

# **Ontario Energy Board**

# Staff Assessment Plan

on the Preliminary Assessment of Incentive Regulation Plans of the Natural Gas Utilities

EB-2011-0052

May 18, 2011

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### 1 Introduction

The Ontario Energy Board (the "Board") has decided to conduct a preliminary assessment of the incentive regulation plans of the natural gas utilities.

This report sets out Board staff's Assessment Plan (the "Plan") which includes a description of the process, scope of work and stakeholder feedback from the April 29, 2011 meeting.

#### 1.1 Background

In 2008, the Board approved multi-year incentive regulation plans for Enbridge Gas Distribution Inc. ("Enbridge") and Union Gas Limited ("Union"). The incentive regulation ("IR") plans are in place for five years (2008-2012).

The IR mechanisms are different for each of the natural gas utilities ("utilities"). Enbridge's IR mechanism is a revenue per customer cap which uses a formula to set the annual allowable revenue, which in turn is used to set rates. Union's IR mechanism is a price cap which uses a formula to set the annual allowable rates. Below is a summary of the utilities' IR plans.

Summary of IR Plans for Union and Enbridge			
Plan Elements	Union	Enbridge	
Base	2007 Approved Rates		
Form	Price Cap	Revenue per Customer Cap	
Annual Adjustment Mechanism	PC=(I-X) +Y +Z+ AU	$DRR = \left(\frac{DRR_{t-1} - (Y_{t-1} + Z_{t-1})}{C_{t-1}}\right) * (1 + P * INF) * C_t + Y_t + Z_t$	
		where, DRR = Annual Distribution Revenue INF = inflation factor	
		C = average # of customers	

Summary of IR Plans for Union and Enbridge			
Plan Elements	Union	Enbridge	
Licinonia		P = inflation coefficient; 2008-2012: 60%, 55%, 55%, 50%, 45%	
Inflation Factor ("I or INF")	Canada GDP IPI (Final Domestic Demand); updated annually		
X Factor	1.82%; fixed for plan term	No X factor. Annual inflation coefficient (P) is used to adjust the annual distribution revenue by a percentage of the annual rate of inflation.	
Average Use ("AU")	Difference between forecast use per customer and actual use per customer; difference captured in a variance or deferral account (i.e., Y factor); calculated annually.		
Term	5 years		
Y Factor	Y factors are outside the price / revenue per customer caps; routine adjustments such as DSM; and considered to be cost pass-throughs.		
Z Factor	Z factors are also outside the price / revenue per customer caps; non-routine (or unexpected) adjustments are outside of management's control; and considered to be cost pass-throughs.		
Off-ramp	In 2008, Union exceeded Board's Return on Equity ("ROE") by 330 bp. As a result, off-ramp provision was eliminated for rest of plan term.	Board to review IR plan if actual ROE ± 3% approved ROE (based on Board's ROE guidelines).	
Earning Sharing Mechanism ("ESM")	Actual ROE is 3% above approved ROE (based on Board's ROE guidelines); excess earnings will be shared between ratepayer and shareholder on a 90/10 basis.	Weather normalized actual ROE is 1% above approved ROE (based on Board's ROE guidelines); excess earnings will be shared between ratepayer and shareholder on a 50/50 basis.	
Reporting Requirements	Annua	Annual reports filed with the Board	
Rebasing	Cost-of-service filing at the end of the IR plan term		

In the Board's report entitled *Natural Gas Regulation in Ontario: A Renewed Policy Framework Report on the Ontario Energy Board Natural Gas Forum* dated March 30, 2005 (RP-2004-0213), the Board stated that it will conduct a cost-of-service rebasing at the end of the IR plan terms which will include an examination of the efficiency improvements realized. Enbridge and Union are expected to file their cost-of-service rebasing applications at the end of 2011.

