#### **ONTARIO ENERGY BOARD**

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c. 15, Schedule B;

AND IN THE MATTER OF an Application by Union Gas Limited for an Order or Orders approving or fixing a multi-year incentive rate mechanism to determine rates for the regulated distribution, transmission and storage of natural gas, effective January 1, 2008 (the "Union 2008-2012 Rates Application");

AND IN THE MATTER OF an Application by Enbridge Gas Distribution Inc. for an Order or Orders approving or fixing rates for the regulated distribution, transmission and storage of natural gas, effective January 1, 2008 (the "Enbridge 2008-2012 Rates Application");

AND IN THE MATTER OF a combined proceeding before the Board pursuant to section 21(1) of the Ontario Energy Board Act, 1998.

#### POLLUTION PROBE CROSS-EXAMINATION REFERENCE BOOK

January 31, 2008

#### **KLIPPENSTEINS**

Barristers & Solicitors 160 John St., Suite 300 Toronto ON M5V 2E5

#### Murray Klippenstein Basil Alexander

Tel: (416) 598-0288 Fax: (416) 598-9520

**Counsel for Pollution Probe** 

#### **INDEX**

- Excerpt from the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule A [1]
- 2 Excerpt from 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) [2-3]
- Excerpt from the Final Report of the Board [in the matter of a hearing to inquire into, hear, and determine certain matters relating to natural gas system expansion] dated January 30, 1998 (E.B.O. 188) [4-5]
- Directive from Minister of Energy to the Ontario Power Authority dated June 13, 2006 [6-7]
- Excerpt from The Integrated Power System plan for the Period 2008-2027 [8-9]
   EB-2007-0707, Exhibit B, Tab 1, Pages 1-2
- 6 Copies of Union's Responses to Pollution Probe's Interrogatories [10-17]
   Exhibits C20.1 C20.6
- Copies of Enbridge's Responses to Pollution Probe's Interrogatory #4-8 [18-23]
  Exhibit I, Tab 9, Schedules 4-8

STATE OF THE OWNER, WHEN

#### PART I GENERAL

#### Board objectives, electricity

- 1. (1) The Board, in carrying out its responsibilities under this or any other Act in relation to electricity, shall be guided by the following objectives:
  - To protect the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service.
  - 2. To promote economic efficiency and cost effectiveness in the generation, transmission, distribution, sale and demand management of electricity and to facilitate the maintenance of a financially viable electricity industry. 2004, c. 23, Sched. B, s. 1.

#### Facilitation of integrated power system plans

(2) In exercising its powers and performing its duties under this or any other Act in relation to electricity, the Board shall facilitate the implementation of all integrated power system plans approved under the *Electricity Act*, 1998. 2004, c. 23, Sched. B, s. 1.

#### Board objectives, gas

- 2. The Board, in carrying out its responsibilities under this or any other Act in relation to gas, shall be guided by the following objectives:
  - 1. To facilitate competition in the sale of gas to users.
  - 2. To protect the interests of consumers with respect to prices and the reliability and quality of gas service.
  - 3. To facilitate rational expansion of transmission and distribution systems.
  - 4. To facilitate rational development and safe operation of gas storage.
  - 5. To promote energy conservation and energy efficiency in a manner consistent with the policies of the Government of Ontario.
  - 5.1 To facilitate the maintenance of a financially viable gas industry for the transmission, distribution and storage of gas.
  - 6. To promote communication within the gas industry and the education of consumers. 1998, c. 15, Sched. B, s. 2; 2002, c. 23, s. 4 (2); 2003, c. 3, s. 3; 2004, c. 23, Sched. B, s. 2.

#### Definitions

3. In this Act.

"affiliate", with respect to a corporation, has the same meaning as in the *Business Corporations Act*; ("membre du même groupe")

#### PARTIE I DISPOSITIONS GÉNÉRALES

#### Objectifs de la Commission : électricité

- 1. (1) Lorsqu'elle s'acquitte des responsabilités que lui impose la présente loi ou une autre loi relativement à l'électricité, la Commission se laisse guider par les objectifs suivants :
  - Protéger les intérêts des consommateurs en ce qui concerne les prix, ainsi que la suffisance, la fiabilité et la qualité du service d'électricité.
  - 2. Promouvoir l'efficacité économique et la rentabilité dans les domaines de la production, du transport, de la distribution et de la vente d'électricité ainsi que de la gestion de la demande d'électricité et faciliter le maintien d'une industrie de l'électricité financièrement viable. 2004, chap. 23, annexe B, art. 1.

