#### Hydro One Networks Inc.

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#### **Oded Hubert**

Vice President Regulatory Affairs



#### BY COURIER

June 17, 2015

Ms. Kirsten Walli Board Secretary Ontario Energy Board Suite 2700, 2300 Yonge Street Toronto, ON M4P 1E4

Dear Ms. Walli:

EB-2013-0421 – Hydro One Networks Inc. Section 92 – Supply to Essex County Transmission Reinforcement Project – Hydro One Networks Technical Conference Presentations and Responses to Undertakings

I am attaching two copies of Hydro One Networks' responses to the Technical Conference Undertakings in the above-noted proceeding.

We are also attaching the presentations made during the June 5<sup>th</sup> Technical Conference.

Electronic copies of these Undertakings and Presentations have been filed using the Board's Regulatory Electronic Submission System.

Sincerely,

ORIGINAL SIGNED BY ODED HUBERT

**Oded Hubert** 

Att.

c/ Intervenors of Record (EB-2013-0421)

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## **UNDERTAKING JT1.1**

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## **Undertaking**

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"To provide the service territories for Entegrus Powerlines Inc., E.L.K. Energy Inc., and Essex Powerlines Corporation."

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## **Response**

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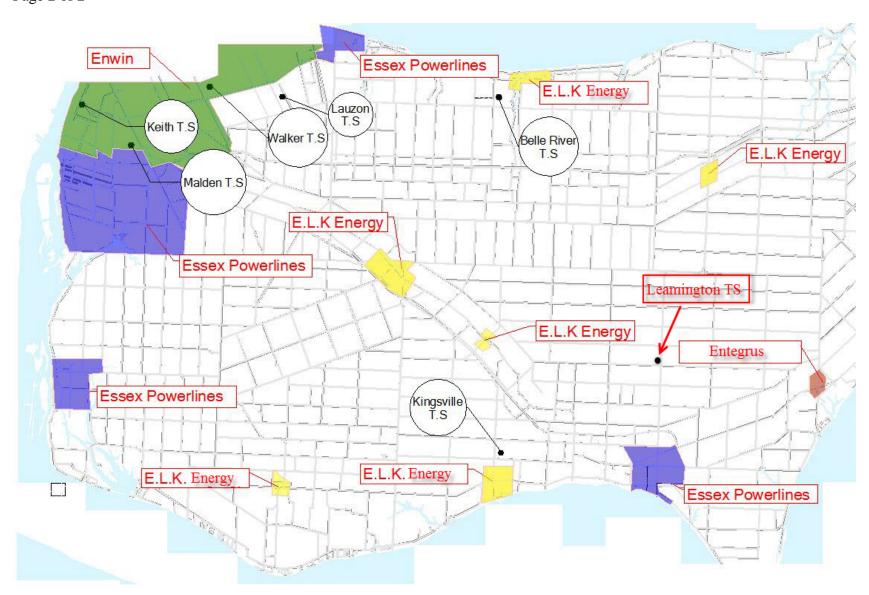
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Please see the map below which includes the service territories of E.L.K. Energy Inc., Essex Powerlines Corporation and Entegrus Powerlines Inc., designated as yellow, blue and red, respectively. Also shown are EnWin's service territory (marked in green), and Hydro One's transformer stations in the area, including the site of the proposed Leamington TS. The surrounding unmarked area is Hydro One Distribution's service territory.

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#### **UNDERTAKING JT1.2**

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#### **Undertaking**

"To provide illustrative Hydro One distribution rate impacts of the SECTR cost allocations and distribution rates, which will be paid by each of Entegrus, E.L.K., and Essex Powerlines."

#### **Response**

The three utilities belong to the sub-transmission (ST) rate class.

Table 1 of Exhibit I-P2, Tab 2, Schedule 9d) provides a current estimate of the capital contribution that Hydro One Distribution would be required to make, if it did not allocate costs to new ST customers. That contribution would be \$34.3 million (\$32.3M plus the \$2M unallocated contribution). This amount would translate to an increase of approximately 0.13% in year 1, and approximately 0.24% per annum subsequently, in Hydro One Distribution's ST rates that would be passed on to the E3 distributors.

If the new large ST customers materialize as shown and forecast in Table 2 of Exhibit I-P2, Tab 2, Schedule 9d), then Hydro One Distribution's capital contribution would be reduced to \$19.5 million (\$18.3M plus \$1.2M unallocated). This represents an increase in Hydro One Distribution's ST rates of approximately 0.07% in year 1, and approximately 0.14% per annum subsequently.

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#### **UNDERTAKING JT1.3** 1 2 **Undertaking** 3 4 "To provide the actual load forecast files that were submitted that form the basis of the 5 summary and to articulate any adjustments that were made." 6 7 **Response** 8 9 Tables 1.0 through 3.0 below provide the 2013 and 2014 load forecasts as submitted and 10 with adjustments for E.L.K. Energy Inc., Entegrus Powerlines Inc. and Essex Powerlines 11 Corporation, respectively, with an explanation of the adjustments for each. 12 13

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TABLE 1.0 E.L.K. ENERGY INC. LOAD FORECASTS (MW)

Year	Submitted to	Used in Initial	Submitted to	Used in Revised
1 car	Hydro One in	DCF	Hydro One in	DCF Calculation
	2013	Calculation	2014	(April, 2015)
		(Sept., 2014)		
2014	32.88	32.88	31.47	31.47
2015	33.37	33.37	31.47	31.47
2016	33.87	35.34	31.47	31.47
2017	34.38	35.87	31.47	31.47
2018	34.89	36.41	31.47	31.47
2019	35.42	36.95	31.47	31.47
2020	35.95	37.51	31.47	31.47
2021	36.49	38.07	31.47	31.47
2022	37.03	38.64	31.47	31.47
2023	37.59	39.22	31.47	31.47
2024	38.15	39.81	31.47	31.47
2025	38.73	40.41	31.47	31.47
2026	39.31	41.01	31.47	31.47
2027	39.90	41.63	31.47	31.47
2028	40.50	42.25	31.47	31.47
2029	41.10	42.89	31.47	31.47
2030	41.72	43.53	31.47	31.47
2031	42.34	44.18	31.47	31.47
2032	42.98	44.85	31.47	31.47
2033	43.62	45.52	31.47	31.47
2034	44.28	46.20	31.47	31.47
2035	44.94	46.89	31.47	31.47
2036	45.62	47.60	31.47	31.47
2037	46.30	48.31	31.47	31.47
2038	47.00	49.04	31.47	31.47
2039	N/A	49.77	31.47	31.47
2040	N/A	50.52	31.47	31.47
2041	N/A	51.28	31.47	31.47
2042	N/A	N/A	N/A	31.47
2043	N/A	N/A	N/A	31.47

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#### A Summary of Adjustments to E.L.K. Energy Inc.'s Forecasts

## a) 2013 Forecast

E.L.K. Energy's initial forecast, which Hydro One received in June, 2013, forecasted E.L.K.'s 2014 load as 32.9 MW, with an organic growth of 1.5% per year until 2038. Hydro One, to develop a 2016 load forecast, added an increase of 1.47 MW of load to address anticipated growth in new connections once Leamington TS was in-service (as then planned), in addition to the 1.5% organic growth for that year. This revised 2016 forecast formed the base for the years 2017 to 2041, with E.L.K.'s organic growth of 1.5% per year added. The resulting forecast was the basis for the initial capital contribution estimate provided to E.L.K. Energy Inc. in September, 2014.

### b) 2014 Forecast

E.L.K. Energy submitted a revised forecast in March, 2014, which predicted a 2014 load of 31.5 MW, with zero growth until 2041. Hydro One used E.L.K. Energy's forecast as submitted, continuing with zero growth for 2042 and 2043, to arrive at the load forecast used in Hydro One's April 23, 2015 economic evaluation and resulting revised capital contribution estimate, which is described in Hydro One's Exhibit IP-2, Tab 2, Schedule 9.

TABLE 2.0 ENTEGRUS POWERLINE INC. LOAD FORECASTS (MW)

Year	Submitted to Hydro One in 2013	Used in Initial DCF Calculation (Sept., 2014)	Submitted to Hydro One in 2014	Used in Revised DCF Calculation (April, 2015)
2014	N/A	2.67	2.66	2.66
2015	N/A	2.70	2.58	2.58
2016	N/A	2.85	2.60	2.60
2017	N/A	2.88	2.62	2.62
2018	N/A	2.91	2.64	2.64
2019	N/A	2.95	2.66	2.66
2020	N/A	2.98	2.58	2.58
2021	N/A	3.01	2.60	2.60
2022	N/A	3.04	2.62	2.62
2023	N/A	3.08	2.64	2.64
2024	N/A	3.11	2.66	2.66

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2025	N/A	3.15	2.68	2.68
2026	N/A	3.18	2.70	2.70
2027	N/A	3.22	2.72	2.72
2028	N/A	3.25	2.74	2.74
2029	N/A	3.29	2.76	2.76
2030	N/A	3.32	2.78	2.78
2031	N/A	3.36	2.80	2.80
2032	N/A	3.40	2.82	2.82
2033	N/A	3.43	2.85	2.85
2034	N/A	3.47	2.87	2.87
2035	N/A	3.51	2.89	2.89
2036	N/A	3.55	2.91	2.91
2037	N/A	3.59	2.93	2.93
2038	N/A	3.63	2.95	2.95
2039	N/A	3.67	2.98	2.98
2040	N/A	3.71	3.00	3.00
2041	N/A	3.75	3.02	3.02
2042	N/A	N/A	N/A	3.04
2043	N/A	N/A	N/A	3.07

#### A Summary of Adjustments to Entegrus Powerlines Inc.'s Forecasts

#### a) 2013 Forecast

Entegrus Powerlines did not submit a load forecast in 2013, in response to Hydro One's requests. Therefore, to calculate Entegrus's initial capital contribution, Hydro One used Entegrus's historical 2013 load of 2.6 MW, with a load increase of 80 kW in 2014. 150 kW were added in 2016 to address anticipated growth in new connections once Leamington TS was in-service (as then planned). Organic growth of 1.1% per year was added for the remaining period to develop the forecast to 2041. The resulting forecast then formed the basis for the initial capital contribution estimate provided to Entegrus Powerlines Inc. in September, 2014.

#### b) 2014 Forecast

Entegrus submitted a load forecast in March, 2014. Hydro One adopted this forecast with no adjustments, except to use Entegrus' own 2041 growth rate of 0.75% to develop the forecast for 2042 and 2043. This forecast was then used in Hydro One's April 23, 2015 economic evaluation and resulting revised capital contribution estimate, which is described in Hydro One's Exhibit IP-2, Tab 2, Schedule 9.

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TABLE 3.0 ESSEX POWERLINES CORPORATION'S LOAD FORECASTS (MW)

Year	Submitted to Hydro One in 2013	Used in Initial DCF Calculation (Sept., 2014)	Submitted to Hydro One in 2014	Used in Revised DCF Calculation (April, 2015)
2014	32.5	32.50	28.2	35.54
2015	32.5	32.50	28.2	35.49
2016	32.5	33.91	28.2	35.43
2017	33	33.90	28.1	35.39
2018	33	33.90	28.1	35.34
2019	33	33.90	28	35.29
2020	N/A	33.86	28	35.25
2021	N/A	33.82	28	35.21
2022	N/A	33.79	27.9	35.18
2023	N/A	33.75	27.9	35.14
2024	N/A	33.72	27.9	35.11
2025	N/A	33.69	27.9	35.07
2026	N/A	33.65	27.8	35.04
2027	N/A	33.62	27.8	35.01
2028	N/A	33.59	27.8	34.98
2029	N/A	33.57	27.8	34.95
2030	N/A	33.54	27.7	34.93
2031	N/A	33.51	27.7	34.9
2032	N/A	33.49	27.7	34.87
2033	N/A	33.46	27.7	34.85
2034	N/A	33.44	27.7	34.83
2035	N/A	33.41	27.6	34.8
2036	N/A	33.39	27.6	34.78
2037	N/A	33.37	27.6	34.76
2038	N/A	33.35	27.6	34.74
2039	N/A	33.33	N/A	34.72
2040	N/A	33.30	N/A	34.69
2041	N/A	33.28	N/A	34.67
2042	N/A	N/A	N/A	34.65
2043	N/A	N/A	N/A	34.63

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#### A Summary of Adjustments to Essex Powerlines Corporation's Forecasts

#### a) 2013 Forecast

Essex Powerlines' initial forecast, received by Hydro One on Oct 28, 2013, was based on a 2013 peak load of 32 MW, with 500 kW increases in 2014 and 2017, and zero growth in other years to 2019. Essex Powerlines was asked to update the forecast to include the period 2020 to 2043, but Hydro One was unable to confirm whether another forecast was submitted before the forecast received in January, 2014.

For the purposes of determining the initial capital contribution estimate, Hydro One used an historical peak load of 32 MW, maintaining Essex's increase of 500 kW in 2014. Then 1.4 MW were added in 2016 to address anticipated growth in new connections once Leamington TS was in-service (as then planned), and zero growth maintained from 2017 to 2019. From 2020 to 2041, negative growth rates between -0.11% in 2020 and -0.06% in 2041 were applied to the 2019 load forecast. The resulting forecast then formed the basis for the initial capital contribution estimate provided to Essex Powerlines Corporation in September, 2014.

## b) 2014 Forecast

Essex Powerlines' revised forecast, which was received in January, 2014 (and which was the same as the March, 2014 forecast described in Hydro One's Exhibit IP-2, Tab 2, Schedule 9, part (c)), predicted 28 MW of load in 2014, with negative growth to 2038. The growth rate varied from -0.16% in 2014 to -0.06% in 2038, with an average growth of -0.1%.

However, Hydro One noted that Essex's submitted 2013 historical peak load of 32 MW was 3.6 MW below Hydro One's recorded actual historical data for that year. Hydro One, therefore, used Essex's submitted 2015 growth rate of -0.16% against their actual 2013 peak of 35.6 MW to revise the distributor's forecast for 2014 upward to 35.54 MW. From 2015 to 2038, Hydro One applied Essex's submitted growth rates to the revised 2014 forecast, and the 2038 growth rate to develop the forecast from 2039 to 2043. This forecast was used in Hydro One's April 23, 2015 economic evaluation and resulting revised capital contribution estimate, which is described in Hydro One's Exhibit IP-2, Tab 2, Schedule 9.

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#### **UNDERTAKING JT1.4** 1 2 **Undertaking** 3 4 "To provide details on over what period of the time the LDC growth rate average was." 5 6 **Response** 7 8 This question referred to Exhibit I-P2, Tab 2, Schedule 9c), which provided a summary 9 table of the E3C utilities' submitted 2013 peak MW, each utility's 2013 peak based on 10 historical data and each utility's average growth rate. 11 12 In response to the question, a 25-year load forecast was used, from 2014 to 2043 (the 25-13 year forecasts used in the development of the utilities' capital contributions were 14 provided in Tables 23 – 28 of that same Exhibit). 15

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#### **UNDERTAKING JT1.5**

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#### **Undertaking**

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"To think about establishing goal posts."

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## **Response**

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Hydro One interprets this question as a request for a process to help beneficiaries understand the outer range of contributions which could be required from them, given the changes in inputs which could affect these contributions.

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The proposed cost allocation methodology at the distribution level for upstream transmission investments is based on the economic evaluation approach set out in the Transmission System Code ("TSC"). Hydro One Distribution will perform true-ups on all its CCRAs with distributors in relation to this project. True-ups will apply the same methodology as was used to carry out the distributor's initial economic evaluation.

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Shifts in the updated economic evaluation outcome are influenced by updates to two key inputs:

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- Distributor's Load Forecast -- based on the actual load up to the true-up point and on an updated load forecast for the remainder of the economic evaluation period.
- Distributor's Attributed Project Costs based on an allocation of the project costs in proportion to the distributor's share of the total contracted capacity of all distributors.

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By looking at the extreme ends of the range of potential outcomes for each key input, one can establish the potential outer limits of the economic evaluation results. These limits can be viewed as the capital contribution allocation "goal posts".

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These goal posts are dependent upon changing load and contracted capacity of participants. The main goal post scenarios are as follows:

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 Scenario A assumes that the distributor is able to utilize 100% of its contracted capacity from the in-service date and that other participants' contracted capacity does not change.

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• Scenario B assumes that 0% of the distributor's contracted capacity is utilized from the in-service date and that other participants' contracted capacity does not change.

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• Scenario C assumes that the distributor is able to utilize 100% of its contracted capacity from the in-service date and that other participants enter into contracts for 100% of the remaining capacity created by the SECTR project.

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• Scenario D assumes that 0% of the distributor's contracted capacity is utilized from the in-service date and that other participants enter into contracts for 100% of the remaining capacity created by the SECTR project.

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It is worth noting that this response addresses potential true-up outcomes for a distributor after signing a CCRA. It does not address a situation where a distributor finds that it requires additional capacity beyond what was originally contracted, nor the resulting economic consequences. For an example of a distributor contracting for additional

capacity after in-service, please see Undertaking response JT 1.11.

Hydro One utilized E.L.K data to create specific examples of the four scenarios. Please refer to Attachment 1 to this Undertaking for the details.

12 Scenario A: E.L.K achieves 100% of its forecast. E.L.K.'s current load forecast for the entire 25 year economic horizon has no growth, resulting in 5.3 MW of incremental load 13 at a Peak Load Index ("PLI") of 75% (average monthly peak of 4 MW). This contracted 14 capacity represented 6.3% of the total contracted capacity and E.L.K. was assigned 6.3% 15 of both Line and Transformation capital costs. The resulting required capital 16 contributions were \$1.8M for the Line pool and \$0.2M for the Transformation pool. 17 18 (Note: a full summary of all the capital contribution allocation calculations aligned with this scenario was previously provided as Exhibit I-P2, Tab 2, Schedule 9d, Attachment 19 1). 20

Scenario B: If E.L.K experienced a dramatic downward shift in load, and the resulting incremental load dropped to zero, the contracted capacity and allocated costs would not change. The required capital contributions would increase to \$2.3M for the Line pool and \$1.8M for the Transformation pool.

Scenario C: If other participants contracted for all the excess capacity created by the SECTR project, E.L.K's contracted capacity would remain unchanged but would represent only 4.4% of the total contracted capacity, and the allocated costs would also be reduced accordingly. In this situation, required capital contributions would decrease to \$1.2M for the Line pool and no capital contribution would be required for the Transformation pool.

Scenario D: If other participants contracted for all the excess capacity created by the SECTR project, E.L.K's contracted capacity would remain unchanged but would represent only 4.4% of the total. If ELK experienced a dramatic downward shift in load, and the resulting incremental load dropped to zero, the required capital contributions would be \$1.6M for the Line pool and \$0.9M for the Transformation pool.

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A summary of the results of these scenarios is provided in the table below.

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## **Summary of Illustrative E.L.K. Scenarios**

	Contract	Load Forecast	Line Pool	Transformation	Total Capital
	Capacity of	Utilization of	Capital	Pool Capital	Contribution
	Other	E.L.K.	Contribution	Contribution	Allocation
	<b>Participants</b>	Contract	Allocation	Allocation (\$M)	(\$M)
		Capacity (%)	(\$M)		
Scenario	Min	100%	\$1.8	\$0.2	\$2.0
A					
Scenario	Min	0%	\$2.3	\$1.8	\$4.1
В					
Scenario	Max	100%	\$1.2	\$ -	\$1.2
C					
Scenario	Max	0%	\$1.6	\$0.9	\$2.5
D					

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- For illustrative simplicity, these E.L.K. scenarios were limited to economic evaluations
- 4 calculated as of the in-service date. In addition, periodic true-up calculations will be
- 5 performed after the in-service date, with the economic evaluations and any resulting
- 6 capital contribution reflecting the time value of money. For an example of a true-up
  - which occurs ten years after the in-service, please see Undertaking response JT 1.11.

