EB-2017-0306
EB-2017-0307

Enbridge Gas Distribution Inc.
and
Union Gas Limited

Application for approval to amalgamate
Enbridge Gas Distribution Inc. and Union Gas Limited
and
for approval of a rate-setting mechanism
and associated parameters from January 1, 2019 to
December 31, 2028

VECC COMPENDIUM
PANEL 1
MAY 3, 2018

TAB 1

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Undertaking of Mr. Culbert
To Mr. Brett

REF: Tr.3 p.174.

To provide the actual number for the overrun on the GTA project.

Response:

The actual capital cost incurred in relation to the GTA project, excluding the Buttonville Station, is $868.8 million as compared to the Board-approved budget of $686.5 million, resulting in an overage of $182.3 million.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Undertaking of Mr. Culbert
To Mr. Brett

REF: Tr.3 p.175.

To show what the change in revenue requirement would be in the stand-alone scenario.

Response:

The table below shows EGD's revenue requirement standalone excluding the impact of GTA capital cost overrun.

EGD $ Millions	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Revenue Requirement standalone with GTA overrun	1,300	1,357	1,428	1,473	1,516	1,546	1,592	1,629	1,693	1,738
Revenue requirement impact of GTA overrun	15	15	15	15	15	15	15	14	14	14
Revenue Requirement standalone excluding GTA overrun	1,285	1,342	1,412	1,458	1,501	1,531	1,578	1,615	1,678	1,724

TAB 2

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
School Energy Coalition ("SEC")

MAADs Issues List – Issue No. 1 and 2

Question:
Please provide copies of all material provided to the Competition Bureau for its assessment of the transaction between Enbridge Inc. and Spectra Energy, dealing in whole or in part with the impact of the transaction on the Ontario distribution, transmission, and/or storage market.

Response

Under the *Competition Act*, the Commissioner of Competition and his staff at the Competition Bureau (collectively, the "Bureau") has jurisdiction to review all mergers. For large mergers, such as the merger between Enbridge Inc. and Spectra Energy, the merging companies are required to file a pre-merger notification with the Competition Bureau and obtain clearance before being allowed to close. If the Bureau determines that a merger is likely to adversely affect competition, it may apply to the Competition Tribunal (the "Tribunal") for an order to prevent, dissolve or alter the merger. Where the Tribunal finds that a merger or a proposed merger "prevents or lessens, or is likely to prevent or lessen, competition substantially" then the Tribunal may prohibit the merger or, in the case of a completed merger, dissolve the merger or order divestiture of shares or assets. If the Bureau concludes that a proposed merger is not anti-competitive, the merger will be cleared by the Bureau and permitted to be completed.

In reviewing a merger, the Bureau's focus is on the creation or enhancement of market power in any relevant market – notably whether as a result of the transaction, the merged entity is likely to be able to raise prices above competitive levels for a substantial period of time in respect of the relevant product within the relevant geographic market. The scope of the Bureau's review for the Enbridge-Spectra merger was related to the impact of the parent company merger on the competitive landscape in the distribution, transmission and storage businesses from the perspective of third party customers, competitors and suppliers. This review would have assumed that the parent company merger would result in common control of the underlying regulated and unregulated businesses (including EGD and Union's unregulated storage capacity of 19.4 PJ and 80.9 PJ, respectively).

The fact that the Bureau issued a no action letter and did not review its decision within the following year represents a clear conclusion that the parent company merger and resulting common control of the underlying distribution, transmission and storage businesses (including the unregulated storage business) did not have a substantial detrimental competitive impact on market participants. As is its usual practice, the Bureau did not provide any reasons or analysis for its no action letter. Similarly, we responded to the US Federal Trade Commission ("FTC") competition review process and this included provision of competitively sensitive materials relating to the natural gas transmission and storage businesses (including unregulated storage). While the FTC did negotiate certain remedies applicable to unrelated businesses in the United States, it did not take issue with and cleared the Enbridge-Spectra merger from the perspective of the natural gas transmission and storage businesses (including unregulated storage).

The merging companies provided a massive amount of material to the Bureau (over 600,000 documents), much of which, given the nature of the Competition Bureau's review, contains detailed customer information and other commercially and competitively sensitive information that the merging parties are not otherwise permitted to share. The Bureau's examination process is not public and nor is the manner in which the Bureau may or may not have considered the information it received from the merging parties.

For these reasons, the Applicants decline to provide the requested information. It would be unduly onerous and of minimal or no probative value for this proceeding.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Undertaking of Mr. Redford
To Ms. Girvan

REF: Tr.3 p.68.

To provide the Competition Bureau no-action letter.

Response:

A copy of the Competition Bureau's February 22, 2017 no action letter is provided as Attachment 1. In the letter, the Competition Bureau explains that it does not intend to make an application under section 92 of the Competition Act in respect of the Enbridge-Spectra merger ("Merger") transaction and that, pursuant to section 97 of the Competition Act, it has a one year period following completion of the Merger to bring an application to the Competition Tribunal. In reliance upon this clearance from the Competition Bureau, the Merger closed five days later on February 27, 2017.

As noted in Exhibit C.SEC.3, the Competition Bureau's mandate is to determine whether a proposed merger "prevents or lessens, or is likely to prevent or lessen, competition substantially". The fact that the Competition Bureau issued a no action letter and did not review its decision within the following year represents a clear conclusion that the Merger and resulting common control of the underlying distribution, transmission and storage businesses (including the unregulated storage business) did not have a substantial detrimental competitive impact on market participants.

Bureau de la concurrence Canada | Competition Bureau Canada

Direction des fusions

Place du Portage I
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Gatineau (Québec)
K1A 0C9

Mergers Directorate

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Projet-Project: 3111455

FEB 2 2 2017

Mr. Oliver Borgers
McCarthy Tétrault LLP
Box 48, Suite 5300
Toronto Dominion Bank Tower
Toronto, ON M5K 1E6

Dear Mr. Borgers:

Re: Proposed acquisition by Enbridge Inc. and/or its affiliates of Spectra Energy Corp and/or its affiliates pursuant to the Agreement and Plan of Merger dated September 5, 2016

I am writing in regard to your letter of October 3, 2016, in which you requested on behalf of Enbridge Inc. and/or its affiliates and Spectra Energy Corp and/or its affiliates the issuance of an Advance Ruling Certificate ("ARC") pursuant to section 102 of the *Competition Act* (the "Act") or in the alternative a No-Action Letter, and the merger notifications of the parties received on October 3, 2016 in accordance with section 16 of the *Notifiable Transaction Regulations* with respect to the above-noted transaction (the "Transaction").

Based on the information provided by the parties, and information obtained from other sources, it would not be appropriate to issue an ARC as requested by the parties. However, the Commissioner of Competition (the "Commissioner") does not, at this time, intend to make an application under section 92 of the Act in respect of the Transaction. Please note that section 97 of the Act provides a one year period following completion of the Transaction during which the Commissioner may bring an application to the Competition Tribunal.