#### Faciliter la mise en oeuvre des plans

(2) Lorsqu'elle exerce les pouvoirs et les fonctions que lui attribue la présente loi ou une autre loi relativement à l'électricité, la Commission facilite la mise en oeuvre de tous les plans pour le réseau d'électricité intégré qui sont approuvés en vertu de la Loi de 1998 sur l'électricité. 2004, chap. 23, annexe B, art. 1.

#### Objectifs de la Commission : gaz

- 2. Lorsqu'elle s'acquitte des responsabilités que lui impose la présente loi ou une autre loi relativement au gaz, la Commission se laisse guider par les objectifs suivants :
  - 1. Faciliter la concurrence dans la vente de gaz aux utilisateurs.
  - Protéger les intérêts des consommateurs en ce qui concerne les prix ainsi que la fiabilité et la qualité du service de gaz.
  - 3. Faciliter l'extension rationnelle des réseaux de transport et de distribution.
  - 4. Faciliter le développement rationnel et l'exploitation sûre des services de stockage de gaz.
  - Promouvoir la conservation de l'énergie et l'efficacité énergétique d'une manière compatible avec les politiques du gouvernement de l'Ontario.
  - 5.1 Faciliter le maintien d'une industrie du gaz qui soit financièrement viable pour le transport, la distribution et le stockage du gaz.
  - 6. Favoriser la communication au sein de l'industrie du gaz et l'éducation des consommateurs. 1998, chap. 15, annexe B, art. 2; 2002, chap. 23, par. 4 (2); 2003, chap. 3, art. 3; 2004, chap. 23, annexe B, art. 2.

#### Définitions

3. Les définitions qui suivent s'appliquent à la présente loi. «bien-fonds» S'entend en outre d'un intérêt sur un bien-fonds. («land»)







# Natural Gas Regulation in Ontario: A Renewed Policy Framework

Report on the Ontario Energy Board

Natural Gas Forum

March 30, 2005

Yemen.

articulated ratemaking framework. The Board will establish a firm framework to ensure that consistent expectations are held by both utilities and customers.

As a first step, the Board must take account of its legislated objectives, and in particular, the following:

- to protect the interests of consumers with respect to prices and the reliability and quality of gas service
- to facilitate rational expansion of transmission and distribution systems and rational development and safe operation of gas storage
- to facilitate the maintenance of a financially viable gas industry for the transmission, distribution and storage of gas

To fulfil these statutory objectives, the Board must determine the most effective ratemaking framework. Accordingly, it has determined that the gas rate regulation framework must meet the following criteria:

- establish incentives for sustainable efficiency improvements that benefit both customers and shareholders
- ensure appropriate quality of service for customers
- create an environment that is conducive to investment, to the benefit of both customers and shareholders

The Board believes that a ratemaking framework that meets these criteria will ensure that the statutory objectives of consumer protection, infrastructure development and financial viability will be met, and that rates will be just and reasonable. Each of the above criteria is discussed further below.

Sustainable efficiency improvements: It is important that the rate regulation framework creates incentives for the implementation of sustainable efficiency improvements and that it is structured to ensure that ratepayers share the benefits of these efficiencies.

Traditional COSR plans generally provide only limited incentives for efficiencies. A PBR framework, on the other hand, is generally recognized to provide efficiency incentives.



E.B.O. 188

IN THE MATTER OF the Ontario Energy Board Act, R.S.O. 1990, c. O.13;

AND IN THE MATTER OF a hearing to inquire into, hear and determine certain matters relating to natural gas system expansion for The Consumers' Gas Company Ltd., Union Gas Limited and Centra Gas Ontario Inc.