## Scenario A and Scenario B: Allocation of Line Costs

	Contracted	% of Contracted
Distributor Capacity	Capacity (MW)	Capacity
Other SECTR Participants	78.6	93.7%
E.L.K.	5.3	6.3%
TOTAL	83.9	100.0%

Project Costs	
Capital Expenditures	\$ 33.3
Removal Costs	\$ 1.8
Total Costs	\$ 35.1

Allocation of Project Costs by Distributor Capacity	ther SECTR articipants	E.L.K.	Total Costs
% of Contracted Capacity	93.7%	6.3%	100.0%
Capital Expenditures	\$ 31.2	\$ 2.1	\$ 33.3
Removal Costs	\$ 1.6	\$ 0.1	\$ 1.8
Total	\$ 32.9	\$ 2.2	\$ 35.1

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## Scenario A and Scenario B: Allocation of Transformation Costs

Distributor Capacity	Contracted Capacity (MW)	% of Contracted Capacity
Other SECTR Participants	78.6	93.7%
E.L.K.	5.3	6.3%
TOTAL	83.9	100.0%

Project Costs	
Capital Expenditures	\$ 20.2
Removal Costs	\$ -
Total Costs	\$ 20.2

Allocation of Project Costs by Distributor Capacity	er SECTR icipants	E.L.K.	Total Costs
% of Contracted Capacity	93.7%	6.3%	100.0%
Capital Expenditures	\$ 18.9	\$ 1.3	\$ 20.2
Removal Costs	\$ -	\$ -	\$ -
Total	\$ 18.9	\$ 1.3	\$ 20.2

Scenario A: E.L.K. incremental load utilizing 100% of Contracted Capacity Line Pool Page 1

Date: Project #	13-Apr-15 17503						SUMI	MARY OF CO	NTRIBUTION of - Estimated		ONS				
rigida	11505							Line PO	A. Carmarec	JUM					
Facility Name: Description:			nty Transmission Reinfor	penent											
Customer:		Capital Contribution A E.L.K.	Rocation												
and a state of the state			In-Service												
		North Year	Date Mar-31 2018	Mar-31 2019	Project year ende Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	Mar-31 2024	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast			0	,	,	3	•	6		,	٠	9	10	"	2
Load Forecast (MW) Load adjustments (MW)				4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	4.0 0.0 4.0	0.0 4.0
Tariff Applied (S/kW/Month) noremental Revenue - SM				0.88	0.85	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.86
Removal Costs - \$M On-going OM&A Costs - \$M			(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Municipal Tax - \$M Net Revenue/(Costs) before taxes - \$M			(0.1)	(0.0)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	(0.0)	0.0	0.0	0.0	0.0
Income Taxes Operating Cash Flow (after taxes) - \$M		ar tumberar	(0.1)	0.0	0.0 0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV Operating Cash Flow (after taxes) - \$M	(A)	5.83% 0.4	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Expenditures - \$M	(^)	7.4	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upfront - capital cost before overheads - Overheads	& AFUDC		(2.1)												
- AFUDC Total upfont capital expenditures			(2.1)												
On-going capital expenditures PV On-going capital expenditures			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total capital expenditures - \$M Capital Expenditures - \$M			(2.1)												
PV CCA Residual Tax Shield - \$M			0.0												
PV Working Capital - \$M PV Capital (after taxes) - \$M	(B)	(2.1)	(2.1)												
Cumulative PV Cash Flow (after taxes) - \$M (A)	+ (B)	(1.7)	(2.2)	(2.1)	(2.1)	(2.0)	(2.0)	(2.0)	(1.9)	(1.9)	(1.9)	(1.9)	(1.8)	(1.8)	(1.8
		Discounted Cash F	Tow Summary												
Economic Study Horizon - Years:		25													
Discount Rate - %		5.83%													
		Before Cont SM		After Cont \$M	_	Impact \$M									
PV Incremental Revenue PV OM&A Costs		0.5 (0.1)		0.5 (0.1)											
PV Municipal Tax PV Income Taxes PV CCA Tax Shield		(0.1) (0.1) 0.2		(0.1) (0.1) 0.0		(0.0)									
PV Capital - Upfront A dd: PV Capital Contribution Allocation PV Capital - On-going	0.0	(2.1)	(2.1) 1.8	(0.2)		1.8									
PV Working Capital PV Surplus / (Shortfall)		(0.0)	8	(0.0)	: =	1.7									
Profitability Index*		0.2		1.0											
Notes: PV of total cash flow, excluding net capital expenditure & on-going	g capita I & proceeds	on disposa I/PV of net ca	pital expenditure & on-going	capta i & proceeds	on disposal										

Scenario A: E.L.K. incremental load utilizing 100% of Contracted Capacity Line Pool Page 2

Date:	13-Apr-15	
Project #	17503	
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# SUMMARY OF CONTRIBUTION CALCULATIONS Line Pool - Estimated cost

Facility Name: Description:	Supply to Essex County Capital Contribution Alloc		ement											
Customer:	E.L.K.													
							5.							
	Month	Mar-31	F Mar-31	Project year end Mar-31	ed - annualized Mar-31	from In-Service Mar-31	Date Mar-31	-> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast														
Load Forecast (MW)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.0</u> 4.0
		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Tariff Applied (\$/kW/Month)		0.86 0.0	0.86	0.86	0.86	0.86	0.86	0.86	0.86 0.0	0.86 0.0	0.86 0.0	0.86	0.86	0.86
Incremental Revenue - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Removal Costs - \$M														
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	<u>(0.0</u> 0.0
Net Revenue/(Costs) before taxes - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income Taxes		0.0	0.0	0.0 0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	<u>(0.0)</u>
Operating Cash Flow (after taxes) - \$M		<u>0.0</u>	0.0	<u>0.0</u>	0.0	0.0	<u>0.0</u>	0.0	0.0	0.0	0.0	0.0	<u>0.0</u>	0.0
PV Operating Cash Flow (after taxes) - \$M (A)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC - Overheads - AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		<u>(1.8)</u>	<u>(1.8)</u>	(1.8)	<u>(1.7)</u>	<u>(1.7)</u>	<u>(1.7)</u>	<u>(1.7)</u>	<u>(1.7)</u>	<u>(1.7)</u>	<u>(1.7)</u>	<u>(1.7)</u>	<u>(1.7)</u>	(1.7

Scenario A: E.L.K. incremental load utilizing 100% of Contracted Capacity Transformation Pool Page 1

Date:	13-Apr-15							MARY OF CON			NS				
Project#	17503						'	i i alisioi illatic	ni Fooi - Esti	mateu cost					
Facility Name: Description:		Capital Contribution Al	y Transmission Reinford location	ement											
Customer:		E.L.K.	In-Service												
		Month Year	Date Mar-31 <u>2018</u>	Mar-31 2019	Project year ende Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	Mar-31 2024	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast Load Forecast (MW) Load adjustments (MW) Tariff Applied (\$\( k\)\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\	(A) Is & AFUDC	Cumulative PV @ 5.83% 1.1	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 (1.3) 0.0 0.1.3)	1 4.0 0.0 4.0 2.00 0.1 0.0 0.1 0.0 0.1 0.0 0.1	2 4.0 9.0 4.0 2.00 0.1 0.0 (0.0) 0.1 9.0 9.1	3 4.0 0.0 4.0 2.00 0.1 0.0 0.1 0.0 0.1 0.0 0.1	4 4.0 0.0 4.0 4.0 4.0 0.0 0.0 0.1 0.0 0.1 0.1 0.1 0.1 0.1 0	\$ 4.0 0.0 4.0 2.00 0.1 0.1 (0.0) 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.1 0.1	6 4.0 0.0 2.00 0.1 0.0 0.1 (0.0) 0.1 0.1	7 4.0 0.0 4.0 4.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1	8 4.0 0.0 4.0 2.00 0.1 0.0 0.1 0.0 0.1 0.0 0.1	9 4.0 0.0 4.0 2.00 0.1 0.0 0.1 0.0 0.1 0.0 0.1	4.0 0.0 4.0 2.00 0.1 0.0 0.1 0.0 0.1 0.0 0.1	4.0 0.0 4.0 2.00 0.1 0.0 0.1 0.0 0.1 0.0 0.1	4.0 0.0 4.0 0.0 2.000 0.1 0.0 0.1 0.0 0.1 0.0 0.0
Cumulative PV Cash Flow (after taxes) - \$M (A		(0.2)	(1.3)	(1.2)	(1.1)	(1.0)	(1.0)	(0.9)	(0.8)	(0.8)	(0.7)	(0.7)	(0.6)	(0.6)	(0.5
	1	Discounted Cash Fl	ow Summary												
Economic Study Horizon - Years: Discount Rate - %		25 5.83%  Before Cont \$M	-	After Cont \$M	_	Impact \$M									
PV Incremental Revenue PV OMAA Costs PV Municipal Tax PV Income Tax PV Income Tax PV CATAX Shield PV Capital - Upfrort Add: PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) Pv Surplus / (Shortfall) Profitability Index*	(1.3 	1.3 0.0 (0.1) (0.3) 0.2	(1.3) 0.2	1.3 0.0 (0.1) (0.3) 0.2 (1.0) 0.0 0.0	=	0.0 (0.0) 0.2									
Notes: PV of total cash flow, excluding net capital expenditure & on-go	ing capital & proceeds		ital expenditure & on-going of		on disposal										

Scenario A: E.L.K. incremental load utilizing 100% of Contracted Capacity Transformation Pool Page 2

Date:	13-Apr-15	
Project #	17503	
·		

#### SUMMARY OF CONTRIBUTION CALCULATIONS Transformation Pool - Estimated cost

Facility Name: Description:	Supply to Essex County Capital Contribution Allo		ement											
Customer:	E.L.K.													
		Mar-31	: F Mar-31	Project year end Mar-31	ed - annualized Mar-31	from In-Service Mar-31	Date Mar-31	-> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Month Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
	i eai	13	14	2033 15	16	17	18	19	2030	21	22	23	24	25
Revenue & Expense Forecast					10	.,			20			20	2.7	20
Load Forecast (MW)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
, , ,		4.0	<u>0.0</u> 4.0	4.0	4.0	4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	4.0	4.0	4.0	<u>0.0</u> 4.0
Tariff Applied (\$/kW/Month)		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Incremental Revenue - \$M		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Removal Costs - \$M														
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Net Revenue/(Costs) before taxes - \$M		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Income Taxes		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Operating Cash Flow (after taxes) - \$M		<u>0.1</u>	0.1	0.1	0.1	0.1	0.1	0.1	<u>0.1</u>	<u>0.1</u>	0.1	0.1	0.1	0.1
PV Operating Cash Flow (after taxes) - \$M (A)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Expenditures - \$M  Upfront - capital cost before overheads & AFUDC  - Overheads														
- Overneads - AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(0.5)	(0.5)	(0.4)	(0.4)	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.2)	(0.2)	(0.2

# Scenario B: E.L.K Line Pool with no incremental load page 1

Date: 9-J   Project # 175	un-15 503					SUMI		NTRIBUTION ol - Estimated	CALCULATIO	INS				
Facility Name: Description: Customer:	Supply to Essex Co Capital Contribution E.L.K.	ounty Transmission Reinford n Allocation	ement											
	Month Year	In-Service Date Mar-31 2018	< Mar-31 <b>2019</b>	Project year end Mar-31 2020	ed - annualized Mar-31 2021	from In-Service Mar-31 2022	Date Mar-31 2023	-> Mar-31 <u>2024</u>	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast Load Forecast (MW) Load adjustments (MW)  Tariff Applied (\$i\text{kW}/Month) Incremental Revenue - \$M Removal Costs - \$M On-going OM&A Costs - \$M Municipal Tax - \$M  Net Revenue/(Costs) before taxes - \$M Income Taxes Operating Cash Flow (after taxes) - \$M  PV Operating Cash Flow (after taxes) - \$M  Capital Expenditures - \$M	Cumulative PV ⊚ 5.83%	(0.1) (0.1) (0.1) (0.1)	0.0 0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) 0.00 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) 0.00 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) 0.00 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) 0.00 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) 0.00 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) 0.00
Capital Experiorutures - SM Upfront - capital cost before overheads & AF - Overheads - AFUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M Capital Expenditures - \$M PV CCA Residual Tax Shield - \$M PV Working Capital - \$M PV Capital (after taxes) - \$M (B) Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(2.1)	(2.1) 0.0 0.0 (2.1) 0.0 (2.1) 0.0 (0.0) (2.1)	0.0	0.0	0.0	0.0	0.0 (2.1)	0.0 (2.1)	0.0 (2.1)	0.0 (2.1)	0.0 (2.1)	0.0 (2.1)	0.0	0.0 (2.1)
Economic Study Horizon - Years:	Discounted Cash	Flow Summary												
Discount Rate - %  PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV income Taxes PV CoA Tax Shield PV Capital - Upfront Add: PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) Profitability Index*  Notes: "PV of total cash flow, excluding net capital expenditure & on-going capital PV of total cash flow, excluding net capital expenditure & on-going capital	5.83%  Before Cont SM  0.0 (0.1) (0.1) 0.1 0.2 (2.1) 0.0 (0.0) (2.1) 0.0 al & proceeds on disposal / PV of net-	(2.1) 2.3	After Cont \$M  0.0 (0.1) (0.1) (0.1) 0.1 (0.0) (0.0) (0.0) (0.0) (1.0)	on disposal	(0.0) (0.2) 2.3									

# Scenario B: E.L.K Line Pool with no incremental Load page 2

Date:	9-Jun-15
Project #	17503
-	

# SUMMARY OF CONTRIBUTION CALCULATIONS Line Pool - Estimated cost

Facility Name:	Supply to Essex County		ement											
Description:	Capital Contribution Alloc	cation												
Customer:	E.L.K.													
			: F	Project year end	ed - annualized	from In-Service	Date	->						
	Month	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast														
Load Forecast (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tariff Applied (\$/kW/Month)		0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Incremental Revenue - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Removal Costs - \$M														
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Net Revenue/(Costs) before taxes - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Income Taxes		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Cash Flow (after taxes) - \$M		0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDO														
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
		<i>(c.</i> ::	<i>(</i> 0 ···	(0.1)	(0.11	(0.00	<b></b>	(0.11	(0.11	<b>(0.</b> **	(0.11	<b>(0.</b> **	<b>(0.</b> **	
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		<u>(2.1)</u>	(2.1)	(2.1)	<u>(2.1)</u>	(2.1)	(2.1)	<u>(2.1)</u>	(2.1)	(2.1)	<u>(2.1)</u>	<u>(2.1)</u>	<u>(2.1)</u>	(2.1

Scenario B: E.L.K Transformation Pool with no incremental load page 1

Date: Project #	9-Jun-15 17503							NTRIBUTION on Pool - Esti		NS				
Facility Name: Description: Customer:		Essex County Transmission Rei ontribution Allocation	nforcement											
	Mon Yes	gr 2018	< Mar-31 <u>2019</u>	Mar-31 2020	ded - annualized Mar-31 <u>2021</u>	Mar-31 2022	Mar-31 2023	> Mar-31 <u>2024</u>	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast Load Forecast (MW) Load adjustments (MW) Tariff Applied (\$\text{\$k\text{\$W\text{\$M\$}}} \) Incremental Revenue - \$\text{\$M\$}		o	0.0 0.0 0.0 2.00 0.0	0.0 0.0 0.0 2.00 0.0	0.0 0.0 0.0 2.00 0.0	0.0 0.0 0.0 2.00 0.0	0.0 0.0 0.0 2.00 0.0	6 0.0 0.0 0.0 2.00 0.0	7 0.0 0.0 0.0 2.00 0.0	0.0 0.0 0.0 2.00 0.0	9 0.0 0.0 0.0 2.00 0.0	0.0 0.0 0.0 2.00 0.0	0.0 0.0 0.0 2.00 0.0	0.0 0.0 0.0 2.00
Removal Costs - \$M On-going OM&A Costs - \$M Municipal Tax - \$M Net Revenue/(Costs) before taxes - \$M Income Taxes Operating Cash Flow (after taxes) - \$M	Cumulativ	( ( (	0.0 0.0 0.0 0.0 0.0 (0.0) 0.0 0.0 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0.0 (0.0) (0.0) 0.0 0.0	0. (0. (0. <u>0.</u>
PV Operating Cash Flow (after taxes) - \$M	(A) 5.83	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Expenditures - \$M  Upfront - capital cost before overhead	(B) <u>(1.</u>		1.3) 0.0 1.00 1.3) 0.0 1.3) 0.0 1.3)	0.0 (1.2)	0.0 (1.2)	0.0 (1.2)	0.0 (1.2)	0.0 (1.2)	0.0 (1.2)	0.0 (1.2)	0.0 (1.2)	0.0 (1.2)	0.0 (1.2)	0.0 (1.1)
	Discount	ed Cash Flow Summary												
Economic Study Horizon - Years: Discount Rate - %	25 5.83 Befc Coi	% ore nt	After Cont \$M		Impact \$M									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taxes PV Income Taxes PV CAC Tax Shield PV Capital - Upfront Add: PV Capital Contribution Allocation PV Capital - On-going PV Working Capital PV Surplus / (Shortfall)	(1.3) 0.0	0.0 0.0 0.1 0.0 0.2 (1.3) 0.0 0.0 (1.1)	0.0 0.0 (0.1) 0.0 (0.0) 1.3) 1.3 0.1 0.0 0.0 (0.0)	: <u>-</u>	0.0 (0.2) 1.3									
Profitability Index*  Notes: PV of total cash flow, excluding net capital expenditure & on-go	ing capital & proceeds on disposal.	<b>0.1</b> / PV of net capital expenditure & on-g	(1.0)	on disposal										

# Scenario B: E.L.K Transformation Pool with no incremental load page 2

Date:	9-Jun-15
Project #	17503

# SUMMARY OF CONTRIBUTION CALCULATIONS Transformation Pool - Estimated cost

Facility Name:	Supply to Essex County		ement											
Description:	Capital Contribution Alloc	cation												
Customer:	E.L.K.													
			< I	Project year end	ed - annualized	from In-Service	Date							
	Month Year	Mar-31 <b>2031</b>	Mar-31 <b>2032</b>	Mar-31 2033	Mar-31 2034	Mar-31 2035	Mar-31 2036	Mar-31 2037	Mar-31 2038	Mar-31 2039	Mar-31 <b>2040</b>	Mar-31 <b>2041</b>	Mar-31 <b>2042</b>	Mar-31 2043
5		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast														
Load Forecast (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.0</u> 0.0
T ''(A 1' 1/0/11/04 11)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tariff Applied (\$/kW/Month)		2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0
Incremental Revenue - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Removal Costs - \$M														
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0) (0.0)
Net Revenue/(Costs) before taxes - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Income Taxes		0.0 0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0	<u>0.0</u> (0.0
Operating Cash Flow (after taxes) - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	(0.0)
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFU - Overheads - AFUDC	IDC													
Total upfront capital expenditures														
On-going capital expenditures PV On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1
			1,	1	1	1	1	1,	1,	<u>,,</u>	17	1	1	1

Scenario C **and Scenario** D: Other Participants contract 100% of remaining SECTR Capacity. Allocation of Line Costs

	Contracted	% of Contracted
Distributor Capacity	Capacity (MW)	Capacity
Other SECTR Participants	114.7	95.6%
E.L.K.	5.3	4.4%
TOTAL	120.0	100.0%

Project Costs	
Capital Expenditures	\$ 33.3
Removal Costs	\$ 1.8
Total Costs	\$ 35.1

Allocation of Project Costs by Distributor Capacity	er SECTR rticipants	E.L.K.	Total Costs			
% of Contracted Capacity	95.6%	4.4%		100.0%		
Capital Expenditures	\$ 31.9	\$ 1.5	\$	33.3		
Removal Costs	\$ 1.7	\$ 0.1	\$	1.8		
Total	\$ 33.5	\$ 1.5	\$	35.1		

# Scenario C and Scenario D: Other Participants Contract 100% of remaining SECTR Capacity. Allocation of Transformation Costs

Distributes Conseits	Contracted	% of Contracted
Distributor Capacity	Capacity (MW)	Capacity
Other SECTR Participants	114.7	95.6%
E.L.K.	5.3	4.4%
TOTAL	120.0	100.0%

Project Costs	
Capital Expenditures	\$ 20.2
Removal Costs	\$ -
Total Costs	\$ 20.2

Allocation of Project Costs by Distributor Capacity	SECTR cipants	E.L.K.	Total Costs
% of Contracted Capacity	95.6%	4.4%	100.0%
Capital Expenditures	\$ 19.3	\$ 0.9	\$ 20.2
Removal Costs	\$ -	\$ -	\$ -
Total	\$ 19.3	\$ 0.9	\$ 20.2

Scenario C: E.L.K Line Pool with Other Participants contract 100% of Remaining Capacity page 1

<u>Date:</u> 9-Jur Project # 1750						SUMM		NTRIBUTION ol - Estimated	CALCULATIO	NS				
Facility Name: Description: Customer:	Supply to Essex Cou Capital Contribution A E.L.K.	nty Transmission Reinforce	ement											
	E-E-F	In-Service					· · · · · · · · · · · · · · · · · · ·							
	Month Year	Date < Mar-31 <u>2018</u>	Mar-31 2019	Project year ende Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	-> Mar-31 <u>2024</u>	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast  Load Forecast (MW)  Load adjustments (MW)  Tariff Applied (\$IxWi/Month)  Incremental Revenue - \$M  Removal Costs - \$M  On-going OM&A Costs - \$M  Municipal Tax - \$M  Net Revenue/(Costs) before taxes - \$M  Income Taxes  Operating Cash Flow (after taxes) - \$M  PV Operating Cash Flow (after taxes) - \$M  (A)  Capital Expenditures - \$M  Upfront - capital cost before overheads & AFU  - Overheads  - AFUDC  Total upfront capital expenditures  PV On-going capital expenditures  PV On-going capital expenditures  Total capital expenditures - \$M  PV CAR Residual Tax Shield - \$M  PV Working Capital - \$M  PV Working Capital - \$M  PV Capital (after taxes) - \$M  (B)	Cumulative PV @ 5.83% 0.4	(0.1) (0.0) (0.1) (0.1) (0.1) (1.5) (0.0) (1.5) (0.0) (1.5)	4.0 0.0 4.0 0.86 0.0 (0.0) (0.0) 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2 4.0 0.0 4.0 0.86 0.0 (0.0) 0.0 0.0 0.0 0.0 0.0 0.0 0.0	3 4.0 0.0 4.0 0.08 0.0 0.00 0.00 0.00 0.0	4 4.0 0.0 4.0 0.0 6.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	4.0 0.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	6 4.0 0.0 4.0 0.66 0.0 (0.0) (0.0) 0.0 0.0 0.0 0.0	7 4.0 0.0 4.0 0.86 0.0 (0.0) (0.0) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4.0 0.0 4.0 0.6 0.0 (0.0) 0.0 0.0 0.0 0.0 0.0 0.0	9 4.0 0.0 4.0 0.66 0.0 (0.0) (0.0) 0.0 0.0 0.0 0.0 0.0 0.0	4.0 0.0 4.0 0.86 0.0 (0.0) (0.0) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4.0 0.0 4.0 0.86 0.0 (0.0) 0.0 0.0 0.0 0.0 0.0 0.0	12 4.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(1.0)	(1.5)	(1.5)	(1.4)	(1.4)	(1.4)	(1.3)	(1.3)	(1.3)	(1.3)	(1.2)	(1.2)	(1.2)	(1.2
Economic Study Horizon - Years:	Discounted Cash F	Flow Summary												
Discount Rate - %	5.83%													
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taxes PV CCA Tax Shield PV Capital - Upfront Add: PV Capital - Upfront Add: PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) Profitability Index*  Notes: PV of total cash flow, excluding net capital expenditure & on-going capital	Before   Cont	(1.5) 1.2	After Cont \$M	on disposal	(0.0) (0.1) 1.2									

Scenario C: E.L.K Line Pool with Other Participants contract 100% of Remaining Capacity page 2

Date:	9-Jun-15
Project #	17503

# SUMMARY OF CONTRIBUTION CALCULATIONS Line Pool - Estimated cost

Facility Name:	Supply to Essex County		ement			•								
Description:	Capital Contribution Alloc	ation												
Customer:	E.L.K.													
			: F	Project year end	hozilcunne - ho	from In-Service	Date							
	Month Year	Mar-31 <b>2031</b>	Mar-31 <b>2032</b>	Mar-31 2033	Mar-31 2034	Mar-31 2035	Mar-31 2036	Mar-31 2037	Mar-31 2038	Mar-31 2039	Mar-31 <b>2040</b>	Mar-31 <b>2041</b>	Mar-31 2042	Mar-31 2043
Revenue & Expense Forecast		13	14	15	16	17	18	19	20	21	22	23	24	25
Load Forecast (MW)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4
Load Forecast (MW)  Load adjustments (MW)		4.0	4.0				4.0	4.0	4.0	4.0				
Load adjustments (MW)		<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0</u>
Tariff Applied (\$/kW/Month)			0.86		0.86			0.96	0.96					0.
Incremental Revenue - \$M		0.86	0.00	0.86	0.00	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	<u>0.0</u> 0
Removal Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	U
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0
Municipal Tax - \$M		(0.0) (0.0)	(0.0)	(0.0)	(0.0)	(0.0) (0.0)		(0.0)	(0.0) (0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0. (0.
Net Revenue/(Costs) before taxes - \$M		0.0	0.0	0.0	0.0	0.0	(0.0) 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Income Taxes		(0.0)	(0.0)	(0.0)		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)			(0.0)	
Operating Cash Flow (after taxes) - \$M					(0.0)						(0.0)	(0.0)		(0. 0.
Deperating Cash Flow (after taxes) - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.</u>
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.</u>
Capital Expenditures - \$M  Upfront - capital cost before overheads & AFI - Overheads - AFUDC  Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M  Capital Expenditures - \$M  PV CCA Residual TAX Shield - \$M  PV Capital (after taxes) - \$M  (B)	UDC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(1.2)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.0)	(1.

