

Ontario Energy Board

Enersource Hydro Mississauga Inc., Horizon Utilities Corporation, and PowerStream Inc.

Application for approval to amalgamate to form LDC Co. and for LDC Co. to purchase and amalgamate with Hydro One Brampton Networks Inc.

**ENERGY PROBE RESEARCH FOUNDATION
("ENERGY PROBE")
CROSS-EXAMINATION COMPENDIUM**

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026											
2																							
3	MergeCo Distribution Revenue	\$	508,181,952	\$	526,801,686	\$	541,379,813	\$	556,317,787	\$	573,157,117	\$	588,012,886	\$	603,279,125	\$	618,867,282	\$	634,885,609	\$	651,346,612	\$	661,025,013
4																							
5		Incremental ICM Revenue	\$	3,715,736	\$	6,144,097	\$	7,305,490	\$	8,902,180	\$	10,320,213	\$	12,694,228	\$	15,997,951	\$	19,319,506	\$	21,871,467	\$	24,299,679	\$
6	\$		511,897,688	\$	532,945,783	\$	548,685,303	\$	565,219,966	\$	583,477,330	\$	600,707,114	\$	619,277,076	\$	638,186,788	\$	656,757,076	\$	675,646,290	\$	687,785,388
7																							
8	Stand Alone D.R.: PowerStream Enersource Horizon HOB																						
9		\$	196,630,243	\$	208,412,322	\$	217,099,939	\$	224,323,546	\$	233,738,871	\$	249,783,934	\$	260,722,714	\$	270,131,269	\$	277,520,644	\$	283,155,480	\$	292,054,171
10		\$	128,486,427	\$	139,367,172	\$	143,839,823	\$	148,928,735	\$	154,169,144	\$	159,534,043	\$	165,000,779	\$	170,619,251	\$	175,663,821	\$	181,010,047	\$	184,726,178
11		\$	115,013,988	\$	117,255,240	\$	118,482,547	\$	121,422,911	\$	124,043,264	\$	130,293,271	\$	134,467,346	\$	138,791,658	\$	142,443,384	\$	145,294,542	\$	148,717,897
12		\$	68,051,294	\$	70,173,198	\$	72,346,712	\$	74,581,174	\$	86,525,538	\$	89,095,381	\$	91,465,165	\$	99,953,241	\$	98,601,548	\$	101,608,668	\$	104,479,957
13		\$	508,181,952	\$	535,207,933	\$	551,769,021	\$	569,256,366	\$	598,476,817	\$	628,706,629	\$	651,656,004	\$	679,495,419	\$	694,229,397	\$	711,068,737	\$	729,978,202
14																							
15	TOTAL CUSTOMERS (Key Metrics tab)		978,352		990,904		1,003,579		1,016,296		1,029,341		1,042,519		1,055,889		1,069,374		1,083,057		1,096,943		1,106,712
16																							
17	D.R./Customer																						
18	Status Quo	\$	519	\$	540.1	\$	550	\$	560	\$	581	\$	603	\$	617	\$	635	\$	641	\$	648	\$	660
19	Merged	\$	523	\$	538	\$	547	\$	556	\$	567	\$	576	\$	586	\$	597	\$	606	\$	616	\$	621
20																							
21																							
22	F Restated chart:																						
23			2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026
24	MergeCo	\$	508		527		541		556		573		588		603		619		635		651		661
25	StandAlone	\$	508		535		552		569		598		629		652		679		694		711		730
26																							
