

PRODUCTIVITY INITIATIVES SUMMARY

Introduction

1. The purpose of this evidence is to present the 2016 Productivity Report as part of the performance measurement framework required by the Board in its July 17, 2014 Decision with Reasons for EB-2012-0459. This framework is comprised of two reporting mechanisms: the Annual Productivity Report, and the Benchmarking Report.
2. The status of the Benchmarking Report is set out at Exhibit D, Tab 1, Schedule 5.
3. Within this document, Enbridge addresses the following:
 - (i) In its Custom IR Application, Enbridge identified productivity savings that it would have to achieve during the IR term;
 - (ii) In the Custom IR Decision, the Board approved Enbridge's capital and O&M budgets for future years, but required reporting of the Company's productivity initiatives relative to what was identified in Enbridge's evidence;
 - (iii) Enbridge has made productivity improvements a strong focus during the Custom IR term;
 - (iv) During the 3rd year of the Custom IR term, Enbridge found ways to achieve some, but not all of the embedded productivity savings targets identified in the Custom IR evidence;
 - (v) Enbridge also found other productivity savings, reported through incremental initiatives;

- (vi) In total, productivity savings during the 3rd year of the Custom IR term are as anticipated and the Company will work to continue to find ongoing opportunities;
 - (vii) Enbridge's performance metrics show that it continues to offer safe, reliable, customer-centered service.
4. This evidence is structured as follows:
- (i) Embedded O&M and Capital Reductions
 - (ii) Incremental Productivity Initiatives
 - (iii) Excluded Variable Capital Costs
 - (iv) Summary and Sustainability of Savings
 - (v) Performance Measures

Background

5. The Company issued its 2014 Productivity Report in EB-2015-0122 where it laid out the background to the productivity targets to be met during the Custom IR term, and the ways that this would be approached. Enbridge maintained a similar approach in the subsequent 2015 Report, and the current 2016 Productivity Report. For details on the productivity background and methodology please refer to EB-2015-0122, Exhibit D, Tab 2, Schedule 1, paragraphs 4 through 17.
6. Tables 1 and 2 show the Core Capital and Other O&M amounts approved over the Custom IR term with emphasis on the 2016 budget. Productivity commitments in the form of embedded savings and excluded variable capital costs are similarly shown. The OEB Adjustment in Table 2 kept O&M increases to a level of 1% per year, resulting in a cumulative reduction of \$42.2 million over the IR term.

Table 1

Capital Amounts Approved						
	2014	2015	2016	2017	2018	Total IR Term
Core Capital without Productivity	495.1	538.3	544.9	527.1	537.2	2,642.7
Less: Embedded Savings	(26.2)	(28.7)	(27.1)	(35.2)	(45.3)	(162.5)
Less: Variable Costs	(25.1)	(63.0)	(75.9)	(50.0)	(50.0)	(264.5)
Approved Core Capital Expenditures	443.8	446.6	441.9	441.9	441.9	2,216.1

Table 2:

Other O&M Amounts Approved						
	2014	2015	2016	2017	2018	Total IR Term
Proposed "Other" O&M	252.1	261.6	276.6	287.8	299.5	1,377.6
Less: Embedded Savings	(24.1)	(30.1)	(35.6)	(39.3)	(43.2)	(172.3)
Less: OEB Adjustment	-	(1.2)	(8.4)	(13.6)	(19.0)	(42.2)
Approved "Other" O&M	228.0	230.3	232.6	234.9	237.3	1,163.1

7. This evidence will describe the work items, initiatives, and programs sustained from 2014 and 2015, as well as those newly implemented by the Company in 2016 to deliver on the combined embedded reduction of \$71.1 million (\$27.1 million in capital, \$35.6 million in O&M and \$8.4 O&M OEB Adjustment). It will also describe the status of the excluded variable capital costs (\$75.9 million) which were uncertain cost requirements excluded from the proposed capital amount.

