time.
- Enbridge submits that an appropriate performance metric for 2017 given the nascent state of the market, many variables at play in terms of linkage and California's status in Cap and Trade, and Enbridge's experience in carbon markets

Witnesses: A. Langstaff J. Murphy F. Oliver-Glasford

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 3 Schedule 1 Page 3 of 3

is the carbon allowance "soft" ceiling price of \$66.49. This adequately captures the full cost efficiency of the Compliance Plan.

- 9. It should be noted that many aspects of the market and thus total compliance costs are outside of Enbridge's control and/or too difficult to mitigate as further discussed in Exhibit C, Tab 4, Schedule 1. Furthermore, Enbridge must seek to ensure compliance as its number one goal, which may depending on market forces and the demand/supply dynamic not necessarily be appropriate to benchmark against ICE, or market clearing prices. Enbridge will approach the compliance activities earnestly, diligently and with professionalism, striving to protect customers' interests.
- 10. Enbridge recognizes that with experience there will be evolution in the performance metrics considered. Noting the Board's remarks that:

the OEB intends to establish a working group that will consider, among other things, the need for and design of potential new metrics for evaluating the Utilities' Plans and performance.

Witnesses: A. Langstaff J. Murphy F. Oliver-Glasford

REDACTED Updated: 2017-01-18 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.

REDACTED Updated: 2017-01-18 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.
- 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.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 3 Schedule 5 Page 3 of 3

Witnesses: J. Murphy E. Naczynski

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 1 of 34

#### **RISK MANAGEMENT – IDENTIFICATION AND MITIGATION**

- Risks are present in all markets. Risk management is the process whereby risks are identified, understood and then managed through processes, procedures or programs.
- 2. An understanding of the risks inherent to Ontario's Cap and Trade market is important to ensure flexibility is built into Enbridge's Compliance Plan in order to address these risks. Through risk identification, Enbridge will be able to identify risks and implement risk management programs proactively. Enbridge has been actively taking steps to identify risks, with the guiding principles identified by the Board in mind. The fewer unmitigated risks, the greater probability of Enbridge's Compliance Plan achieving the Board's Guiding Principles for Cap and Trade. Exhibit C, Tab 2, Schedule 1, Table 3, shows how the procurement strategy in particular mitigates risk against each of the guiding principles.
- 3. In the Framework, the Board has identified that the following risks must be discussed in the Compliance Plan:
  - a. Allowance price variability;
  - b. Volume variability
  - c. Emission unit availability;
  - d. Market Risk; and,
  - e. Non-compliance.
- 4. Enbridge has identified additional risks that it believes are also applicable for discussion within the Company's Cap and Trade Compliance Plan. They include:

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 2 of 34

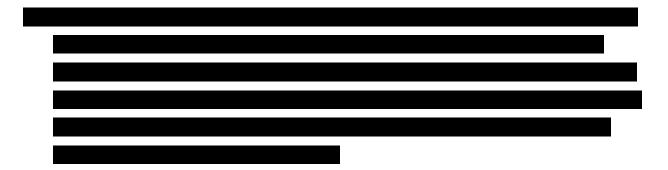
- a. Financial transaction risks;
- b. Risk of data dissemination to market participants; and,
- A discussion of all risks identified above, including mitigation efforts, is contained within this exhibit. Longer-term risks, in the five to 10 year horizon, are discussed in Exhibit C, Tab 5, Schedule 1.

#### Allowance Price Variability – Risk Identification

- 6. The price of an emission allowance at the Ontario-only auction in 2017 may vary as a result of many factors, most notably the following:
  - a. Fluctuation in inflation and currency exchange rates;
  - b. Price differences between auction and Over the Counter ("OTC") markets;
  - c. Status of linkage with the Western Climate Initiative Inc. ("WCI") Cap and Trade market which currently includes California and Québec; and
  - d. Regulatory changes and legal challenges of the California Cap and Trade program.
- 7. As discussed in Exhibit B, Tab 4, Schedule 1, the Ontario auction reserve price, also referred to as the floor price, is set by the greater of the California or Québec floor prices. Provided that the emission allowance price is set by the California auction reserve price, exchange rate fluctuations will result in Ontario allowance unit price variability. This is a risk embedded into the Ontario Cap and Trade program where costs are translated to Canadian dollars ("CAD") from US dollars ("USD").

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 3 of 34

8. The U.S. Consumer Price Index for All Urban Consumers and Québec Consumer Price Index are inputs into the derivation of the auction floor prices for California and Québec. As such, a significant change in an inflation rate will alter the floor price of the emission allowances. Due to federal government policies in both Canada and the United States, the risk associated with significant fluctuations in inflation is minimal. Once again, inflation rate risk is inherent to all market participants.



10. Enbridge recognizes that the Ontario Cap and Trade market will also be influenced by linkage with California and Québec through the WCI Cap and Trade market. Although linkage is not planned until January 1, 2018, the behavior of the WCI auctions and secondary market, as well as by any regulatory changes made by California and Québec could impact the auction clearing price of the 2017 Ontarioonly auctions. The outcome of the legal challenges related to the California Cap and Trade program could also impact the Ontario market.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 4 of 34



Allowance Price Variability – Analysis of Risk

12. In the Framework the Board has requested that Enbridge conduct scenario analysis on the price of emission units, including exchange rate risk.