27	Difference between MergeCo with ICM & Status Quo (line 13 - line 6)		\$	2,262,150	\$	3,083,718	\$	4,036,400	\$	14,999,487	\$	27,999,515	\$	32,378,929	\$	41,308,630	\$	37,472,321	\$	35,422,447	\$	42,192,814	
28																							
29			\$97,174,658.98																				
30																							
31																							
32																							
33																							
34			2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		
35																							
36	MergeCo Distribution Revenue	\$	683,282,668	\$	707,045,628	\$	731,026,728	\$	752,459,137	\$	776,430,610	\$	798,077,426	\$	819,849,406	\$	840,857,805	\$	856,291,164	\$	876,862,622		
37																							
38	Incremental ICM Revenue	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
39		\$	683,282,668	\$	707,045,628	\$	731,026,728	\$	752,459,137	\$	776,430,610	\$	798,077,426	\$	819,849,406	\$	840,857,805	\$	856,291,164	\$	876,862,622		
40																							
41	Stand Alone D.R.: PowerStream Enersource Horizon HOB																						
42		\$	301,044,648	\$	310,136,124	\$	319,521,443	\$	325,113,683	\$	334,353,208	\$	343,556,216	\$	352,861,330	\$	362,266,509	\$	368,792,692	\$	378,353,267		
43		\$	190,112,267	\$	195,967,375	\$	201,936,180	\$	207,834,101	\$	213,745,289	\$	219,771,151	\$	225,941,294	\$	231,702,625	\$	235,954,511	\$	242,378,226		
44		\$	153,295,643	\$	157,539,317	\$	162,427,031	\$	169,529,373	\$	176,815,295	\$	181,660,906	\$	186,430,172	\$	190,602,113	\$	194,719,231	\$	197,760,760		
45		\$	106,856,706	\$	109,576,207	\$	111,899,159	\$	114,550,355	\$	117,262,793	\$	120,029,504	\$	122,843,342	\$	125,690,678	\$	127,505,869	\$	130,445,014		
46		\$	751,309,263	\$	773,219,023	\$	795,783,813	\$	817,027,511	\$	842,176,585	\$	865,017,777	\$	888,076,139	\$	910,261,925	\$	926,972,303	\$	948,937,267		
47																							
48	TOTAL CUSTOMERS (Key Metrics tab)		1,116,354		1,126,080		1,135,894		1,145,797		1,155,789		1,165,769		1,175,813		1,185,946		1,196,171		1,206,488		
49																							
50	D.R./Customer																						
51	Status Quo	\$	673	\$	687	\$	701	\$	713	\$	729	\$	742	\$	755	\$	768	\$	775	\$	787		
52	Merged	\$	612	\$	628	\$	644	\$	657	\$	672	\$	685	\$	697	\$	709	\$	716	\$	727		
53																							
54																							
55	F Restated chart:																						
56			2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		
57	MergeCo	\$	683	\$	707	\$	731	\$	752	\$	776	\$	798	\$	820	\$	841	\$	856	\$	877		
58	StandAlone	\$	751	\$	773	\$	796	\$	817	\$	842	\$	865	\$	888	\$	910	\$	927	\$	949		
59																							
60	Difference between MergeCo with ICM & Status Quo (line 46 - line 39)		\$	68,026,595	\$	66,173,394	\$	64,757,085	\$	64,568,374	\$	65,745,974	\$	66,940,352	\$	68,226,732	\$	69,404,120	\$	70,681,139	\$	72,074,645	
61																							