Witness: M. Yan

Embedded O&M and Capital Reductions (Productivity)

8. Embedded productivity reductions represent the anticipated cost pressures that were eliminated or held flat within the capital and O&M budgets filed in the Custom IR proceeding as guaranteed savings which serve as a productivity assurance to ratepayers. While the Company was aware of the challenge of delivering to this commitment, the up-front cost reduction forced it to seek efficiencies that would mitigate those cost pressures or find savings elsewhere.

9. Table 3 lists the embedded productivity reductions in 2016 O&M and capital that were described in evidence and testimony provided at the EB-2014-0459 proceeding for the 2014 to 2018 Custom IR Rate Application. The detailed list was provided as an undertaking at the hearing to summarize the productivity commitments embedded in the Company's forecasts (EB-2012-0459, Exhibit J1.6).

Table 3

2016 Embedded O&M Reductions	Embedded Commitment (\$M)
Merit increase	(2.5)
Employee Benefits	(2.3)
Incremental cost to service new customers	(1.7)
Incremental safety and integrity work	(9.3)
External contractor rate increases	(1.7)
Increased volume of locates-compliance with Bill 8	(3.8)
FTEs	(8.7)
Bad Debt expenses	(5.6)
Total O&M Productivity Guarantee	(35.6)
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2016 Embedded Capital Reductions	Embedded Commitment (\$M)
Customer Attachments	(24.4)
Departmental Labour	(2.7)
Total Capital Productivity Guarantee	(27.1)

10. The following paragraphs describe Enbridge's actions which allowed it to deliver savings and how results compared to the embedded cost reduction targets. The savings are costs Enbridge would have otherwise incurred. While Enbridge found productivity savings, it was not able to achieve all savings targets identified.

11. Merit increases were budgeted on the basis of a 2% increase in annual salaries although 3% increases were believed to be necessary to remain competitive (EB-2012-0459 Reply, p. 92). Actual 2016 results had a weighted increase of 2.5% in an effort to balance financial pressures and the Company's competitive position in the market. Total savings for merit increase was about \$0.5 million which was \$2.0 million short of the embedded reduction for 2016.

Witness: M. Yan

12. Benefit costs continue to rise and are still expected to increase at the projected rate of 6% per year. The approved budget reflected an increase of only 2%. Although actual spending was higher than budget, it was below the expected rate of increase, allowing savings of \$1.1 million. The Company remains committed to managing to the lower rate of increase to mitigate cost increases.
13. Incremental costs to service new customers represent the costs to carry out Fuel Safety Branch Inspections (“FSBIs”) which are required when gas is introduced to a premise for the first time. These costs were higher than budgeted as a result of an Operations policy change effective January 1, 2016 requiring builders to contact Enbridge for residential construction heat activation as 3rd party activations are no longer permitted. Costs were \$0.1 million in excess of the committed level.
14. Distribution Operations and Pipeline Integrity & Engineering continued to find efficiencies throughout 2016 that contributed to embedded commitments in incremental safety and integrity work. Through collaborative efforts between Integrity group and a key vendor, savings of over \$0.6 million were achieved for the inspection work in 2016. Previous reorganization along functional lines of accountability continues to drive greater streamlining, consistency and efficiencies through greater integration between work planning and work execution processes. Minor changes in new plant leak survey policy have similarly enabled savings and efficiency. Previously, an initial leak survey had to be completed in the first 12 months after the installation of a pressure tested gas main or gas service. The change involved incorporating that initial survey into the current 5-year leak survey program with only minor additional risk. This change improved the ability to provide leak survey support for activities outside the standard programs and also reduce the contractor unit costs because of increased standard survey volume. For this

overall area of commitment, the Company identified embedded savings of \$2.6 million.