**BEFORE**: G.A. Dominy

**Presiding Member** 

R.M.R. Higgin Member

J.B. Simon Member

#### FINAL REPORT OF THE BOARD

January 30, 1998



- 2.2.5 The Board recognizes that subsidization can be measured at both the project and portfolio level. An overall rolling portfolio P.I. of 1.0 means that existing customers will not suffer a rate increase over the long term as a result of distribution system expansion. The Board is therefore of the view that an overall portfolio P.I. of 1.0 or better (emphasis added) is in the public interest. Using this approach will obviate the need for the intense scrutiny of the financial viability of each project; will ensure that existing ratepayers are not negatively impacted by new projects (given the Board's proviso above on the sharing of risks); and assist communities to obtain gas service where otherwise it would not be financially feasible on a stand-alone basis.
- However, at the present time the utilities calculate the DCF ["discounted cash flow"] for proposed projects over long periods of time. The P.I. or benefit to cost ratio is based on this calculation. In the early years, the costs shown in the calculation generally exceed the revenues and there is a greater impact on rates than in the later years when revenues generally exceed costs. The Board is concerned that even if a utility demonstrates that its portfolio of distribution system projects shows a P.I. of at least 1.0 the impact on rates in a given year may be undue. For this reason, the Board expects the utilities to demonstrate in their rates cases that the short-term rate impact of the cumulative effect of the portfolios will not cause an undue burden on existing ratepayers.
- 2.2.7 The Board has considered whether or not it should impose a minimum threshold P.I. for projects to be included in the portfolios. The Board is concerned that the utilities may proceed with a number of projects with low P.I.s even though the P.I.s of the portfolios remain at 1.0 or greater. The cumulative impact of these projects may result in economic inefficiencies that outweigh the public benefit of the portfolio approach. From time to time, the Board will review the project specific data to monitor the operation of the portfolios in order to determine whether the cumulative economic inefficiency of proceeding with financially unfeasible projects outweighs the public interest in using the portfolio approach.

#### 2.3 Positions of the Parties

- 2.4.1 The ADR Agreement proposed that each utility group all proposed new distribution customers and new facilities to serve them, for a particular test year into one portfolio (the "Investment Portfolio"). The Investment Portfolio would be designed to achieve a NPV of zero or greater (including normalized reinforcement costs).
- 2.4.2 The ADR Agreement proposed that each utility also maintain a rolling 12 month distribution expansion portfolio (the "Rolling Project Portfolio"). The cumulative



June 13, 2006

Dr. Jan Carr
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto, Ontario
M5H 1T1

Dear Dr. Carr:

Re: Integrated Power System Plan

As authorized by the Lieutenant Governor in Council under Section 25.30 of the *Electricity Act, 1998*, I am providing direction for the preparation of the Integrated Power System Plan.

The Government directs the OPA to create an Integrated Power System Plan to meet the following goals:

- 1. The goal for total peak demand reduction from conservation by 2025 is 6,300 MW. The plan should define programs and actions which aim to reduce projected peak demand by 1,350 MW by 2010, and by an additional 3,600 MW by 2025. The reductions of 1,350 MW and 3,600 MW are to be in addition to the 1,350 MW reduction set by the government as a target for achievement by 2007. The plan should assume conservation includes continued use by the government of vehicles such as energy efficiency standards under the Energy Efficiency Act and the Building Code, and should include load reduction from initiatives such as: geothermal heating and cooling; solar heating; fuel switching; small scale (10 MW or less) customer-based electricity generation, including small scale natural gas fired co-generation and tri-generation, and including generation encouraged by the recently finalized net metering regulation.
- Increase Ontario's use of renewable energy such as hydroelectric, wind, solar, and biomass for electricity generation. The plan should assist the government in meeting its target for 2010 of increasing the installed capacity of new renewable

.../cont'd

energy sources by 2,700 MW from the 2003 base, and increase the total capacity of renewable energy sources used in Ontario to 15,700 MW by 2025.

- Plan for nuclear capacity to meet base-load electricity requirements but limit the installed in-service capacity of nuclear power over the life of the plan to 14,000 MW.
- 4. Maintain the ability to use natural gas capacity at peak times and pursue applications that allow high efficiency and high value use of the fuel.
- 5. Plan for coal-fired generation in Ontario to be replaced by cleaner sources in the earliest practical time frame that ensures adequate generating capacity and electricity system reliability in Ontario.