On February 25, 2011, a letter was issued announcing that the Board has decided to conduct a preliminary assessment of the incentive regulation plans of the natural gas utilities. This assessment is intended to assist the Board in better understanding how the IR plans functioned during the plan terms. The overall objectives for this assessment listed in the February 25, 2011 letter were as follows:

- Estimating and comparing productivity trends (to each other and comparable utilities);
- Identifying performance indicators and review utility results (e.g., financial and operating information); and
- Identifying challenges, opportunities and information gaps.

### 1.2 Organization of this Report

This report is organized as follows: Section 2 describes the process; Section 3 discusses utility results including estimating productivity trends and efficiency improvements; Section 4 outlines other discussion topics such as transparency and incentive regulation precedents; and Section 5 discusses next steps.

### 2 Process

As set out in the February 25, 2011 letter, the approach for the consultation was outlined as follows:

- Board staff ("staff") will conduct stakeholder meetings with interested parties;
- A consultant's report will be issued that will include productivity trend estimations and where feasible, comparative analysis;
- A Staff Report to the Board on the issues discussed at the consultation will be issued; and
- The consultation will be informed by the expert advice of a consultant.

Further, the letter dated February 25, 2011, outlined a preliminary list of topics (in Appendix A) that staff prepared for the stakeholder meeting.

Dr. Lawrence Kaufmann and Pacific Economics Group Research LLC ("PEG") has been retained to provide staff with expert advice.

On April 29, 2011, the stakeholder meeting was held. It was an informal meeting to solicit input and invite discussion on the preliminary list of topics as outlined in Appendix A. At that meeting, staff and PEG presented material to initiate discussion on the assessment. A list of stakeholders that attended the April 29, 2011 meeting is in Appendix B.

The narrow scope of this preliminary assessment was also discussed at that stakeholder meeting. Staff clarified that it is gathering fact-based data on how the natural gas IR plans functioned during the plan terms. To accomplish this task, staff will examine actual historical trends before and during the natural gas IR plans, and compare and contrast utility results with each other and comparable utilities, where appropriate.

On May 9, 2011, a letter was issued to Enbridge and Union outlining staff's list of data necessary to complete the preliminary assessment of the incentive regulation plans of the

natural gas utilities. This data request was also discussed at the April 29, 2011 stakeholder meeting. The list of data is reproduced in Appendix C.

In September 2011, the consultant's report (the "PEG Report") will be released and filed by staff in the utilities' upcoming cost-of-service rebasing proceeding. Stakeholders will have an opportunity to cross-examine staff's expert on the PEG Report at that time.

Furthermore, a Staff Report to the Board (the "Staff Report") will also be issued in September 2011. The Staff Report will be informed by the assessment and therefore, may provide input to a draft Issues List.

All materials related to the consultation are available on the Board's website.

# 3 Utility Results

At the stakeholder meeting, staff outlined the following indicators to measure utility performance:

- Prices for residential consumers;
- Service quality requirements (such as telephone answering performance, billing performance, meter reading, service appointment response times, etc.);
- Financial indicators as outlined in the Yearbooks of Natural Gas Distributors; and
- Productivity estimates.

The trends of the above indicators would be examined over the 2005 – 2010 time period, where possible.

At that meeting, a stakeholder suggested that staff should include other rate classes (in addition to the residential rates) when examining rate trends. Another stakeholder proposed that staff should examine the rate trends of the peer groups and compare these trends to Union and Enbridge. Staff agreed to both of these suggestions and this work will be included in the assessment.

In addition, one of the stakeholders commented that the above indicators were financial in nature and did not include the goals and/or objectives of its IR plan. This stakeholder mentioned that the length of time to process its annual rate applications was one of the goals of its IR plan. Staff agreed that the annual rate adjustment processes will be examined as part of this assessment.

### 3.1 Productivity Estimates

At the stakeholder meeting, PEG summarized the work necessary to estimate productivity trends, and to compare and contrast productivity trends with Enbridge and Union, and

comparable utilities. In particular, the total factor productivity ("TFP") growth will be calculated for Enbridge and Union before and after their incentive regulation plans took effect. These TFP trends will be estimated using index-based methods. In addition, econometric methods will be used to "decompose" TFP growth into various components, such as the realization of economies of scale. This TFP decomposition analysis will be used to quantify the impact of various business conditions on TFP growth for Enbridge and Union and the selected peers. This analysis should, in turn, be useful for assessing the extent to which factors beyond company control (such as the 2008-09 recession) have had on Enbridge's and Union's measured TFP growth under incentive regulation.