15. By centralizing the oversight of contract management functions, the Company has generated external contractor savings estimated at \$0.4 million in 2016.
16. The passage of Bill 8 has imposed significant cost pressures on the Company to manage costs associated with incremental locate volumes. While locate volumes were expected to increase by 4% over 2015 volumes, locate budgets increased by only 2.3% in 2016.
17. In addition, Damage Prevention (1) increased the number of Alternative Locate Agreements (“ALAs”) by 16% to improve locate efficiency and reduce the cost of carrying out standard field locates, and (2) increased participation in the Locate Alliance Consortium (“LAC”) to further realize savings through locate contracts and through reduced Ontario One Call Notification Fees. These initiatives have resulted in savings of \$3.0 million in 2016.
18. A key industry benchmark measuring Damage Prevention program effectiveness is the Damages per 1000 Locates metric. Damage Prevention demonstrated continuous improvement by reducing the measure from 2.43 in 2015 to 2.17 in 2016 representing a 11% decrease. Over the past ten years, this ratio has declined from 11.1 in 2004 to its current standing. The Company continues to be committed to safety improvements by reducing damages through a financially prudent and cost-effective approach.
19. By year-end, FTEs were lower than the 2016 budgeted amount of 2,361 by 238 positions, reducing both O&M and capital costs. Departmental Labour Costs (“DLC”) are capitalized salaries and wages relating to back-office type functions such as planning, drafting, pipeline inspections, field operations and records

Witness: M. Yan

management within the Operations and Engineering departments. These functions are not impacted by delays in capital projects. FTE savings are the salary & wage reductions in O&M expected to be sustained throughout the Custom IR term and are exclusive of severance costs. The combination of these efforts resulted in O&M FTE savings of \$15 million and Capitalized Departmental Labour savings of \$11.6 million.

20. Bad debt expense was held flat at \$9.5 million within the 2016 O&M budget, although indications were that this expense would be around \$15.1 million on the basis of commodity forecasts and the overall level of consumer indebtedness. Actual 2016 bad debt expense was \$7 million resulting in savings of \$8.1 million. The Company has improved collections performance and management of accounts driving reductions in bad debt expense.
21. Embedded productivity commitments in the area of Customer Attachment capital were partially met in 2016. Customer Attachment capital was overspent by \$6.7 million, reducing its savings to \$17.7 million from the embedded target due to varying costs associated with the particular customer segment and the geographical mix of projects. Third party fees, material costs and pipeline contractor labor costs continue to exert upward pressure on costs.
22. To help mitigate these pressures, the Company continues to establish long-term construction contracts in order to stabilize or reduce costs. Further, the Company continues to look for ways to manage timing of construction projects to avoid future winter premiums and utilizes an internal cross-functional team comprised of Operations, Construction, Planning, and Legal personnel to coordinate and manage third party fees.

23. Table 4 details the estimated savings for each embedded productivity area in O&M and capital, respectively.

Table 4

2016 Embedded O&M and Actual and Capital Reductions		Embedded Commitment (\$M)	Actual (\$M)
1.	O&M: Merit increase	(2.5)	(0.5)
2.	O&M: Employee Benefits	(2.3)	(1.1)
3.	O&M: Incremental cost to service new customers	(1.7)	0.1
4.	O&M: Incremental safety and integrity work	(9.3)	(2.6)
5.	O&M: External contractor rate increases	(1.7)	(0.4)
6.	O&M: Increased volume of locates-compliance with Bill 8	(3.8)	(3.0)
7.	O&M: FTEs	(8.7)	(15.0)
8.	O&M: Bad Debt expenses	(5.6)	(8.1)
9.	Total Estimated O&M Reductions	(35.6)	(30.5)
10.	Capital: Customer Attachments	(24.4)	(17.7)
11.	Capital: Departmental Labour	(2.7)	(11.6)
12.	Total Estimated Capital Reductions	(27.1)	(29.3)
13.	Total Estimated Embedded O&M & Capital Reductions	(62.7)	(59.8)

24. Of the \$35.6 million guaranteed O&M savings, cost mitigation efforts achieved \$30.5 million most effectively through FTE management. Of the \$27.1 million guaranteed capital savings, cost mitigation efforts achieved \$29.3 million. Relative to the total O&M and capital guaranteed savings, the Company achieved \$59.8 million of the \$62.7 million target.