The OPA should work closely with the IESO to propose a schedule for the replacement of coal-fired generation, taking into account feasible in-service dates for replacement generation and necessary transmission infrastructure.

- 6. Strengthen the transmission system to:
  - Enable the achievement of the supply mix goals set out in this directive;
  - Facilitate the development and use of renewable energy resources such as wind power, hydroelectric power and biomass in parts of the province where the most significant development opportunities exist;
  - Promote system efficiency and congestion reduction and facilitate the integration of new supply, all in a manner consistent with the need to cost effectively maintain system reliability.
- 7. The plan should comply with Ontario Regulation 424/04 as revised from time to time.

Yours sincerely.

Dwight Duncan Minister of Energy

Corrected: October 19, 2007 EB-2007-0707 Exhibit B Tab 1 Schedule 1 Page 1 of 28

#### THE INTEGRATED POWER SYSTEM PLAN FOR THE PERIOD 2008-2027

#### 2 1.0 INTRODUCTION

1

- This exhibit presents the Integrated Power System Plan (the "IPSP" or the "Plan") for the
- 4 period 2008 to 2027.

#### 5 2.0 OVERVIEW

- The IPSP is designed to assist, through the effective management of electricity supply,
- transmission, capacity and demand, the achievement of the government of Ontario's goals
- identified in the Supply Mix Directive dated June 13, 2006 (the "Directive").
- 9 As discussed in Exhibit B-3-1, the OPA's plan to achieve the Directive's goals was
- developed by identifying the areas of discretion left open by the Directive and applying the
- OPA's planning criteria to make decisions in those areas. This resulted in an IPSP that
- prioritizes how Conservation and supply resources should be acquired through (i) meeting
- the requirements of the Directive in light of the OPA's planning criteria (the "Directive
- Priority"); and (ii) sequencing the installation of resources, in light of lead times and
- necessary transmission enhancements (the "Implementation Priority").

#### 16 2.1 Directive Priority

- With respect to the Directive Priority, the Directive identifies a number of goals respecting
- 18 Conservation and supply resources. The IPSP ensures that these goals are met by
- identifying the priority order in which the resources are planned to meet the province's
- resource requirements with respect to capacity, electricity production, and flexibility. The
- 21 IPSP is not represented by any single case or scenario but rather, it represents the ongoing
- 22 capability to meet resource requirements across a range of conditions. The range of
- conditions described in Exhibits D-9-1 and G-1-1 illustrates the possible range of resource
- requirements. In planning to meet an estimated range of resource requirements, the IPSP
- identifies specific priorities for the near-term, but will, more generally, develop options for
- the mid term and explore opportunities for the longer term.

EB-2007-0707 Exhibit B Tab 1 Schedule 1 Page 2 of 28

3

4

5

6

7

8

9

10

11

12

13

14 15

21

- 1 The resources identified in the Directive each make their own contribution to meeting these
- requirements. In summary, the Directive Priority is as follows:
  - Maximize feasible cost effective contribution from energy efficiency, demand management, fuel switching, and customer based generation ("Conservation");
    - 2. Maximize feasible cost effective contribution from renewable sources;
    - 3. Make up baseload requirements remaining after Steps 1 and 2 above with nuclear power;
      - Replace coal-fired generation with power from committed and planned resources. Specifically, in order to ensure that existing coal-fired facilities are replaced by 2014, gas-fired generation ("GFG") facilities are planned to be installed in the areas of Northern York Region, Kitchener-Waterloo-Cambridge-Guelph and the Greater Toronto Area ("GTA") by 2014; and
    - 5. Restrict contribution of GFG to specific projects as required when additional Conservation and renewable resources are not feasible or cost effective.
- Transmission is a facilitator and enabler of supply choices and therefore transmission considerations were integrated in all steps in the planning process. Transmission planning is particularly important in meeting the Directive's renewable goals since the accessing and delivery of potential renewable resources depends on making substantial transmission enhancements.