.../2

I would appreciate it if you would advise the Merger Notification Unit at ic.avisdefusionmergernotification.ic@canada.ca of the actual closing date of the Transaction. I would like to thank you for your cooperation in the examination of this matter. Should you wish to discuss or have any questions concerning this matter, please contact the reviewing officer, Alex Sarabura at 819-997-5879.

Sincerely yours,

Denis Corriveau
Acting Associate Deputy
Commissioner of Competition
Mergers Directorate

cc: Calvin Goldman, Goodmans LLP
Richard Annan, Goodmans LLP

TAB 3

Table 2
Comparison of O&M per Customer

	EGD			Union		
	O&M $ millions	Customers	$ O&M per Customer	O&M $ millions	Customers	$ O&M per Customer
2014[7]	408	2,063,837	198	380	1,419,499	268
2015[8]	431	2,094,681	206	383	1,436,924	267
2016[9]	450	2,124,683	212	398	1,458,720	273

3. Description of the Proposed Transaction

In late October and early November, 2017, the boards of directors of each of Enbridge Inc., EGD and Union and the common shareholders of EGD and Union approved an amalgamation of EGD and Union to form a single regulated gas distribution, transmission and storage company ("Amalco"). This approval is subject to those same entities determining that it is prudent to proceed with the amalgamation upon consideration of the OEB Decisions on this Application and the related price cap Rate Setting Mechanism Application ("OEB Decisions"). Also subject to such a determination, each of EGD and Union propose to take steps to simplify their capital structures such as redeeming their respective issued and outstanding preference shares prior to amalgamation.

EGD and Union currently intend that the amalgamation will be effective January 1, 2019 (the

[7] EGD O&M and customer numbers are filed in EB-2015-0122. Union O&M and customer numbers are filed in EB-2015-0010.
[8] EGD O&M and customer numbers are filed in EB-2016-0142. Union O&M and customer numbers are filed in EB-2016-0118.
[9] EGD O&M and customer numbers are filed in EB-2017-0102. Union O&M and customer numbers are filed in EB-2017-0091.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Undertaking of Mr. Culbert
To Mr. Shepherd

REF: Tr.2 p18

Please provide the achieved ROE and the allowed ROE for each of the last ten years for each of Union and Enbridge.

Response:

Please see the tables below. Please note that these tables were originally included in the response to OGVG Interrogatory #11 (Exhibit C.OGVG.11) and have been revised to included achieved ROE figures for 2008 to 2017.

EGD Earning Sharing Results

Year	Ratepayer Share of ESM ($Millions)	Gross Normalized Over Earnings (Above Allowed ROE + Threshold) ($Millions)	Achieved ROE % (1)	Allowed ROE %	Threshold / Deadband %	Ratepayer / Shareholder Sharing Ratio %	ESM / Deferral Clearance Proceeding
2008	5.60	11.20	10.21	8.66%	1.00%	50%/50%	EB-2009-0055
2009	19.30	38.60	11.20	8.31%	1.00%	50%/50%	EB-2010-0042
2010	17.35	34.70	11.10	8.37%	1.00%	50%/50%	EB-2011-0008
2011	14.30	28.60	10.38	7.94%	1.00%	50%/50%	EB-2012-0055
2012	7.39	14.80	9.28	7.52%	1.00%	50%/50%	EB-2013-0046
2013	-	31.20	10.41	8.93%	N/A	N/A	No ESM
2014	12.65	25.30	10.46	9.36%	0.00%	50%/50%	EB-2015-0122
2015	6.45	12.90	9.82	9.30%	0.00%	50%/50%	EB-2016-0142
2016	3.40	6.80	9.42	9.19%	0.00%	50%/50%	EB-2017-0102
2017	23.55	47.10	10.27	8.78%	0.00%	50%/50%	Preliminary results

Union Earning Sharing Results

Year	Ratepayer Share of ESM ($Millions)	Gross Over Earnings (Above Allowed ROE + Threshold) ($Millions)	Achieved ROE % (1)	Allowed ROE %	Threshold / Deadband %	Ratepayer / Shareholder Sharing Ratio %	ESM / Deferral Clearance Proceeding
2008	34.17	46.03	13.35%	8.81%	2.00%	90%/10%	EB-2009-0101
2009	7.40	14.79	11.24%	8.47%	2.00%	50%/50%	EB-2010-0039
2010	3.43	6.87	10.91%	8.54%	2.00%	50%/50%	EB-2011-0038
2011	2.54	5.08	10.38%	8.10%	2.00%	50%/50%	EB-2012-0087
2012	15.13	24.97	11.03%	7.67%	2.00%	90%/10%	EB-2013-0109
2013	-	32.20	10.67%	8.93%	N/A	N/A	No ESM
2014	7.42	14.85	10.69%	8.93%	1.00%	50%/50%	EB-2015-0010
2015	-	-	9.89%	8.93%	1.00%	N/A	EB-2016-0118
2016	-	-	9.24%	8.93%	1.00%	N/A	EB-2017-0091
2017	-	-	9.15%	8.93%	1.00%	N/A	Preliminary results

Notes:

(1) Union reports achieved ROE on an actual basis while EGD reports achieved ROE on a weather-normalized basis.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Ontario Energy Board Staff ("Staff")

MAADs Issues List – Issue No. 2

Reference: Exhibit B, Tab 1, p. 5

Preamble: The evidence notes that in accordance with the Consolidation Handbook, the applicants are seeking an Earnings Sharing Mechanism (ESM) consistent with the MAADs policy framework, specifically an ESM for years six through ten of the deferred rebasing period. At the same time, in order to ensure a successful amalgamation, the applicants have chosen to defer rebasing for 10 years. The applicants have also filed a separate rate setting mechanism application (EB- 2017-0307) which proposes an annual index mechanism along with certain non-routine adjustments.