Scenario C: E.L.K Transformation Pool with Other Participants contract 100% of Remaining Capacity page 1

17503							Transformation							
			ement											
	E.L.K.	accasori												
		In-Service Date	<	Project year ende	ed - annualized	from In-Service	Date	->						
	Month Year	Mar-31 2018	Mar-31 2019	Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	Mar-31 2024 6	Mar-31 2025 7	Mar-31 2026 8	Mar-31 2027 9	Mar-31 2028 10	Mar-31 2029	Mar-31 2030 12
		0.0 0.0 0.0 0.0	4.0 <u>0.0</u> 4.0 <u>2.00</u> 0.1 0.0 <u>(0.0)</u> 0.1 <u>(0.0)</u>	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0)	4.0 <u>0.0</u> 4.0 <u>2.00</u> 0.1 0.0 ( <u>0.0</u> ) 0.1 ( <u>0.0</u> )	4.0 <u>0.0</u> 4.0 <u>2.00</u> 0.1 0.0 ( <u>0.0)</u> 0.1 ( <u>0.0)</u>	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0)	4.0 <u>0.0</u> 4.0 <u>2.00</u> 0.1 0.0 (0.0) 0.1 (0.0)	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) (0.0) (0.0)	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0)	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0)	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0)	4.0 <u>0.0</u> 4.0 <u>2.00</u> 0.1 0.0 ( <u>0.0</u> ) 0.1 ( <u>0.0</u> )	4. <u>0.</u> 4. <u>2.0</u> 0. 0. (0. (0.
	Cumulative PV @ 5.83%	0.0	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.1	<u>0.1</u>	<u>0.1</u>	0.1	0.1	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.
(A)	1.0	<u>0.0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.0	0.0	0.0	<u>0.</u>
s s		(0.9) 0.0 <u>0.0</u> (0.9)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
(B) 1 (A) + (B)	(0.9) 0.1	0.0 <u>0.0</u> (0.9)	<u>(0.8)</u>	(0.7)	(0.7)	(0.6)	(0.5)	(0.5)	<u>(0.4)</u>	(0.4)	(0.3)	(0.3)	(0.2)	<u>(0.</u>
	Discounted Cash F	low Summary												
	25	low Summary												
	5.83%													
	Before Cont \$M													
	1.2													
on-going capital & proce	eds on disposal / PV of net ca	pital expenditure & on-going of	capital & proceeds	on disposal										
	theads & AFUDC s s s M (B) M (A) + (B)	Capital Contribution A E.L.K  Morth Year  Cumulative PV @ 5.83% (A) 1.0  Cheads & AFUDC  S M (B) (0.9) M (A) + (B) 0.1  Discounted Cash F 25 5.83%  Before Cont SM  1.3 0.0 (0.1) (0.3) (0.1) (0.3) (0.9) 0.0 0.0 0.0 1.2	Capital Contribution Allocation E.L.K.  In-Service Date Mar-3-1 Year  Cumulative PV @ 5.83%  (A) 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Cumulative PV @	Capital Contribution Allocation  E.I.K.    In-Service   Date   Mar-31   Mar-31   Mar-31   2020     Year   2018   2019   2020	Capital Corditution Allocation   E.L.K	Capital Contribution Allocation   E.L.K   In-Service   Date   Mar-31   Ma	Capate Contribution Allocation   F.L.K   In-Service   Date   Da	Capital Combission Alexanson   Facility   Facility	Capable Correlation Abboration   F.L.K.	Capacit Combination Also action   FLK.   Project year ended - sanualized from in-Service Date   Capacit Combine   Capa	Capacitic (combination Abscratus)   Capacitic (combination Abscr	Companies Name of Na	Count counts   Count   Count

Scenario C: E.L.K Transformation Pool with Other Participants contract 100% of Remaining Capacity page 2

Date:	9-Jun-15
Project #	17503
-	

SUMMARY OF CONTRIBUTION CALCULATIONS
Transformation Pool - Estimated cost

Facility Name:	Supply to Essex County	Transmission Poinford	omont											
Description:	Capital Contribution Allo		CITICIT											
Customer:	E.L.K.	Cauon												
Customer.	E.L.K.													
			_				_							
						from In-Service								
	Month	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast														
Load Forecast (MW)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Load adjustments (MW)		<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	0.0	0.0	0.0	0.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	<u>0.0</u> 4.0	0.0	0.0	<u>0.0</u> 4.0
					4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0
Tariff Applied (\$/kW/Month)		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00 0.1	2.0
Incremental Revenue - \$M		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.00 0.1
Removal Costs - \$M														
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	
Net Revenue/(Costs) before taxes - \$M		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(0.0 0.1
Income Taxes		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Operating Cash Flow (after taxes) - \$M		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(0.0 0.1
Operating Cash Flow (after taxes) - pin		0.1	<u>0.1</u>	0.1	0.1	0.1	0.1	0.1	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.1	0.1	0.1
PV Operating Cash Flow (after taxes) - \$M (a	A)	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & /	AFUDC													
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (E	В)													
Cumulative PV Cash Flow (after taxes) - \$M (A) + (I	В)	(0.2)	(0.1)	(0.1)	(0.1)	(0.0)	(0.0)	0.0	0.0	0.1	0.1	0.1	0.1	<u>0.1</u>
	•													

Scenario D: E.L.K Line Pool with Other Participants contract 100% of Remaining Capacity, No Incremental Load page 1

Date: 15-Jun-15 Project# 17503						SUMN		NTRIBUTION ol - Estimated		ONS				
Facility Name: Description: Customer:	Supply to Essex Co Capital Contribution E.L.K.	unty Transmission Reinforce Allocation	ement											
	Month Year	In-Service	Mar-31 2019	Project year ende Mar-31 2020 2	ed - annualized Mar-31 2021 3	from In-Service Mar-31 2022 4	Date Mar-31 <u>2023</u> 5	-> Mar-31 <u>2024</u> 6	Mar-31 2025 7	Mar-31 2026 8	Mar-31 2027 9	Mar-31 2028 10	Mar-31 2029	Mar-31 2030
evenue & Expense Forecast Load Forecast (MW) Load adjustments (MW)  Tariff Applied (\$A:W/Month) Incremental Revenue - \$M Removal Costs - \$M On-going OM&A Costs - \$M Municipal Tax - \$M Income Taxes Inc	Cumulative PV ⊚	(0.1) 0.0 (0.1) 0.0 (0.1)	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.86 0.0 (0.0) (0.0) 0.0 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.0 0.86 0.0 (0.0) (0.0) (0.0) 0.0 0.0	0.0 0.0 0.8 0.0 0.0 (0.0 0.0 0.0
V Operating Cash Flow (after taxes) - \$M (A)	5.83%	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.</u>
apital Expenditures - \$M  Upfront - capital cost before overheads & AFU  - Overheads  - AFUDC  Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M  apital Expenditures - \$M  V CCA Residual Tax Shield - \$M  V Working Capital - \$M  V Capital (after taxes) - \$M  (B)  umulative PV Cash Flow (after taxes) - \$M  (A) + (B)	(1.5) (1.4)	(1.5) 0.0 0.0 (1.5) 0.0 (1.5) 0.0 (0.0) (1.5)	0.0 (1.5)	0.0 (1.5)	0.0 (1.5)	0.0 (1.5)	0.0 (1.5)	0.0 (1.5)	0.0 (1.5)	0.0 (1.5)	0.0 (1.4)	0.0 (1.4)	0.0 (1.4)	0./ (1./
	Discounted Cash	Flow Summary												
conomic Study Horizon - Years: iscount Rate - %	25 5.83% Before Cont		After Cont		Impact									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taxes PV CCA Tax Shield PV Capital - Upfront Add: PV Capital Contribution Allocation PV Capital - On-going PV Working Capital PV Surplus / (Shortful) Profitability Index*	(1.5) 0.0 (0.1) (0.0) 0.0 0.2 (1.5) 0.0 (1.5) 0.0 (0.0) (1.4)	(1.5) 1.6 	0.0 (0.1) (0.1) (0.0) (0.0) (0.0) (0.0) (0.0) (0.0) (1.0) (1.0)	=	\$M (0.0) (0.2) 1.6									

Scenario D: E.L.K Line Pool with Other Participants contract 100% of Remaining Capacity, No Incremental Load page 2

Date:	15-Jun-15
Project#	17503

SUMMARY OF CONTRIBUTION CALCULATIONS Line Pool - Estimated cost

Facility Name: Description: Customer:	Supply to Essex Count Capital Contribution Al E.L.K.	y Transmission Reinford ocation												
	Month	Mar-31	Mar-31	Project year end Mar-31	Mar-31	Mar-31								
	Year	2031 13	2032 14	2033 15	2034 16	2035 17	2036 18	2037 19	2038 20	2039 21	2040 22	2041 23	2042 24	2043 25
Revenue & Expense Forecast		13	14	15	16	"	10	19	20	21	22	23	24	25
Load Forecast (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Load adjustments (MW)		0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	<u>0.</u> 0.
Tariff Applied (\$/kW/Month)		0.86	0.86	0.86 0.0	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86 0.0	0.8
Incremental Revenue - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Removal Costs - \$M														
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Net Revenue/(Costs) before taxes - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Income Taxes		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.</u> (0.
Operating Cash Flow (after taxes) - \$M		0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
PV Operating Cash Flow (after taxes) - \$M (A)		0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	<u>(0.</u>
Capital Expenditures - \$M  Upfront - capital cost before overheads & AFUDC														
Overheads     AFUDC  Total upfront capital expenditures														
On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														

Scenario D: E.L.K Transformation Pool with Other Participants contract 100% of Remaining Capacity, No Incremental Load page 1

Date:	15-Jun-15							MARY OF CO			NS				
Project #	17503							Transformati	on Pool - Esti	imated cost					
Facility Name: Description:		Supply to Essex Cour Capital Contribution A	nty Transmission Reinford	ement											
Customer:		E.L.K.	Allocation												
			In-Service												
		Month	Date Mar-31	< Mar-31	Project year end Mar-31	ed - annualized Mar-31	from In-Service Mar-31	Date Mar-31	-> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
		Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenue & Expense Forecast			0	1	2	3	4	5	6	7	8	9	10	11	12
Load Forecast (MW)				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Load adjustments (MW)				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tariff Applied (\$/kW/Month)				0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00	0.0 2.00
Incremental Revenue - \$M				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Removal Costs - \$M			0.0												
On-going OM&A Costs - \$M Municipal Tax - \$M			0.0	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Net Revenue/(Costs) before taxes - \$M			0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Income Taxes			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Cash Flow (after taxes) - \$M		Cumulative PV @	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		5.83%													
PV Operating Cash Flow (after taxes) - \$M	(A)	0.1	<u>0.0</u>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Expenditures - \$M															
Upfront - capital cost before overheads	s & AFUDC		(0.9)												
- Overheads			0.0												
<ul> <li>- AFUDC</li> <li>Total upfront capital expenditures</li> </ul>			0.0 (0.9)												
On-going capital expenditures			(0.9)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures			0.0												
Total capital expenditures - \$M Capital Expenditures - \$M			(0.9)												
PV CCA Residual Tax Shield - \$M PV Working Capital - \$M			0.0 <u>0.0</u>												
PV Capital (after taxes) - \$M	(B)	(0.9)	(0.9)												
Cumulative PV Cash Flow (after taxes) - \$M (A)		(0.8)	(0.9)	(0.9)	(0.9)	(0.9)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)
Camadation Countries (and taxes) \$ in (7)	, . ( <del>5</del> )	10.07	10.07	(0.0)	10.07	(0.07	10.01	(0.0)	10.01	10.07	(0.0)	(0.0)	10.01	(0.0)	(0.0)
		Discounted Cash F	Ilaur Cummanı												
			low Summary												
Economic Study Horizon - Years:		25													
Discount Rate - %		5.83%													
		Before		After											
		Cont		Cont	_	Impact									
		\$M		\$M		\$M									
PV Incremental Revenue		0.0		0.0											
PV OM&A Costs PV Municipal Tax		0.0 (0.1)		0.0 (0.1)											
PV Income Taxes		0.0		0.0		(0.0)									
PV CCA Tax Shield		0.1		(0.0)		(0.1)									
PV Capital - Upfront  Add: PV Capital Contribution Allocation		0.9) <b>0.0</b> (0.9)	(0.9) <b>0.9</b>	0.0		0.9									
PV Capital - On-going	-	0.0		0.0		0.3									
PV Working Capital PV Surplus / (Shortfall)		0.0		0.0	_	0.8									
		<del></del>	•		-										
Profitability Index*		0.1		(1.0)											
Notes:	an annital 9 ac	ada an dinamal / DV ad	nial aunanditura 9 av	anital 9 areas - 1	an diamond										
*PV of total cash flow, excluding net capital expenditure & on-goir	ng capital & procei	eus un disposal/Pv of net ca	pital expenditure & on-going	apital & proceeds	un uisposai										

Scenario D: E.L.K Transformation Pool with Other Participants contract 100% of Remaining Capacity, No Incremental Load page 2

Date:	15-Jun-15
Projec	# 17503

# SUMMARY OF CONTRIBUTION CALCULATIONS Transformation Pool - Estimated cost

Facility Name: Description: Customer:	Capital Contribution Allo	Transmission Reinford ocation	cement											
Customer:	E.L.K.													
							_							
		Mar-31	< F Mar-31	Project year end Mar-31	led - annualized Mar-31	from In-Service Mar-31	Date Mar-31	-> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Month Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
	T COL	13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast		10		.0	.0	**	10	15	20	2.		20	2-7	20
Load Forecast (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Load adjustments (WWV)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Tariff Applied (\$/kW/Month)														
Incremental Revenue - \$M		2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	<u>2.0</u>
Removal Costs - \$M														-
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Net Revenue/(Costs) before taxes - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Income Taxes							0.0	0.0		0.0				
Operating Cash Flow (after taxes) - \$M		0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	<u>0.</u> (0.
,,,,,		_	_	_	_	_	_	_	_	_	_		_	_
PV Operating Cash Flow (after taxes) - \$M (A)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC														
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(8.0)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	<u>(0.</u>

Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.6 Page 1 of 1

1	<u>UNDERTAKING JT1.6</u>
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3	<u>Undertaking</u>
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5	"To file the Essex Energy report."
6	
7	<u>Response</u>
8	
9	This request was for a load forecast report within a letter titled "Load Forecasting -
10	Leamington/Kingsville Growth" provided by Essex Energy Corporation to Hydro One in
11	June, 2012. Hydro One has requested, but not yet received permission from Essex
12	Energy Corporation to file this report, but will do so if that permission is received.

Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.7 Page 1 of 1

#### **UNDERTAKING JT1.7**

1 2 3

#### **Undertaking**

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"To provide examples of situations in the past where in an economic evaluation HONI has included revenues from load that was transferred from an old overloaded location to a new location."

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#### **Response**

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The following are two examples where costs and revenues relating to the overload at an existing facility were part of the economic evaluation for the new facility. In the first example, the existing load exceeded the station's total normal supply capacity; and in the second example, the existing load exceeded the supply line's total normal supply capacity.

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## Woodstock East Transmission Line Upgrade Project (EB-2009-0079)

Overload at the existing Woodstock TS was included in the economic evaluation for the new Commerce Way TS to evaluate the capital contribution required from the connecting transmission customers.

202122

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### Midtown Project (EB-2009-0425)

Overload on the existing supply line was included in the economic evaluation for the new supply line to evaluate the capital contribution required from the connecting transmission customer.

Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.8 Page 1 of 2

# **UNDERTAKING JT1.8**

1 2 3

# **Undertaking**

4 5

"To provide a map of the feeders coming out of Leamington TS, with an identification of which of those feeders are going to be transferred over to Leamington TS."

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# **Response**

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Hydro One interprets this question as a request for a map with the proposed distribution feeder configuration in the area, identifying new feeders and existing feeders which will be transferred to the Leamington TS.

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Following is a map with a representation of Hydro One's current distribution plan for the Leamington area. The new Leamington TS is marked in the upper middle section of the map and Kingsville TS, at the lower left edge. The plan at Leamington involves "breaking-up" the existing Kingsville TS M2, 3, 4, 6, 8, 9 and 10 distribution feeders into smaller sections, and building new line to connect some of these feeder sections to various new feeders from Leamington TS. As a result, some of the Kingsville feeders will be completely transferred to Leamington TS, some partially, some not at all.

202122

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The following Kingsville feeders, shown in blue on the map, will be completely transferred to Leamington TS:

- M3 (becomes part of the Leamington M5, M6, M7 feeders),
- M8 (becomes part of the Learnington M8 feeder),
- M9 (becomes part of the Leamington M3, M4 feeders), and
- M10 (becomes part of the Learnington M1, M2, M7 feeders).

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The following Kingsville feeders shown in green, will be partially transferred to Leamington TS (i.e., some of their load will remain on Kingsville TS):

- M2 (becomes part of the Learnington M6, M7 feeders),
- M6 (becomes part of the Leamington M4, M5, M6 feeders) and
- M4 (becomes part of the Leamington M6 feeder).

333435

The Kingsville feeders M1, M7 and M5, shown in orange, will not be transferred to Leamington TS.

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All of the above are 27.6 kV. (The existing 8 kV lines, which are unaffected by this project, have been removed from the map, for greater clarity).

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It should be understood that this distribution configuration is still preliminary as there may be some changes to the location of feeders before CCRAs are executed.

Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.8 Page 2 of 2

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# MAP OF HYDRO ONE DISTRIBUTION FEEDERS PROPOSED FOR THE LEAMINGTON AREA



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Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.9 Page 1 of 1

# **UNDERTAKING JT1.9**

# **Undertaking**

"To clarify the question before answering it." [Please refer to pages 194-195 of the Transcript of the Technical Conference]

# Response

Hydro One has clarified the undertaking with Ms. Zarnett to be as follows:

How does the distribution of the Kingsville load below 120 MW among the distributors affect the calculation of the allocation of the load in excess of 120 MW to the distributors for the purposes of the economic evaluation and capital contribution calculations and what is the <u>basis</u> of the distribution of the Kingsville load below 120 MW among the distributors?

The 120 MW was allocated for economic purposes based on the 2018 non-coincident peak load forecast of the individual distributors. For example, if a distributor had 10% of the sum of the non-coincident load forecast, it would get 10% of the 120 MW current capacity. New ST customer load is excluded since they these customers would connect only after Leamington TS comes into service. The allocation of 120 MW is shown as current capacity in Exhibit I-P2, Tab 2, Schedule 9, Attachment 1, Tables 23 to 26 as follows: 62.2 MW (Hydro One Distribution, Table 23); 29.4 MW (Essex Power Lines, Table 24); 26.2 MW (ELK, Table 25); and 2.2 MW (Entegrus, Table 26).

The allocation of load in excess of 120 MW is shown as contracted capacity up to 2043 in Exhibit I-P2, Tab 2, Schedule 9, Attachment 1, Table 1, which include both new load and overload. This allocation is based on the extent to which each distributor's non-coincident load forecast exceeds its current capacity.

Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.10 Page 1 of 1

#### **UNDERTAKING JT1.10** 1 2 **Undertaking** 3 4 "To make best efforts to provide the information with the distribution-related costs with 5 the Division TSR, similar to coming up with the 19.3 for SECTR." 6 7 **Response** 8 9 Hydro One interprets this request as as "best efforts to provide the distribution-related 10 costs associated with the Division TS (the non-preferred alternative to the Leamington 11 TS), which are similar to those comprising \$19.3M of distribution costs related to the 12 Leamington TS project." 13 14 In response, Hydro One's distribution costs for the Division TS alternative would be 15 approximately \$10M. 16

Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.11 Page 1 of 3

# **UNDERTAKING JT1.11**

1 2 3

# **Undertaking**

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"To provide an example how a future benefiting customer's financial contribution would be calculated for a new transmission customer and a new sub-transmission customer of Hydro One, going down ten years."

7 8 9

# **Response**

10 11

Hydro One has provided an example of a future new 5MW sub-transmission customer connecting within Hydro One Distribution's service territory in Year 10. For this example it is assumed that:

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a) the new ST has 5MW of load every year from year 10 at a PLI of 1.0

16 17 b) Hydro One Distribution would be required to contract a further 5MW of capacity from Hydro One Transmission.

18 19

The scenario further assumes that all the initial participants contracted capacity and costs are equal to amounts filed in Exhibit I-P2, Tab 2, Schedule 9c).

202122

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Additional forecasted 5MW ST load applied to economic evaluation supporting the capital contribution required to be paid to Hydro One Transmission would trigger a total \$1.7M refund from Hydro One Transmission as per 6.5.3 of the TSC. Details of this calculation can be reviewed on Table 3 and 15 in Appendix 1.

2526

Transmission Capital Contribution Required (\$M)	Line Payment (Refund)	Transformation Payment (Refund)	Total
Initial Capital Contribution from Distribution to Transmission (Exhibit B, Tab 4, Schedule 3)	31.2	8.2	39.4
10 Year True Up Refund	(0.5)	(1.2)	(1.7)
Total	30.7	7.0	37.7

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The next step would be to recalculate, at the distribution level, portions of this capital contribution to all distributors operating in Hydro One Distribution's service area. The costs would require a reallocation due to Hydro One Distribution requiring an additional

Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.11 Page 2 of 3

5 MW of SECTR capacity. Please refer to Table 4 in Appendix 1 for the reallocation of

Line Costs and Table 16 in Appendix 1 for the reallocation of Transformation Costs. The

resulting true up payment/refund to each of the embedded distributors follows.

4	1	

Allocation to Distributors (\$M)	Line Payment / (Refund) \$M	Transformation Payment / (Refund) \$M	Total Payment / (Refund) \$M
Hydro One Distribution <sup>1</sup>	0.0	(1.0)	(1.0)
Essex Power	(0.3)	(0.1)	(0.4)
E.L.K.	(0.2)	(0.1)	(0.3)
Entegrus	(0.0)	(0.0)	(0.1)

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Hydro One Distribution would then further apportion its share of the adjusted capital contribution within its own service area between the original new ST customers, the new 5 MW ST customer and its ratepayers and other STs. Please refer to Table 10 in Appendix 1 for the reallocation of Hydro One Distribution's portion of Line Costs and Table 22 in Appendix 1 for the reallocation of Hydro One Distribution's portion of Transformation Costs. The resulting allocation would result in a payment from the new 5MW ST customer and refunds to both Hydro One Distribution's ratepayers and the original new ST customers.

14

Allocation to Hydro One	Line Payment	Transformation	Payment / (Refund)
Distribution's New STs	/ (Refund) \$M	Payment / (Refund) \$M	\$M
New ST Customers	(1.5)	(0.9)	(2.4)
New 5MW HONI ST in Year 10	3.2	1.0	4.2

15

<sup>&</sup>lt;sup>1</sup> The refund calculations for Hydro One Distribution assume that any capital contribution allocation variances are applied to the distribution pool of the upstream distributor allocating the capital contribution (i.e., Hydro One Distribution in this case). See Exhibit I-P2-2-9, pg. 4 of 45.