Some stakeholders expressed a concern regarding the implications of the economic downturn on the TFP estimates for both the utilities and the peer group. PEG explained that the TFP decomposition analysis would take into account the possible differences in scale economies and slower economic growth on the utilities' TFP growth.

An important part of PEG's work will be identifying appropriate peer utilities for Enbridge and Union. A broad sample of U.S. investor-owned, natural gas distributors will be examined for this purpose. The criteria for selecting peers will be similarities in conditions that can impact TFP growth. These conditions may include:

- Output growth and the realization of economies of scale;
- Changes in economies of density;
- Changes in average use per customer ("AUPC"); and
- Changes in the composition of gas distribution main (e.g., declines in the
  percentage of distribution main constructed with bare steel, and a consequent
  increase in polyethylene main), which can serve as a proxy for replacement
  investment expenditures that a natural gas distributor is required to undertake.

Because there are several important conditions that can impact TFP growth, techniques such as clustering methods will be considered. Clustering methods can consider the

relative importance of these factors simultaneously, when evaluating the overall similarity of business conditions across natural gas distributors.

PEG will also assess how weather-normalized, average use per customer has changed for Enbridge, Union and selected peers. This analysis will not evaluate the econometric techniques Enbridge and Union currently use to develop weather-normalized volumes for residential and commercial customers. However, PEG will develop its own estimates of weather-normalized residential and commercial average use per customer for U.S. natural gas distributors and, to the greatest extent feasible, apply these same empirical techniques to Enbridge and Union data to permit apples-to-apples comparisons between Enbridge and Union, and the U.S. natural gas distributors.

#### 3.2 Efficiency Improvements

To examine efficiency improvements realized during the IR plans, staff proposed at the stakeholder meeting to review each of the utility's OM&A and capital unit cost trends for the period 2005 – 2010. These cost trends should reveal sustainable efficiency improvements through lower utility costs.

At that meeting, some stakeholders suggested that more detailed unit cost trends should be examined in this assessment. The utilities indicated, however, that at this time the information is not available as they are currently compiling this information for their upcoming cost-of-service rebasing application. Staff notes that this is a preliminary assessment of the utilities' IR plans. Stakeholders will have the opportunity to examine detailed unit cost trends at the utilities' cost-of-service rebasing proceedings.

In addition, a stakeholder raised a concern in relation to Enbridge's calculation of its Earning Sharing Mechanism ("ESM"). In particular, the exclusion of "payments for corporate services" in Enbridge's ESM calculation may impact the actual returns to the shareholder and ratepayer. While this concern has not been identified to date, it may be useful to explore in this assessment and it may be included in a draft Issues List in the Staff Report.

This stakeholder also asked whether an implicit / explicit stretch factor could be estimated. PEG indicated that it may be possible to estimate the impact of the natural gas IR plans on utilities' cost performances and that it will investigate this issue.

## 4 Other Topics

At the stakeholder meeting, staff discussed whether the Board should further integrate the assessment of utility results into the regulatory cycle (e.g., criteria established upfront that may be used to carry out end-of-IR-term performance assessments). Stakeholders had no comments.

Also, staff stated that it would be using the financial information from the Yearbooks of Natural Gas Distributors (the "Annual Reports") in this assessment. The Annual Reports published by the Board are based on data filed by the utilities through the Board's Reporting and Record-keeping Requirements ("RRR") system. Two stakeholders expressed concern regarding the financial information in the Annual Reports. Staff notes that the Board's continued, and potentially expanded use of empirical analyses on utility performance could provide an incentive for timely and consistent reporting by utilities under the RRR.