Witnesses:	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 5 of 34

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 6 of 34

## FIGURE DELETED

	_
Witnesses: M. Kirk A. Langstaff	

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 7 of 34

TABL	E DEI	ETED	

TABLE DELETED	
Allowance Price Variability – Mitigation Measures	
	l
Witnesses: M. Kirk A. Langstaff	

- J. Murphy F. Oliver-Glasford
- A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 8 of 34

31. The Ontario Cap and Trade market is complex, requiring participants to stay abreast of the many informational inputs that impact the demand/supply dynamics. Enbridge will monitor the WCI market as well as all changes proposed or made to Cap and Trade regulations in Ontario, California and Québec. To enable this,

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 9 of 34

Enbridge will mitigate the risk of inadequate information through a number of activities, which may include, but are not limited to, attending conferences, establishing relationships with market players, seeking consulting or legal support where regulation/regulatory interpretations are required, subscribing to carbon market intelligence platforms, involvement in Cap and Trade associations and/or committees in various energy industry associations, reading relevant Cap and Trade market articles, and lobby work where necessary to support the interests of our ratepayers. Understanding market behavior and the impact of regulatory changes will assist the Company in making appropriate and timely risk-based decisions on changes to its purchasing strategy.

32. Flexibility in the Company's Compliance Plan strategy and closely monitoring the carbon regulations and markets will ensure Enbridge obtains its compliance obligations and achieves the Board's guiding principles. A focus on market intelligence and involvement results in: 1) cost effectiveness is met by staying on top of the supply/demand dynamics and optimizing procurement opportunities;

; 3) cost recovery is met as the Company is able to show it has been diligent in understanding and responding to market information; 4) flexibility is met by Enbridge being knowledgeable of market conditions and regulatory changes to adapt its procurement strategy; and, 5) continuous improvement is met through an increasingly expert group of resources inside the Company around carbon markets and Cap and Trade implementation.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 10 of 34

## Volume Variability - Risk Identification

- 34. Volume variability is primarily attributed to the following factors:
  - a. Weather, measured in heating degree days ("HDD");
  - b. Decrease in throughput as a result of pricing signals from carbon costs (e.g. price sensitivity);
  - c. Decrease in throughput due to demand side management ("DSM") programs including incremental energy efficiency programming (e.g. Green Investment Fund ("GIF") activity) and changes to codes and standards;
  - d. Change in the number of Cap and Trade program participants;
  - e. Increase in throughput as a result of community expansion, incremental customer additions and uptake of natural gas as a transportation fuel; and,
  - f. Change in demand by natural gas fired power generators.
- 35. As a result of all of the factors listed above that may cause volume variability, Enbridge's customer-related greenhouse gas ("GHG") emissions could vary from the forecast provided in Exhibit B, Tab 3, Schedule 1.
- 36. Natural gas demand is influenced by a number of factors, most notably weather. Details on the derivation of the 2017 gas volume budget can be found in EB-2016-0215 Exhibit C1, Tab 2, Schedule 1.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 11 of 34

- 38. Enbridge's volume variability may also be impacted by new and existing DSM initiatives, implementation of the GIF-funded program, implementation of electrification projects and de-carbonization technologies, changes to building codes and standards and execution of the government's Climate Change Action Plan. The successful implementation of any or all of the above initiatives will result in volume variability. Excluding Enbridge's DSM programs, it is unknown to what extent the above mentioned programs will affect volume variability in 2017.
- 39. Volume variability will also occur as entities decide to individually manage their own compliance obligations, and opt-in to the Cap and Trade program as voluntary participants. If and when this occurs, Enbridge's compliance obligation will decrease.
- 40. Variability from Enbridge's forecast volume included in Exhibit B, Tab 2, Schedule 1 may also arise if the number of customers who are capped participant's changes from those that were known at the time the forecast was developed. This risk is noted on page 7 of AI's Carbon Market Report, included in Appendix A to Exhibit C, Tab 1, Schedule 1.
- 41. Enbridge has used a list of known capped participants from the MOECC in order to subtract volumes forecasted for capped participants. This list is current as of October 7, 2016; however, mandatory participants have until the deadline of November 30, 2016 in order to register as mandatory participants. The MOECC

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 12 of 34

has not identified a deadline for the registration of voluntary participants, however Enbridge understands that voluntary participants may register for participation in Ontario's 2017 Cap and Trade program up to December 31, 2016.

- 42. Any initiative that increases Enbridge's aggregate in-franchise natural gas usage could increase volume variability. For example, customer additions, community expansion and an increase in the use of natural gas as a transportation fuel could increase Enbridge's natural gas throughput if associated values more than offset reductions in existing customer usage. The impact of such initiatives is not expected to be material in 2017.
- 43. As per the Regulation, the point of regulation for the natural gas fired power generators, not supplied by international or inter-provincial natural gas transmission pipelines, is the in-franchise natural gas distributor. Enbridge notes that approximately 6% of its customer-related GHG emissions are derived from natural gas fired power generators served within its franchise area. Since they are dispatched by the Independent Electricity System Operator ("IESO"), annual consumption by natural gas fired power generators is subject to volume variability. Volumes are more varied and less predictable than Enbridge's average customer, due to their large usage and because natural gas fired power generators are dispatched by IESO as needed.
- 44. In the development of Enbridge's 2017 volume forecast, Enbridge requested annual forecast volumes from six power generators in its franchise area. Most of these power generators supply and balance their daily natural gas requirements, and provide Enbridge with daily nominations as required. Annual forecasts were not