Undertaking No. JTC1.7

Reference: Page 83 of Transcripts Volume 1

Provide a year-by-year breakdown of the numbers in Table 1 of the response to Technical Conference Question TC-AMPCO-1.

Response:

The requested breakdown is provided in Table 1, below. Please note that all amounts in the table are draft pending the final rate order, other than 'Applied for Distribution Revenue', which is based on PowerStream's 2016-2020 Custom IR Application (EB-2015-0003), as updated in August 2016, following the OEB's decision in that application.

Table 1 – Impact of OEB Decision on PowerStream Custom IR Application (EB-2015-0003)

SMM		2016	2017	2018	2019	2020	Total
Applied for Distribution Revenue		\$187.0	\$210.3	\$221.4	\$232.0	\$241.6	\$1,092.3
Applied for Distribution Revenue, adjusted for business case assumptions	A	\$180.7	\$203.2	\$213.3	\$223.2	\$232.6	\$1,053.0
Decision ¹	B	\$167.7	\$203.2	\$209.5	\$216.1	\$222.8	\$1,019.3
Difference in Distribution Revenue	C=(A-B)	(\$13.0)	\$0.0	(\$3.8)	(\$7.1)	(\$9.8)	(\$33.7)

1. Amounts in this undertaking response are based on the preliminary estimate of the decision impact, before final rate order.

Undertaking No. JTC1.8

Reference: Page 86 of Transcripts Volume 1

Update the response to part a) of the response to Interrogatory ATTACH3-Staff-30 to take into account the PowerStream decision.

Response:

- 1 The Applicants estimate that, based on the Business Case assumptions, the total incremental
- 2 capital to be sought via ICM until the end of the rebasing deferral period would increase by
- 3 approximately \$70MM, as result of the Decision of the OEB in PowerStream's Custom IR
- 4 Application. This may translate to approximately \$13MM of incremental ICM revenue, above that
- 5 which has already been identified in the MAADs Application.

Undertaking No. JTC1.9

Reference: Page 86 of Transcripts Volume 1

Add two lines to Table 1 of the response to Interrogatory B-CCC-22b) as follows:

- a) Return on Equity in dollars; and,
- b) Return on Equity in percentage terms.

Response:

- 1 The Applicants provide a revised Table 1 of the response to Interrogatory B-CCC-22b) to include a) Return on Equity in dollars; and b)
- 2 Return on Equity in percentage terms in Table 1 below.

3

Table 1 – Revised Table 1 Estimated ROE for Rebasing Deferral Period

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Forecast Rate Base in Model, \$MMs (A)	\$2,696.7	\$2,851.0	\$2,984.2	\$3,117.9	\$3,260.7	\$3,419.5	\$3,586.5	\$3,732.8	\$3,858.0	\$3,990.2
Deemed Equity % (B)	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
Forecast Deemed Equity, \$MMs (C)=(A)*(B)	\$1,078.7	\$1,140.4	\$1,193.7	\$1,247.2	\$1,304.3	\$1,367.8	\$1,434.6	\$1,493.1	\$1,543.2	\$1,596.1
Value of 300bps ROE on Forecast Deemed Equity, \$MMs 3%*(C)	\$32.4	\$34.2	\$35.8	\$37.4	\$39.1	\$41.0	\$43.0	\$44.8	\$46.3	\$47.9
ROE in Business Case Model, \$MM	\$76.8	\$100.3	\$116.3	\$132.6	\$137.8	\$133.0	\$132.9	\$128.2	\$133.8	\$139.0
ROE in Business Case Model, %	7.1%	8.8%	9.7%	10.6%	10.6%	9.7%	9.3%	8.6%	8.7%	8.7%

5

Undertaking No. JTC1.10

Reference: Page 104 of Transcripts Volume 1

Provide an explanation of whether the \$98MM referenced in the response to Interrogatory B-Staff-22b) is a plus or minus; and the rationale.

Response:

- 1 The \$98MM referenced in the response to Interrogatory B-Staff-22b) is a 'minus', i.e., if the *status*
- 2 *quo* rebasing assumptions were used for the merged scenario, the distribution revenue received
- 3 in the first 10 years would be higher. The \$98MM represents the difference in NPV of Distribution
- 4 Revenue between the *status quo* and merged scenarios; this is approximately \$80MM, after-tax.

Undertaking No. JTC1.12

Reference: Page 116 of Transcripts Volume 1

Provide the most recent and approved Appendix 2-AB for each of Horizon Utilities, Hydro One Brampton and PowerStream. Provide a similar schedule for Enersource which identifies future capital expenditures and was filed with the last rebasing application, if available.