Incremental Productivity Initiatives

25. O&M and capital productivity actions or initiatives that are in addition to the items set out in Table 4 were pursued in all areas of the Company, across all levels of employees. There were no OEB commitments for incremental initiatives, however they serve to augment embedded O&M and Capital Savings.

Witness: M. Yan

26. Productivity initiatives were tracked centrally to ensure consistency in the application of productivity criteria and the measurement of results. To the extent that sustainable savings were realized relative to budget amounts through incremental changes to the way work was carried out, the action was captured as a productivity initiative.
27. Over one hundred and eighty (180) productivity initiatives were identified throughout the organization. Only initiatives that were determined to have sustainable and measurable productivity savings are reported herein. They are grouped into the following categories:
- (i) Labour Optimization
 - (ii) Process Optimization
 - (iii) Materials/Space/Equipment Rationalization
 - (iv) Policy Changes and Improvements
28. In addition to the \$15 million in O&M FTE reductions and \$11.6 million in capital DLC savings identified in the earlier part of this evidence (and in Table 4), other labour optimization efforts were pursued that enabled the shedding of costs through the absorption of work by existing labour capacity, the reallocation of tasks, the targeted hiring of specific skill sets to offset outside services, and the management of overtime hours. For example, in the Technical Training group, by hiring 3 employees with specific skillsets in 2014, the group was able to save outside services costs by developing training material internally instead. In addition, the conversion of selected EHS courses from instructor-led to web-based saved significant employee travel time and related costs, including outside vendor training delivery costs. Additionally, savings were also achieved by creating electronic training material and eliminating the costs associated with printed material. The

savings of these efficiencies have not only been sustained, but have increased from \$144,000 in O&M in 2015 to \$720,000 in O&M, and \$486,000 in Capital in 2016.

29. A new 2016 initiative includes the Operator Qualification (“OQ”) Recertification program which allows existing employees who require OQ recertification to do so online. Only new employees will require traditional instructor-led training. The program eliminates the need for travel and related costs associated with recertification every three years, for close to 400 employees requiring over 5,000 recertifications. In addition to these savings, online training modules were updated and developed in-house, further saving contractor costs. The savings from these types of initiatives were estimated at \$1.9 million in O&M and \$1.3 million in capital.
30. Process Optimization initiatives relate to changes in the way work is organized to achieve efficiencies. These included system changes, more efficient work flows, streamlined tools, and the elimination of redundant reports. The savings from these types of initiatives were estimated at \$5.9 million in O&M and \$2.0 million in capital. For example, the e-bill initiative continues to provide cumulative sustainable savings starting from \$0.4 million in 2014 and growing to \$2.4 million in 2016. The number of e-bill adoptions continues to grow through active conversion strategies as well as an improved web interface which has facilitated the sign-up process generating savings by eliminating increasing postage and print costs. A new initiative in 2016 was the use of email in lieu of the post to send Warning Tag letters to customers. Prior to 2016, work management clerks mailed warning tag letters to customers through Canada Post, informing them of their obligations to address the deficiencies tagged. This mode of customer communication required intensive manual effort and incurred printing and mailing costs. The change in business process has saved printing and postage costs by \$24,000 and is responsive to the growing preference of customers to receive utility communications electronically.

It also allows Work Management Center clerks to focus on other activities, thereby optimizing labour resources and providing for sustained savings in the future.

31. In addition to the optimization of labour and the processes employed by labour resources, costs and requirements related to materials, equipment, and space were rationalized to achieve greater efficiency. The area of greatest sustained savings is in workspace optimization. Starting in 2014 and continuing through to 2017, the Company's head office is undergoing workspace alterations to increase the utilization of existing office space. This is accomplished by reducing workstation/office footprints and recognizing current work styles that leverage mobility and roles that require less time in the office. Through increased utilization, savings are enabled through the reduction in leasing costs as employees currently in leased space can move back to the head office. Space optimization has facilitated additional benefits in the form of enhanced office safety from the relocation of the meter shop, increased efficiencies as all office staff will be housed centrally, and improved employee engagement. The workspace optimization initiative achieved O&M savings of \$1.0 million in 2016 and savings are expected to increase in 2017 upon completion of the project. This group of initiatives achieved an estimated savings of \$4.1 million in O&M and \$1.3 million in capital for 2016.