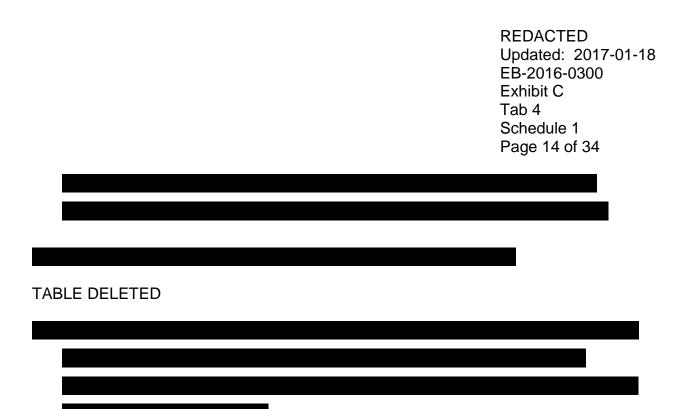
REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 13 of 34

received from all power generators, since they are not contractually required to provide an annual demand forecast.

Volume Variability - Analysis of Risk

47. In the Framework, the Board has requested that the utilities conduct scenario analysis on the volume variability. For this first Compliance Plan Enbridge has considered scenarios on volume increases in aggregate. Enbridge may adjust analysis in future Compliance Plans as it learns more about the market.

Witnesses:	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn		



## Volume Variability – Mitigation Measures

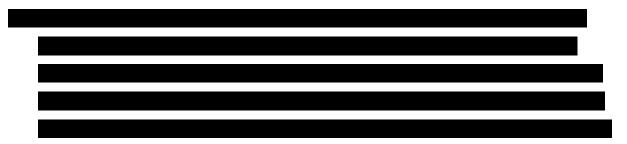
- 51. In order to mitigate the overall risk of volume variability, the Company will monitor the actual monthly consumption as compared to the forecast volumes. As discussed in Exhibit C, Tab 1, Schedule 1, the Carbon Procurement Governance Group ("CPGG") will monitor the variance from the forecast and make adjustments to the Compliance Plan strategy as necessary.
- 52. Enbridge's Compliance Plan, which has been developed with the Board's guiding principles in mind, will provide the Company the ability to adapt to overall volume variability.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 15 of 34

54. Enbridge will continue to communicate on a regular basis with large volume customers, and seek to even better understand their future supply requirements and their Cap and Trade compliance obligations. The Company has Account Executives who meet at least annually with large volume customers for volume requirements. This will be expanded to include discussions about compliance obligations. As well, the Account Executives can facilitate discussion about Company DSM programs and/or other abatement opportunities.

- 55. If any changes, additions or deletions, are made to the capped participants list, Enbridge will adjust its forecast volume. This update to the capped participants list will be done on a monthly basis by the carbon strategy team based on inputs provided by the MOECC and information collected via our Account Executives.
- 56. Enbridge continues to engage and collaborate with natural gas fired power generators and the IESO to better understand their forecasted natural gas requirements. The Company notes however, that even with forecasted demand requirements identified, there may still be variability from the forecast since there is no mechanism in the contracts with the natural gas fired power generators to enforce the forecasted volume. Therefore this volume variability risk cannot be completely mitigated.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 16 of 34



# Emission Unit Availability – Risk Identification

- 58. Reduced emission allowance availability could be a result of several factors, including:
  - a. Cap and Trade program design; and
  - b. Participation of market participants.
- 59. Enbridge understands that the 2017 cap was set by the MOECC to match the forecasted province-wide GHG emissions for the sectors covered by Cap and Trade. While Enbridge is not privy to the government's forecasting methodology, the Company recognizes that there is some inherent risk in all forecasting. As such, it is possible that the cap will actually be lower than actual emissions and demand may be much higher than anticipated, leading to availability concerns in the first year of the program. This could happen in particular due to an increase in heating fuel use across the province, and therefore an increase in emissions, due to a colder winter than forecast.
- 60. Additionally, five percent of allowances created by the government in 2017 will be held back in a strategic reserve.

Further

discussion on the supply-demand balance in the Ontario Cap and Trade market can

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 17 of 34

be found on pages 35 to 37 of Al's Carbon Market Report, which is included as Appendix A to Exhibit C, Tab 1, Schedule 1.

61. The Ontario Cap and Trade program, which was modeled after and is similar to the California and Québec Cap and Trade programs, is designed to place market limits on participants. These limits include the holding and purchase limits. While these limits do not constrain the number of allowances available at auction, they do limit a participant's ability to obtain allowances.

63. In the event of increased throughput by the natural gas Utilities, demand for emission units may outpace supply. As discussed under volume variability risk above, higher natural gas throughputs could occur for several reasons, with the main risk being the weather.