#### 2.2 Implementation Priority

- The Directive Priority outlined above does not necessarily represent the order in which
- resources will be installed. For example, in light of necessary transmission investments to
- enable hydroelectric resources, many hydroelectric resources will be brought on later in the
- Plan term. As a result, the Directive Priority is accompanied by an Implementation Priority.
- The Implementation Priority should also be understood as enabling contributions from
- 27 different resources as opposed to a rigid in-service schedule for specific facilities. The
- <sup>28</sup> IPSP ensures that resources will be prioritized in an economically prudent and cost
- <sup>29</sup> effective manner by creating opportunities for resource acquisition in the future. In other

## Answer to Interrogatory from Pollution Probe

Reference: Union Exhibit B, Tab 1, p. 37-39

Issue: 5 - Y Factors (re: System Expansion)

#### Question:

Please state Union's number of in-franchise new customer additions during each of the last five years.

#### Response:

<u>Year</u>	Total Customer Attachments
2002	29,785
2003	30,066
2004	31,415
2005	28,707
2006	26,346 //

Question: August 17, 2007 Answer: September 4, 2007 Docket: EB-2007-0606

## Answer to Interrogatory from Pollution Probe

Reference: Union Exhibit B, Tab 1, p. 37-39

Issue: 5 - Y Factors (re: System Expansion)

#### Ouestion:

Please state Union's number of in-franchise new customer additions in 2006 for whom the net present value of their discounted cash flows is forecast to be positive in:

- a) year 1;
- b) year 2;
- c) year 3;
- d) year 4; and
- e) year 5.

#### Response:

There would be very few in-franchise customer additions in 2006 that would have a positive net present value in the first 5 years. Union does not track each customer addition specifically as customers are tracked on a portfolio basis. Based on the 2006 portfolio, the net present value becomes positive in 20 years for the Southern operations area and 14 years for the Northern & Eastern operations area.

Question: August 17, 2007 Answer: September 4, 2007 Docket: EB-2007-0606

## Answer to Supplemental Interrogatory from Pollution Probe

Reference: Union Exhibit B, Tab 1, p. 37-39

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Please state Union's forecast of new customer additions for:

a) 2007; and

b) 2008.

#### Response:

Union's Board approved 2007 forecast of customer additions is 24,409. Based on preliminary year-end results, the actual customer additions in 2007 were 24,335. The forecast customer additions in 2008 are approximately 22,000.

## Answer to Supplemental Interrogatory from Pollution Probe

Reference: Union Exhibit B, Tab 1, p. 37-39

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Please provide a break-out of the revenue deficiencies associated with 2006's new customer additions for both:

a) 2006; and

b) 2007.

In particular, please provide a break-out of the revenue deficiencies according to the following categories:

- a) incremental revenues;
- b) incremental operating costs;
- c) incremental required return on capital; and
- d) marginal corporate income tax rate.

#### Response:

The following table outlines the revenue sufficiency/(deficiency) associated with 2006 customer attachments, in each of the first 5 years.

	Total Company					
(\$ millions)	2006	2007	2008	<u>2009</u>	<u>2010</u>	
Net Margin	4.6	9.1	9.1	9.1	9.1	
Total Operating Expenses	3.1	3.9	3.9	3.9	3.9	
Utility Return Required	4.0	3.9	3.8	3.6	3.5	
Taxes	1.2	0.7	0.7	0.7	0.7	
	8.3	8.5	8.4	8.2	8.1	
D 0 (0) 1 (2) (1)						
Revenue Sufficiency/(Deficiency)	(3.7)	( 0.6	0.8	0.9	1.0	
Customer Attachments	26,346	26,346	26,346	26,346	26,346	
Revenue Sufficiency/(Deficiency) per Customer						
Attachment (\$/customer)	(141)	25	29	34	38	

As it did during its trial PBR term, Union will continue to ensure that the system expansion guidelines in E.B.O. 188 are met during the term of the incentive regulation plan.

Union does not feel it will have any different incentive to attach customers under incentive regulation than it did under cost of service.