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If a new Transmission customer directly connected to the Leamington TS and utilized 1 5MW of capacity, the capital contribution refund provision in section 6.3.17 (b) of the 2 TSC would apply. However, Hydro One notes that section 6.3.17A of the TSC, which 3 sets out the methodology for such refund calculations, may not be consistent with certain 4 aspects of the economic evaluation methodology in Appendix 5 of the TSC and may also 5 result in cross-subsidization among customers. Therefore, to maintain consistency and to 6 avoid cross-subsidization, Hydro One is proposing that it would treat all customers 7 identically, and apply the proposed methodology to all participants. 8 Connection Customer, the contribution would be mathematically equivalent contribution 9 to one that connects within embedded territory and result in refunds for all other project 10 participants. 11

# Table 1: Summary of Capital Contribution from Distributors

# Capital contribution required to be paid to Hydro One Transmission

## In-service

Line Payment (Refund)

Transformation
Payment (Refund)

31.2

8.2

# New 5MW HONI ST in Year 10

Line Payment (Refund) 1	Transformation Payment (Refund)	
(0.5)	(1.2)	

# Capital Contribution to Transmission (\$M)

## **Allocation between Distributors**

#### In-service

	Contracted	% of Contracted
Distributor Capacity	Capacity (MW)	Capacity
Hydro One Distribution	71.8	85.6%
Essex Power	5.9	7.1%
E.L.K.	5.3	6.3%
Entegrus	0.9	1.0%
TOTAL	83.9	100.0%

#### New 5MW HONI ST in Year 10

INCM DIVING HOME DE INFECT TO		
Contracted % of Contract		
Capacity (MW)	Capacity	
76.8	86.4%	
5.9	6.7%	
5.3	5.9%	
0.9	1.0%	
88.9	100.0%	

#### In-service

Attributed Project Costs		
(Input to Economic		
Evaluation) (\$M)	Line <sup>3</sup>	Transformation <sup>4</sup>
Hydro One Distribution	30.0	17.3
Essex Power	2.5	1.4
E.L.K.	2.2	1.3
Entegrus	0.4	0.2
TOTAL	35.1	20.2

## **New 5MW HONI ST in Year 10**

Line <sup>5</sup>	Transformation <sup>6</sup>
30.3	17.5
2.3	1.3
2.1	1.2
0.3	0.2
35.1	20.2

## In-service

Capital Contribution (\$M) - Allocation based upon Economic Evaluation	Line <sup>7</sup>	Transformation 8
Hydro One Distribution	26.3	6.0
Essex Power	2.2	0.5
E.L.K.	1.8	0.2
Entegrus	0.3	0.1
TOTAL	30.7	6.8

# New 5MW HONI ST in Year 10

14CW SIVIVV HOIVI ST III TEAL 10		
	Transformation	
Line Payment	Payment (Refund)	
(Refund) <sup>9</sup>	10	
1.4	(0.9)	
(0.3)	(0.1)	
(0.2)	(0.1)	
(0.0)	(0.0)	
0.9	(1.1)	

<sup>&</sup>lt;sup>1</sup> JT 1.11 Table 3

<sup>&</sup>lt;sup>2</sup> JT 1.11 Table 15

<sup>&</sup>lt;sup>3</sup> I-P2-2-9 -1 Table 2

<sup>&</sup>lt;sup>4</sup> I-P2-2-9 -1 Table 13

<sup>&</sup>lt;sup>5</sup> JT 1.11 Table 4

<sup>&</sup>lt;sup>6</sup> JT 1.11 Table 16

<sup>&</sup>lt;sup>7</sup> I-P2-2-9 -1 Table 7

<sup>&</sup>lt;sup>8</sup> I-P2-2-9 -1 Table 18

<sup>&</sup>lt;sup>9</sup> JT 1.11 Table 9

<sup>&</sup>lt;sup>10</sup> JT 1.11 Table 21

Table 2: Summary of Capital Contribution from Hydro One New ST Customers

# Hydro One's Apportion its share of the adjusted capital contribution

## In-service

	Contracted	% of Contracted	
Distributor Capacity	Capacity (MW)	Capacity	
Hydro One Distribution			
Ratepayers	36.1	50.2%	
New ST Customers	35.8	49.8%	
New 5MW HONI ST in Year			
10	0.0	0.0%	
TOTAL	71.8	100.0%	

#### New 5MW HONI ST in Year 10

New Sivivi no	INI 31 III Teal 10
Contracted	% of Contracted
Capacity (MW)	Capacity
36.1	47.0%
35.8	46.5%
5.0	6.5%
76.8	100.0%

#### In-service

	111-30	IVICE
Attributed Project Costs		
(Input to Economic		
Evaluation) (\$M)	Line <sup>1</sup>	Transformation <sup>2</sup>
Hydro One Distribution		
Ratepayers	15.1	8.7
New ST Customers	15.0	8.6
New 5MW HONI ST in Year		
10	0.0	0.0
TOTAL	30.0	17.3

# New 5MW HONI ST in Year 10

Line <sup>3</sup>	Transformation <sup>4</sup>
14.2 14.1	8.2 8.1
2.0	1.1
30.3	17.5

# In-service

	111 50	IVICE
Capital Contribution (\$M) - Allocation based upon Economic Evaluation	Line <sup>5</sup>	Transformation <sup>6</sup>
Hydro One Distribution		
Ratepayers	13.8	4.5
New ST Customers	12.1	0.6
New 5MW HONI ST in Year		
10	0.0	0.0
TOTAL	26.0	5.1

# New 5MW HONI ST in Year 10

11011 511111 110	11. 0 1 III 1 Cai 20
Line Payment (Refund) <sup>7</sup>	Transformation Payment (Refund) 8
(1.6)	(0.9)
(1.5)	(0.9)
, ,	
3.2	1.0
0.1	(0.8)

<sup>&</sup>lt;sup>1</sup> I-P2-2-9 -1 Table 8

<sup>&</sup>lt;sup>2</sup> I-P2-2-9 -1 Table 19

<sup>&</sup>lt;sup>3</sup> JT 1.11 Table 10

<sup>&</sup>lt;sup>4</sup> JT 1.11 Table 22

<sup>&</sup>lt;sup>5</sup> I-P2-2-9 -1 Table 11

<sup>&</sup>lt;sup>6</sup> I-P2-2-9 -1 Table 22

<sup>&</sup>lt;sup>7</sup> JT 1.11 Table 14

<sup>&</sup>lt;sup>8</sup> JT 1.11 Table 26

Table 3: Line Pool Capital Contribution Contribution from Hydro One Distribution to Transmission Page 1

Date:         9-Jun-15           Project #         17503	5					SUMI		NTRIBUTION Pool - 2nd true		NS				
									•					
Facility Name:	Supply to Essex County		ement											
Description: Customer:	Line Pool Capital Contrib Hydro One Distribution	ution												
Gustomer.	riyaro One Distribution	In-Service												
			ζ	Project year end	ed - annualized	from In-Service	Date	->						
	Month Year	Mar-31 2018 0	Mar-31 2019	Mar-31 2020 2	Mar-31 2021 3	Mar-31 2022 4	Mar-31 2023 5	Mar-31 2024 6	Mar-31 2025 7	Mar-31 2026 8	Mar-31 2027 9	Mar-31 2028 10	Mar-31 2029	Mar-31 2030 12
Revenue & Expense Forecast		· ·												
Load Forecast (MW)			38.2	39.2	40.1	41.0	42.0	42.9	43.9	44.8	45.8	46.8	47.7	48.
Load adjustments (MW)			<u>0.0</u> 38.2	<u>0.0</u> 39.2	<u>0.0</u> 40.1	<u>0.0</u> 41.0	<u>0.0</u> 42.0	<u>0.0</u> 42.9	<u>0.0</u> 43.9	<u>0.0</u> 44.8	<u>0.0</u> 45.8	<u>5.0</u> 51.8	<u>5.0</u> 52.7	<u>5.</u> 53.
Tariff Applied (\$/kW/Month)			0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.8
Incremental Revenue - \$M			0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.
Removal Costs - \$M		(1.8)												
On-going OM&A Costs - \$M		0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Municipal Tax - \$M			(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	<u>(0.</u>
Net Revenue/(Costs) before taxes - \$M		(1.8)	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0
Income Taxes Operating Cash Flow (after taxes) - \$M		<u>0.5</u> (1.3)	0.2 0.4	0.4 0.6	0.4 0.6	0.3 0.6	0.3 0.6	0.3 0.5	0.2 0.5	0.2 0.5	0.2 0.5	0.1 0.5	0.1 0.5	<u>0.</u> 0.
operating each rion (and taxoo) tim	Cumulative PV @	11.07	<u> </u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0	<u>0.0</u>	0.0	<u>0.0</u>	<u>0.0</u>	<u></u>
	5.83%													
PV Operating Cash Flow (after taxes) - \$M (A)	5.5	(1.3)	0.4	0.6	<u>0.5</u>	<u>0.5</u>	0.4	0.4	0.4	0.3	<u>0.3</u>	0.3	0.3	0.
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC - Overheads	;	(29.6) (2.7)												
- Overneads - AFUDC		(2.7) (1.0)												
Total upfront capital expenditures		(33.3)												
On-going capital expenditures		()	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
PV On-going capital expenditures		0.0												
Total capital expenditures - \$M		(33.3)												
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M		0.1												
PV Working Capital - \$M		(0.0)												
PV Capital (after taxes) - \$M (B)	(33.2)	(33.2)												
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(27.7)	(34.5)	(34.1)	(33.5)	(33.0)	(32.5)	(32.1)	(31.7)	(31.3)	(31.0)	(30.7)	(30.4)	(30.1)	(29.
						1								
	Discounted Cash Flor	w Summary												
Economic Study Horizon - Years:	25													
Discount Rate - %	5.83%													
	Before Cont		After Cont		Impact									
	\$M	-	\$M	_	\$M									
PV Incremental Revenue	6.8		6.8											
PV OM&A Costs	(2.0)		(2.0)											
PV Municipal Tax PV Income Taxes	(1.9) (0.8)		(1.9) (0.8)		0.0									
PV Income Taxes PV CCA Tax Shield	(0.8)		0.8)		(3.3)									
PV Capital - Upfront	(33.3)	(33.3)												
Add: PV Capital Contribution	0.0 (33.3) 0.0	30.9	(2.4)		30.9									
PV Capital - On-going PV Working Capital	(0.0)		(0.0)											
PV Surplus / (Shortfall)	(27.7)	-	0.0	=	27.7									
Profitability Index*	0.2		1.0											
Notes:	second on Economic Paristers		positol 9 c	on dianas-1										
*PV of total cash flow, excluding net capital expenditure & on-going capital & p	ruceeus on disposal / PV of net capital	expenditure & on-going of	apital & proceeds	un disposal										

Table 3: Line Pool Capital Contribution Contribution from Hydro One Distribution to Transmission Page 2

(29.6)

(29.4)

(29.2)

(29.0)

(28.8)

(28.6)

(28.5)

(28.3)

(28.2)

(28.0)

(27.9)

(27.8)

(27.7)

Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)

Date:	9-Jun-15						SUMI	MARY OF CO	NTRIBUTION	CALCULATIO	NS				
Project #	17503							Line F	Pool - 2nd true	e-up					
Facility Name:	Supp	ly to Essex County Transm	nission Reinford	ement											
Description:		Pool Capital Contribution													
Customer:	Hydro	One Distribution													
				< F	Project year end	lad appublizad	from In Comina	Date							
		Month	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
		Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
		r cui	13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast															
Load Forecast (MW)			49.7	50.6	51.6	52.6	53.7	54.6	55.5	56.5	57.6	58.6	59.6	60.7	61.8
Load adjustments (MW)			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
			54.7	55.6	56.6	57.6	58.7	59.6	60.5	61.5	62.6	63.6	64.6	65.7	66.8
Tariff Applied (\$/kW/Month)			0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Incremental Revenue - \$M			0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Removal Costs - \$M															
On-going OM&A Costs - \$M			(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Municipal Tax - \$M			(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1
Net Revenue/(Costs) before taxes - \$M			0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Income Taxes			0.1	0.1	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)	(0.1
Operating Cash Flow (after taxes) - \$M			<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	0.5
PV Operating Cash Flow (after taxes) - \$M	(A)		0.2	<u>0.2</u>	0.2	0.2	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.1
Capital Expenditures - \$M															
Upfront - capital cost before overheads &	AFUDC														
- Overheads															
- AFUDC															
Total upfront capital expenditures															
On-going capital expenditures			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures															
Total capital expenditures - \$M															
Capital Expenditures - \$M															
PV CCA Residual Tax Shield - \$M															
PV Working Capital - \$M															
= -	B)														

Table 3: Line Pool Capital Contribution Contribution from Hydro One Distribution to Transmission Page 3

Capital Contributions				
Date itial economic evaluation 2018 st true-up 2023		PV of Cont \$M	Previous Cont Payments \$M	Current Cont / (Credit) \$M
Initial economic evaluation	2018	31.2	31.2	
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.3)		(0.5)
Total		30.9	31.2	(0.5)

Table 4: Allocation of Line Project Costs to Distributors

	Contracted	% of Contracted
Distributor Capacity	Capacity (MW)	Capacity
Hydro One Distribution	76.8	86.4%
Essex Power	5.9	6.7%
E.L.K.	5.3	5.9%
Entegrus	0.9	1.0%
TOTAL	88.9	100.0%

Project Costs	
Capital Expenditures	\$ 33.3
Removal Costs	\$ 1.8
Total Costs	\$ 35.1

Allocation of Project Costs by Distributor Capacity	Hydro One Distribution	Essex Powerline	s	E.L.K.	Entegrus	Total Costs
% of Contracted Capacity	86.49	6.7	%	5.9%	1.0%	100.0%
Capital Expenditures	\$ 28.8	3 \$ 2.	2 \$	2.0	\$ 0.3	\$ 33.3
Removal Costs	\$ 1.5	5 \$ 0.	1 \$	0.1	\$ 0.0	\$ 1.8
Total	\$ 30.3	\$ \$ 2.	3 \$	\$ 2.1	\$ 0.3	\$ 35.1

Table 5: Line Pool Economic Contribution from Hydro One Distribution Page 1

Date:         9-Jun-1:           Project #         17503	5					SUMN		ONTRIBUTION CALCULATIONS Pool - 2nd true-up									
Facility Name: Description:	Supply to Essex County Capital Contribution Alloc		ement														
Customer:	Hydro One Distribution	adori															
		In-Service Date «															
	Month Year	Mar-31 2018	Mar-31 2019	Project year ende Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	-> Mar-31 <u>2024</u>	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030			
Revenue & Expense Forecast  Load Forecast (MW) Load adjustments (MW)  Tariff Applied (\$\( \) \(\	Cumulative PV @ 5.83% 4.5	(1.5) 0.0 (1.5) 0.4 (1.1) (28.8) 0.0 0.0 (28.8) 0.0 (28.8)	29.0 0.0 29.0 0.86 0.3 (0.0) 0.11 0.2 0.3 0.3	29.9 0.0 29.9 0.86 0.3 (0.0) (0.1) 0.2 0.4 0.5 0.5	3 30.9 0.0 0.0 30.9 0.86 0.3 (0.0) (0.1) 0.2 0.3 0.5 0.4	31.8 0.0 31.8 0.86 0.3 (0.0) (0.11 0.2 0.3 0.5 0.4	32.7 0.0 32.7 0.86 0.3 (0.0) (0.1) 0.2 0.3 0.5	33.7 0.00 33.7 0.86 0.3 (0.0) (0.11 0.2 0.2 0.4	7 34.6 0.0 34.6 0.86 0.4 (0.0) (0.1) 0.2 0.2 0.4  0.3	8 35.6 0.0 35.6 0.86 0.4 (0.0) 0.1) 0.2 0.2 0.4  0.3	9 36.5 0.0 36.5 0.86 0.4 (0.0) (0.1) 0.2 0.2 0.4 0.2	10 41.8 0.0 41.8 0.86 0.4 (0.0) (0.1) 0.3 0.1 0.4 0.2	42.8 0.0 42.8 0.86 0.4 (0.0) (0.1) 0.3 0.1 0.4 0.2	43.7 0.0 43.7 0.86 0.5 (0.0 (0.1) 0.3 0.1 0.4			
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(24.2)	(29.8)	(29.5)	(29.0)	(28.6)	(28.2)	(27.8)	(27.5)	(27.2)	(26.9)	(26.7)	(26.4)	(26.2)	(26.0			
Francis Out to Hadron Wasse	Discounted Cash Flor	v Summary															
Economic Study Horizon - Years:  Discount Rate - %	25 5.83%																
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taxes PV CCA Tax Shield PV Capital - Upfront Add: PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) Profitability Index*  Notes:  "PV of total cash flow, excluding net capital expenditure & on-going capital & p	Before   Cont   SM	(28.8) 27.1	After Cont SM 5.5 (1.7) (1.6) (0.6) 0.2 (1.7) 0.0 (0.0) 0.0 1.0	on disposal	0.0 (2.9) 27.1 24.2												

Table 5: Line Pool Economic Contribution from Hydro One Distribution Page 2

Date:	9-Jun-15
Project#	17503

Facility Name: Description: Customer:	Supply to Essex County Tra Capital Contribution Allocati Hydro One Distribution		ement											
	Month Year	Mar-31 <b>2031</b>	P Mar-31 <b>2032</b>	roject year end Mar-31 2033	led - annualized Mar-31 2034	from In-Service Mar-31 2035	Date Mar-31 2036	-> Mar-31 <u>2037</u>	Mar-31 2038	Mar-31 2039	Mar-31 2040	Mar-31 <b>2041</b>	Mar-31 2042	Mar-31 2043
		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast														
Load Forecast (MW)		44.7	45.6	46.6	47.6	48.6	49.6	50.4	51.4	52.4	53.5	54.5	55.5	56.6
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tariff Applied (\$/kW/Month)		44.7	45.6	46.6	47.6	48.6	49.6	50.4	51.4	52.4	53.5	54.5	55.5	56.6
		0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86 0.6
Incremental Revenue - \$M Removal Costs - \$M		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Net Revenue/(Costs) before taxes - \$M		0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Income Taxes		<u>0.1</u>	0.1	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	
Operating Cash Flow (after taxes) - \$M		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	(0.1 0.4
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.1
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC - Overheads - AFUDC Total upfront capital expenditures														
Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(25.8)	(25.6)	(25.5)	(25.3)	(25.1)	(25.0)	(24.9)	(24.8)	(24.6)	(24.5)	(24.4)	(24.3)	(24.2

Table 5: Line Pool Economic Contribution from Hydro One Distribution Page 3

Capital Contributions		PV of	Previous	Current
	Date	Cont	Cont Payments	Cont / (Credit)
nitial economic evaluation	2018	\$M 26.3	\$M 26.3	\$M
1st true-up	2023	0.0	0.0	
2nd true-up	2028	0.8		1.4
Total		27.1	26.3	1.4

Table 6: Line Pool Economic Contribution from Essex Powerlines Page 1

Date: Project #	9-Jun-15 17503						SUMI		NTRIBUTION Pool - 2nd true		NS				
-															
Facility Name: Description:		Capital Contribution	unty Transmission Reinford Allocation	ement											
Customer:		Essex Powerlines	In-Service												
		Month Year	Date Mar-31 <b>2018</b>	< Mar-31 <u>2019</u>	Project year end Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	> Mar-31 <u>2024</u>	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast			0	1	2	3	4	5	6	7	8	9	10	11	12
Load Forecast (MW) Load adjustments (MW)				4.0 <u>0.0</u> 4.0	3.9 <u>0.0</u> 3.9	3.9 <u>0.0</u> 3.9	3.9 <u>0.0</u> 3.9	3.9 <u>0.0</u> 3.9	3.8 <u>0.0</u> 3.8	3.8 <u>0.0</u> 3.8	3.8 <u>0.0</u> 3.8	3.8 <u>0.0</u> 3.8	3.7 <u>0.0</u> 3.7	3.7 <u>0.0</u> 3.7	3 <u>0</u> 3
Tariff Applied (\$/kW/Month) Incremental Revenue - \$M Removal Costs - \$M			(0.1)	0.86	0.86 0.0	0.86 0.0	0.86 0.0	0.86	0.86	0.86 0.0	0.86 0.0	0.86	0.86 0.0	0.86 0.0	0.8
On-going OM&A Costs - \$M Municipal Tax - \$M Net Revenue/(Costs) before taxes - \$M			0.0 (0.1)	(0.0) (0.0) 0.0	0.0	(0.0) (0.0) 0.0	(0.0) (0.0) 0.0	(0.0) (0.0) 0.0	(0.0) (0.0) 0.0	(0.0) (0.0) 0.0	(0.0) (0.0) 0.0	(0.0) (0.0) 0.0	(0.0) (0.0) 0.0	(0.0) (0.0) 0.0	(0. <u>(0.</u> 0.
Income Taxes Operating Cash Flow (after taxes) - \$M		Cumulative PV @	<u>0.0</u> (0.1)	0.0 0.0	0.0 0.1	<u>0.0</u> 0.1	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.</u>
PV Operating Cash Flow (after taxes) - \$M	(A)	5.83% <b>0.4</b>	(0.1)	0.0	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0	0.0	0.0	<u>0.0</u>	0.0	<u>0.0</u>	<u>o.</u>
Capital Expenditures - \$M  Upfront - capital cost before overhead	is & AFUDC		(2.2) 0.0 0.0 (2.2) 0.0 (2.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Capital Experioritures - swi PV CCA Residual Tax Shield - \$M PV Working Capital - \$M PV Capital (after taxes) - \$M Cumulative PV Cash Flow (after taxes) - \$M (A)	(B) ) + (B)	(2.2)	0.0 (0.0) (2.2) (2.3)	(2.3)	(2.2)	(2.2)	(2.1)	(2.1)	<u>(2.1)</u>	<u>(2.0)</u>	(2.0)	(2.0)	(2.0)	<u>(1.9)</u>	<u>(1</u>
		Discounted Cash	Flow Summary												
Economic Study Horizon - Years:		25													
Discount Rate - %		5.83%													
		Before Cont \$M	-	After Cont \$M	-	Impact \$M									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taxes PV Income Taxes PV CCA Tax Shield PV Capital - Upfront Add: PV Capital Contribution Allocation PV Capital - On-going PV Working Capital PV Surplus / (Shortfall)		0.5 (0.1) (0.1) (0.1) 0.2 2.2) (2.2) 0.0 (0.0) (1.8)	(2.2)	0.5 (0.1) (0.1) (0.1) 0.0 (0.2) 0.0 (0.0)		(0.0) (0.2) 2.0									
Profitability Index*  Notes:  PV of total cash flow, exclusion net capital expenditure & opening.	ing canital 8 process	0.2	ranital evnenditure <sup>8</sup> on coins	1.0	on disposal										
	g _aprili & probbbl	suppose, r v Of Het		a proceeds											
*PV of total cash flow, excluding net capital expenditure & on-gol	ing capital & proceed	ds on disposal / PV of net	capital expenditure & on-going (	capital & proceeds	on disposal										