64. Greater participation by banks, insurance companies and other speculators as market participants may also reduce emission unit availability at auction. Each market participant may purchase up to four percent of available allowances at auction. While the uptake of the Ontario Cap and Trade market by speculators is unknown at this point in time, it is possible that this could lead to reduced

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 18 of 34

availability of emission allowances at auction. This may however increase liquidity on the secondary market.

## Emission Unit Availability – Analysis of Risk

65. Al has completed an analysis of the supply and demand economics of the Ontarioonly Cap and Trade market. Refer to pages 35 to 37 in Appendix A available at Exhibit C, Tab 1, Schedule 1.

## Emission Unit Availability – Mitigation Measures

66. Enbridge will monitor the Ontario and WCI Cap and Trade markets and adjust its compliance strategy as necessary

. Various means to

gain market intelligence will be critical to the Company's ongoing monitoring.

Witnesses:	M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn		

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 19 of 34

## Market Risk – Risk Identification

70. Enbridge is defining market risk as any risks present due to the design of the Cap and Trade market.

- 71. Market risk could be realized due to several factors, including:
  - a. Change in carbon policy;
  - b. Cap and Trade and GHG reporting regulation changes; and,
  - c. Linkage with other markets.
- 72. It is anticipated that in 2018 there will be an Ontario election. Cap and Trade has been introduced to the Ontario market by the current Liberal government. Early signals from the Conservative party indicated interest in moving from Cap and Trade to a Carbon Tax policy. Although this is likely only a risk beginning in 2018, an earlier than anticipated election would put this on the radar for 2017. If for any reason Cap and Trade was discontinued by the government in 2017, any carbon allowances purchased might be worthless. There would be no way to reasonably mitigate this outside risk.
- 73. Enbridge understands that as of the date of this submission, the MOECC has proposed edits to the Regulation.<sup>4</sup> The Company also understands that the regulations surrounding offset credits, offset protocols, and early reduction credits are not yet written into regulation. Although the current draft changes appear to have a minor impact, Enbridge recognizes that future changes in the Regulation

<sup>4</sup><u>http://www.ebr.gov.on.ca/ERS-WEB-</u>

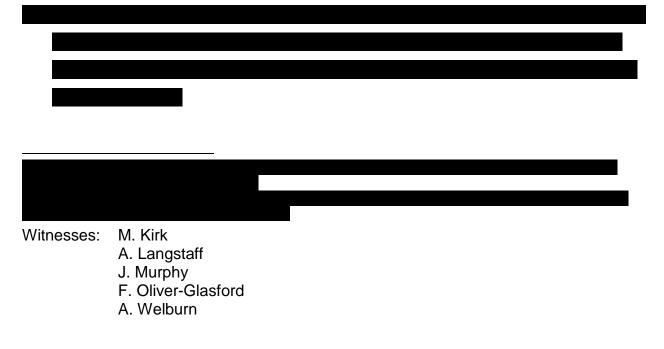
External/displaynoticecontent.do?noticeId=MTMwODQ5&statusId=MTk4MjEw&language=en

Witnesses: M. Kirk A. Langstaff J. Murphy F. Oliver-Glasford A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 20 of 34

could impact the Company's compliance obligation, costs to comply and ability to comply with the Cap and Trade program.

- 74. Enbridge has also identified the potential for GHG emission forecast changes as a result of the inclusion of new emission sources, or adjustments to calculation methodologies, default emission factors and global warming potentials ("GWP") in the Ontario GHG reporting regulation. Any adjustment will impact the number of emission allowances required. This risk is similar to that of volume variability.
- 75. Ontario intends to link its Cap and Trade program with California and Québec's Cap and Trade program through WCI. Although linkage is planned for January 1, 2018, an extensive review is required by both WCI partners in order to approve this linkage.
- 76. The linkage between the Ontario and WCI market is expected to increase market liquidity, and thus enable Enbridge greater flexibility in its procurement of compliance options. Linked markets will also provide Enbridge access to offset credits created in partner jurisdictions, thus increasing the number of cost-effective compliance options available to meet the Company's compliance obligation.

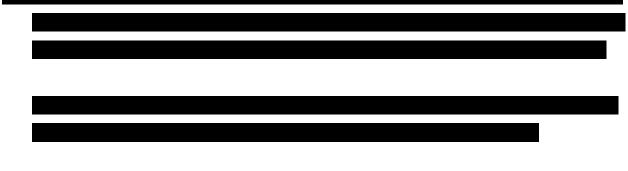


REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 21 of 34

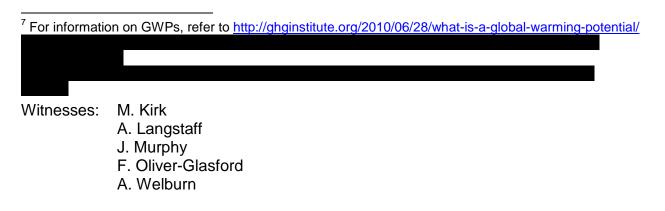


Market Risk – Analysis of Risk

- 79. Enbridge has calculated that if the GWP values provided in the GHG reporting regulation change to values that have been published more recently by the Intergovernmental Panel on Climate Change ("IPCC")<sup>7</sup>, that its compliance obligation would remain materially the same at around 21.1 Mt CO<sub>2</sub>e.
- 80. Further analysis regarding Ontario's supply and demand can be found in Al's Carbon Market Report in Exhibit C, Tab 1, Schedule 1, Appendix A.