Response:

- 1 The Applicants have provided the most recent Appendix 2-AB for each of Horizon Utilities,
- 2 HOBNI, and PowerStream in Tables 1 to 3, below. A similar schedule for Enersource, that was
- 3 filed as part of the Fourth Generation Incentive Rate-setting ("Price Cap IRM and ICM")
- 4 application (EB-2015-0065) is provided in Table 4, below.

Table 1: Horizon Utilities Appendix 2-AB (EB-2014-0002)

Table 3: PowerStream Appendix 2-AB (EB-2015-00003)

CATEGORY	Historical Period					Proposed				
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Actual	Actual	Actual	Actual	Plan					
	\$ '000					\$ '000				
System Access	21,007	19,888	17,030	26,229	24,145	28,232	28,470	29,561	28,726	31,867
System Renewal	11,527	16,974	22,254	39,186	42,388	48,715	51,500	52,052	52,971	52,406
System Service	22,885	13,770	34,780	17,946	27,322	38,322	32,072	29,920	26,963	23,022
General Plant	7,877	24,200	19,593	26,148	24,545	17,531	19,458	13,867	16,741	18,106
Sub-Total	63,296	74,832	93,657	109,509	118,400	132,800	131,500	125,400	125,401	125,401
Non-Rate Base	2,278	1,196	2,628	1,364	2,489					
Grand Total	65,574	76,028	96,285	110,873	120,889	132,800	131,500	125,400	125,401	125,401

PowerStream Inc. Custom IR EB-2015-0003, Ex. G, Tab 2, Page 3

Table 4: Enersource Historical and Forecasted Capital Expenditures (gross capex values) (EB-2015-00065)

CATEGORY	Historical Period					Proposed				
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Actual	Actual	Actual	Actual	Actual					
	\$ '000					\$ '000				
System Access	11,858	9,860	10,712	11,228	16,497	17,200	13,015	13,130	12,825	13,105
System Renewal	11,422	16,224	20,887	31,257	36,058	34,735	37,243	38,240	40,280	38,570
System Service	14,326	11,493	10,055	9,474	16,452	12,408	17,916	18,123	18,162	17,238
General Plant	9,052	29,220	6,831	6,230	10,682	12,796	11,337	10,281	10,794	10,755
Sub-Total	46,658	66,797	48,485	58,189	79,689	77,139	79,511	79,774	82,061	79,668
Churchill Meadows CCRA Payment					40,479					
TOTAL EXPENDITURES	46,658	66,797	48,485	58,189	120,168	77,139	79,511	79,774	82,061	79,668
										72,532

Enersource Hydro Mississauga Inc. Price Cap IRM and ICM Application EB-2015-00065, Interrogatory Response Supp-Staff-15, page 167

Undertaking No. JTC1.13

Reference: Page 123 of Transcripts Volume 1

Review the response to B-SEC-18. Correct the response and table in B-SEC-18 as necessary to identify only capital which is incremental to previously Board-approved capital expenditures. Confirm if the ICM requests depart from previously Board-approved capital expenditures.

Response:

- 1 Please see Table 1 below which includes an added column for totals and some clarifying
- 2 formatting and labeling changes. There is no need for changes to the dollar amount entries
- 3 relative to the table provided in response to Interrogatory B-SEC-18e), as the original table is
- 4 correct. By definition, "Incremental Capital" and "Net Incremental Capital" are incremental to
- 5 Board-approved capital expenditures.