Table 6: Line Pool Economic Contribution from Essex Powerlines Page 2

Date:	9-Jun-15
Project #	17503
·	

Facility Name:	Supply to Essex County 1		ement											
Description:	Capital Contribution Alloc	ation												
Customer:	Essex Powerlines													
		<		Project year end										
	Month Year	Mar-31 <b>2031</b>	Mar-31 2032	Mar-31 2033	Mar-31 2034	Mar-31 2035	Mar-31 2036	Mar-31 2037	Mar-31 2038	Mar-31 2039	Mar-31 2040	Mar-31 <b>2041</b>	Mar-31 2042	Mar-31 2043
	100	13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast		7.5		,0	10		10	,,,	20			2.0	2.7	20
Load Forecast (MW)		3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
		3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.
Tariff Applied (\$/kW/Month)		0.86 0.0	0.86	0.86 0.0	0.86 0.0	0.86	0.86 0.0	0.86	0.86 0.0	0.86 0.0	0.86	0.86	0.86	<u>0.8</u> 0.
Incremental Revenue - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Removal Costs - \$M														
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Net Revenue/(Costs) before taxes - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Income Taxes		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Operating Cash Flow (after taxes) - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.</u>
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC														
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.8)	(1.8)	(1.8)	(1.8)	(1.8)	(1.8)	(1.8)	<u>(1.</u>

Table 6: Line Pool Economic Contribution from Essex Powerlines Page 3

Capital Contributions		PV of	Previous	Current
	Date	Cont \$M	Cont Payments \$M	Cont / (Credit) \$M
nitial economic evaluation	2018	2.2	2.2	·
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.1)		(0.3)
Total		2.0	2.2	(0.3)

Table 7: Line Pool Economic Contribution from E.L.K. Page 1

Date: 9-Jur Project # 1750	SUMMARY OF CONTRIBUTION CALCULATIONS Line Pool - 2nd true-up													
Facility Name: Description: Customer:	Supply to Essex Capital Contribut E.L.K.		ement											
	Month Year	In-Service Date < Mar-31 2018 0	Mar-31 2019	Project year end Mar-31 2020 2	ed - annualized Mar-31 2021 3	from In-Service Mar-31 2022	Date Mar-31 2023	-> Mar-31 <u>2024</u> 6	Mar-31 2025 7	Mar-31 2026 8	Mar-31 2027 9	Mar-31 2028 10	Mar-31 2029	Mar-31 2030 12
Revenue & Expense Forecast Load Forecast (MW) Load adjustments (MW)  Tariff Applied (\$/kW/Month) Incremental Revenue - \$M Removal Costs - \$M		(0.1)	4.0 0.0 4.0 0.86 0.0	4.0 <u>0.0</u> 4.0 <u>0.86</u> 0.0	4.0 0.0 4.0 0.86 0.0	4.0 0.0 4.0 0.86 0.0	4.0 0.0 4.0 0.86 0.0	4.0 0.0 4.0 0.86 0.0	4.0 0.0 4.0 0.86 0.0	4.0 0.0 4.0 0.86 0.0	4.0 0.0 4.0 0.86 0.0	4.0 <u>0.0</u> 4.0 <u>0.86</u> 0.0	4.0 0.0 4.0 0.86 0.0	4.0 0.0 4.0 0.86
On-going OM&A Costs - \$M Municipal Tax - \$M Net Revenue/(Costs) before taxes - \$M Income Taxes Operating Cash Flow (after taxes) - \$M	Cumulative PV (	0.0 (0.1) <u>0.0</u> ( <u>0.1)</u>	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.1	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.0	(0.0) (0.0) 0.0 0.0 0.0	0.0) (0.0 0.0 0.0 0.0
PV Operating Cash Flow (after taxes) - \$M (A)	0.4	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Expenditures - \$M Upfront - capital cost before overheads & AFU - Overheads - AFUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M Capital Expenditures - \$M PV CCA Residual Tax Shield - \$M PV Working Capital - \$M PV Capital (after taxes) - \$M (B)	(2.0)	(2.0) 0.0 0.0 (2.0) 0.0 (2.0) 0.0 (0.0) (2.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(1.5)	(2.0)	(2.0)	(2.0)	(1.9)	(1.9)	(1.9)	(1.8)	(1.8)	(1.8)	(1.7)	(1.7)	(1.7)	(1.7
	Discounted Ca	sh Flow Summary												
Economic Study Horizon - Years: Discount Rate - %	25 5.83%													
	Before Cont \$M		After Cont \$M	_	Impact									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taws PV CA Tax Shield PV Capital - Upfront Add: PV Capital - Upfront PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) PV Surplus / (Shortfall)	0.5 (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (1.5) (0.2) (1.5)	(2.0)	0.5 (0.1) (0.1) (0.1) (0.1) 0.0 (0.3) 0.0 (0.0) 0.0	Ξ	0.0 (0.2) 1.7									
Notes:  "PV of total cash flow, excluding net capital expenditure & on-going capital	& proceeds on disposal / PV of r	set capital expenditure & on-going o	capital & proceeds	on disposal										

Table 7: Line Pool Economic Contribution from E.L.K. Page 2

1_	Date:	9-Jun-15
F	Project #	17503
_		

Facility Name:		Transmission Reinforce	ement											
Description:	Capital Contribution Allo	cation												
Customer:	E.L.K.													
		<	; F	Project year end	ed - annualized	from In-Service	Date	->						
	Month Year	Mar-31 <b>2031</b>	Mar-31 2032	Mar-31 <b>2033</b>	Mar-31 <b>2034</b>	Mar-31 2035	Mar-31 2036	Mar-31 2037	Mar-31 2038	Mar-31 2039	Mar-31 <b>2040</b>	Mar-31 <u>2041</u>	Mar-31 <b>2042</b>	Mar-31 2043
		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast		4.0	4.0			4.0				4.0	4.0	4.0		
Load Forecast (MW)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tariff Applied (\$/kW/Month)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Incremental Revenue - \$M		0.86 0.0	0.86	0.86	0.86	0.86	0.86	0.86 0.0	0.86 0.0	0.86	0.86	0.86	0.86	0.86
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Removal Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
On-going OM&A Costs - \$M Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Net Revenue/(Costs) before taxes - \$M		( <u>0.0)</u> 0.0	( <u>0.0)</u> 0.0	( <u>0.0)</u> 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	<u>(0.0</u> 0.0
Income Taxes				0.0 0.0				(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	
Operating Cash Flow (after taxes) - \$M		0.0	0.0		0.0 0.0	(0.0)	(0.0)							(0.0
Operating Cash Flow (after taxes) - \$\pi w		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC														
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(1.7)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.5)	(1.5

Table 7: Line Pool Economic Contribution from E.L.K. Page 3

		PV of	Previous	Current
	Date	Cont \$M	Cont Payments \$M	Cont / (Credit) \$M
nitial economic evaluation	2018	1.8	1.8	·
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.1)		(0.2)
				(0.2)
Total		1.7	1.8	

Table 8: Line Pool Economic Contribution from Entegrus Page 1

Date: 9-Jun-15						SUMN			CALCULATIO	NS				
Project # 17503							Line P	ool - 2nd tru	e-up					
Facility Name: Description: Customer:	Supply to Essex County Capital Contribution Allo Entegrus	Transmission Reinforc cation	ement											
	-	In-Service												
	Month Year	Date - Mar-31 <u>2018</u>	Mar-31 2019	Project year end Mar-31 2020 2	ed - annualized Mar-31 2021	from In-Service Mar-31 2022 4	Date Mar-31 2023 5	-> Mar-31 <u>2024</u> 6	Mar-31 2025 7	Mar-31 2026 8	Mar-31 2027 9	Mar-31 2028 10	Mar-31 2029	Mar-31 2030 12
Revenue & Expense Forecast		U												
Load Forecast (MW) Load adjustments (MW)			0.3 <u>0.0</u> 0.3	0.3 <u>0.0</u> 0.3	0.3 <u>0.0</u> 0.3	0.3 <u>0.0</u> 0.3	0.3 <u>0.0</u> 0.3	0.3 <u>0.0</u> 0.3	0.3 <u>0.0</u> 0.3	0.4 <u>0.0</u> 0.4	0.4 <u>0.0</u> 0.4	0.4 <u>0.0</u> 0.4	0.4 <u>0.0</u> 0.4	0.4 0.0 0.4
Tariff Applied (\$/kW/Month) Incremental Revenue - \$M			0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Removal Costs - \$M On-going OM&A Costs - \$M		(0.0) 0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Municipal Tax - \$M  Net Revenue/(Costs) before taxes - \$M  Income Taxes		(0.0) 0.0	(0.0) 0.0 <u>0.0</u>	(0.0) 0.0 0.0	(0.0) 0.0 <u>0.0</u>	(0.0) 0.0 0.0	(0.0) 0.0 0.0	( <u>0.0)</u> 0.0 <u>0.0</u>	( <u>0.0)</u> 0.0 <u>0.0</u>	(0.0) 0.0 <u>0.0</u>	(0.0) 0.0 0.0	( <u>0.0)</u> 0.0 <u>0.0</u>	( <u>0.0)</u> 0.0 <u>0.0</u>	( <u>0.0)</u> 0.0 <u>0.0</u>
Operating Cash Flow (after taxes) - \$M	Cumulative PV @	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV Operating Cash Flow (after taxes) - \$M (A)	5.83% <b>0.0</b>	(0.0)	<u>0.0</u>	0.0	0.0	0.0	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0	<u>0.0</u>	0.0	<u>0.0</u>	<u>0.0</u>
Capital Expenditures - \$M  Upfront - capital cost before overheads & AFUDC  - Overheads  - AFUDC  Total upfront capital expenditures		(0.3) 0.0 <u>0.0</u> (0.3)												
On-going capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - SM Capital Expenditures - SM		0.0 (0.3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV CCA Residual Tax Shield - \$M PV Working Capital - \$M		0.0 (0.0)												
PV Capital (after taxes) - \$M (B)  Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(0.3)	(0.3) (0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
	Discounted Cash Flo	w Summary												
Economic Study Horizon - Years:	25													ŀ
Discount Rate - %	5.83%													
	Before Cont \$M	-	After Cont \$M	_	Impact \$M									
Add: PV Capital Contribution Allocation	(0.0) (0.0) (0.0) (0.0) (0.0) 0.0 (0.3)	(0.3) <b>0.3</b>	0.1 (0.0) (0.0) (0.0) (0.0) 0.0		0.0 (0.0) 0.3									
PV Capital - On-going PV Working Capital PV Surplus / (Shortfall)	(0.0) (0.3)	-	(0.0) (0.0)	Ξ	0.3									
Profitability Index*	0.1		1.0											
Notes: "PV of total cash flow, excluding net capital expenditure & on-going capital & proc	eeds on disposal / PV of net capits	l expenditure & on-going o	apital & proceeds (	on disposal										

Table 8: Line Pool Economic Contribution from Entegrus Page 2

Date:	9-Jun-15
Project #	17503
-	

Facility Name:	Supply to Essex County		ement											
Description: Customer:	Capital Contribution Allo	cation												
Customer.	Entegrus						- I							
		<	: F	Project year end	ed - annualized	from In-Service	Date	·>						
	Month	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Year	<u>2031</u>	2032	2033	2034	2035	<u>2036</u>	2037	2038	2039	<u>2040</u>	<u>2041</u>	2042	2043
		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast			0.5	0.5		0.5		0.5						
Load Forecast (MW)		0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.
Load adjustments (MW)		0.0 0.4	<u>0.0</u> 0.5	<u>0.0</u> 0.5	<u>0.0</u> 0.5	<u>0.0</u> 0.5	<u>0.0</u> 0.5	<u>0.0</u> 0.5	<u>0.0</u> 0.6	<u>0.0</u> 0.6	<u>0.0</u> 0.6	<u>0.0</u> 0.6	<u>0.0</u> 0.6	0
Tariff Applied (\$/kW/Month)				0.86	0.86	0.5 0.86							0.86	0.
Incremental Revenue - \$M		0.86 0.0	0.86	0.0	0.0	0.0	0.86	0.86	0.86	0.86	0.86	0.86	0.0	<u>0.0</u> 0
Removal Costs - \$M		3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	U.
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0
Net Revenue/(Costs) before taxes - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Income Taxes		0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0
Operating Cash Flow (after taxes) - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0	<u>0.0</u>	<u>o</u> .							
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC - Overheads - AFUDC														
Total upfront capital expenditures														
On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	<u>(0</u>

Table 8: Line Pool Economic Contribution from Entegrus Page 3

Capital Contributions		PV of	Previous	Current
	Date	Cont \$M	Cont Payments \$M	Cont / (Credit) \$M
Initial economic evaluation	2018	0.3	0.3	Ţ
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.0)		(0.0)
Total		0.3	0.3	(0.0)

Table 9: Allocation of Line Contribution to Distributors (\$M)

Hydro One Distribution Capital Contribution to	<u>.</u>	20.0
Hydro One Transmission	ş	30.9

Distributor	Сар	ital Contribution Allocation	Allocation Percentage
Hydro One Distribution	\$	27.1 1	87.5%
Essex Powerlines	\$	2.0 2	6.5%
E.L.K.	\$	1.7 3	5.6%
Entegrus	\$	0.3 4	1.0%
Total	\$	31.1	100.6%

<sup>&</sup>lt;sup>1.</sup> JT 1.11 Table 5

<sup>&</sup>lt;sup>2.</sup> JT 1.11 Table 6

<sup>&</sup>lt;sup>3.</sup> JT 1.11 Table 7

<sup>&</sup>lt;sup>4.</sup> JT 1.11 Table 8

Table 10: Line Pool Cost Allocation to New ST Customers (\$M)

	Contracted Capacity	% of Contracted
Customer Capacity	(MW)	Capacity
Hydro One Distribution Ratepayers	36.1	47.0%
New ST Customers	35.8	46.5%
Year 10 ST	5.0	6.5%
TOTAL	76.8	100.0%

Allocation of Project Costs	to Hydro One Distribi	ution
Capital Expenditures	\$	28.8
Removal Costs	\$	1.5
Total Costs	Ś	30.3

Allocation of Hydro One Distribution Project Costs by Customer Capacity	Hydro One Distribution Ratepayers	New ST Customers	Year 10 ST	Total
% of Contracted Capacity	47.0%	46.5%	6.5%	100.0%
Capital Expenditures	\$ 13.5	\$ 13.4	\$ 1.9	\$ 28.8
Removal Costs	\$ 0.7	\$ 0.7	\$ 0.1	\$ 1.5
Total	\$ 14.2	\$ 14.1	\$ 2.0	\$ 30.3

Table 11: Line Pool Economic Contribution from New ST Customers Page 1  $\,$ 

Date: Project #	10-Jun-15 17503						SUMN		NTRIBUTION Pool - 2nd true	CALCULATIO -up	NS				
Facility Name: Description: Customer:	C	Supply to Essex Count Capital Contribution All lew ST Customers	y Transmission Reinforce location	ement											
Odstolika.	<u></u>	Month	In-Service Date « Mar-31	:   Mar-31	Project year ende	ed - annualized Mar-31	from In-Service Mar-31	Date Mar-31	-> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
		Year	2018 0	2019	2020 2	2021 3	2022 4	2023 5	2024 6	2025 7	2026 8	2027 9	2028 10	2029	2030 12
Revenue & Expense Forecast Load Forecast (MW) Load adjustments (MW) Tariff Applied (\$AW/Month) Incremental Revenue - \$M Removal Costs - \$M On-going OM&A Costs - \$M			(0.7)	27.1 <u>0.0</u> 27.1 <u>0.86</u> 0.3	27.4 0.0 27.4 0.86 0.3 (0.0)	27.8 0.0 27.8 0.86 0.3 (0.0)	28.1 0.0 28.1 0.86 0.3 (0.0)	28.5 0.0 28.5 0.86 0.3 (0.0)	28.8 <u>0.0</u> 28.8 <u>0.86</u> 0.3 (0.0)	29.2 0.0 29.2 0.86 0.3 (0.0)	29.5 <u>0.0</u> 29.5 <u>0.86</u> 0.3 (0.0)	29.9 0.0 29.9 0.86 0.3 (0.0)	30.2 <u>0.0</u> 30.2 <u>0.86</u> 0.3	30.6 0.0 30.6 0.86 0.3 (0.0)	30.9 30.9 0.8 0.0
Municipal Tax - \$M  Net Revenue/(Costs) before taxes - \$M  Income Taxes  Operating Cash Flow (after taxes) - \$M	Cu	umulative PV @	(0.7) <u>0.2</u> (0.5)	(0.1) 0.2 0.0 0.3	(0.1) 0.2 0.1 0.3	(0.1) 0.2 0.1 0.3	(0.1) 0.2 0.1 0.3	(0.1) 0.2 0.1 0.3	(0.1) 0.2 0.1 0.3	(0.1) 0.2 0.1 0.3	(0.1) 0.2 0.1 0.3	(0.1) 0.2 0.0 0.3	(0.1) 0.2 0.0 0.3	(0.1) 0.3 0.0 0.3	(0.1 0.3 0.0 0.3
PV Operating Cash Flow (after taxes) - \$M	(A)	5.83% 3.3	(0.5)	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Capital Expenditures - \$M  Upfront - capital cost before overheads - Overheads - AFUDC  Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M  Capital Expenditures - \$M  PV CCA Residual Tax Shield - \$M  PV Working Capital - \$M  PV Capital (after taxes) - \$M	(B) <u></u>	(13.4)	(13.4) 0.0 0.0 (13.4) 0.0 (13.4) 0.0 (13.4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cumulative PV Cash Flow (after taxes) - \$M (A)	+ (B)	(10.1)	(13.9)	(13.6)	(13.3)	(13.0)	(12.8)	(12.5)	(12.3)	(12.1)	(11.9)	(11.7)	(11.6)	(11.4)	(11.3
	Dis	counted Cash Fl	ow Summary												
Economic Study Horizon - Years:  Discount Rate - %		25 5.83%													
	-	Before Cont \$M	_	After Cont \$M	_	Impact \$M									
PV Incremental Revenue PV OMBA Costs PV Municipal Tax PV Income Taxes PV Income Taxes PV CAPITAL Shield PV Capital - Upfront Add: PV Capital Contribution Allocation PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) Profitability Index*	(13.4) 0.0	4.2 (0.8) (0.8) (0.7) 1.4 (13.4) 0.0 (0.0) (10.1)	(13.4) 11.3	4.2 (0.8) (0.8) (0.7) 0.2 (2.1) 0.0 (0.0) (0.0)	Ξ	(1.2) 11.3									
Notes:  "PV of total cash flow, excluding net capital expenditure & on-goin	ng capital & proceeds on	disposal / PV of net capi	tal expenditure & on-going c	apital & proceeds	on disposal										

Table 11: Line Pool Economic Contribution from New ST Customers Page 2

PV Capital (after taxes) - \$M

Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)

Date:         10-Jul           Project #         17503						SUMN		NTRIBUTION ool - 2nd true	CALCULATIO e-up	NS				
Facility Name:	Supply to Essex County		ement											
Description: Customer:	Capital Contribution Allo New ST Customers	ocation												
Customer.	New 31 Customers													
			<	Project year end	led - annualized	from In-Service	Date	->						
I	Month	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Year	<u>2031</u>	2032 14	2033 15	2034	2035 17	2036 18	2037 19	2038	2039	2040 22	<u>2041</u>	2042	2043
Revenue & Expense Forecast		13	14	15	16	17	18	19	20	21	22	23	24	25
Load Forecast (MW)		31.3	31.6	32.0	32.3	32.7	33.0	33.4	33.7	34.1	34.4	34.8	35.1	35.5
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
zoda dajaomonio (mr)		31.3	31.6	32.0	32.3	32.7	33.0	33.4	33.7	34.1	34.4	34.8	35.1	35.5
Tariff Applied (\$/kW/Month)		0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Incremental Revenue - \$M		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.86 0.4
Removal Costs - \$M														
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Municipal Tax - \$M		(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Net Revenue/(Costs) before taxes - \$M		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Income Taxes		0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1) <u>0.2</u>
Operating Cash Flow (after taxes) - \$M		<u>0.3</u>	0.3	0.3	0.3	<u>0.3</u>	<u>0.3</u>	0.3	0.3	0.2	0.2	0.2	<u>0.2</u>	<u>0.2</u>
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUE - Overheads - AFUDC	JC													ļ
Total upfront capital expenditures On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
														Į.
PV Working Capital - \$M														

(10.7)

(10.1)

(10.1)

(11.1)

(11.0)

Table 11: Line Pool Economic Contribution from New ST Customers Page 3

Capital Contributions		PV of	Previous	Current
	Date	Cont \$M	Cont Payments \$M	Cont / (Credit) \$M
Initial economic evaluation	2018	12.1	12.1	Ψίνι
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.9)		(1.5)
Total		11.3	12.1	(1.5)

Table 12: Line Pool Economic Contribution from Hydro One Distribution Ratepayers Page 1

Date:	9-Jun-15						SUM		NTRIBUTION		NS				
Project #	17503							Line P	ool - 2nd true	-up					
Facility Name: Description: Customer:		Supply to Essex Co Capital Contribution Hydro One Distribut		ement											
		Month Year	Mar-31 2018	Mar-31 2019	Project year end Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	Mar-31 2024	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast Load Forecast (MW) Load adjustments (MW) Tariff Applied (\$\frac{\pi}{k}\text{WV/Month}) Incremental Revenue - \$\frac{\pi}{M} Removal Costs - \$\frac{\pi}{M} On-going OM&A Costs - \$\pi Municipal Tax - \$\frac{\pi}{M} Net Revenue/(Costs) before taxes - \$\frac{\pi}{M} Income Taxes Operating Cash Flow (after taxes) - \$\frac{\pi}{M} PV Operating Cash Flow (after taxes) - \$\frac{\pi}{M} Upfront - capital cost before overhea - \text{Overheads} - AFUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$\frac{\pi}{M}	(A) ds & AFUDC	Cumulative PV @ 5.83% 1.9	(0.7) 0.0 (0.7) 0.2 (0.5) (0.5) (13.5) 0.0 0.0 (13.5)	9.8 0.0 9.8 0.86 0.1 (0.0) (0.1) 0.0 0.1 0.1 0.1		3 11.3 0.0 11.3 0.86 0.1 (0.0) (0.1) 0.1 0.2 0.2 0.2	12.0 0.0 12.0 0.86 0.1 (0.00) (0.11) 0.1 0.2 0.2	12.8 0.0 12.8 0.86 0.1 (0.00) (0.11) 0.1 0.2 0.2	6 13.5 0.0 13.5 0.86 0.1 (0.0) (0.1) 0.1 0.1 0.2 0.1	7 14.3 0.0 14.3 0.86 0.1 (0.0) (0.1) 0.1 0.1 0.2 0.1	8 15.0 0.0 15.0 0.86 0.2 (0.0) (0.1) 0.1 0.1 0.2 <b>9.1</b>	9 15.8 0.0 15.8 0.86 0.2 (0.0) (0.1) 0.1 0.1 0.2 0.1	16.6 0.0 16.6 0.86 0.2 (0.00) (0.11 0.1 0.2 0.1	17.3 9.0 17.3 9.86 0.2 (0.0) (0.1) 0.1 9.1 9.2 9.1	18.
PV CCA Residual Tax Shield - \$M PV Working Capital - \$M PV Capital (after taxes) - \$M Cumulative PV Cash Flow (after taxes) - \$M	(B) A) + (B)	(13.5) (11.6)	0.0 ( <u>0.0)</u> ( <u>13.5)</u> ( <u>14.0)</u>	<u>(13.9)</u>	<u>(13.7)</u>	<u>(13.5)</u>	<u>(13.3)</u>	(13.2)	<u>(13.0)</u>	<u>(12.9)</u>	(12.8)	(12.7)	(12.6)	<u>(12.5)</u>	<u>(12.</u>
		Discounted Cash	Flow Summary												
Economic Study Horizon - Years:		25													
Discount Rate - %		5.83%  Before Cont \$M	-	After Cont \$M		Impact \$M									
PV Incremental Revenue PV OMAC Costs PV Municipal Tax PV Income Taxes PV Income Taxes PV CCA Tax Shield PV Capital - Upfront Add: PV Capital Contribution Allocation PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) Profitability Index*  Notes:  "PV of total cash flow, excluding net capital expenditure & on-going	(13. 0. 0. o.	0.0 (13.5) 0.0 (0.0) (11.6) 0.1	(13.5) 12.9	2.3 (0.8) (0.8) (0.8) (0.9) (0.2) 0.1 (0.6) (0.0) (0.0) (0.0) 1.0 capital & proceeds	: :	(0.0) (1.4) 12.9									