Questions:
If the OEB were to approve a shorter deferred rebasing period of five years for example and an ESM that begins in year one, do the applicants intend to:

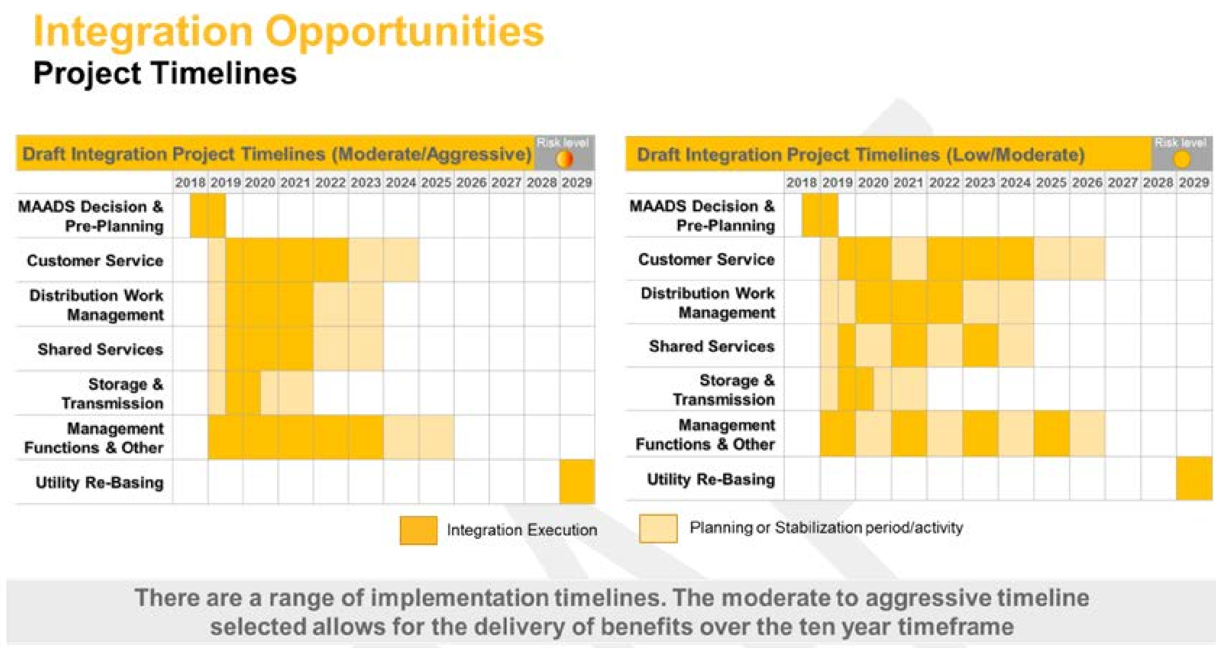
a) Proceed with the amalgamation
b) Propose a Price Cap IR methodology to set rates from 2019 to 2024.

Response

The intent of the Board's MAADs framework and policy is to incent efficiencies that ultimately benefit customers. The proposed amalgamation of EGD and Union is a significant undertaking. The degree of integration is highly dependent on the term. The Applicants have selected a term of 10 years in order to make deep, meaningful and lasting improvements. The quantity and complexity of the Information Technology and related process changes required to support efficiencies requires a considerable timeline to allow for investigation, design, costing, implementation and testing such that Amalco is able to continue to provide safe, reliable service to its customers. Amalco will need to make significant upfront investments and requires sufficient time to economically justify the investments and realize the benefits of the efficiencies prior to rebasing.

A term less than 10 years will not provide Amalco sufficient incentive and time to pursue the breadth of the proposed integration activities. The suggested term of five years would likely result in very little integration. Management's own high level estimate of integration project timelines shown in response to BOMA Interrogatory #16 (d) (i), Attachment 1 found at Exhibit

C.BOMA.16 and reproduced below shows that even an aggressive schedule extends integration beyond the five year mark of the 10 year deferred rebasing period. Given the number and size of integration initiatives being undertaken over the 10 year period, the 10 deferred rebasing period is key to achieving the full potential of integration activities in a balanced manner, while delivering quality within a reasonably paced timeline. As such, the amalgamation could not proceed as outlined with a term of five years.



Over the course of the 10 year deferred rebasing period, Amalco is forecasted to achieve on average 20 bps above the forecast allowed Return on Equity (ROE) as shown on slide 23 of the presentation provided in response to FRPO Interrogatory #1, Attachment 1 found at Exhibit C.FRPO.1, and summarized below.

	Proposed Filing: 10 year MAADS (Escalated Price Cap + Incremental Capital Module)									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Achieved ROE	9.2%	9.5%	9.4%	9.4%	9.4%	9.5%	9.5%	9.7%	9.7%	9.6%
Allowed ROE	9.2%	9.3%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%

Included in the forecasted 20 bps are "unidentified efficiencies" as provided in EB-2017-0306 Exhibit B, Tab 1, Attachment 12. These unidentified efficiencies represent additional savings that Amalco will need to find in those specific early years of the 10 year deferred rebasing period so that Amalco will achieve a ROE that approximately equals the forecasted allowed ROE for that year. The unidentified efficiencies were included to recognize that all efficiencies cannot be identified today with precision and Amalco will need to undertake additional efforts and related savings to those estimated in Attachment 12 in order for the utility to achieve that year's forecasted allowed ROE.

In its Rate Handbook at p.28, the Board stated:

> While an earnings sharing mechanism protects customers from excess earnings, it can diminish the incentives for a utility to improve their productivity, and any benefits to customers are deferred.

The example of an ESM that begins in year one will give Amalco less incentive to achieve the maximum savings for ratepayers upon rebasing while taking on the risk of integration. An ESM needs to ensure no disincentive to pursue productivity savings. As such, the ESM as proposed for Amalco in the last 5 years of the 10 year deferred rebasing period would provide the proper incentive for Amalco while enabling ratepayers to benefit in the event of utility earnings in excess of 300 bps above allowed ROE.

As stated at EB-2017-0306, Exhibit B, Tab 1, pages 14 to 15, the OEB's Decision in this proceeding must be assessed by the board of directors of Enbridge Inc. and the boards of directors of EGD and Union. The boards of directors must ensure that any upfront investments are justified and prudent based on the synergies to be realized over the deferred rebasing period, prior to determining whether to proceed with the amalgamation.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Ontario Energy Board Staff ("Staff")

MAADs Issues List – Issue No. 2

Reference: Exhibit B, Tab 1, p. 26, Table 4

Preamble: The applicants suggest that the benefits of amalgamation arise from greater operating efficiencies, an opportunity to allow for greater strategic focus, and a greater capability to face the challenges and opportunities of market developments in the Ontario energy sector. Notwithstanding that detailed implementation plans have yet to be developed, the applicants have summarized the estimated capital investments needed to achieve these synergies as well as the associated OM&A savings in Table 4 (reproduced below).

High Level Minimum and Maximum Cost and Savings Estimate ($ Millions)

Item	Potential Capital Investment		Potential O&M Savings	
	Min	Max	Min	Max
Customer Care	$25	$110	$120	$250
Distribution Work Management	$10	$90	$30	$150
Utility Shared Services	$5	$20	$15	$50
Storage and Transmission	$5	$10	$15	$50
Management Functions & Other	$5	$20	$170	$250
Total	$50	$250	$350	$750

Questions:

a) For each line item in Table 4, please provide additional commentary on how each investment is expected to translate into the expected savings, and how the minimum and maximums were estimated.

b) Please explain what assumptions have been made by the applicants with respect to the expected investments and savings.

c) Please identify any factors or risks that may affect the achievement of the expected savings.

TAB 4

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Undertaking of Mr. Culbert
To Ms. Girvan

REF: Tr.1, p.154

Please provide the 2018 forecast number of FTEs.