Furthermore, as part of the assessment, staff proposed to examine any new challenges and/or opportunities facing the utilities that may impact the development of the next generation IR plans (e.g., industry structure, industry changes, technological advances, trends in demand and supply, changes in accounting standards, etc.). At the stakeholder meeting, two stakeholders commented that this was more forward looking rather than backward looking. These stakeholders were of the view that to see how the IR plans functioned during the plan terms, the assessment should be backward looking. Staff agreed that the assessment would be backward looking and will not, therefore, be examining new challenges and/or opportunities as part of this initiative.

### 4.1 Incentive Regulation Precedents

In its presentation at the stakeholder meeting, staff noted that a jurisdictional comparison of the elements of the natural gas IR plans would be included in the assessment. Also, the incentive regulation precedents may include both current and past IR plans, and jurisdictions with comprehensive indexed based plans (such as California, Maine and Massachusetts).

One stakeholder at that meeting asked whether staff is planning to examine and compare the ROE from the peer group. Staff commented that productivity comparisons are part of this assessment; but that ROE comparisons are not.

Some of the stakeholders also suggested that the comparison of plan elements should include the electricity IR plans. Staff agreed that this work will be included in the assessment.

## **5** Next Steps

In summary, the assessment is intended to assist the Board in better understanding how the IR plans functioned during the plan terms. This assessment will include:

- An examination of whether Enbridge and Union controlled costs and improved productivity given the business conditions they faced;
- An examination of the utilities' compliance with the Board's service quality requirements;
- A review of the utilities' financial performance and, in light of changes in rates and productivity growth, the extent to which customers shared in any efficiency improvements realized during the IR plan terms; and
- A review of the overall features of the incentive regulation plans (including a jurisdictional comparison of the elements) and the annual rate adjustment processes.

As discussed at the stakeholder meeting and in response to stakeholder request, as this work is completed, it will be posted on the Board's website.

In September 2011, the PEG Report will be released and filed by staff in the utilities' costof-service rebasing proceedings. Stakeholders will have an opportunity to cross-examine staff's expert on the PEG Report at that time.

Furthermore, a Staff Report to the Board will also be issued in September 2011. The Staff Report will be informed by the assessment and therefore, may provide input to a draft Issues List.

# 6 Appendix A: Topics for Discussion

Below is the preliminary list of topics for discussion that staff prepared for the stakeholder meeting.

#### **Questions:**

- 1. What are the appropriate indicators to measure utility performance under each of the plans? How did each utility perform against these indicators?
- 2. Did the utility's performance meet customer expectations? For each plan, were benefits/earnings shared between ratepayers and shareholders?
- 3. Were the elements of each plan appropriate? For example, did the utilities require an adjustment for average use? Was a five-year plan the appropriate length of time to ensure efficiency improvements? What elements, if any, may have had material influence on the utility's performance?
- 4. Has there been adequate transparency of information during the term of the plans?
- 5. Was the process for developing the plans appropriate?
- 6. Are there new challenges and/or opportunities facing the utilities that may impact the development of the next generation IR plans (e.g., industry structure, industry changes, technological advances, trends in demand and supply, changes in accounting standards, etc.)?

# 7 Appendix B: List of Stakeholders

Below is a list of stakeholders that attended the April 29, 2011 meeting.

1	Association of Power Producers of Ontario
2	Canadian Manufactures & Exporters
3	City of Kitchener
5	Enbridge Gas Distribution Inc.
6	Energy Probe Research Foundation
7	Federation of Rental-housing Providers of Ontario
8	Industrial Gas Users Association
9	London Property Management Association
10	Ontario Association of Physical Plant Administrators
11	Ontario Power Generation
12	Power Workers Union
13	PowerStream Inc.
14	School Energy Coalition
15	TransCanada Energy Ltd.
17	Union Gas Limited
18	Vulnerable Energy Consumers Coalition

# 8 Appendix C: Data Request

Below is the list of data that staff requested from Enbridge and Union.