82. Further analysis on the impact of non-linkage with the WCI market is reflected in the analysis of price variability, and is summarized on Table 1 above.



REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 22 of 34

#### Market Risk – Mitigation Measures

83. Enbridge will remain current on changes to the Cap and Trade and GHG reporting regulations. To ensure this, Enbridge will continue to maintain a close relationship with the MOECC so that it will be included as a stakeholder during any discussions about future regulatory changes. Enbridge also actively participates in industry associations such as Canadian Energy Partnership for Environmental Innovation ("CEPEI") to maintain current on GHG reporting.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 23 of 34

## Non-Compliance – Risk Identification

- 85. Non-compliance occurs when a capped participant does not hold an adequate number of emission allowances in its compliance account for the compliance period, to meet its carbon compliance obligation for the corresponding compliance period. If an entity is short allowances relative to its obligation, it will be required to pay the cost to procure those allowances at the most recent clearing price at auction, as well as pay a fine of three times the current clearing price for non-compliance.
- 86. Non-compliance could occur as a result of any number of the risks that have been identified or others that have not yet been identified.
- 87. In the Cap and Trade program design is such that participants do not need to surrender allowances to the Government until the end of the compliance period. For the first compliance period of 2017 to 2020, Enbridge will be required to surrender allowances totaling its 2017 to 2020 cumulative emission compliance obligation, by November 1, 2021. This is done by placing the appropriate amount of allowances into the Company's Compliance Instrument Tracking System Service ("CITSS") compliance account.

# Non-Compliance – Analysis of Risk

88. Enbridge notes that the cost of non-compliance is three allowances for every one allowance short from its compliance obligation. This would mean that if Enbridge was not in compliance at the end of the first compliance period, the Company would

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 24 of 34

need to purchase four allowances for each allowance it was short. Additional administrative monetary penalties may also apply<sup>10</sup>.

# Non-Compliance – Mitigation Measures

- 89. The longer time period provided by the Regulation for surrendering allowances
- 90. Enbridge recognizes Cap and Trade is a compliance requirement, and therefore the Company has mitigated against the risk of non-compliance through the development of a robust and flexible procurement strategy, and a governance structure.
- 91. Enbridge's governance plan for the Cap and Trade program will minimize the risk of non-compliance through proper and diligent oversight of emission allowance transaction and reporting. Governance with respect to the Compliance Plan is discussed in Exhibit C, Tab 1, Schedule 1.

# Financial Transaction Risks – Risk Identification

- 92. Enbridge has identified the following financial transaction risks:
  - a. Counterparty credit risk; and,
  - b. Offset compliance instrument risk.

93.

Witnesses: M. Kirk

A. LangstaffJ. MurphyF. Oliver-GlasfordA. Welburn

<sup>&</sup>lt;sup>10</sup> Enbridge notes that at the time of this filing, regulations outlining applicable administrative monetary penalties were not yet available.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 25 of 34

- 94. Funds paid by Enbridge for purchasing credits at auctions would be payable to the government of Ontario but would be held in trust with Deutsche Bank, which has been chosen by WCI as the custodian of both the Ontario and WCI Cap and Trade funds. Another counterparty credit risk which could occur is a default by Deutsche Bank. Should this occur, there is a risk that the funds held in trust could be subject to creditor risk.
- 95. The Regulation allows capped participants to obtain eight percent of their annual compliance obligation through the purchase of offsets. For a complete discussion on offsets, refer to Exhibit C, Tab 2, Schedule 1. As of the date of this filing, Ontario's offset regulation is not yet available, and the associated offset protocols are still under development. Due to the timing of the offset regulations and protocols, it is likely that there will be few offset credits available in 2017.
- 96. Offsets as compliance tools may possess risk due to the rules written into regulation. In California, offsets are designed in a way that there is invalidation risk, whereas in Québec this is not the case. This difference of approach to offset regulation makes it difficult to speculate on what the Ontario government may do, and if there will be an invalidation risk.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 26 of 34

## Financial Transaction Risks – Analysis of Risk

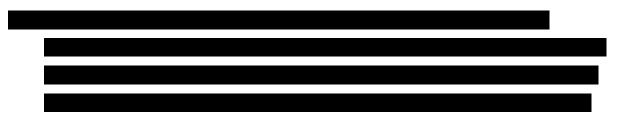
Financial Transaction Risks – Mitigation Measures

98. Through its experience with natural gas procurement, Enbridge has developed relevant procedures that will be used in the event of counterparty allowance procurement. These procedures will minimize counterparty credit risk.