6

7 Table 1 - Revision to Table B-SEC-18e)

Total Incremental Capital (\$MM)												
Enersource	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2015-2025
Incremental Capital	55.4	24.6	17.3	13.6	16.6	16.6	23.2	24.6	26.1	27.5	29.2	274.5
Depreciation	1.4	0.6	0.4	0.3	0.4	0.4	0.6	0.6	0.7	0.7	0.4	6.5
Net Incremental Capital	54.0	24.0	16.9	13.3	16.2	16.2	22.6	24.0	25.4	26.8	28.8	268.0
ICM Revenue - Included in I/S - 1 Year Lag	-	3.7	5.4	6.5	7.4	8.6	9.7	10.8	12.1	13.4	14.8	92.3
PowerStream	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2015-2025
Incremental Capital	45.0	40.5	23.4	4.7	9.1	0.7	22.3	21.6	-	-	5.0	172.2
Depreciation	1.1	1.0	0.6	0.1	0.2	0.0	0.6	0.5	-	-	0.1	4.2
Net Incremental Capital	43.9	39.5	22.8	4.6	8.9	0.7	21.8	21.0	-	-	4.9	168.0
ICM Revenue - Included in I/S - 1 Year Lag	-	-	-	-	-	-	-	1.0	2.0	2.0	2.0	7.2
Hydro One Brampton	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2015-2025
Incremental Capital	4.0	10.9	-	9.5	4.3	4.2	7.8	8.5	9.2	9.9	10.8	79.1
Depreciation	0.1	0.3	-	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	1.8
Net Incremental Capital	3.9	10.6	-	9.3	4.2	4.1	7.6	8.3	9.0	9.7	10.7	77.2
ICM Revenue - Included in I/S - 1 Year Lag	-	-	0.8	0.8	1.5	1.8	2.1	2.5	2.9	3.4	4.0	19.7
Horizon Utilities	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2015-2025
Incremental Capital	1.5	0.3	1.5	0.4	2.0	15.7	14.8	13.5	16.2	11.1	17.2	94.3
Depreciation	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.3	0.4	0.3	0.2	2.1
Net Incremental Capital	1.5	0.3	1.5	0.4	2.0	15.3	14.4	13.2	15.8	10.8	17.0	92.1
ICM Revenue - Included in I/S - 1 Year Lag	-	-	-	-	-	-	1.0	1.6	2.3	3.0	3.5	11.4
Total	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2015-2025
Total Incremental Capital	103.2	74.4	41.2	27.6	31.2	36.2	66.3	66.5	50.2	47.3	61.4	605.4
Total Net Incremental Eligible Capital	54.0	34.6	16.9	22.6	20.3	35.5	66.3	66.5	50.2	47.3	-	414.2
Total Forecast ICM Revenue	-	3.7	6.1	7.3	8.9	10.3	12.7	16.0	19.3	21.9	24.3	130.6

8

9 "Total Net Incremental Eligible Capital" is the total amount that is both incremental to Board-
10 approved capital expenditures pursuant to each distributor's last rebasing application, as well as
11 being eligible for ICM treatment due to coinciding with an IRM year.

These savings will result in overall lower LDC Co electricity distribution rates, in comparison to the rates of the individual LDCs absent the three-way amalgamation and the acquisition of HOBNI.

Figure 25 – Total Net Synergies

(\$MMs)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Gross Synergies											
Operating	7.2	20.1	31.7	40.6	42.5	42.5	42.5	42.5	42.5	42.5	354.6
Capital	23.0	22.6	28.8	23.2	30.0	8.0	8.0	8.0	8.0	8.0	167.6
Total Synergies	30.2	42.7	60.5	63.8	72.5	50.5	50.5	50.5	50.5	50.5	522.2
Transition Costs											
Charged to Operating	20.9	11.1	8.2	2.3	0.5	-	-	-	-	-	43.0
Charged to Capital	33.7	15.2	4.4	-	-	-	-	-	-	-	53.3
Total Transition Costs	54.6	26.3	12.6	2.3	0.5	-	-	-	-	-	96.3
Net Synergies											
Operating	(13.7)	9.0	23.5	38.3	42.0	42.5	42.5	42.5	42.5	42.5	311.6
Capital	(10.7)	7.4	24.4	23.2	30.0	8.0	8.0	8.0	8.0	8.0	114.3
Total Net Synergies	(24.4)	16.4	47.9	61.5	72.0	50.5	50.5	50.5	50.5	50.5	425.9