Response:

Please see the table below.

Year	Headcount	Reduction	Headcount Date	Estimated Annual Employee Savings	Gross Annual Severance Costs	Total Impact
2018	1938	-4	Feb month end	(521,924)	127,863	(394,061)
2017	1942	-129	Dec 31st	(16,832,049)	5,030,886	(11,801,163)
2016	2071	-67	Dec 31st	(8,742,227)	18,109,700	9,367,473
2015	2138	-66	Dec 31st	(8,611,746)	15,226,484	6,614,738
2014	2204	N/A	Dec 31st			

Notes:

Assumed average employee compensation = $130,481

Calculation assumes all headcount reductions were executed Jan 1 and had a full year equivalent.

TAB 5

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Ontario Energy Board Staff ("Staff")

Rate Setting Issues List – Issue No. 1

Reference: Exhibit B, Tab 1, p. 10

Preamble: The applicants proposed to continue to adjust rates annually to reflect the declining trend in NAC / AU.

Questions:

a) Please confirm that the applicants propose to continue to use the existing approved methodologies for calculating annual changes in NAC / AU. Please confirm that the changes will be applied individually to each of the existing service areas (EGD, Union North, and Union South).
b) Please confirm that the applicants propose to continue the current process of truing-up the forecast to actual NAC / AU as part of the deferral account disposition process.

Response

a) Confirmed. The Applicants propose to use their existing approved methodologies to determine annual changes in normalized average consumption and average use. The methodologies will continue to apply to all general service rate classes in EGD's Central, Eastern, and Niagara regions, and to Union North and Union South.

b) Confirmed. The applicants propose to continue the existing processes of calculating normalized average use variance to forecast in the determination of normalized average use/average consumption balances for disposition.

TAB 6

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Ontario Energy Board Staff ("Staff")

Rate Setting Issues List – Issue No. 1

Reference: Exhibit B, Tab 1, p. 11

Preamble: The applicants propose to use a materiality threshold of $1.0 million for Z-factors during the deferred rebasing period.

Questions:

a) Please provide Union Gas and Enbridge Gas' existing materiality thresholds for Z-factor claims.
b) Please provide rationale supporting the change to the Z-factor materiality threshold.
c) Please confirm that the proposed Z-factor materiality threshold is on a revenue requirement basis.

Response

a) Union's and EGD's current materiality thresholds for Z-factor claims are $ 4.0 million and $1.5 million respectively.

b) The Board's Utility Rate Handbook (Oct. 2016) outlines that the Boards Renewed Regulatory Framework for Electrics (2012) and its principles and goals are now applicable to **all regulated utilities** not only electric utilities. The materiality threshold for Electric Distributors is set at $1 million for distributors with distribution revenue requirements of more than $200 million. With the evolving and continuing views and policies of the Board more closely aligning a variety of treatments of the electric and gas industries, it seems appropriate to align Z factor materiality thresholds.

c) Confirmed.

TAB 7

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Ontario Energy Board Staff ("Staff")

MAADs Issues List – Issue No. 4

Reference: Exhibit B, Tab 1, p. 24

Preamble: It is stated that the applicants have assumed that over the deferred rebasing period, Amalco will be subject to a price cap mechanism that will allow for the pass-through of discrete capital projects using the Incremental Capital Module (ICM).

Question:

a) Please discuss the applicants' view as to whether the proposed ICM is consistent with OEB policy as documented in the Consolidation Handbook and the Report of the Board: New Policy Options for the Funding of Capital Investments.

b) Please provide a list of known or potential capital projects for which the applicants intend to seek ICM treatment.

Response

a) The proposed ICM is consistent with OEB policy with one exception, the request to utilize incremental cost of capital, as discussed more fully in response to Exhibit C.Staff.14.

As indicated in Evidence Exhibit B, Tab 1, page 15, Amalco proposes to bring forward ICM cost recovery requests during either Leave to Construct or annual rate setting applications, also see the response to Board Staff Interrogatory #26a), found at Exhibit C.STAFF.26. Amalco will follow the Board's ICM policy, which calls for a true-up of the actual revenue requirement and the actual recovery of costs. Amalco expects to dispose of any balance in approved ICM deferral accounts as part of its annual non-commodity deferral disposition application, as per the response to LPMA Interrogatory #24, found at Exhibit C. LPMA.24.

b) The Applicants have not made a determination of the ICM eligible projects as an OEB decision on its MAADs application will be needed to determine ICM eligible capital. At this time, the Kingsville and Sudbury projects for Union Gas are expected be treated for ICM recovery. As the two utilities complete their respective 2019 asset plan, the list of any additional ICM eligible projects will be determined and filed as part of the 2019 rate application.

TAB 8

Questions:

a) As documented in the Rate Handbook[4] and in the Board reports on New Policy Options for Capital Funding,[5] applications for incremental ICM-qualifying capital funding and the rate riders to recover the incremental revenue requirement are applied for and approved as part of a rate application for a Price Cap IR rate adjustment. Why are the applicants proposing that such requests be applied for in a LTC application?

b) Please confirm that the Asset Management Plans that Amalco is proposing to file in support of an ICM proposal will be comprehensive plans covering all of Amalco's assets, and not just covering the proposed ICM-qualifying projects. Please confirm that these will not be Utility System Plans. In the alternative to either confirmation, please explain

[4] *Handbook of Utility Rate Applications*, October 13, 2016, page iv of Appendix B: Glossary of Terms: "An ICM request is requested and approved as part of a Price Cap IR application."

[5] *Report of the Board on New Policy Options for the Funding of Capital Investments: The Advanced Capital Module (EB-2014-0219)*, September 18, 2014, p. 23, section 7.1 and Appendix A. These policies remain unchanged in the *Report of the OEB on New Policy Options for the Funding of Capital Investments: Supplemental Report (EB-2014-0219)*, January 22, 2016.

Response

a) The Applicants are proposing the ICM request be applied for in the LTC application so the Board has all of the relevant information before it as it makes its Decision. This is the same approach as with the capital pass through mechanism in Union's current IRM.

b) Confirmed, the Asset Management Plans are comprehensive plans that include all rate-regulated assets and they will be separate from the Utility System Plan.

Question:
What information do the applicant's propose Amalco to file in support of its annual capital budget, and how do the applicant's propose that Amalco's forecasted annual capital budget would be reviewed and tested, along with proposed ICM-qualifying project details and dollars, as part of any ICM proposal in an annual Price Cap IR application?

Response

In support of any ICM proposal, Amalco will file its Utility System Plan which includes an Asset Management Plan. For 2019, Asset Management Plans for Union South and Union North will be separate from the Asset Management Plan for EGD. Over the deferred rebasing period, Asset Management Plans will be combined but will retain the ability to identify the affected rate zone.

proposed as ICMs during the Price Cap IR term.