If one assumes every year of the 5 year term of incentive regulation has the same revenue sufficiency/(deficiency) impact as the 2006 customer additions, the resulting cumulative impacts would be as follows:

#### Forecast Deficiencies by Year

	Total Company					
(\$ millions)	2008	2009	2010	2011	2012	
From 2008 New Customers adds	(3.7)	0.6	0.8	0.9	1.0	
From 2009 New Customers adds		(3.7)	0.6	0.8	0.9	
From 2010 New Customers adds			(3.7)	0.6	8.0	
From 2011 New Customers adds				(3.7)	0.6	
From 2012 New Customers adds					(3.7)	
	(3.7)	(3.1)	(2.3)	(1.4)	(0.4)	
Cumulative Customer Attachments	26,346	52,692	79,038	105,384	131,730	710,9
Cumulative Sufficiency/(Deficiency) per Customer						C
Attachment (\$/customer)	(140.9)	(58.2)	(29.1)	(13.4)	(3.1)	

Exhibit C20.5
Page 1 of 2
Updated

#### **UNION GAS LIMITED**

## Answer to Supplemental Interrogatory from Pollution Probe

Reference: Union Exhibit B, Tab 1, p. 37-39

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Assuming Board approval of the EB-2007-0606 Settlement Agreement, please provide a break-out of the forecasted revenue deficiencies associated with your forecasted 2008 new customer additions for:

- a) 2008;
- b) 2009;
- c) 2010;
- d) 2011; and
- e) 2012.

In particular, please provide a break-out of the revenue deficiencies according to the following categories:

- a) incremental revenues;
- b) incremental operating costs;
- c) incremental required return on capital; and
- d) marginal corporate income tax rate.

#### Response:

The following table outlines the forecast revenue sufficiency/(deficiency) associated with forecast 2008 customer attachments, in each of the first 5 years.

Exhibit C20.5
Page 2 of 2
Updated

	Total Company				
(\$ millions)	2008	2009	2010	2011	2012
Net Margin	4.2	8.4	8.4	8.4	8.4
Total Operating Expenses	2.7	3.5	3.5	3.4	3.4
Utility Return Required	2.9	2.9	2.8	2.7	2.6
Taxes	1.0	0.5	0.6	0.6	0.6
Taxes	6.7	6.9	6.8	6.7	6.6
Revenue Sufficiency/(Deficiency)	(2.5)	) 1.5	1.6	1.7	1.8
Customer Attachments	22,479	22,479	22,479	22,479	22,479
Revenue Sufficiency/(Deficiency) per Customer Attachment (\$/customer)	(110)	69	72	76	80

As it did during its trial PBR term, Union will continue to ensure that the system expansion guidelines in E.B.O. 188 are met during the term of the incentive regulation plan.

Union does not feel it will have any different incentive to attach customers under incentive regulation than it did under cost of service.

If one assumes every year of the 5 year term of incentive regulation has the same revenue sufficiency/(deficiency) impact as the 2008 forecast customer additions, the resulting cumulative impacts would be as follows:

#### Forecast Deficiencies by Year

(\$ millions) From 2008 New Customers adds From 2009 New Customers adds From 2010 New Customers adds From 2011 New Customers adds From 2012 New Customers adds
Cumulative Customer Attachments
Cumulative Sufficiency/(Deficiency) per Customer Attachment (\$/customer)

		10		_	
· .		al Company			
<u>2008</u>	<u> 2009</u>	<u> 2010</u>	<u> 2011</u>	<u> 2012</u>	
(2.5)	1.5	1.6	1.7	1.8	
` ,	(2.5)	1.5	1.6	1.7	
	` ,	(2.5)	1.5	1.6	
		` ,	(2.5)	1.5	
				(2.5)	
((2.5)	(0.9)	0.7	2.4	4.2	)
					1 2 a
22,479	44,958	67,437	89,916	112,395	= 3,9
(110)	(21)	10	27	37	

## Answer to Supplemental Interrogatory from Pollution Probe

Reference: Union Exhibit B, Tab 1, p. 37-39

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Please state the forecasted aggregate Profitability Indices for each of Union's portfolios of yearly new customer additions (i.e. by year of new customer addition) for the years of 2002 to 2008 inclusive.