32. In the area of policy changes or improvements, the Company sought to reallocate and prioritize program spending through more cost-effective means while ensuring customer safety. These actions either leveraged existing labour capacity to carry out additional tasks, changed the manner in which services were contracted or delivered, or changed the type of material approved for use. For example, the policy change made to the Company's Carbon Monoxide ("CO") Alarm Response Policy sustained savings of \$125,000 in 2014 to \$243,000 in 2016. Another example is the warning tag improvement initiative which improved work efficiency

by reducing the need for multiple follow-ups which had contributed to more frequent field visits and costs. In the non-peak summer months, when weather-sensitive demand and gas process loads are not critical, field technicians issue A tags (shut off) for a wider range of identified deficiencies during inspections to improve customer response and resolution. Every tag cleared by the customer's contractor results in one less follow up field visit. By implementing this policy, the Company has seen approximately 4,000 fewer field visits and saved \$200,000. Savings in this category of initiatives amounted to \$0.9 million in O&M and \$0.3 million in capital for 2016.

33. The total 2016 O&M savings from new and sustained productivity actions are estimated at \$12.8 million. As shown in Table 5, in 2015 the Company reported \$10.2 million in savings from incremental O&M initiatives; ninety-seven percent of those savings were sustained, and increased to \$10.9 million in 2016. In addition, \$2 million in savings have been added through new initiatives. Enbridge's 2016 results demonstrate productivity sustainment and growth from the first two years of targeted productivity implementation.

Table 5

2016 Incremental O&M Productivity Initiatives				
Amounts reported in millions	2015 Cumulative Initiative Results	2015 Sustained to 2016	New 2016 Initiative Results	Total 2016
Labour Optimization	(1.6)	(1.6)	(0.4)	(1.9)
Process Optimization	(5.7)	(5.9)	(0.04)	(5.9)
Materials/Space/Equipment Rationalization	(2.1)	(2.6)	(1.5)	(4.1)
Policy Change and Improvements	(0.8)	(0.9)	- -	(0.9)
Total Reductions from Incremental O&M Initiatives	(10.2)	(10.9)	(2.0)	(12.8)

Witness: M. Yan

34. Total capital savings from sustainable productivity actions in 2016 are estimated at \$4.9 million. As seen in Table 6, some of these savings (\$1.0 million) are from new initiatives. The balance of these savings (\$3.9 million) is from the sustainment of specific 2014 and 2015 productivity initiatives that resulted in capital savings. Due to the project nature of some of the capital expenditures, not all initiatives identified each year are expected to be sustained in the remaining Custom IR term. In addition, capital savings frees up capital budget to be allocated to other areas ensuring capital expenditures are optimized for the most efficient and effective use of capital resources.

Table 6

2016 Incremental Capital Productivity Initiatives				
Amounts reported in millions	2015 Initiative Results	2015 Sustained to 2016	New 2016 Initiative Results	Total 2016
Labour Optimization	(0.6)	(0.9)	(0.4)	(1.3)
Process Optimization	(2.0)	(2.0)	(0.02)	(2.0)
Materials/Space/Equipment Rationalization	(3.2)	(0.7)	(0.5)	(1.3)
Policy Change and Improvements	(0.9)	(0.3)	-	(0.3)
Total Reductions from Incremental Capital Initiatives	(6.7)	(3.9)	(1.0)	(4.9)

Variable Costs (Capital)

35. Within the capital budgets filed in the Custom IR proceeding, the Company excluded capital costs which it characterized as “variable” on the basis of their being subject to future developments that would only manifest with information not otherwise known at the time capital budgets were developed. The excluded capital costs are pre-emptive savings within the total capital budget approved.
36. Similar to 2014 and 2015, most of the variable capital costs identified for 2016 in the Custom IR filing have been determined to not have materialized.¹ Because of the uncertain nature of these variable cost elements, a number of projects have had subsequent changes in scope and/or timing that make it challenging to determine how these work items have ultimately been captured in the budget or in actual spend. The variable costs that did arise were mitigated or absorbed within the overall capital spending for 2016.