### 1. Reporting Requirements as per Settlement Agreements EB-2007-0615 / 0606

Please file the following data for the years 2005-2010:

	Enbridge	Union
1.	Calculation of revenue deficiency/ (sufficiency) (Exh. F5-1-1)	Calculation of revenue deficiency / (sufficiency) - Exhibit F6/T1/S1
2.	Statement of utility income (Exh. F5-1-2)	Statement of utility income – Exhibit F6/T2/S1
3.	Statement of earnings before interest and taxes (Exh. F5-1-2)	Statement of earnings before interest and taxes
4.	Summary of cost of capital (Exh. E5-1-1)	Summary of cost of capital – Exhibit E6/T1/S1
5.	Total weather normalized throughput volume by service type and rate class (Exh. C5-2-5)	Total weather normalized throughput volume by service type and rate class – Exhibit C6/T2/S4
6.	Total actual (non-weather normalized) throughput volumes by service type and rate class (Exh. C5-2-1)	Total actual (non-weather normalized) throughput volumes by service type and rate class
7.	Total weather normalized gas sales revenue by service type and rate class	Total weather normalized gas sales revenue by service type and rate class
8.	Total actual (non-weather normalized) gas sales revenue by service type and rate class (Exh.C5-2-5)	Total actual (non-weather normalized) gas sales revenue by service type and rate class
9.	T-service revenue, by service type and rate class (Exh. C5-2-1)	Not applicable
10.		Delivery revenue by service type and rate class and service class – Exhibit C6/T2/S6
11.	Total customers by service type and rate class (Exh. C5-2-1)	Total customers by service type and rate class – Exhibit C6/T2/S3

	Enbridge	Union
12.		Summary revenue from regulated storage and transportation – Exhibit C6/T4/S1
13.	Other revenue (Exh. C5-3-1)	Other revenue – Exhibit C6/T3/S1
14.	Operating and maintenance expense by department (Exh. D5-2-2)	Operating and maintenance expense by cost type – Exhibit D6/T3/S2/pl – actuals only
15.	Calculation of utility income taxes (Exh. D5-1-1, p.3)	Calculation of utility income taxes – Exhibit D6/T6/S1/pl.
16.	Calculation of capital cost allowance (Exh. D5-1-1, p. 8	Calculation of capital cost allowance – Exhibit D6/T6/S2
17.	Provision of depreciation, amortization and depletion (Exh. D5-1-1, p. 4	Provision for depreciation, amortization and depletion – Exhibit D6/T4/S1/pl.2.3
18.	Capital budget analysis by function (Exh. B5-2-1)	Capital budget analysis by function – Exhibit B1/SS2
19.	Statements of utility rate base (Exh. B5-1-2, B5-1-3)	Statement of utility rate base – Exhibit B1/SS1- actuals only

If possible, can Enbridge file the annual data (2005-2010) for delivery revenue by service type and rate class and service class (i.e., #10 on the above table)?

Board staff is not sure whether the data requested in lines 5 through 8 (in the above table) is sufficient for examining and/or calculating the actual AU adjustments that were included in utilities' tariffs. If this data is insufficient, please file the necessary data (2005-2010) to calculate the AU factor.

#### 2. Company Business Conditions

Please file the annual data (2005-2010) on the following variables (assuming it is not provided in one of the schedules above):

- Total km of gas distribution main;
- Km of gas distribution main bare steel; and
- Km of gas distribution main cast iron.

#### 3. New Customer Additions

Please file the annual data (2005-2010) on the actual and forecast new customer additions.

#### 4. Heating Degree Days ("HDD")

Please file the actual HDD that Enbridge and Union use in their natural gas demand models, for 2009-2010. The actual HDD should be identical to the HDD data that the utilities provided PEG as part of PEG's project investigating "top down" econometric estimation of DSM energy savings.

#### 5. Rate Information

Please file for each of the years 2005-2010:

- the approved annual Rates for each rate class;
- the approved Distribution Revenue Requirement; and
- the customer Bill impacts.

The above rate information should exclude the commodity cost of natural gas.