Table 12: Line Pool Economic Contribution from Hydro One Distribution Ratepayers Page 2

Date:	9-Jun-15						SUM		NTRIBUTION		ONS				
Project #	17503							Line F	Pool - 2nd true	e-up					
Facility Name:		Supply to Essex County	Fransmission Reinforc	ement											
Description:		Capital Contribution Alloc	ation												
Customer:		Hydro One Distribution R	atepayers												
						. 1	(	D. I							
		Month	Mar-31	< F Mar-31	Project year ende Mar-31	ea - annualizea Mar-31	Mar-31	Date Mar-31	> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
		Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	<u>2043</u>
			13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast															
Load Forecast (MW)			18.9	19.6	20.4	21.2	22.0	22.8	23.5	24.3	25.1	25.9	26.8	27.6	28.5
Load adjustments (MW)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			18.9	19.6	20.4	21.2	22.0	22.8	23.5	24.3	25.1	25.9	26.8	27.6	28.5
Tariff Applied (\$/kW/Month)			0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86 0.3
Incremental Revenue - \$M			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Removal Costs - \$M			(0.0)	(0.0)			(0.0)	()	()	()	()	(0.0)		(= =)	
On-going OM&A Costs - \$M			(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Municipal Tax - \$M			(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1
Net Revenue/(Costs) before taxes - \$M			0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Income Taxes			0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Operating Cash Flow (after taxes) - \$M			<u>0.2</u>	0.2	0.2	0.2	0.2	0.2	0.2	<u>0.2</u>	0.2	0.2	0.2	0.2	0.2
PV Operating Cash Flow (after taxes) - \$M	(A)		<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.0
Capital Expenditures - \$M															
Upfront - capital cost before overhea - Overheads - AFUDC	ads & AFUDC														
Total upfront capital expenditures															
On-going capital expenditures			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total capital expenditures - \$M															
Capital Expenditures - \$M															
PV CCA Residual Tax Shield - \$M															
PV Working Capital - \$M															
PV Capital (after taxes) - \$M	(B)														
, , , , , ,			(40.0)	(40.0)	(40.0)	(40.4)	(40.0)	(44.0)	(44.0)	(44.0)	(44.0)	44.7	(44 =	(44.5)	44.0
Cumulative PV Cash Flow (after taxes) - \$M (	A) + (D)		<u>(12.3)</u>	(12.2)	(12.2)	<u>(12.1)</u>	<u>(12.0)</u>	<u>(11.9)</u>	<u>(11.9)</u>	<u>(11.8)</u>	<u>(11.8)</u>	<u>(11.7)</u>	<u>(11.7)</u>	<u>(11.6)</u>	(11.6)

Table 12: Line Pool Economic Contribution from Hydro One Distribution Ratepayers Page 3

Capital Contributions		PV of	Previous	Current
	Date	Cont \$M	Cont Payments	Cont / (Credit)
Initial economic evaluation	2018	13.8	\$M 13.8	\$M
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.9)		(1.6)
Total		12.9	13.8	(1.6)

Table 13: Line Pool Economic Contribution from Year 10 ST Page 1  $\,$ 

Date: Project #	9-Jun-15 17503						SUMI		NTRIBUTION Pool - 2nd true		ONS				
1 TOJOCE #	17303							Line	OOI - Ziid ti di	- чр					
Facility Name:		Supply to Essex County		ement											
Description: Customer:		Capital Contribution Alk	ocation												
Customer.		Year 10 ST	la Carada a												
			In-Service Date	<	Project year ende	ed - annualized	from In-Service	Date	->						
		Month Year	Mar-31 2018	Mar-31 2019	Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	Mar-31 2024	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast			0	1	2	3	4	5	6	7	8	9	10	11	12
Load Forecast (MW)				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	5.0
Load adjustments (MW)				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tariff Applied (\$/kW/Month)				0.0 0.86	0.0 0.86	0.0 0.86	0.0 0.86	0.0 0.86	0.0 0.86	0.0 0.86	0.0 0.86	0.0 0.86	5.0 0.86	5.0 0.86	5.0 0.86
Incremental Revenue - \$M				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Removal Costs - \$M			(0.1)		(0.0)	()	(0.0)	()	()	()	(0.0)	(0.0)	(0.0)	(0.0)	
On-going OM&A Costs - \$M Municipal Tax - \$M			0.0	(0.0) (0.0)		(0.0) (0.0)	(0.0) (0.0)	(0.0) (0.0)	(0.0) (0.0)	(0.0) (0.0)	(0.0) (0.0)	(0.0) (0.0)	(0.0) (0.0)	(0.0) (0.0)	(0.0) (0.0)
Net Revenue/(Costs) before taxes - \$M			(0.1)	(0.0)		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	0.0	0.0	0.0
Income Taxes			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Cash Flow (after taxes) - \$M		Cumulative PV @	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		5.83%													
PV Operating Cash Flow (after taxes) - \$M	(A)	0.3	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Expenditures - \$M															
Upfront - capital cost before overhead - Overheads	ds & AFUDC		(1.9) 0.0												
- AFUDC			0.0												
Total upfront capital expenditures			(1.9)												
On-going capital expenditures			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures Total capital expenditures - \$M			(1.9)												
Capital Expenditures - \$M			(,												
PV CCA Residual Tax Shield - \$M			0.0												
PV Working Capital - \$M			(0.0)												
PV Capital (after taxes) - \$M	(B)	(1.9)	<u>(1.9)</u>												
Cumulative PV Cash Flow (after taxes) - \$M (A	A) + (B)	(1.6)	<u>(1.9)</u>	(1.9)	(1.9)	<u>(1.9)</u>	<u>(1.9)</u>	<u>(1.9)</u>	<u>(1.9)</u>	(1.9)	<u>(1.9)</u>	<u>(1.8)</u>	(1.8)	<u>(1.8)</u>	(1.8
		Discounted Cash Flo	w Summary												
Economic Study Horizon - Years:		25	ow Summary												
-															
Discount Rate - %		5.83%		***											
		Before Cont	=	After Cont		Impact									
		\$M		\$M		\$M									
PV Incremental Revenue PV OM&A Costs		0.3 (0.1)		0.3 (0.1)											
PV Municipal Tax		(0.1)		(0.1)											
PV Income Taxes PV CCA Tax Shield		(0.0) 0.2		(0.0) (0.0)		0.0 (0.2)									
PV Capital - Upfront	(1	.9)	(1.9)												
Add: PV Capital Contribution Allocation PV Capital - On-going		0.0 (1.9) 0.0	1.8	(0.1) 0.0		1.8									
PV Working Capital		(0.0)		(0.0)											
PV Surplus / (Shortfall)		(1.6)	-	0.0	_	1.6									
Profitability Index*		0.1		1.0											
Notes:															
*PV of total cash flow, excluding net capital expenditure & on-go	oing capital & procee	ds on disposal / PV of net capit	al expenditure & on-going	capital & proceeds	on disposal										

Table 13: Line Pool Economic Contribution from Year 10 ST Page 2  $\,$ 

Date:	9-Jun-15
Project #	17503
· ·	

Facility Name: Description: Customer:	Supply to Essex County Capital Contribution Allo Year 10 ST		ement											
	Month Year	Mar-31 <u>2031</u>	F Mar-31 <u>2032</u>	Project year end Mar-31 <u>2033</u>	ed - annualized Mar-31 <u>2034</u>	from In-Service Mar-31 <u>2035</u>	Date Mar-31 <u>2036</u>	-> Mar-31 <u>2037</u>	Mar-31 2038	Mar-31 <u>2039</u>	Mar-31 <u>2040</u>	Mar-31 <b>2041</b>	Mar-31 <u>2042</u>	Mar-31 <u>2043</u>
Revenue & Expense Forecast		13	14	15	16	17	18	19	20	21	22	23	24	25
Load Forecast (MW)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Load adjustments (www)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.
Tariff Applied (\$/kW/Month)		0.86	0.86	0.86		0.86	0.86	0.86	0.86	0.86		0.86	0.86	
ncremental Revenue - \$M		0.1	0.1	0.1	0.86 0.1	0.1	0.1	0.1	0.1	0.1	0.86 0.1	0.1	0.1	0.8
Removal Costs - \$M														
On-going OM&A Costs - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Net Revenue/(Costs) before taxes - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income Taxes		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Operating Cash Flow (after taxes) - \$M		<u>0.0</u>	0.0	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0	0.0	0.0	<u>0.</u>
PV Operating Cash Flow (after taxes) - \$M (A)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Capital Expenditures - \$M  Upfront - capital cost before overheads & AFUDC  - Overheads  - AFUDC  Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures  Total capital expenditures - \$M  Capital Expenditures - \$M  PV CCA Residual Tax Shield - \$M  PV Working Capital - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(1.8)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.

Table 13: Line Pool Economic Contribution from Year 10 ST Page 3  $\,$ 

Capital Contributions		PV of	Previous	Current
	Date	Cont	Cont Payments	Cont / (Credit)
		\$M	\$M	\$M
Initial economic evaluation	2018	0.0	0.0	
1st true-up	2023	0.0	0.0	
2nd true-up	2028	1.8		3.2
Total		1.8	0.0	3.2

Table 14: Allocation of Line Contribution to New ST Customers (\$M)

Hydro One Distribution Lines Capital	ć	27.1
Contribution Allocation	Þ	27.1

Customer	Capital Contribu Allocation	tion	Allocation Percentage
Hydro One Distribution Ratepayers	\$	12.9 1	47.7%
New ST Customers	\$	11.3	41.6%
Year 10 ST	\$	1.8	6.6%
Total	\$	26.0	96.0%

<sup>&</sup>lt;sup>1.</sup> JT 1.11 Table 12

<sup>&</sup>lt;sup>2.</sup> JT 1.11 Table 11

<sup>&</sup>lt;sup>3.</sup> JT 1.11 Table 13

<u>Table 15: Transformation Pool Capital Contribution Contribution from Hydro One Distribution to Transmission Page 1</u>

	Jun-15 503					SUMI	MARY OF COI Transforma	NTRIBUTION tion Pool - 2n		ONS				
Facility Name: Description: Customer:	Supply to Essex County Transformation Pool Cal Hydro One Distribution													
		In-Service Date	<	Project year ende	ed - annualized	from In-Service	Date	·>						
	Month Year	Mar-31 2018 0	Mar-31 2019	Mar-31 2020 2	Mar-31 2021 3	Mar-31 2022 4	Mar-31 2023 5	Mar-31 2024 6	Mar-31 2025 7	Mar-31 2026 8	Mar-31 2027 9	Mar-31 2028 10	Mar-31 2029	Mar-31 2030 12
Revenue & Expense Forecast  Load Forecast (MW)  Load adjustments (MW)  Tariff Applied (\$/kW/Month)  Incremental Revenue - \$M  Removal Costs - \$M  On-going OM&A Costs - \$M  Municipal Tax - \$M  Net Revenue/(Costs) before taxes - \$M  Income Taxes  Operating Cash Flow (after taxes) - \$M  PV Operating Cash Flow (after taxes) - \$M  (A)	Cumulative PV @ 5.83% 13.7	0.0 0.0 0.0 0.0 0.0	38.2 <u>0.0</u> 38.2 2.00 0.9 0.0 (0.1) 0.8 (0.0) <u>0.8</u>	39.2 9.0 39.2 2.00 0.9 0.0 (0.1) 0.9 0.2 1.0	40.1 0.0 40.1 2.00 1.0 0.0 (0.1) 0.9 0.1 1.0	41.0 9.0 41.0 2.00 1.0 0.0 (0.1) 0.9 0.1 1.0	42.0 9.0 42.0 2.00 1.0 0.0 (0.1) 0.9 0.1 1.0	42.9 9.0 42.9 2.00 1.0 0.0 (0.1) 0.9 9.0 1.0	43.9 9.0 43.9 2.00 1.1 0.0 (0.1) 1.0 0.0 1.0	44.8 <u>0.0</u> 44.8 <u>2.00</u> 1.1 0.0 ( <u>0.1</u> ) 1.0 ( <u>0.0</u> ) 1.0	45.8 <u>0.0</u> 45.8 <u>2.00</u> 1.1 0.0 ( <u>0.1</u> ) 1.0 ( <u>0.0</u> ) 1.0	46.8 5.0 51.8 2.00 1.2 0.0 (0.1) 1.2 (0.1) 1.1	47.7 5.0 52.7 2.00 1.3 0.0 (0.1) 1.2 (0.1) 1.1	48.7 5.0 53.7 2.00 0.0 (0.1 1.2 (0.1
Capital Expenditures - \$M  Upfront - capital cost before overheads & AF  Overheads  - AFUDC  Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M  Capital Expenditures - \$M  PV CCA Residual Tax Shield - \$M	FUDC	(17.2) (2.4) (0.7) (20.2) 	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV Working Capital - \$M  PV Capital (after taxes) - \$M  Cumulative PV Cash Flow (after taxes) - \$M  (A) + (B)		0.0 (20.1) (20.1)	<u>(19.3)</u>	(18.4)	<u>(17.5)</u>	<u>(16.7)</u>	<u>(15.9)</u>	<u>(15.2)</u>	<u>(14.5)</u>	<u>(13.9)</u>	(13.3)	<u>(12.7)</u>	(12.1)	<u>(11.5</u>
	Discounted Cash Flo	w Summary												
Economic Study Horizon - Years: Discount Rate - %	25 5.83%  Before Cont SM	-	After Cont \$M	_	Impact \$M									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taxes PV CAT Ax Shield PV Capital - Upfront Add: PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) Pr Surplus / (Shortfall) Profitability Index*  Notes:	15.8 0.0 (1.1) (3.9) 3.0 (20.2) 0.0 (6.4) 0.7	(20.2) 7.5	15.8 0.0 (1.1) (3.9) 1.9 (12.7) 0.0 0.0 0.0 1.0	on disposal	(1.1) 7.5 6.4									

Table 15: Transformation Pool Capital Contribution Contribution from Hydro One Distribution to Transmission Page 2

 Date:
 9-Jun-15

 Project #
 17503

Facility Name:	Supply to Essex County T													
Description:	Transformation Pool Capi	tal Contribution w/ 10	Year ST											
Customer:	Hydro One Distribution													
		-	: F	Project year end	ed - annualized	from In-Service	Date	->						
	Month	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast														
Load Forecast (MW)		49.7	50.6	51.6	52.6	53.7	54.6	55.5	56.5	57.6	58.6	59.6	60.7	61
Load adjustments (MW)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5
, , ,		54.7	55.6	56.6	57.6	58.7	59.6	60.5	61.5	62.6	63.6	64.6	65.7	66
Tariff Applied (\$/kW/Month)		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.0
Incremental Revenue - \$M		1.3	2.00 1.3	1.4	1.4	1.4	1.4	2.00 1.5	1.5	1.5	1.5	1.6	2.00 1.6	<u>2.0</u> 1
Removal Costs - \$M														
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Municipal Tax - \$M		(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0
Net Revenue/(Costs) before taxes - \$M		1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1
Income Taxes		(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0
Operating Cash Flow (after taxes) - \$M		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1
		_	_	_	_	_	_	_	_	_	_	_	_	
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>0.3</u>	<u>0.3</u>	<u>0.3</u>	<u>0</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC														
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(11.0)	(10.5)	(10.0)	(9.6)	(9.2)	(8.8)	(8.4)	(8.0)	(7.7)	(7.3)	(7.0)	(6.7)	(6

Table 15: Transformation Pool Capital Contribution Contribution from Hydro One Distribution to Transmission Page 3

Capital Contributions				
	Date	PV of Cont \$M	Previous Cont Payments \$M	Current Cont / (Credit) \$M
Initial economic evaluation	2018	8.2	8.2	Ţ
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.7)		(1.2)
Total		7.5	8.2	(1.2)

Table 16: Allocation of Transformation Project Costs to Distributors

Distributor Capacity	Contract Capacity (	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Hydro One Distribution	76.8	86.4%
Essex Power	5.9	6.7%
E.L.K.	5.3	5.9%
Entegrus	0.9	1.0%
TOTAL	88.9	100.0%

Project Costs	
Capital Expenditures	\$ 20.2
Removal Costs	\$ -
Total Costs	\$ 20.2

Allocation of Project Costs by Distributor Capacity	Hydro One Distribution	Essex Powerlines	E.L.K.	Entegrus	Total Costs
% of Contracted Capacity	86.49	6.7%	5.9%	1.0%	100.0%
Capital Expenditures	\$ 17.5	\$ 1.3	\$ 1.2	\$ 0.2	\$ 20.2
Removal Costs	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 17.5	\$ 1.3	\$ 1.2	\$ 0.2	\$ 20.2

Table 17: Transformation Pool Economic Contribution from Hydro One Distribution Page 1

Date: 9-Ji Project # 175	un-15 03					SUMM		NTRIBUTION tion Pool - 2r	CALCULATIO	ONS				
Facility Name: Description: Customer:	Supply to Essex County Capital Contribution Alla	ocation with Year 10 1		er										
Customer.	Hydro One Distribution	In-Service												
	Month Year	Date Mar-31 2018	Mar-31 2019	Project year end Mar-31 <u>2020</u>	Mar-31 2021	Mar-31 2022	Mar-31 2023	-> Mar-31 <u>2024</u>	Mar-31 2025	Mar-31 2026	Mar-31 <u>2027</u>	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast Load Forecast (MW) Load adjustments (MW) Tariff Applied (\$/kW/Month) Incremental Revenue - \$M Removal Costs - \$M On-going OM&A Costs - \$M Municipal Tax - \$M Net Revenue/(Costs) before taxes - \$M Income Taxes Operating Cash Flow (after taxes) - \$M  PV Operating Cash Flow (after taxes) - \$M Capital Expenditures - \$M	Cumulative PV @ 5.83% 12.7	0.0 0.0 0.0 0.0 0.0	33.7 9.0 33.7 2.00 0.8 0.0 (0.1) 0.7 (0.0) 9.7	34.8 0.0 34.8 2.00 0.8 0.0 (0.1) 0.8 0.1 0.9	35.9 0.0 35.9 2.00 0.9 0.0 (0.11 0.8 0.1 0.9	37.0 0.0 37.0 2.00 0.9 0.0 (0.11 0.8 0.1 0.9	38.1 0.0 38.1 2.00 0.9 0.0 (0.1) 0.8 0.0 0.9 9.2	6 39.2 0.0 39.2 2.00 0.9 0.0 (0.1) 0.9 0.0 0.9	40.3 <u>0.0</u> 40.3 <u>2.00</u> 1.0 0.0 ( <u>0.11</u> 0.9 ( <u>0.0)</u> <u>0.9</u>	8 41.4 0.0 41.4 2.00 1.0 0.0 (0.1) 0.9 (0.0) 0.9	9 42.5 0.0 42.5 2.00 1.0 0.0 (0.1) 0.9 (0.1) 0.9	48.6 <u>0.0</u> 48.6 <u>2.00</u> 1.2 0.0 ( <u>0.1</u> ) 1.1 ( <u>0.1</u> ) 1.0	49.7 0.0 49.7 2.00 1.2 0.0 (0.1) 1.1 (0.1) 1.0	50.9 0.0 50.9 2.000 1.2 0.0 (0.1 1.1 1.1 0.2 1.0
Upfront - capital cost before overheads & AFI - Overheads - AFUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures SM Capital Expenditures - \$M Capital Expenditures - \$M PV CCA Residual Tax Shield - \$M PV Working Capital - \$M PV Capital (after taxes) - \$M (B) Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(17.4) (4.7)	(17.5) 0.0 0.0 (17.5) 0.0 (17.5) 0.1 0.0 (17.4)	0.0 (16.7)	0.0	0.0	0.0	0.0	0.0 (13.0)	0.0	0.0	0.0	0.0	0.0	0.0 ( <u>9.6</u>
	Discounted Cash Flo	ow Summary												
Economic Study Horizon - Years:	25	,												
Discount Rate - %	5.83%													
	Before Cont \$M	-	After Cont \$M	_	Impact \$M									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taxes PV Income Taxes PV CCA Tax Shield PV Capital - Upfront Add: PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) PV Surplus / (Shortfall) Profitability Index*	14.8 0.0 (1.0) (3.7) 2.6 (17.5) 0.0 (17.5) 0.0 (4.7) 0.7	(17.5) 5.5	14.8 0.0 (1.0) (3.7) 1.8 (11.9) 0.0 0.0 (0.0)	Ξ	0.0 (0.8) 5.5									
Notes: "PV of total cash flow, excluding net capital expenditure & on-going capits		al expenditure & on-going		on disposal										

Table 17: Transformation Pool Economic Contribution from Hydro One Distribution Page 2