While a means test that doesn't allow incremental funding if a distributor is earning more than its Board-approved ROE may be a barrier to a distributor seeking efficiency improvements during the IR term, a threshold of 300 basis points retains some flexibility for distributors to maximize their earnings while also recognizing that funding in advance of the next rebasing is likely not required from a cash flow perspective. Distributors will have the option of explaining any overearnings. [Emphasis in original]

Questions:

a) Please confirm that any application for ICM-qualifying cost recovery will be subject to the means test. In the alternative, please explain the applicants' proposal.
b) Assuming the merger is approved and executed, the applicants propose to continue to operate the Enbridge Gas and Union Gas legacy service areas separately for rate-setting purposes over the plan term. Please explain how the applicants propose that the "means test" would be performed given this situation (one merged gas distribution utility but separate legacy service territories for rate regulatory purposes).

Response

a) Confirmed.

b) The means test would be performed on the amalgamated entity. The applicants will continue separate rate zones for rate setting purposes over the plan term, with different Board approved rates of return on equity embedded in the respective rates. A common "deemed return on equity embedded in the distributor's rates" is required.

The Applicants propose to use the allowed ROE that will be used to determine Amalco's earnings sharing for the purposes of evaluating the means test. This allowed ROE will be determined annually as per the OEB cost of capital formula and represents the most appropriate combined ROE for Amalco to use as a benchmark for earnings.

Amalco will file its most recent calculation of its regulated return at the time of the application in which funding for an ICM project is requested. If the Amalco regulated return exceeds 300 bps above the ROE used for the purpose of calculating earnings sharing, then Amalco will not pass the means test, and the incremental funding will not be requested.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Ontario Energy Board Staff ("Staff")

Rate Setting Issues List – Issue No. 2

Reference: Exhibit B, Tab 1, p. 14

Preamble: The application notes that the capital investment required to grow and maintain safe and reliable service to customers on the transmission and distribution systems is supported by Enbridge Gas and Union Gas' Asset Management Plans. These plans were generated prior to the proposal to amalgamate the utilities. While there are some differences, each 10-year plan and associated processes support the long-term optimization of asset investments to balance cost, risk and performance. Management expects to integrate Enbridge Gas and Union Gas into a single set of asset management processes and software during the deferred rebasing period.

Questions:

a) Please provide the individual Asset Management Plan of Enbridge Gas and Union Gas. In case a final draft was not prepared, please provide the working draft of the two Asset Management Plans.
b) Please explain how the 10-year plan and associated processes will support the long- term optimization of asset investments. Does the optimization take into account the joint assets of Enbridge Gas and Union Gas?
c) What is the estimated timeline to integrate Enbridge Gas and Union Gas into a single set of asset management process and software?

Response

a) Please see Attachment 1 (EGD) and Attachment 2 (Union) for the Asset Management Plans.

b) The reference in Exhibit B, Tab 1, page 14, the optimization of asset investments is specific to the individual plans of EGD and Union's assets. As both Union and EGD continue to operate as separate utilities, no activities have been taken to optimize the asset investment portfolio for Amalco. Both EGD and Union have focused on optimizing their individual asset portfolios based on cost, risk and performance.

c) Amalco expects to integrate EGD and Union into a single set of asset management processes and software as part of the integration. The related work is one aspect of the proposed integration of business processes. The integration of these business processes is complex and broad in nature. As such, it is expected that the integration of business processes will largely

Asset Management Plan 2018 - 2027

January 12, 2018

Report

Company: Enbridge Gas Distribution

Owned by: Asset Management Department

Controlled Location: Asset Management Teamsite

1.8 PORTFOLIO OPTIMIZATION

The capital plan was optimized from 2018 to 2027. The result addresses the organization's highest risk priorities and includes all known risks and opportunities to be executed over the next 10 years.

The optimization considered all business cases developed to address:

- Asset class objectives and lifecycle strategies
- Compliance requirements
- Identified risks within EGD's intolerable risk region
- Identified risks that must be addressed within a defined time window

Project timing was determined based on risk reduction and projects identified as mandatory, which had specific timing requirements and mandates. Labour implications were also considered for routine maintenance activities to ensure that project pacing and timing: i) met lifecycle strategies, ii) adequately reduced risk, and iii) were feasible.

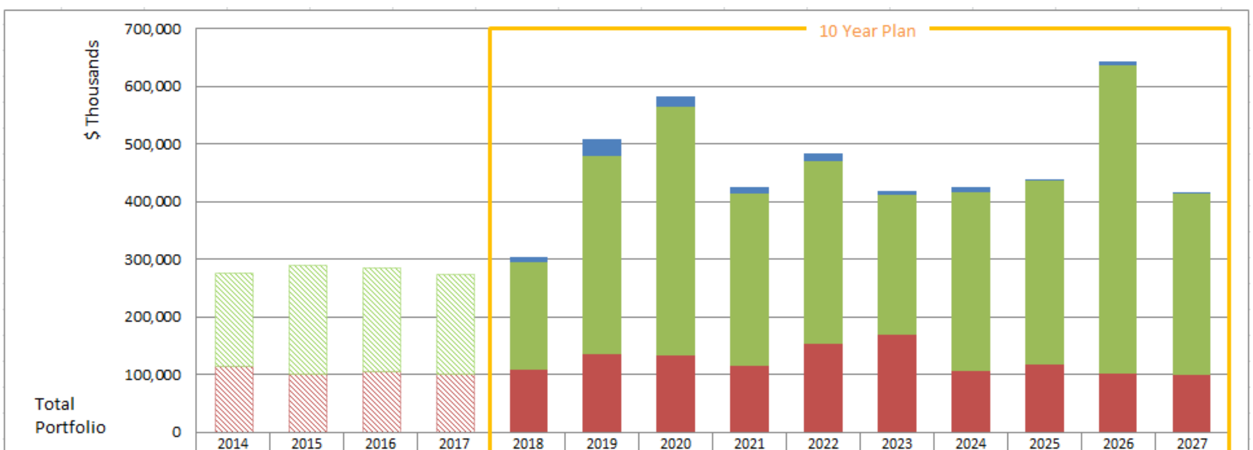
1.9 CAPITAL EXPENDITURES

The capital plan is driven by new and ongoing requirements. Ongoing requirements include the continuation of business activities that i) maintain the distribution system and storage systems (gas carrying assets), ii) add new customers, and iii) maintain the Company's infrastructure (non-gas carrying assets). New requirements over the 10 year forecast are major pipeline replacements, gas storage renewal, and mitigation strategies for newly-identified risks.

The capital expenditure requirements fall into three categories:

1. **Growth Capital:** Customer growth and reinforcement expenditures that will support the addition of new customers.
2. **Maintenance Capital:** Expenditures related to existing assets to maintain safe and reliable business operations.
3. **Community Expansion:** Expenditures for the expansion of the gas distribution network to remote communities that do not meet current *EBO 188* economic feasibility guidelines without a rate rider.