Benefits

(a) Overview

The Applicants anticipate that as a result of the consolidation, the following material savings will be generated (values are pre-tax):

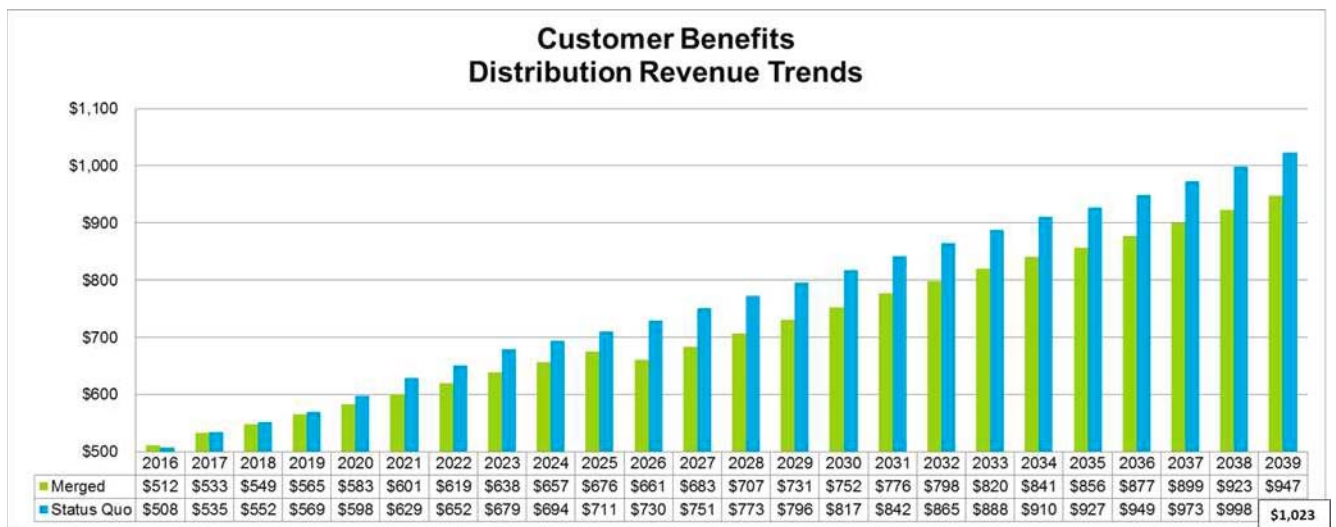
- Aggregate gross OM&A savings of \$355MM in LDC Co over the first ten years following consolidation, or 14% of total OM&A expenditures, thereafter continuing at a savings rate of approximately 15% annually, (i.e., not cumulative).
- Aggregate gross capital expenditure (“CapEx”) savings of \$168MM in LDC Co over the first ten years following consolidation, thereafter continuing at a sustained level of \$8MM annually.

LDC Co will incur transition costs of approximately \$96MM, primarily in the first three years following consolidation, with respect to systems and process integration and human resource costs.

In the absence of the proposed consolidation, the Parties would continue to regularly rebase their rates, through successive Custom IR applications (further described below) in order to recover ongoing increases in their cost structures. Under the merger, no such rebasing occurs during the Rebasing Deferral Period during which the savings accrue to shareholder interests. Consequently, as a result of the proposed consolidation (and consolidations generally), customers benefit from relatively lower rates during the Rebasing Deferral Period.

The overall relative benefit to customers under the “Merged” versus “Status Quo” scenarios is illustrated in the chart below.

Figure 26 – Distribution Revenue Trends



Overall, the proposed consolidation is also expected to deliver lower distribution costs to LDC Co customers averaging an aggregate of:

- \$48.6MM per year, or 5.9%, through the entire Forecast Period.
- \$19.5MM per year, or 3.3%, through the Rebasing Deferral Period.
- \$69.3MM per year, or 8.0%, following a transfer of merger benefits to customers in 2026.