Witnesses:	M. Kirk
	A. Langstaff
	J. Murphy F. Oliver-Glasford

A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 27 of 34



Risk of Data Dissemination to Market Participants - Risk Identification

- 102. In order to avoid "tipping,"<sup>12</sup> Cap and Trade participants are prohibited under the Act from disclosing information, including future or past participation in auctions and bidding strategies.
- 103. Enbridge recognizes that it is one of the largest participants in the Ontario Cap and Trade market, and any dissemination of information regarding Enbridge's procurement strategy or auction participation could cause prices on the Cap and Trade market to go up.
- 104. While Enbridge is taking every effort to ensure that it follows the confidentiality requirements of the Act and Regulation, the Company notes that a certain amount of information on the Cap and Trade program is made available by California and Québec after each auction. Under section 64 of the Regulation, the MOECC will also release similar information after Ontario Cap and Trade auctions.
- 105. Information posted after a WCI auction includes:
  - Total number of allowances available and sold at the auction;

Witnesses: M. Kirk

- A. Langstaff
- J. Murphy
- F. Oliver-Glasford
- A. Welburn

<sup>&</sup>lt;sup>12</sup> The act of providing material non-public information about a publicly-traded company to a person who is not authorized to have the information. Source: http://www.investopedia.com/terms/t/tipping.asp#ixzz4PNYtoGAT

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 28 of 34

- Auction price statistics auction reserve, settlement, maximum, minimum, mean and median;
- Total number of qualified bids divided by the total allowances available;
- Proportion of allowances purchased by compliance entities;
- Herfindahl-Hirschman Index ("HHI") a measure of the concentration of allowances purchased by winning bidders relative to the total sale of allowances in the auction; and,
- List of bidders who qualified to participate in the auction.

108. Additionally, information such as Enbridge's throughput and information posted
through submissions to the Board are publicly available.

Witnesses: M. Kirk A. Langstaff J. Murphy	0			 	
			-		
A. Langstaff J. Murphy	Witnesses:				
J. Murphy		A. Langstaff			
		J. Murphy			

- F. Oliver-Glasford
- A. Welburn

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 29 of 34

109. Enbridge recognizes that information available in the public realm makes Enbridge's compliance obligation, and procurement strategy, more apparent to other Cap and Trade participants than non-rate regulated participants.

Therefore, the closed markets as structured by the applicable rules, create the risk that Enbridge's compliance obligation may come with a drag on cost effectiveness that would not occur in a truly free and efficient market.

## Risk of Data Dissemination to Market Participants - Analysis of Risk

- 110. While Enbridge considers this a key risk, it is difficult to determine what impact disclosure of data could have on the market.
- 111. Enbridge notes that every \$0.01 increase in the average cost per allowance paid results in an annual total increased cost of \$211,360.

## Risk of Data Dissemination to Market Participants – Mitigation Measures

112. To mitigate against the risk of improper disclosures of market sensitive information – a critical factor in Enbridge not being subject to a suboptimal market position – the Company has established internal controls to protect our carbon procurement obligation position, the market and our stakeholders. A restricted group of employees will be privileged to the carbon procurement strategy and planned future or past auction participation. While this group of people will be as small as possible, the Company notes that employees in key departments such as Finance,

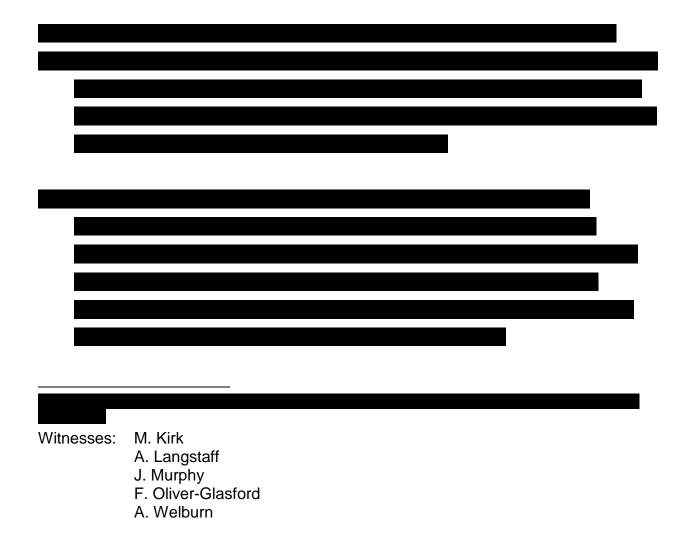
Witnesses: M. Kirk

A. LangstaffJ. MurphyF. Oliver-GlasfordA. Welburn

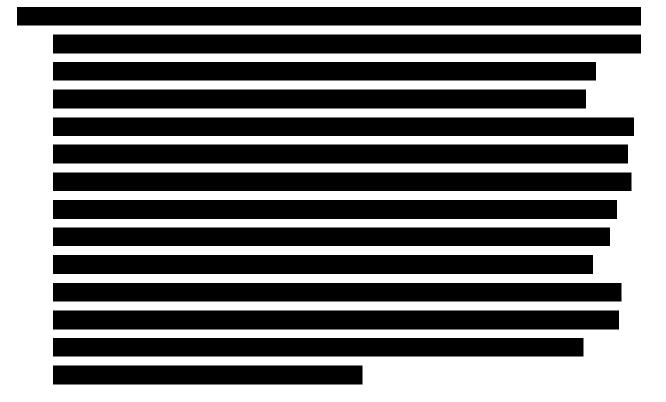
REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 30 of 34

Law, and Regulatory Affairs, will have access to certain aspects of the Company's Cap and Trade strategy or auction participation. All employees who are granted access to Cap and Trade strategy and auction participation will be required to confirm their obligation to treat the auction and market confidential information with the upmost sensitivity.