#### Response:

The Rolling Portfolio PI for the New Business Portfolio for each of 2002 through 2007 is shown in the table below:

			V
Year	Northern & Eastern Operations Area	Southern Operations Area	Total
2002	1.38	1.24	1.29
2003	1.87	1.41	1.46
2004	1.91	1.45	1.49
2005	1.82	1.50	1.54
2006	1.87	1.49	1.54
2007	1.73	1.60	1.61

The information for 2008 is not available. It will not be available before the end of the first quarter.

Filed: 2008-01-29

EB-2007-0615 Exhibit I Tab 9 Schedule 4 Page 1 of 1

#### POLLUTION PROBE SUPPLEMENTAL INTERROGATORY #4

#### SUPPLEMENTAL INTERROGATORY

Reference: Enbridge Ex. B, Tab 4, Schedules 1 and 2

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Please state Enbridge's actual new customer additions for 2007 and forecasted new customer additions for 2008.

#### **RESPONSE**

## GROSS CUSTOMER ADDITIONS ACTUAL 2007 AND FORECAST 2008 FOR THE 12 MONTH PERIOD ENDED DECEMBER 31

		Col. 1	Col. 2	Col. 3
Item		Actual	Forecast	Forecast 2008 Over/(Under)
<u>No.</u>		<u>2007</u>	<u>2008</u>	Actual 2007
	RESIDENTIAL			
1.1	New Construction	32,900	33,897	997
1.2	Replacement	7,008	7,092	84
1.	TOTAL RESIDENTIAL	39,908	40,989	1,081
	<u>COMMERCIAL</u>			
2.1	New Construction	1,948	2,424	476
2.2	Replacement	1,055	1,103	48
<b>2</b>	TOTAL COMMERCIAL	3,003	3,527	524
	<u>INDUSTRIAL</u>			
3.1	New Construction	6	13	7
3.2	Replacement	3	5	2
3.	TOTAL INDUSTRIAL	9	18	9
4.	TOTAL GROSS CUSTOMER ADDITIONS	42,920	44,534	1,614

Filed: 2008-01-29 EB-2007-0615 Exhibit I Tab 9 Schedule 5 Page 1 of 1 Plus Attachment

#### POLLUTION PROBE SUPPLEMENTAL INTERROGATORY #5

#### SUPPLEMENTAL INTERROGATORY

Reference: Enbridge Ex. B, Tab 4, Schedules 1 and 2

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Please provide a break-out of the revenue deficiencies associated with 2006's new customer additions for both:

a) 2006; and

b) 2007.

In particular, please provide a break-out of the revenue deficiencies according to the following categories:

- a) incremental revenues;
- b) incremental operating costs;
- c) pre-tax incremental required return on capital; and
- d) after-tax incremental required return on capital.

#### **RESPONSE**

This information was originally provided in the Company's 2007 Rate Case, EB-2006-0034, Exhibit B4, Tab 2, Schedule 4, page 1. For convenience, please refer to attached, contained herein.