Figure 1-5 presents the 10-year capital profile for EGD from 2018 to 2027, totalling over $4.6B in proposed asset expenditures. Refer to **Section 6** for the capital breakdown.



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Community Expansion					9,234	30,417	18,777	10,447	12,420	8,774	9,095	2,923	5,966	1,786
Maintenance Capital	162,618	188,980	179,825	172,621	186,680	343,773	430,648	298,582	316,932	242,593	311,424	320,433	535,666	314,889
Growth Capital	114,491	101,751	106,703	101,206	108,320	134,943	133,301	115,742	153,765	168,138	104,700	116,167	101,389	97,907

Figure 1-5: EGD 10 Year Capital Profile (2018 – 2027)

PAGE 32

A load sheet is used to estimate consumption of commercial and industrial connections. The load sheet information is provided by the customer and contains consumption of various appliances installed at the premises.

Costs:

Direct capital costs for a project include materials (pipe, couplings, meter sets, etc.), labour and equipment to install or construct the project, reinstatement of the surface (such as road, sidewalk, landscaping), and the ongoing operation and maintenance of the project.

If a main is sized to meet future growth potential, it is re-priced at the size required to meet customers' load requirements for feasibility calculations.

Indirect costs for a project include the costs of support groups (such as customer connections, and construction) who facilitate the connection process, gas distribution network capacity costs which support new load growth, and administration costs attributable to customer growth such as inventory management.

5.1.4 Customer Growth Forecast

The customer additions forecast has been developed using a number of sources. Information considered in developing this forecast includes on-the-ground realities such as development projects originating from direct contact with builders, developers, and municipalities. Economic factors and indicators are also considered from reliable third-party data sources. These factors include housing starts forecasts, GDP growth, employment, and mortgage rates. The approach relies on regression models for each customer type and area which is consistent with the approach used by EGD in previous rate applications.

There are important data considerations, for instance, a primary data source used in predicting growth is historical housing starts from Canadian Mortgage and Housing Corporation (CMHC). For growth projections particularly in the apartment sector, housing starts are much higher than the customer additions in the sector. Although housing starts in the apartment sector comprise approximately 50% of total housing starts (2016), this does not translate to 50% new customer additions in the apartment sector. This is because one apartment building is usually counted as one customer while housing starts statistics are counted on the basis of housing units.

The customer connections group provides further inputs based on known applications and development projects. A consolidation of forecasts and known projects are used to determine the final customer growth forecast.

Based on this customer growth forecast methodology, **Figure 5-3** represents the forecasted number of customers over 10-years by area.

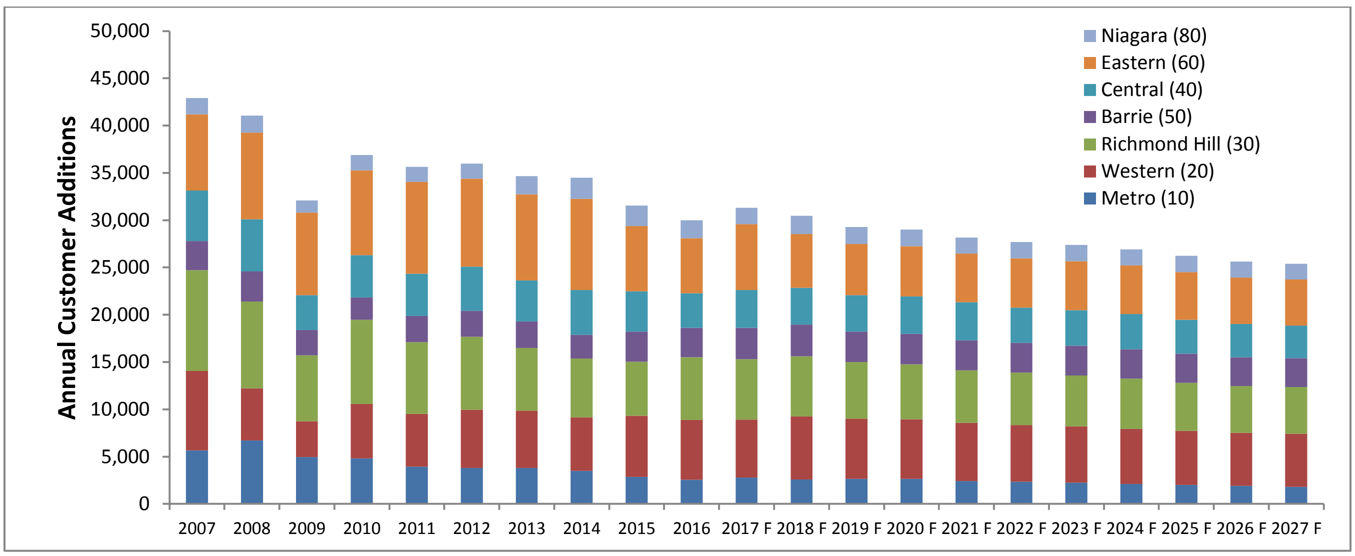


Figure 5-3: Historical and 10-year Forecast Customer Growth

PAGE 33

uniongas

An Enbridge Company

December 2017

Union Gas Asset Management Plan 2018-2027

Future growth in the industrial rate contract market may come from chemical and mining segments. Any future contract rate projects are subject to the economic tests identified in EBO 188.

Conversely, the power generation contract market has seen a decline from customers not renewing contracts. This has been partially offset by the TransCanada Energy's Napanee plant to be in commercial operations in early 2018. As the province's nuclear refurbishment plan is executed, additional generation may be required as various nuclear plants are taken out of service for major maintenance. However, it is not certain at this time whether this need would be met with natural gas fired generation since the Independent Electricity System Operator has indicated they are agnostic with respect to generation fuel type.

Growth in design day consumption has been modest in Union's franchise area. Increases in general service demand follows the population growth. A forecast of annual consumption and the number of customers can be found in Table 4.1. These projected growth figures, plus a forecast of contract growth based on historical contract growth, were used to create the forecasts in this plan.

Table 4.1: Forecast of Consumption and Customers

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Consumption (10^6m^3)	13,064	13,199	13,142	13,167	14,124	14,050	13,873	13,850	14,631	14,524
Customers (in 1,000's)	1,497	1,517	1,536	1,554	1,572	1,590	1,608	1,625	1,644	1,661

4.3 Asset Growth – Ex-Franchise

Growth in the ex-franchise storage and transmission business is driven by economic factors such as exchange rates, interest rates and gross domestic product, but the primary driver relates to changing North American natural gas market fundamentals such as demand and supply, natural gas prices, natural gas basis differentials (price differential between location), and North American wide infrastructure projects.

The major contributing factor to Union's recent infrastructure growth relates to the growth in natural gas production from the Marcellus and Utica shale basins which are within 300 km of Ontario and the Dawn Hub. As a result, the flow of natural gas on the Canadian and U.S. pipeline grid is changing and evolving at rapid pace.