113. Through an email communication to all employees on September 21, 2016, Enbridge has also informed all employees of the confidentiality requirements with respect to Cap and Trade. This is to ensure that even those employees who are not aware of restricted information, will still understand the confidentiality requirements surrounding Cap and Trade.



REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 31 of 34



117. Significantly, the holding limit is a fixed formula that is not related to the size of an entity's obligation. It was developed in California where, in sharp contrast to Ontario's regime, the natural gas utilities received a significant portion of free allowances and were not the point of regulation for natural gas power producers. These policy design elements reduced exposure, of natural gas utilities regulated by the California Public Utilities Commission ("CPUC"), to the market. Even then, the CPUC elected to receive and treat in confidence the utilities' entire Compliance Plans, with the exception of the Communications and Outreach portions of their Plans, as well as related CPUC Decisions.

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 32 of 34

TABLE DELETED



## Overall Risk Management Philosophy

121. Enbridge has completed a review of all the risks discussed in this exhibit based on the likelihood of occurrence and the ability of Enbridge's Compliance Plan to mitigate the risk should it occur. This analysis is based on our understanding of a number of inputs received throughout the year.



- 123. As outlined in Exhibit C, Tab 1, Schedule 1, Enbridge will implement a 'Plan-Do-Check-Act' cycle for the implementation of its Compliance Plan, namely its procurement strategy. This cycle will assist the Company in identifying new risks and ensuring that new and existing risks are recognized and effectively mitigated.
- 124. Exhibit C, Tab 1, Schedule 1 identified tasks and responsibilities of the CPGG. This group will be responsible for reviewing natural gas sales volumes, carbon

REDACTED Updated: 2017-01-18 EB-2016-0300 Exhibit C Tab 4 Schedule 1 Page 34 of 34

market performance, and implementing adjustments to its carbon allowance procurement strategy. To ensure that the strategy meets the Board's guiding principles, it will be reviewed prior to and after auction participation. Enbridge will have the flexibility, under the Regulation, to adjust its procurement plans. Any adjustments will be subject to the rigorous internal governance processes that will be documented for full transparency to the Board in the Company's annual monitoring report.

#### 125.

metrics will be defined and shared internally within Enbridge, which will ensure that emission allowance procurement activities are closely monitored. These performance metrics should minimize the risk of either an over- or underprocurement scenario. Additional information on governance is available at Exhibit C, Tab 1, Schedule 1.

Furthermore, performance

REDACTED Updated: 2017-01-18 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 Updated: 2017-01-18 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, inclusive of financing charges currently estimated at for 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

Updated: 2017-01-18 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 1 of 8

## ALTERNATE COST RECOVERY STATEMENTS

- 1. As identified in Exhibit B, Tab 4, Schedule 1, Enbridge requests a deviation from the methodology identified by the Board in establishing the annual carbon price forecast. On page 19 of the Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities (the "Framework"), the Board states, "The OEB has determined that the Utilities will set their annual carbon price forecast using the average of the ICE [Intercontinental Exchange] daily settlement prices of California Carbon Allowances for each day of the forecast period for each month of the forecast year. The forecasting period should be 21 business days and should be as close as possible to the forecast year." The Board also states at Appendix A of the Filing Guidelines, that the Annual Forecast should be used to establish the price of allowances. This price is hereafter referred to as the "ICE Price".
- 2. As an alternative, Enbridge proposes the use of its estimate of the 2017 auction reserve, or floor price as defined in Exhibit B, Tab 4, Schedule 1. For reasons set out in Exhibit B, Tab 4, Schedule 1, Enbridge requests the use of this estimate of the auction reserve price for rate setting purposes. While this is the same price used for the purposes of the Board approving an interim tariff as proposed in Exhibit G, Tab 1, Schedule 1, what was not stated in that publicly available Exhibit is the fact that the ICE Price is lower and that it is the Company's belief that its estimated auction reserve price is more relevant for the purposes of rate making. Indeed, as the evidence supporting this Compliance Plan notes, there is a possibility that the price for allowances could be even higher.
- The auction reserve price will be established by the Auction Administrator in early 2017. It should be noted that the Auction Administrator will not accept a bid price lower than the auction reserve. Section 75 (1) of *Ontario Regulation 144/16, The*

Updated: 2017-01-18 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 2 of 8

*Cap and Trade Program*, states "No bid price that is below the minimum price shall be acceptable."

- Notwithstanding the proposed use of the floor price, the Company has provided two sets of Cap and Trade Unit Rates. The first set of schedules assumes the ICE Price and Enbridge's estimated auction reserve price.
- 5. 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. The derivation of the Cap and Trade Unit Rates assuming Enbridge's estimated auction reserve price are contained in Exhibit G, Tab 1, Schedule 1, Appendix A, Tables A1 through A5. Exhibit G, Tab 1, Schedule 2, Appendix A, Table A1 through A5 contain the derivation of the Cap and Trade Unit Rates assuming the ICE Price.

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

6. Under the *Climate Change Act* and Cap and Trade Regulation, Enbridge is required to acquire sufficient emission allowances related to greenhouse gas ("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") and "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 our of

Updated: 2017-01-18 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 3 of 8

province natural gas distributors are also excluded from Customer-related costs. Facility-related costs will be recovered from all customers depending on the services provided by Enbridge.