Filed: 2008-01-29 EB-2007-0615 Exhibit I Tab 9 Schedule 5 Attachment Page 1 of 1

Filed: 2006-08-01 EB-2006-0034 Exhibit B4 Tab 2 Schedule 4 Page 2 of 4

## CALCULATION OF REVENUE (DEFICIENCY)/SUFFICIENCY 2006 Estimate

CAPITAL	Year 1 (\$ Millions)	Year 2 (\$ Millions)	Year 3 (\$ Millions)	Year 4 (\$ Millions)	Year 5	
'CLIPPE	(# Millions)	(\$ Millions)	(a minore)	(\$ Millions)	(\$ Millions)	
Beginning Balance (PPE)	-	138.029	131.634	125.238	118.843	
nvestments Made	141.226	-	-	-	•	
Depreciation	3.198	6.395	6.395	6.395	6.395	
Ending Balance (PPE)	138.029	131.634	125.238	118.843	112,448	
Vorking Capital	(0.279)	(0.225)	(0.225)	(0.225)	(0.225)	
verage Incremental Rate Base	68.875	134.606	128.211	121.816	115.421	
REVENUE REQUIREMENT						
Rate of Return on Rate Base @ 7.68% Add: After Tax	5.290	10.338	9.847	9.355	8.864	
Depreciation	3.198	6.395	6.395	6.395	6.395	
Ontario and Federal Capital Tax	0.134	0.262	0.250	0.238	0.225	
Expenses	1.708	2.854	2.829	2.804	2.779	
Gas Costs	3.455	6.910	6.910	6.910	6.910	
Less: CCA Tax shield	0.989	1.938	1.860	1.786	1.714	
Interest tax shield	1.080	2.111	2.010	1.910	1.810	
After tax revenue requirement	11.716	22.711	22.360	22.006	21,649	
Income tax requirement	6.309	12.229	12.040	11.850	11.657	
Revenue requirement	18.025	34.940	34.400	33.856	33.307	
REVENUE (DEFICIENCY)/SUFFICIENCY	<del>.</del>					
Residential/Subdivision Revenue	22,778					
Small Commercial/Industrial Revenue	6.934					
Large Volume Revenue	3.637					
Forecasted Revenue from Expansion	33.349	33.349	33.349	33.349	33.349	
Effectiveness Factor	50%	100%	100%	100%	100%	
Forecasted Effective Revenue From Expansion	16.675	33.349	33.349	33.349	33.349	
Laur Branco de Daniel						
Less:Revenue Requirement	18,025	34,940	34.400	33.856	33.307	/
Revenue (deficiency) / sufficiency	(1.351)	(1.591)	(1.051)	(0.507)	0.042	ابل
						=しい

Filed: 2008-01-29 EB-2007-0615 Exhibit I Tab 9 Schedule 6 Page 1 of 1

#### POLLUTION PROBE SUPPLEMENTAL INTERROGATORY #6

#### SUPPLEMENTAL INTERROGATORY

Reference: Enbridge Ex. B, Tab 4, Schedules 1 and 2

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Assuming Board approval of the EB-2007-0615 Settlement Agreement, please provide a break-out of the forecasted revenue deficiencies associated with your forecasted 2008 new customer additions (exclusive of power projects) for:

- a) 2008;
- b) 2009;
- c) 2010;
- d) 2011; and
- e) 2012.

In particular, please provide a break-out of the revenue deficiencies according to the following categories:

- a) incremental revenues;
- b) incremental operating costs;
- c) pre-tax incremental required return on capital; and
- d) after-tax incremental required return on capital.

#### **RESPONSE**

EGD is unable to provide this information at this time.

During the IR plan period, the Company intends to continue to evaluate customers using the principles laid out by EBO 188. The Company will manage its portfolio of capital in a manner that balances the need for customer growth with the demands of the organization for long-term sustainability.

Filed: 2008-01-29 EB-2007-0615 Exhibit I Tab 9 Schedule 7 Page 1 of 1

#### POLLUTION PROBE SUPPLEMENTAL INTERROGATORY #7

#### SUPPLEMENTAL INTERROGATORY

Reference: Enbridge Ex. B, Tab 4, Schedules 1 and 2

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Assuming Board approval of the EB-2007-0615 Settlement Agreement, please state your forecasted 2008 rate of return on your 2008 equity capital invested in new customer additions (exclusive of power projects).

#### **RESPONSE**

EGD is unable to provide this information at this time.

During the IR plan period, the Company intends to continue to evaluate customers using the principles laid out by EBO 188. The Company will manage its portfolio of capital in a manner that balances the need for customer growth with the demands of the organization for long-term sustainability.

Filed: 2008-01-29 EB-2007-0615 Exhibit I Tab 9 Schedule 8 Page 1 of 1

#### POLLUTION PROBE SUPPLEMENTAL INTERROGATORY #8

#### SUPPLEMENTAL INTERROGATORY

Reference: Enbridge Ex. B, Tab 4, Schedules 1 and 2

Issue Number: 5

Issue: Y Factors (re: System Expansion)

Please state the forecasted aggregate Profitability Indices for each of Enbridge's portfolios of yearly new customer additions (i.e. by year of new customer addition) for the years of 2002 to 2008 inclusive.

#### **RESPONSE**

<u>Year</u>	Profitability Index
2002B	1.22
2003B	1.22
2004E	1.48 (PI for 2004 test year was not filed).
2005B	1.53
2006B	1.09
2007B	1.14
2008B	Information not available.