Market participants in Ontario, Québec, and the U.S. Northeast have been restructuring their natural gas supply portfolios since the mid 2000s, purchasing less Western Canadian Sedimentary Basin natural gas supply and more supply from production basins and liquid market centres like the Dawn Hub which is located closer to their end-use markets. As a result, Union's customers have increased short haul transportation capacity easterly from the Dawn Hub on the Dawn Parkway System and decreased long haul transportation from the Western Canadian Sedimentary Basin.

7 Forecast Summary

Figure 7.1 illustrates the forecast of capital to meet growth needs and lifecycle recommendations over the 10 year term of the Asset Management Plan.

The Maintenance Plan includes larger projects such as the replacement of the Sudbury Pipeline Sections 2 and 3 in 2018 and replacement of Dawn C compressor in 2024. Impacts can be seen in the growth plan from System growth projects such as the addition of Lobo D compressor, Bright C compressor, Kingsville Transmission Reinforcement, Panhandle Transmission, and the Sarnia Industrial Line System expansion.

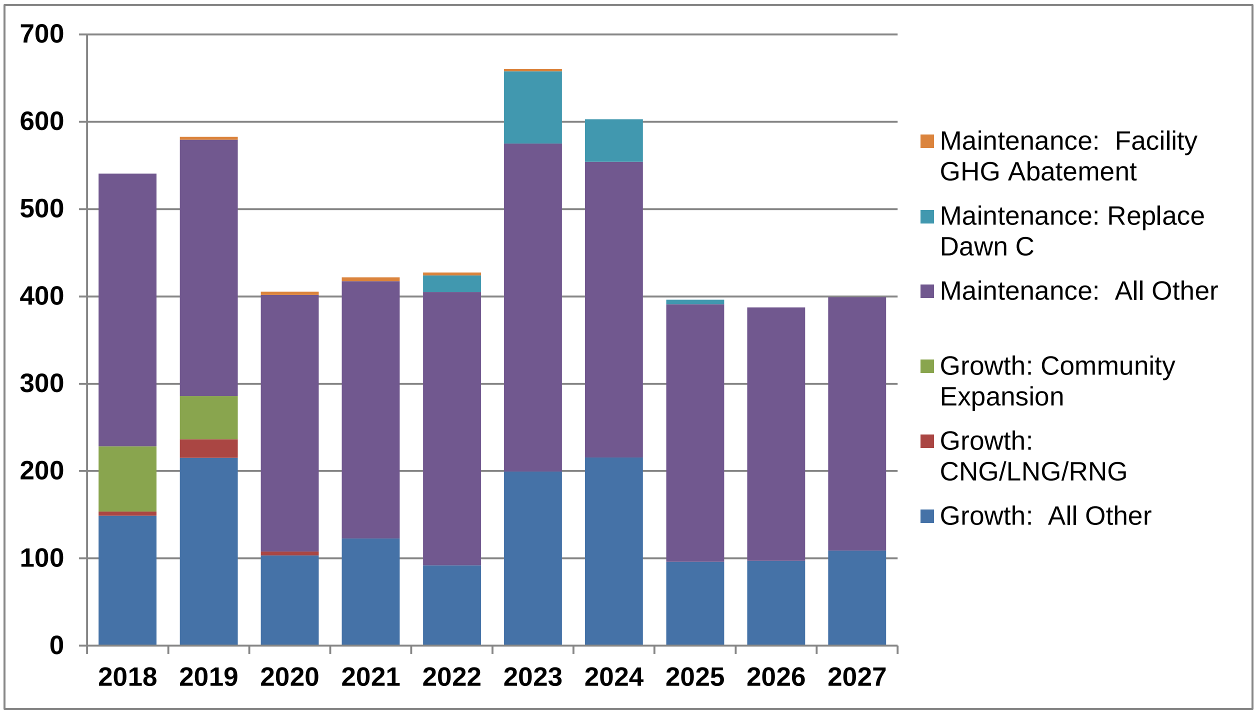


Figure 7.1: Asset Capital 10 Year Forecast (all $ in millions)

Figure 7.2 illustrates the incremental Operations and Maintenance forecast based on changes in lifecycle plans. These changes include projects to support lifecycle activities for major IT applications, to inspect pipelines at water crossings and bridge crossings beyond what has been done in the past plus an increased amount of inspections to support Integrity programs for pipelines, to support the exchange program for a larger population of meters, and for added security provided by the service facilities and day to day support for new compressor plants.

PAGE 36

4.4.1.1 Distribution Growth Forecasts

Table 4.2: Distribution Planning 10 Year Growth Summary (all $ in millions)

Project/Program/ Portfolio	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	10 Year Total
General Customer Growth	75.4	87.2	76.8	78.1	79.6	83.3	85.1	84.0	87.8	87.0	**824.3**
Distribution Reinforcement	8.6	18.4	10.2	3.9	4.1	10.1	1.7	7.2	3.8	5.9	**73.9**
Transmission Reinforcement	11.9	15.5	12.5	6.2	0.1		32.1		5.7	16.2	**100.2**
Community Expansion	74.6	49.4									**124.0**
Distribution Planning Total	**170.5**	**170.4**	**99.5**	**88.2**	**83.7**	**93.4**	**118.9**	**91.2**	**97.4**	**109.0**	**1122.4**

4.4.1.2 Summary of Distribution Growth

General Customer Growth

General Growth is the forecast to attach new general service customers and new contract rate customers in the distribution systems and is based on the forecasts provided in Table 4.1.

Reinforcement Projects

Reinforcement includes the reinforcement projects identified through the FBP processes. These projects are important to meet the forecasted growth and will ensure Union is able to serve and satisfy those customers.

Table 4.3 summarizes the distribution and transmission reinforcement projects greater than $5 million forecasted by Distribution Planning. The distribution projects will reinforce systems used to distribute natural gas to current and new customers. The transmission projects will reinforce major transmission lines, such as pipelines, compressor equipment, measurement, and regulation.

by converting a depleted natural gas production field. A Board application and approval is required for developing or improving a storage pool.

In EB-2015-0551 the Board determined that Union is required to reserve 100 PJ of storage space to serve the needs of its in-franchise customers. On an annual basis the in-franchise storage space requirements are determined through a natural gas supply plan, using the aggregate excess methodology. The current 10 year forecast indicates that the in-franchise customer requirements are less than the 100 PJs of reserved storage space. This is primarily due to DSM which has reduced the annual consumption of natural gas. Additional requirement for storage space for ex-franchise customers is determined by market demand, market prices, and the availability of economic projects.

Any deliverability shortfalls on Design Day indicate additional storage assets are required. Adding storage wells, compression and piping are typical methods to improve deliverability. Storage deliverability projects also require Board approval for construction.

No storage growth is forecast at this time.