¹ See undertaking EB-2012-0459, Exhibit J1.6 for the detailed list of identified variable costs that were excluded from the final Capital budget.

Summary and Sustainability of Savings:

37. Through pooled efforts at all levels of the organization, the Company achieved its embedded reductions target of \$71.1 million in 2016 through the combination of savings in embedded areas of productivity and incremental productivity initiatives. Table 7 provides a breakdown of the 2016 reductions achieved within the areas identified for productivity enhancement.

Table 7

	2016					
	O&M (\$M)		Capital (\$M)		Total (\$M)	
	Commitment	Actual	Commitment	Actual	Commitment	Actual
Embedded	(35.6)	(30.5)	(27.1)	(29.3)	(62.7)	(59.8)
Incremental		(12.8)		(4.9)		(17.7)
OEB Adjustment	(8.4)				(8.4)	
2016 Total Savings	(44.0)	(43.4)	(27.1)	(34.2)	(71.1)	(77.5)

38. The Embedded Reductions and Incremental Initiatives are expected to continue throughout the Custom IR term. Through consistent messaging and continued focus within the organization, the Company has seen heightened self-reporting of productivity efforts as employees and management drive to measurable results.

39. To ensure continued success, the Company will need to pursue additional improvements to augment those achieved thus far. In 2017 Enbridge is pursuing process improvements in the area of business process performance from the WAMS solution. Enbridge expects to start realizing some of the benefits in 2017.

Performance Measures (metrics)

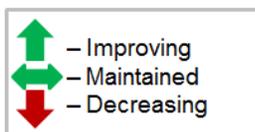
40. Table 8 and Table 9 compare 2016 operational metrics and customer service quality indicators (Exhibit D, Tab 5, Schedule 1) against baseline 2013 results to assess Enbridge's performance in light of the cost reductions achieved. As seen in the trending columns, productivity efforts have not compromised Enbridge's service levels. Time to Reschedule a Missed Appointment, though below target has a stable trend. Enbridge's overall performance measures show that it continues to offer safe and reliable service while improving its value offering to customers.

Table 8

Operational Performance	2013	2014	2015	2016	Trending
1. Employees Health and Safety: Total Reportable Injury Frequency Rate	2.01	2.00	1.06	0.93	↑
2. Damage Prevention: Number of Excavation Damages per 1000 locates	2.84	2.49	2.43	2.17	↑
3. Leak Management: Service leaks Repaired per Mile of service	0.09	0.06	0.06	0.06	↔
4. Leak Management: Total Number of Grade 1 (A) leaks repaired during the year	1280	661	905	991	↔
5. Operational Effectiveness: All Outages per 1000 Customers	6.09	5.31	4.84	4.60	↑

Table 9

Customer Relationship Performance	OEB Target	2013	2014	2015	2016	Trending
1. Overall Customer Satisfaction Index	NA	78%	77%	79%	79%	↑
2. Call Answering Service Level (SQR)	75%	75.9%	79%	79.7%	82.4%	↑
3. Percentage of Emergency Calls Responded to within One Hour (SQR)	90%	96.1%	96.9%	96.7%	95.2%	↔
4. Appointments Met within the Designated Time Period (SQR)	85%	94.2%	95.1%	95.2%	95.3%	↑
5. Time to Reschedule a Missed Appointments (SQR)	100%	95.0%	95.5%	94.8%	95.0%	↔
6. Number of Days to Reconnect a Customer (SQR)	85%	92.6%	94.0%	94.6%	94.8%	↑
7. Number of Calls Abandon Rate (SQR)	10%	2.8%	1.9%	2.3%	1.8%	↑
8. Meter Reading Performance (SQR)	0.5%	0.50%	0.69%	0.51%	0.40%	↑
9. Number of Days to provide a Written Response (SQR)	80%	94.5%	93.3%	100.0%	95.5%	↔



Witness: M. Yan