- 7. 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 and 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.
- 8. Enbridge's volume forecast is available in Exhibit B, Tab 2, Schedule 1.
- 9. Enbridge's GHG emission forecast is available in Exhibit B, Tab 3, Schedule 1.

## (i) Costs to meet Customer-related and Facility-related obligations

10. In order to estimate GHG emissions, natural gas volumes were converted to GHG emissions, in tonnes of carbon dioxide equivalent ("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.

Updated: 2017-01-18 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 4 of 8

- 11. The forecast of costs for Enbridge to meet Customer-related and Facility-related obligations is determined by: (i) calculating the GHG emissions associated with forecast volumes as identified above (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 (iii) multiplying the GHG emissions by the price determined in ii).
- 12. For the purpose of this exhibit, Enbridge provides the ICE Price i.e., \$16.90 CAD and Enbridge's forecasted auction floor price i.e., \$17.70 CAD. Further discussion regarding the calculations of these prices is included in Exhibit B, Tab 4, Schedule 1. 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.
- 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.
- 14. The costs to meet Customer-related and Facility-related obligations using the Company's estimated auction reserve price or ICE Price are determined by multiplying the forecast emissions for each category by the abovementioned estimated prices for emission allowances.
- 15. 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/allowance) assuming Enbridge's estimated auction reserve price. At the ICE Price, the costs of Enbridge's

Updated: 2017-01-18 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 5 of 8

customer-related compliance obligation in 2017 is \$353,295,775. Refer to Appendix A, Tab A1, which is included at Exhibit G, Tab 1, Schedule 2 for the derivation of the customer-related obligation costs in 2017 associated with the ICE Price.

16. 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/allowance). At the ICE Price, the cost of Enbridge's facility-related compliance obligation in 2017 is \$3,872,082. Refer to Appendix A, Tab A2, which is included at Exhibit G, Tab 1, Schedule 2 for the derivation of the facility-related obligation costs in 2017 associated with the ICE Price.

# (ii) Cap and Trade Unit Rates

- 17. 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 to this evidence, 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 Customerrelated obligations based on the Company's estimated auction reserve price and net CO<sub>2</sub>e emissions.
  - (b) Appendix A, Table A1, which is found at Exhibit G, Tab 1, Schedule 2 to this evidence, summarizes, by rate class, the 2017 forecast gas volumes

Updated: 2017-01-18 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 6 of 8

for Customer-related obligations and shows the derivation of  $CO_2e$ emission costs as well as the Cap and Trade Unit Rate for Customerrelated obligations based on the ICE Price and net  $CO_2e$  emissions.

- (c) Appendix A, Table A2, which is found at Exhibit G, Tab 1, Schedule 1 to this evidence, 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 Facilityrelated obligations based on the Company's estimated auction reserve price and CO<sub>2</sub>e emissions.
- (d) Appendix A, Table A2, which is found at Exhibit G, Tab 1, Schedule 2 to this evidence, 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 Facilityrelated obligations based on the ICE Price and CO<sub>2</sub>e emissions.
- (e) Appendix A, Table A3, which is found at Exhibit G, Tab 1, Schedule 1 to this evidence, summarizes the Cap and Trade Unit Rates for Customerrelated and Facility-related obligations assuming the Company's estimate auction reserve price.
- (f) Appendix A, Table A3, which is found at Exhibit G, Tab 1, Schedule 2 to this evidence, summarizes the Cap and Trade Unit Rates for Customerrelated and Facility-related obligations assuming the ICE Price.

Updated: 2017-01-18 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 7 of 8

- (g) Appendix A, Table A4, which is found at Exhibit G, Tab 1, Schedule 1 to this evidence, is a summary of the 2017 Cap and Trade Unit Rates by rate class for LFEs and Non-LFEs assuming the Company's estimated auction reserve price.
- (h) Appendix A, Table A4, which is found at Exhibit G, Tab 1, Schedule 2 to this evidence, is a summary of the 2017 Cap and Trade Unit Rates by rate class for LFEs and Non-LFEs assuming the ICE Price.
- (i) Appendix A, Table A5, which is found at Exhibit G, Tab 1, Schedule 1 to this evidence, details the breakdown of the 2017 Cap and Trade Unit Rates by rate class for LFEs and Non-LFEs assuming the Company's estimated auction reserve price.
- (j) Appendix A, Table A5, which is found at Exhibit G, Tab 1, Schedule 2 to this evidence, details the breakdown of the 2017 Cap and Trade Unit Rates by rate class for LFEs and Non-LFEs assuming the ICE Price.
- 18. As directed by the Board in the Early Determination in EB-2015-0363, "the customer-related costs will be recovered through a volumetric (m<sup>3</sup>) 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."
- 19. 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-

Updated: 2017-01-18 EB-2016-0300 Exhibit G Tab 1 Schedule 2 Page 8 of 8

Related Charge. Both of these charges are shown on the Rate Schedules for each rate class. Refer to Appendix B, which is at Exhibit G, Tab 1, Schedule 1.

- 20. 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."
- 21. The Company confirms that Cap and Trade charges will be included in the Delivery charges on customers' bills.
- 22. 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 floor price or \$77 in 2017 based on the ICE Price.
- 23. 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. For an estimate of the administrative costs associated with the cap and trade program, refer to Exhibit C, Schedule 3, Tab 1.