4.4.4 Growth – Other

A new area of growth for Union is Compressed Natural Gas (CNG), Liquefied Natural Gas for vehicles (LNG), and renewable natural gas (RNG). Projects forecast in these areas will support Ontario's Climate Change Action Plan.

4.4.4.1 CNG/LNG/RNG Growth Forecast

Table 4.5: CNG/LNG/RNG 10 Year Asset Management Forecast (all $ in millions)

Project	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10 Year Total
CNG/LNG/RNG Growth Projects	4.9	21.0	4.1								30.0

4.4.4.1 Summary of CNG/LNG/RNG Growth Projects

Compressed Natural Gas (CNG)

Union's CNG project will establish key heavy-duty truck CNG refuelling infrastructure on Canada's busiest trucking corridor. It will be accomplished as a partnership of leading, Canadian industry providers of CNG solutions. The project scope will encompass all aspects of engineering, approvals, procurement, construction, commissioning, and ongoing operation and maintenance of three refueling stations at strategic locations along the Highway 401 corridor including Windsor, London/Woodstock and Eastern Ontario (Napanee/Kingston).

The objective of this project is to provide the reliability and attractive pricing that is critical for the many fleets that regularly use the Highway 401 corridor to make long-term CNG adoption decisions for their operations. Growing CNG penetration in Ontario is strategically significant as it allows Union to grow natural gas consumption while simultaneously reducing Ontario's GHG emissions.

5.5 Facility GHG Abatement

Union is committed to the ongoing review of opportunities that will reduce greenhouse gas emissions from its natural gas transmission, storage and distribution operations in future years. Recent feasibility studies have identified several potential facility abatement opportunities that would lead to a reduction in methane and carbon dioxide emissions over the next ten years.

Results of Union's 2017 customer engagement study showed that given the option between the status quo and paying an additional 50 cents per year for Union to reduce its GHG emissions beyond what is regulated, 58% of residential customers would prefer to pay for the additional reduction. However, a third (33%) say Union should not go beyond the regulated emissions requirement. Nine percent either weren't sure or didn't have a strong opinion.

Results showed that commercial customers are not quite as willing as residential customers to pay for additional reductions in GHG emissions: almost half (49%) would agree to a $2 per year increase in rates for an additional 25% in emissions reductions, but 42% say Union should meet but not exceed the regulated requirement. Fewer than one-in-ten (8%) did not offer an opinion.

Union has developed criteria to further evaluate these potential facility abatement opportunities to ensure the implementation of initiatives effectively balances customer preferences, compliance obligations, anticipated future regulations, and other noteworthy benefits such as safety and operational reliability. The following table shows Union's estimated potential 10 year capital and operations and maintenance forecasts for facility abatement initiatives, subject to annual review and evaluation. Detailed results of Union's feasibility studies and potential future abatement opportunities can be found in Union's 2018 Utility Cap-and-Trade Compliance Plan, filed with the Board on November 9, 2017.

Table 5.15: Facility GHG Abatement 10 Year Capital Forecast (all $ in millions)

Project	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Facility GHG Abatement		3.5	3.8	4.5	3.3	2.5				

Table 5.16: Facility GHG Abatement 10 Year Incremental O&M Forecast (all $ in millions, incremental to 2017)

Project	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Facility GHG Abatement		2.9	2.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7

5.6 Maintenance Planning Recommendations

Table 5.17 and Figure 5.4 summarize the Maintenance Capital forecast recommendations to mitigate risk, maintain integrity, improve reliability, manage integrity and meet compliance requirements. A significant portion of the forecast is for larger long term projects such as the Meter Exchange Program and Asset Integrity Programs.

Larger projects have an impact on certain years. These include Replacement of the Sudbury Lateral in 2018 and replacement of Dawn C in 2024.

Emerging trends such as meeting new Material Traceability requirements are not currently included in the forecast. More information about these programs can be found in Section 8.

Table 5.17: Maintenance Capital 10 Year Forecast (all $ in millions)

Asset Category	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	10 Year Total
Pipelines	162.6	124.3	116.2	119.5	121.6	123.6	128.1	111.0	108.9	119.5	**1235.2**
Stations	16.1	21.1	18.1	16.3	20.0	15.1	15.2	15.4	15.5	20.6	**173.2**
Measurement	24.3	26.0	30.3	29.1	29.5	29.2	29.7	30.7	30.9	31.0	**290.7**
Underground Storage	0.9	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	**12.1**
Compression and Dehydration Plant	5.7	3.7	15.0	16.8	22.0	93.1	53.7	6.5	7.3	3.7	**227.5**
Liquefied Natural Gas	0.5	2.4	1.8	1.6	8.0	1.7	1.7	8.8	1.8	1.8	**30.3**
Service Facilities	14.4	15.1	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	**149.5**
Fleet	12.0	12.0	10.0	8.2	8.3	8.5	8.7	8.8	9.0	9.2	**94.7**
IT	28.3	36.0	36.1	35.5	36.3	37.7	37.2	48.8	51.2	38.7	**385.8**
GHG Facility Abatement		3.5	3.8	4.5	3.3	2.5					**17.5**
Overheads	47.3	48.0	46.4	46.9	47.3	47.8	48.2	48.7	49.2	49.2	**479.0**
Maintenance Total	**315.4**	**291.0**	**293.5**	**294.6**	**312.7**	**375.5**	**338.9**	**295.2**	**290.2**	**290.2**	**3096.9**

PAGE 40

TAB 9

Ontario Energy Board

Commission de l'énergie de l'Ontario

Handbook
for
Utility Rate Applications

October 13, 2016

below) and earnings sharing but could include other approaches specific to a utility's circumstances.

For electricity distributors, the OEB has established an off-ramp that involves a threshold above the distributor's approved return on equity at which a regulatory review may be triggered.[17] An electricity distributor can propose an alternative threshold that provides greater protection for customers. Other utilities may propose an off-ramp that takes into consideration the OEB's objective of protecting customers from excess earnings.

The OEB does not require a Custom IR to include an earnings sharing mechanism, except in the context of deferred rebasing periods as part of electricity distributor consolidation[18]. While an earnings sharing mechanism protects customers from excess earnings, it can diminish the incentives for a utility to improve their productivity, and any benefits to customers are deferred. The requirement for a custom index ensures that benefits are shared immediately with customers through productivity commitments.

If a utility proposes an earnings sharing mechanism as its mechanism to protect customers against excess earnings, it should be based on overall earnings at the end of the term, not an assessment of earnings in each year of the term, consistent with the approach to limiting mid-term updates.

If a Custom IR application does not meet all of these requirements, the OEB may impose a reduced term, reject the application or determine that an application is incomplete and will not be processed until the requirements are met.

[17] This policy was reaffirmed in the RRFE Report.
[18] *Report of the Board: Rate-Making Associated with Distributor Consolidation*, March 26, 2015