 Date:
 9-Jun-15

 Project#
 17503

Facility Name:	Supply to Essex County T													
Description:	Capital Contribution Alloc	ation with Year 10 10	MW ST Custom	er										
Customer:	Hydro One Distribution													
				Project year end		In Comina	D-4-							
	Month	Mar-31	 Mar-31	Mar-31	ed - annualized Mar-31	Mar-31	Date Mar-31	-> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Month Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
	T GAI	13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast		13	14	15	10	"	10	19	20	21	22	23	24	25
Load Forecast (MW)		52.0	53.1	54.2	55.4	56.5	57.6	58.6	59.8	61.0	62.2	63.3	64.5	65
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Load dajasansina (iiii)		52.0	53.1	54.2	55.4	56.5	57.6	58.6	59.8	61.0	62.2	63.3	64.5	65
Tariff Applied (\$/kW/Month)		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.0
Incremental Revenue - \$M		1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1
Removal Costs - \$M				1.0	1.0		• • • • • • • • • • • • • • • • • • • •				1.0	1.0	1.0	
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Municipal Tax - \$M		(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0
Net Revenue/(Costs) before taxes - \$M		1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1
Income Taxes		(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0
Operating Cash Flow (after taxes) - \$M		1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1
operating each rem (and nazed) \$\psi_m\$		<u> 110</u>	112	110	114	<u> 118</u>								=
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.5</u>	<u>0.5</u>	0.4	0.4	0.4	<u>0.4</u>	0.4	0.4	0.3	0.3	0.3	0.3	<u>0</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC														
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
***														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(9.1)	(8.7)	(8.2)	(7.8)	(7.4)	(7.0)	(6.6)	(6.3)	(5.9)	(5.6)	(5.3)	(5.0)	(4

<u>Table 17: Transformation Pool Economic Contribution from Hydro One Distribution Page 3</u>

Capital Contributions		PV of	Previous	Current
	Date	Cont \$M	Cont Payments \$M	Cont / (Credit) \$M
Initial economic evaluation	2018	6.0	6.0	***
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.5)		(0.9)
Total		5.5	6.0	(0.9)

Table 18: Transformation Pool Economic Contribution from Essex Powerlines Page 1  $\,$ 

			SUMMARY OF CONTRIBUTION CALCULATIONS  Transformation Pool - 2nd true-up												
Facility Name: Description: Customer:		Supply to Essex Count Capital Contribution All Essex Powelines	y Transmission Reinforco ocation with new Year 10	ement ) ST											
		Month Year	In-Service Date Mar-31 2018	Mar-31 2019	Project year ende Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	-> Mar-31 <u>2024</u>	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast Load Forecast (MW) Load adjustments (MW) Tariff Applied (\$/KW/Month) Incremental Revenue - \$M Removal Costs - \$M On-going OM&A Costs - \$M Municipal Tax - \$M Net Revenue/(Costs) before taxes - \$M Income Taxes Operating Cash Flow (after taxes) - \$M		Cumulative PV @ 5.83%	0.0 0.0 0.0 0.0 0.0 0.0	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1	3.9 9.0 3.9 2.00 0.1 0.0 (9.0) 0.1 9.0 9.1	3.9 9.0 3.9 2.00 0.1 0.0 (0.0) 0.1 0.0 0.1	3.9 0.0 3.9 2.00 0.1 0.0 0.1 (0.0) 0.1	3.9 9.0 3.9 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1	3.8 9.0 3.8 2.00 0.1 0.0 0.1 (0.0) 0.1	3.8 <u>0.0</u> 3.8 <u>2.00</u> 0.1 0.0 (0.0) 0.1 (0.0) 0.1	3.8 0.0 3.8 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1	9 3.8 0.0 3.8 2.00 0.1 0.0 0.0 0.1 (0.0) 0.1	3.7 9.0 3.7 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1	3.7 0.0 3.7 2.00 0.1 0.0 0.1 (0.0) 0.1	3.7 9.0 3.7 2.00 0.1 0.0 (9.0) 0.1 (9.0) 0.1
PV Operating Cash Flow (after taxes) - \$M	(A)	1.0	0.0	0.1	0.1	0.1	0.1	<u>0.1</u>	<u>0.1</u>	0.1	0.1	0.0	0.0	0.0	0.0
Capital Expenditures - \$M  Upfront - capital cost before overheir - Overheads - APUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M  Capital Expenditures - \$M  PV CCA Residual Tax Shield - \$M  PV Working Capital - \$M  PV Capital (after taxes) - \$M  Cumulative PV Cash Flow (after taxes) - \$M	(B)	(1.3)	(1.3) 0.0 0.0 (1.3) (1.3) 0.0 0.0 (1.3)	0.0 (1.3)	0.0 (1.2)	0.0 (1.1)	0.0 (1.0)	0.0 (1.0)	0.0 ( <u>0.9)</u>	0.0 ( <u>0.8)</u>	0.0 ( <u>0.8)</u>	0.0 ( <u>0.7)</u>	0.0 ( <u>0.7)</u>	0.0 ( <u>0.7)</u>	0.0 (0.6)
Cultulative FV Casti Flow (alter taxes) - \$W (	A) + (B)	(0.3)	(1a)	गुन्ध	प्रस्	, uni	1201	11.01	10:21	10.01	10.01	10.7.1	18.77	<u>w.r.ı</u>	10.01
		Discounted Cash FI	ow Summary												
Economic Study Horizon - Years:		25													
Discount Rate - %		5.83%													
		Before Cont \$M	-	After Cont \$M	_	Impact \$M									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV income Taxes PV CCA Tax Shield PV Capital - Upfront Add: PV Capital - On-going PV Working Capital PV Surplus / (Shortfall) Profitability Index*  Notes: "PV of total cash flow, excluding net capital expenditure & on-going		1.2 0.0 (0.1) (0.3) 0.2 1.3) 0.0 (1.3) 0.0 (0.3) 0.0 0.0 0.0 0.8	(1.3) 0.4	1.2 0.0 (0.1) (0.3) 0.1 (1.0) 0.0 0.0 1.0	on disposal	(0.1) 0.4 0.3									

Table 18: Transformation Pool Economic Contribution from Essex Powerlines Page 2

PV Capital (after taxes) - \$M

Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)

	9-Jun-15 17503						SUMN	MARY OF COM Transforma	NTRIBUTION tion Pool - 2n		NS				
Facility Name:		oly to Essex County Transm													
Description:		tal Contribution Allocation v	with new Year 10	0 ST											
Customer:	ESSE	ex Powelines													
				< I	Project year end	led - annualized	from In-Service	Date	->						
		Month Year	Mar-31 2031	Mar-31 <u>2032</u>	Mar-31 2033	Mar-31 2034	Mar-31 2035	Mar-31 2036	Mar-31 2037	Mar-31 2038	Mar-31 2039	Mar-31 2040	Mar-31 2041	Mar-31 2042	Mar-31 2043
Revenue & Expense Forecast			13	14	15	16	17	18	19	20	21	22	23	24	25
Load Forecast (MW)			3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5
Load adjustments (MW)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Load adjustments (WW)			3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5
Tariff Applied (\$/kW/Month)			2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Incremental Revenue - \$M			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Removal Costs - \$M						***								***	***
On-going OM&A Costs - \$M			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Municipal Tax - \$M			(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Net Revenue/(Costs) before taxes - \$M			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Income Taxes			(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Operating Cash Flow (after taxes) - \$M			<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	(0.0) <u>0.1</u>
PV Operating Cash Flow (after taxes) - \$M (A	A)		0.0	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0	0.0	0.0	<u>0.0</u>	0.0	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Capital Expenditures - \$M															
Upfront - capital cost before overheads & A - Overheads - AFUDC	*FUDC														
Total upfront capital expenditures															
On-going capital expenditures			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV On-going capital expenditures															
Total capital expenditures - \$M															
Capital Expenditures - \$M															
PV CCA Residual Tax Shield - \$M															
PV Working Capital - \$M															

<u>Table 18: Transformation Pool Economic Contribution from Essex Powerlines Page 3</u>

Capital Contributions				
	Date	PV of Cont \$M	Previous Cont Payments \$M	Current Cont / (Credit) \$M
Initial economic evaluation	2018	0.5	0.5	·
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.1)		(0.1)
Total		0.4	0.5	(0.1)

Table 19: Transformation Pool Economic Contribution from E.L.K. Page 1

Date:         9-Ju           Project #         175	un-15 03					SUMM	MARY OF COI Transforma	NTRIBUTION tion Pool - 2n		INS				
Facility Name: Description: Customer:	Supply to Essex Co Capital Contribution E.L.K.	unty Transmission Reinforc Allocation with Year 10 - 1	ement IOMW ST											
outono.	LiLik	In-Service												
	Month Year		Mar-31 2019	Project year ende Mar-31 2020 2	ed - annualized Mar-31 2021 3	from In-Service Mar-31 2022 4	Date Mar-31 2023 5	-> Mar-31 <u>2024</u> 6	Mar-31 2025 7	Mar-31 2026 8	Mar-31 2027 9	Mar-31 2028 10	Mar-31 2029	Mar-31 2030
Revenue & Expense Forecast  Load Forecast (MW)  Load adjustments (MW)  Tariff Applied (\$/kW/Month)  Incremental Revenue - \$M  Removal Costs - \$M  On-going OM&A Costs - \$M  Municipal Tax - \$M  let Revenue/(Costs) before taxes - \$M  Income Taxes  Operating Cash Flow (after taxes) - \$M  PV Operating Cash Flow (after taxes) - \$M  Upfront - capital cost before overheads & AFI	Cumulative PV @ 5.83% 1.1	0.0 0.0 0.0 0.0 0.0 0.0 0.0	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1 (0.0)	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1	4.0 <u>0.0</u> 4.0 <u>2.00</u> 0.1 0.0 ( <u>0.0</u> ) 0.1 ( <u>0.0</u> ) <u>0.1</u>	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1 (0.0)	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1 (0.0)	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1 (0.0) 0.1	4.0 0.0 4.0 2.00 0.1 0.0 (0.0) 0.1 (0.0) 0.1 (0.0) 0.1	4.0 <u>0.0</u> 4.0 <u>2.00</u> 0.1 0.0 ( <u>0.0</u> ) 0.1 ( <u>0.0</u> ) 0_1	4 0 4 2.C. 0 0 0 0 0 0 0
- Overheads - AFUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M Capital Expenditures - \$M Capital Expenditures - \$M		0.0 0.0 (1.2) 0.0 (1.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
PV CCA Residual Tax Shield - \$M PV Working Capital - \$M PV Capital (after taxes) - \$M (B) Lumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(0.1)	0.0 <u>0.0</u> ( <u>1.2)</u> ( <u>1.2)</u>	(1.1)	(1.0)	(1.0)	(0.9)	(0.8)	(0.8)	(0.7)	(0.7)	(0.6)	(0.6)	(0.5)	<u>(0.</u>
	Discounted Cash	Flow Summary												
Economic Study Horizon - Years:	25													
Discount Rate - %	5.83% Before Cont		After Cont		Impact									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taws PV Capital - Upfront Add: PV Capital - Upfront Add: PV Capital - On-oping PV Working Capital PV Surplus / (Shortfall) Profitability Index*  Iotes: PV of total cash flow, excluding net capital expenditure & on-going capital	\$M  1.3 0.0 (0.1) (0.3) 0.2 (1.2) 0.0 (1.2) 0.0 (0.1) 0.0 1.2 1.2 0.0 0.0 0.1) 0.9	(1.2) 0.2	\$M  1.3 0.0 (0.1) (0.3) 0.2 (1.0) 0.0 0.0 1.0	on disposal	0.0 (0.0) 0.2 0.1									

Table 19: Transformation Pool Economic Contribution from E.L.K. Page 2

Date:	9-Jun-15
Project#	17503

Facility Name:		ty Transmission Reinford												
Description:		location with Year 10 - 1	0MW ST											
Customer:	E.L.K.													
						from In-Service								
	Month	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Year	<u>2031</u>	2032	2033	<u>2034</u>	<u>2035</u>	<u>2036</u>	<u>2037</u>	2038	2039	<u>2040</u>	<u>2041</u>	2042	2043
		13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast														
Load Forecast (MW)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.0</u> 4.0	0.0	0.0	0.0	<u>0.0</u> 4.0	<u>0</u> 4
		4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.
Tariff Applied (\$/kW/Month)		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00 0.1	<u>2.0</u>
Incremental Revenue - \$M		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.
Removal Costs - \$M														
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	
Net Revenue/(Costs) before taxes - \$M		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	<u>(0.</u> 0.
Income Taxes		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.
Operating Cash Flow (after taxes) - \$M		<u>0.1</u>	<u>0.1</u>	0.1	0.1	0.1	0.1	0.1	0.1	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.</u>
Sportaining Castillion (and taxos) 4		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> <del></del></u>	<u> </u>	***	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
PV Operating Cash Flow (after taxes) - \$M (A	A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & A	AFUDC													
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
PV On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Total capital expenditures - \$M														
Capital Expenditures - \$M														
•														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (E	В)													
Cumulative PV Cash Flow (after taxes) - \$M (A) + (E	D)	(0.4)	(0.4)	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.

Table 19: Transformation Pool Economic Contribution from E.L.K. Page 3

Capital Contributions				
•	Date	PV of Cont \$M	Previous Cont Payments \$M	Current Cont / (Credit) \$M
Initial economic evaluation	2018	0.2	0.2	
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.1)		(0.1)
Total		0.2	0.2	(0.1)

Table 20: Transformation Pool Economic Contribution from Entegrus Page 1

Project #  Facility Name: Description: Customer:	17503							ransrorma	tion Pool - 2n	u true-up					
Description:															
Description:		Supply to Essex Count	/ Transmission Painfor	coment											
Customer:		Capital Contribution All													
		Entegrus													
			In-Service		B		· · · · · · · · · · · · · · · · · · ·								
		Month	Date Mar-31	< Mar-31	Project year ende Mar-31	ea - annualizea Mar-31	from in-Service Mar-31	Date Mar-31	-> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
		Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenue & Expense Forecast			0	1	2	3	4	5	6	7	8	9	10	11	12
Load Forecast (MW)				0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.
Load adjustments (MW)				0.0 0.3	0.0 0.3	0.0 0.3	0.0 0.3	0.0 0.3	0.0 0.3	0.0 0.3	0.0 0.4	<u>0.0</u> 0.4	0.0 0.4	0.0 0.4	0.
Tariff Applied (\$/kW/Month)				2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.0
ncremental Revenue - \$M				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Removal Costs - \$M			0.0												_
On-going OM&A Costs - \$M Municipal Tax - \$M			0.0	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0. (0.
Net Revenue/(Costs) before taxes - \$M			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Income Taxes			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.
Operating Cash Flow (after taxes) - \$M		Cumulative PV @	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
		5.83%													
PV Operating Cash Flow (after taxes) - \$M	(A)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Capital Expenditures - \$M															
Upfront - capital cost before overhead	is & AFUDC		(0.2)												
- Overheads			0.0												
<ul> <li>- AFUDC</li> <li>Total upfront capital expenditures</li> </ul>			0.0 (0.2)												
On-going capital expenditures			(0.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
PV On-going capital expenditures			0.0												
Total capital expenditures - \$M Capital Expenditures - \$M			(0.2)												
PV CCA Residual Tax Shield - \$M			0.0												
PV Working Capital - \$M			0.0												
PV Capital (after taxes) - \$M	(B)	(0.2)	(0.2)												
Cumulative PV Cash Flow (after taxes) - \$M (A)	) + (B)	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.
		Discounted Cash Flo	ow Summary												
Economic Study Horizon - Years:		25													
Discount Rate - %		5.83%													
Discount Rate - //															
		Before Cont		After Cont		Impact									
		\$M	•	\$M	_	\$M									
PV Incremental Revenue		0.1		0.1											
PV OM&A Costs		0.0		0.0											
PV Municipal Tax PV Income Taxes		(0.0) (0.0)		(0.0) (0.0)											
PV CCA Tax Shield		0.0		0.0		(0.0)									
PV Capital - Upfront Add: PV Capital Contribution Allocation	(O	0.2) 0.0 (0.2)	(0.2) <b>0.1</b>	(0.1)		0.1									
PV Capital - On-going		0.0		0.0		0.1									
PV Working Capital PV Surplus / (Shortfall)		0.0 (0.1)		0.0	-	0.1									
Profitability Index*		0.6	•	1.0	-										
		0.0		1.0											
Notes: PV of total cash flow, excluding net capital expenditure & on-goi	ing canital & proces	de on dienoeal / DV of not	tal evnendituro 8 on aci	canital & proces-	on diennent										
r v or roral cash flow, excluding her capital expenditure & on-got	ній сарігаі є іносев	us on uispusar/ r v or net capr	an experiulture a ori-going	сарна о ргосееоз	on dispusal										

Table 20: Transformation Pool Economic Contribution from Entegrus Page 2  $\,$ 

Date:	9-Jun-15	SUMMARY OF CONTRIBUTION CALCULATIONS
Project #	17503	Transformation Pool - 2nd true-up
		J

Facility Name: Description: Customer:	Supply to Essex County Capital Contribution Allo Entegrus	Transmission Reinforce cation with new Year 10												
	Month Year	Mar-31	: F Mar-31 <b>2032</b>	roject year end Mar-31 2033	ed - annualized Mar-31 2034	from In-Service Mar-31 2035	Date Mar-31 2036	Mar-31	Mar-31	Mar-31 2039	Mar-31 2040	Mar-31	Mar-31 2042	Mar-31
	Year	<u>2031</u>	<u>2032</u> 14	<u>2033</u> 15	<u>2034</u> 16	2035 17	<u>2036</u> 18	2037 19	2038 20	21	22	2041 23	2042 24	2043 25
Revenue & Expense Forecast		13	14	15	10	"	10	19	20	21	22	23	24	23
Load Forecast (MW)		0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Tariff Applied (\$/kW/Month)		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00 0.0
Incremental Revenue - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Removal Costs - \$M														
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Municipal Tax - \$M  Net Revenue/(Costs) before taxes - \$M		( <u>0.0)</u> 0.0	( <u>0.0)</u> 0.0	( <u>0.0)</u> 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	( <u>0.0)</u> 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0
Income Taxes		(0.0)	(0.0)	(0.0)			0.0 (0.0)	(0.0)	(0.0)		(0.0)			
Operating Cash Flow (after taxes) - \$M		0.0	0.0	0.0	(0.0) 0.0	(0.0) 0.0	0.0	0.0	0.0	(0.0) <u>0.0</u>	0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0
Operating Gash Flow (and taxes) - win		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
PV Operating Cash Flow (after taxes) - \$M (A)		<u>0.0</u>	<u>0.0</u>	0.0	0.0	<u>0.0</u>	0.0	0.0	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDC - Overheads - AFUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total capital expenditures - \$M  Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)			(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	

Table 20: Transformation Pool Economic Contribution from Entegrus Page 3  $\,$ 

Capital Contributions		PV of	Previous	Current
	Date	Cont \$M	Cont Payments \$M	Cont / (Credit) \$M
nitial economic evaluation	2018	0.1	0.1	φινι [
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.0)		(0.0)
Total		0.1	0.1	(0.0)

Table 21: Allocation of Transformation Contribution to Distributors (\$M)

Hydro One Distribution Capital	
Contribution to Hydro One	\$ 7.5
Transmission	

Distributor	C	Capital Contribution Allocation	Allocation Percentage
Hydro One Distribution	\$	5.5 <sup>1</sup>	73.4%
Essex Powerlines	\$	0.4 2	4.9%
E.L.K.	\$	0.2 3	2.1%
Entegrus	\$	0.1 4	1.2%
Total	\$	6.1	81.7%

<sup>&</sup>lt;sup>1.</sup> JT 1.11 Table 17

<sup>&</sup>lt;sup>2.</sup> JT 1.11 Table 18

<sup>&</sup>lt;sup>3.</sup> JT 1.11 Table 19

<sup>&</sup>lt;sup>4.</sup> JT 1.11 Table 20

Table 22: Transformation Pool Cost Allocation to New ST Customers (\$M)

Customer Capacity	Contracted Capacity (MW)	% of Contracted Capacity
Hydro One Distribution Ratepayers	36.1	47.0%
New ST Customers	35.8	46.5%
Year 10 ST	5.0	6.5%
TOTAL	76.8	100.0%

Allocation of Project Costs	to Hydro One Distribut	ion
Capital Expenditures	\$	17.5
Removal Costs	\$	-
Total Costs	\$	17.5

Allocation of Hydro One Distribution Project Costs by Customer Capacity	 ne Distribution tepayers	New	ST Customers	Year 10 ST	Total
% of Contracted Capacity	47.0%		46.5%	6.5%	100.0%
Capital Expenditures	\$ 8.2	\$	8.1	\$ 1.1	\$ 17.5
Removal Costs	\$ -	\$	-	\$ -	\$ -
Total	\$ 8.2	\$	8.1	\$ 1.1	\$ 17.5

Table 23: Transformation Pool Economic Contribution from New ST Customers Page 1

Date: Project #	9-Jun-15 17503						SUMM		NTRIBUTION ition Pool - 2r		NS				
Facility Name: Description:			inty Transmission Reinford Allocation with Year 10 ST												
Customer:		New ST Customers													
			In-Service Date	<	Project year end	ed - annualized	from In-Service	Date	->						
		Month Year	Mar-31 2018	Mar-31 2019	Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023	Mar-31 2024	Mar-31 2025	Mar-31 2026	Mar-31 2027	Mar-31 2028	Mar-31 2029	Mar-31 2030
tevenue & Expense Forecast  Load Forecast (MW)  Load adjustments (MW)			Ü	27.1 0.0	27.4 0.0	27.8 <u>0.0</u>	28.1 0.0	28.5 0.0	28.8 0.0	29.2 0.0	29.5 0.0	29.9 0.0	30.2 0.0	30.6 0.0	30
Tariff Applied (\$/kW/Month)  ncremental Revenue - \$M				27.1 2.00 0.7	27.4 2.00 0.7	27.8 2.00 0.7	28.1 2.00 0.7	28.5 2.00 0.7	28.8 2.00 0.7	29.2 2.00 0.7	29.5 2.00 0.7	29.9 2.00 0.7	30.2 2.00 0.7	30.6 2.00 0.7	30 2.0 0
Removal Costs - \$M On-going OM&A Costs - \$M Municipal Tax - \$M			0.0	0.0 (0.0)		0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0 ( <u>0</u> 0
let Revenue/(Costs) before taxes - \$M Income Taxes Operating Cash Flow (after taxes) - \$M		Cumulative PV @	0.0 <u>0.0</u> <u>0.0</u>	0.6 (0.1) 0.5	0.6 (0.0) <u>0.6</u>	0.6 (0.0) 0.6	0.6 (0.0) 0.6	0.6 (0.0) 0.6	0.7 (0.1) 0.6	0.7 (0.1) <u>0.6</u>	0.7 (0.1) 0.6	0.7 (0.1) 0.6	0.7 (0.1) 0.6	0.7 (0.1) 0.6	( <u>0</u>
V Operating Cash Flow (after taxes) - \$M	(A)	5.83% <b>8.0</b>	0.0	0.5	0.6	<u>0.5</u>	<u>0.5</u>	0.5	0.4	0.4	0.4	0.4	0.3	0.3	<u>o</u>
apital Expenditures - \$M Upfront - capital cost before overhead - Overheads - AFUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M	ds & AFUDC		(8.1) 0.0 <u>0.0</u> (8.1) 0.0 (8.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
tapital Expenditures - \$M 'V CCA Residual Tax Shield - \$M 'V Working Capital - \$M 'V Capital (after taxes) - \$M :umulative PV Cash Flow (after taxes) - \$M (A	(B) A) + (B)	(8.1)	0.0 <u>0.0</u> (8.1) (8.1)	(7.6)	(7.0)	(6.5)	(6.0)	(5.5)	(5.1)	(4.7)	(4.3)	(3.9)	(3.6)	(3.2)	(2
		Discounted Cash	Flow Summary												
conomic Study Horizon - Years:		25													
Discount Rate - %		5.83%													
		Before Cont \$M	-	After Cont \$M	· <u>-</u>	Impact									
PV Incremental Revenue PV OM&A Costs PV Municipal Tax PV Income Taxes PV Income Taxes PV CGA Tax Shield PV Capital - Upfront Add: PV Capital Contribution Allocation PV Capital - On-going PV Working Capital PV Surplus (Shortfall)	.8)  		(8.1) 0.1	9.7 0.0 (0.5) (2.5) 1.2 (8.0) 0.0 0.0	: =	(0.0) (0.0) 0.1									
		1.0		1.0											

Table 23: Transformation Pool Economic Contribution from New ST Customers Page 2

 Date:
 9-Jun-15

 Project#
 17503

Facility Name: Description:	Supply to Essex County T Capital Contribution Alloca													
Customer:	New ST Customers													
			<	Project year end	od - annualizod	from In-Sorvico	Date	_						
	Month Year	Mar-31 <b>2031</b>	Mar-31 2032	Mar-31 2033	Mar-31 2034	Mar-31 2035	Mar-31 2036	Mar-31 2037	Mar-31 2038	Mar-31 2039	Mar-31 <b>2040</b>	Mar-31 <b>2041</b>	Mar-31 2042	Mar-31 2043
	100	13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast														
Load Forecast (MW)		31.3	31.6	32.0	32.3	32.7	33.0	33.4	33.7	34.1	34.4	34.8	35.1	35.
Load adjustments (MW)		<u>0.0</u> 31.3	<u>0.0</u> 31.6	<u>0.0</u> 32.0	<u>0.0</u> 32.3	<u>0.0</u> 32.7	<u>0.0</u> 33.0	<u>0.0</u> 33.4	<u>0.0</u> 33.7	<u>0.0</u> 34.1	<u>0.0</u> 34.4	<u>0.0</u> 34.8	<u>0.0</u> 35.1	<u>0.</u> 35.
Tariff Applied (\$/kW/Month)		2.00 0.8	2.00 0.8	2.00	2.00	2.00	2.00 0.8	2.00 0.8	2.00 0.8	2.00 0.8	2.00 0.8	2.00 0.8	2.00 0.8	2.0
Incremental Revenue - \$M		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.
Removal Costs - \$M														
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	<u>(0.</u>
Net Revenue/(Costs) before taxes - \$M		0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	8.0	0.8	8.0	0.8	0.
Income Taxes		(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	<u>(0.</u>
Operating Cash Flow (after taxes) - \$M		<u>0.6</u>	0.6	<u>0.6</u>	<u>0.6</u>	0.6	0.6	0.6	<u>0.6</u>	<u>0.6</u>	<u>0.6</u>	<u>0.6</u>	<u>0.6</u>	<u>0.</u>
PV Operating Cash Flow (after taxes) - \$M (A)		0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	<u>0.</u>
Capital Expenditures - \$M  Upfront - capital cost before overheads & AFI  - Overheads	UDC													
- AFUDC Total upfront capital expenditures														
On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(2.6)	(2.4)	(2.1)	(1.8)	(1.6)	(1.4)	(1.2)	(1.0)	(0.8)	(0.6)	(0.4)	(0.3)	(0.

Table 23: Transformation Pool Economic Contribution from New ST Customers Page 3

Capital Contributions		PV of	Previous	Current
	Date	Cont	Cont Payments	Cont / (Credit)
nitial economic evaluation	2018	\$M 0.6	\$M 0.6	\$M
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.5)		(0.9)
Total		0.1	0.6	(0.9)

Table 24: Transformation Pool Economic Contribution from Hydro One Distribution Ratepayers Page 1

SUMMARY OF CONTRIBUTION CALCULATIONS Project # 17503 Transformation Pool - 2nd true-up Facility Name: Supply to Essex County Transmission Reinforcement Description: Capital Contribution Allocation with New Year 10 ST Customer: Hydro One Distribution Ratepayer In-Service Date Project year ended - annualized from In-Service Date Mar-31 Month Mar-31 Mar-31 Mar-31 2019 2021 2025 2026 Year 2018 2020 2022 2023 2024 2027 2028 2029 2030 Revenue & Expense Forecast Load Forecast (MW) 9.8 10.5 11.3 12.0 15.0 15.8 16.6 18.1 12.8 13.5 14.3 17.3 Load adjustments (MW) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.8 10.5 11.3 12.0 12.8 13.5 14.3 15.0 15.8 16.6 17.3 18.1 Tariff Applied (\$/kW/Month) 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 Incremental Revenue - \$M 0.2 0.3 0.3 0.3 0.3 0.4 0.4 0.4 0.3 0.3 0.4 Removal Costs - \$M 0.0 On-going OM&A Costs - \$M 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Municipal Tax - \$M (0.0)(0.0)(0.0)(0.0)(0.0)(0.0)(0.0)(0.0)(0.0)(0.0)(0.0)(0.0)Net Revenue/(Costs) before taxes - \$M 0.0 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.4 Income Taxes 0.0 0.1 0.1 0.1 0.1 0.0 0.0 0.0 (0.0)(0.0)(0.0)(0.0)0.0 Operating Cash Flow (after taxes) - \$M 0.0 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.4 Cumulative PV @ 5.83% PV Operating Cash Flow (after taxes) - \$M (A) 4.8 0.0 0.2 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 Capital Expenditures - \$M Upfront - capital cost before overheads & AFUDC (8.2)- Overheads 0.0 - AFUDC 0.0 Total upfront capital expenditures (8.2)On-going capital expenditures 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 PV On-going capital expenditures 0.0 Total capital expenditures - \$M (8.2) Capital Expenditures - \$M PV CCA Residual Tax Shield - \$M 0.0 PV Working Capital - \$M 0.0 PV Capital (after taxes) - \$M (8.2) (8.2)Cumulative PV Cash Flow (after taxes) - \$M (A) + (B) (3.4)(8.2)(7.9)(7.6)(7.4)(7.1)(6.8)(6.6)(6.4)(6.2)(5.9)(5.7)(5.5)(5.3)**Discounted Cash Flow Summary** Economic Study Horizon - Years: 25 Discount Rate - % 5.83% Before Cont Cont \$M PV Incremental Revenue 5.4 5.4 PV OM&A Costs 0.0 0.0 PV Municipal Tax (0.5)(0.5)PV Income Taxes (1.3) (0.0)(1.3)PV CCA Tax Shield 0.6 PV Capital - Upfront (8.2) Add: PV Capital Contribution Allocation 0.0 (8.2)(4.2)4.0 PV Capital - On-going 0.0 0.0 PV Working Capital PV Surplus / (Shortfall) (3.4) 0.0 3.4 Profitability Index\* 0.6 1.0 Notes: \*PV of total cash flow, excluding net capital expenditure & on-going capital & proceeds on disposal / PV of net capital expenditure & on-going capital & proceeds on disposal

Table 24: Transformation Pool Economic Contribution from Hydro One Distribution Ratepayers Page 2

Date: Project#	9-Jun-15 17503						SUMM		NTRIBUTION ition Pool - 2r		ONS				
Facility Name: Description: Customer:			ty Transmission Reinforc llocation with New Year 1 n Ratepayer												
				<	Project year end	led - annualized	from In-Service	Date	->						
		Month Year	Mar-31 2031	Mar-31 2032	Mar-31 2033	Mar-31 2034	Mar-31 2035	Mar-31 2036	Mar-31 2037	Mar-31 2038	Mar-31 2039	Mar-31 2040	Mar-31 <u>2041</u>	Mar-31 2042	Mar-31 2043
B			13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast Load Forecast (MW)			18.9	19.6	20.4	24.0	20.0	22.0	23.5	24.3	05.4	05.0	00.0	07.0	20.5
Load Forecast (MW)  Load adjustments (MW)					20.4	21.2 0.0	22.0	22.8 <u>0.0</u>			25.1	25.9	26.8 <u>0.0</u>	27.6	28.5
Load adjustments (ivivv)			<u>0.0</u> 18.9	<u>0.0</u> 19.6	<u>0.0</u> 20.4	<u>0.0</u> 21.2	<u>0.0</u> 22.0	<u>0.0</u> 22.8	<u>0.0</u> 23.5	<u>0.0</u> 24.3	<u>0.0</u> 25.1	<u>0.0</u> 25.9	26.8	<u>0.0</u> 27.6	<u>0.0</u> 28.5
Tariff Applied (\$/kW/Month)			2.00		2.00	2.00	2.00	2.00			2.00	2.00	2.00		2.00
Incremental Revenue - \$M			0.5	2.00 0.5	0.5	0.5	0.5	0.5	2.00 0.6	2.00 0.6	0.6	0.6	2.00 0.6	2.00 0.7	2.00 0.7
Removal Costs - \$M			0.5	0.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7
On-going OM&A Costs - \$M			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Municipal Tax - \$M			(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Net Revenue/(Costs) before taxes - \$M			0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Income Taxes			(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	
Operating Cash Flow (after taxes) - \$M			0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	(0.1) 0.5
PV Operating Cash Flow (after taxes) - \$M	(A)		<u>0.2</u>	0.2	0.2	0.2	<u>0.2</u>	0.2	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>
Capital Expenditures - \$M															ı
Upfront - capital cost before overhead - Overheads - AFUDC Total upfront capital expenditures On-going capital expenditures PV On-going capital expenditures Total capital expenditures - \$M Capital Expenditures - \$M	ds & AFUDC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PV CCA Residual Tax Shield - \$M															
PV Working Capital - \$M															
PV Capital (after taxes) - \$M	(B)														
. , , , ,	` '														
Cumulative PV Cash Flow (after taxes) - \$M (A	.) + (B)		<u>(5.2)</u>	<u>(5.0)</u>	(4.8)	<u>(4.6)</u>	<u>(4.5)</u>	<u>(4.3)</u>	(4.2)	(4.0)	(3.9)	(3.8)	(3.6)	(3.5)	(3.4)

Table 24: Transformation Pool Economic Contribution from Hydro One Distribution Ratepayers Page 3

Capital Contributions		PV of	Previous	Current
	Date	Cont \$M	Cont Payments \$M	Cont / (Credit) \$M
nitial economic evaluation	2018	4.5	4.5	φινι
1st true-up	2023	0.0	0.0	
2nd true-up	2028	(0.5)		(0.9)
Total		4.0	4.5	(0.9)

Table 25: Transformation Pool Economic Contribution from Year 10 ST Page 1  $\,$ 

Date:         9-Ju           Project#         175	un-15 03					SUMN		NTRIBUTION ition Pool - 2n		INS				
Facility Name: Description:	Capital Contributio	ounty Transmission Reinford n Allocation with Year 10 ST	ement											
Customer:	Year 10 1MW ST													
		In-Service Date	c	Project year end	ed - annualized	from In-Service	Date							
	Month Year	Mar-31 2018	Mar-31 2019	Mar-31 2020	Mar-31 2021	Mar-31 2022	Mar-31 2023 5	Mar-31 2024	Mar-31 2025 7	Mar-31 2026	Mar-31 2027	Mar-31 2028 10	Mar-31 2029	Mar-31 2030 12
Revenue & Expense Forecast Load Forecast (MW)		Ü	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	12 5.
Load adjustments (MW)			0.0 0.0	0.0 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	0.0 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 0.0	<u>0.0</u> 5.0	<u>0.0</u> 5.0	<u>0.</u> 5.
Tariff Applied (\$/kW/Month)  Incremental Revenue - \$M			0.0	2.00 0.0	2.00 0.0	2.00 0.0	0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.0	2.00 0.1	2.00 0.1	<u>2.0</u> 0.
Removal Costs - \$M On-going OM&A Costs - \$M Municipal Tax - \$M		0.0 0.0	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0. (0.
Net Revenue/(Costs) before taxes - \$M Income Taxes		0.0 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	(0.0) 0.0	0.1 (0.0)	0.1	0. (0.
Operating Cash Flow (after taxes) - \$M	Cumulative PV @	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.
PV Operating Cash Flow (after taxes) - \$M (A)	5.83% <b>0.7</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	<u>0.1</u>	<u>0.</u>
Capital Expenditures - \$M  Upfront - capital cost before overheads & AFI  - Overheads  - AFUDC  Total upfront capital expenditures  On-going capital expenditures  PV On-goin capital expenditures	JDC	(1.1) 0.0 <u>0.0</u> (1.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
PV On-going capital expenditures Total capital expenditures - \$M Capital Expenditures - \$M PV CCA Residual Tax Shield - \$M		(1.1)												
PV Working Capital - \$M PV Capital (after taxes) - \$M (B) Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)	(0.5)	<u>0.0</u> (1.1) (1.1)	<u>(1.1)</u>	<u>(1.1)</u>	<u>(1.1)</u>	<u>(1.1)</u>	<u>(1.1)</u>	<u>(1.1)</u>	<u>(1.1)</u>	<u>(1.0)</u>	<u>(1.0)</u>	(1.0)	(0.9)	<u>(0.</u>
	Discounted Cash	n Flow Summary												
Economic Study Horizon - Years:	25													
Discount Rate - %	5.83%													
	Before Cont \$M	-	After Cont \$M	_	Impact \$M									
PV Incremental Revenue PV OMAA Costs PV Municipal Tax PV Income Taxes PV CCA Tax Shield PV Capital - Upfront Add: PV Capital Contribution Allocation PV Capital - On-going PV Working Capital	0.8 0.0 (0.1) (0.2) 0.2 (1.1) 0.0 (1.1) 0.0 (0.5)	(1.1)	0.8 0.0 (0.1) (0.2) 0.1 (0.6) 0.0	. <u>-</u>	(0.0) (0.1) 0.5									
PV Surplus / (Shortfall)  Profitability Index*	0.6	-	1.0	_	0.5									
Notes:  *PV of total cash flow, excluding net capital expenditure & on-going capital	I & proceeds on disposal / PV of net	capital expenditure & on-going	capital & proceeds	on disposal										

Table 25: Transformation Pool Economic Contribution from Year 10 ST Page 2

Date:	9-Jun-15
Project #	17503
•	

Facility Name:	Supply to Essex County													
Description:	Capital Contribution Allo													
Customer:	Year 10 1MW ST Custo	mer												
			c F		led - annualized	l- Oi	Date							
	Month	Mar-31	Mar-31	Project year end Mar-31	Mar-31	Mar-31	Mar-31	> Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31	Mar-31
	Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
	roui	13	14	15	16	17	18	19	20	21	22	23	24	25
Revenue & Expense Forecast		13	,4	15	10	"	10	19	20	21	22	23	24	23
Load Forecast (MW)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5
Load adjustments (MW)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0</u>
zoda dajastnonio (mm)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5
Tariff Applied (\$/kW/Month)				2.00	2.00	2.00				2.00		2.00		
ncremental Revenue - \$M		2.00 0.1	2.00 0.1	0.1	0.1	0.1	2.00 0.1	2.00 0.1	2.00 0.1	0.1	2.00 0.1	0.1	2.00 0.1	<u>2.0</u>
Removal Costs - \$M		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	·
On-going OM&A Costs - \$M		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Municipal Tax - \$M		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0
Net Revenue/(Costs) before taxes - \$M		0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
Income Taxes		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0
Operating Cash Flow (after taxes) - \$M		0.1	0.1	0.1	0.1	0.1	0.0 0.1	<u>(0.0)</u> <u>0.1</u>	<u>(0.0)</u> <u>0.1</u>	0.0 0.1	0.0 0.1	0.0 0.1	0.1	0
Operating Cash Flow (after taxes) - will		<u>v. r</u>	<u>v</u>	<u>v. r</u>	<u> V. I.</u>	<u>v</u>	<u>V. I</u>	<u>v.r</u>	<u>v. i.</u>	<u> v. i</u>	<u>v. i</u>	<u> <u>v.                                   </u></u>	<u>v</u>	<u>v</u>
PV Operating Cash Flow (after taxes) - \$M (A)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>0.</u>
Capital Expenditures - \$M														
Upfront - capital cost before overheads & AFUDO														
- Overheads														
- AFUDC														
Total upfront capital expenditures														
On-going capital expenditures		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PV On-going capital expenditures														
Total capital expenditures - \$M														
Capital Expenditures - \$M														
PV CCA Residual Tax Shield - \$M														
PV Working Capital - \$M														
PV Capital (after taxes) - \$M (B)														
		(0.0)	(0.0)	(0.0)	(0.7)	(0.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.5)	(0.5)	(0.5)	(0
Cumulative PV Cash Flow (after taxes) - \$M (A) + (B)		(0.8)	(8.0)	(0.8)	(0.7)	(0.7)	(0.6)	(0.6)	(0.6)	(0.6)	(0.5)	(0.5)	(0.5)	(0

Table 25: Transformation Pool Economic Contribution from Year 10 ST Page 3  $\,$ 

Capital Contributions		PV of	Previous	Current
	Date	Cont \$M	Cont Payments \$M	Cont / (Credit)
nitial economic evaluation	2018	0.0	0.0	Ţ
1st true-up	2023	0.0	0.0	
2nd true-up	2028	0.5		1.0
Total		0.5	0.0	1.0

Table 26: Allocation of Transformation Contribution to New ST Customers (\$M)

Hydro One Distribution Transformation	ć	
Capital Contribution Allocation	Þ	5.5

Customer	Capital Contribution Allocation		Allocation Percentage
Hydro One Distribution Ratepayers	\$	4.0 1	71.7%
New ST Customers	\$	0.1 2	2.3%
Year 10 ST	\$	0.5	
Total	\$	4.6	74.1%

<sup>&</sup>lt;sup>1.</sup> JT 1.11 Table 24

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<sup>&</sup>lt;sup>2.</sup> JT 1.11 Table 23

<sup>3&</sup>lt;sup>-</sup> JT 1.11 Table 25

Filed: 2015-06-17 EB-2013-0421 Exhibit JT1.12 Page 1 of 1

#### **UNDERTAKING JT1.12**

1
2
3

#### **Undertaking**

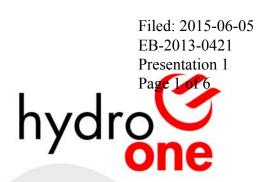
"To provide information regarding what the new connection folks have in the way of application."

#### **Response**

Hydro One understands this as a request for a status update on the customers seeking connection to Hydro One's distribution system, who were listed in Exhibit I-P2, Tab 1, Schedule 4.

This exhibit identified 34 customers with a total summer peak capacity of 20.5 MW having requested connection between March, 2011 and October, 2014. At this time, one of the original 34 customers with a summer peak demand of 400 kW has confirmed that it will not be proceeding with a connection, but one additional customer with a requested summer peak demand of 1.55 MW, applied for connection in May, 2015.

These changes maintain the number of active applications at 34, with a new total summer peak demand of 21.65 MW.



# Supply to Essex County Transmission Reinforcement (SECTR) Project – Technical Conference

June 5, 2015

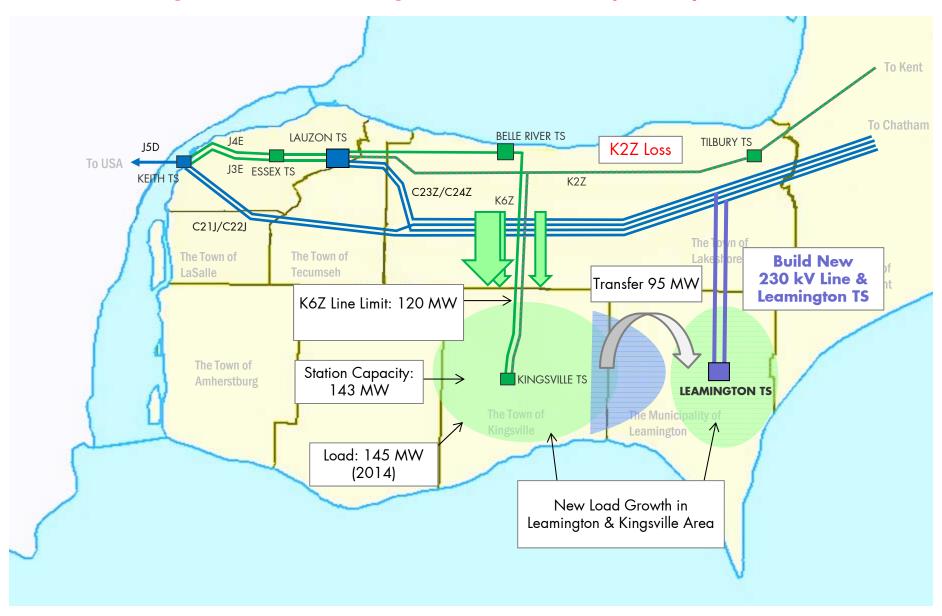
#### **Bing Young**

Director, System Planning

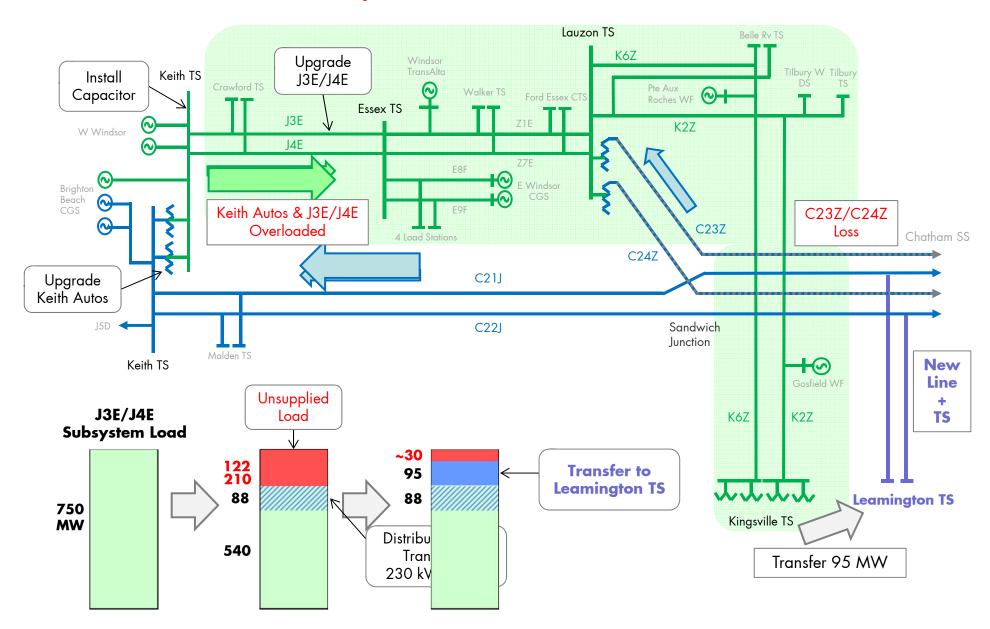
## Overview of Windsor-Essex Region



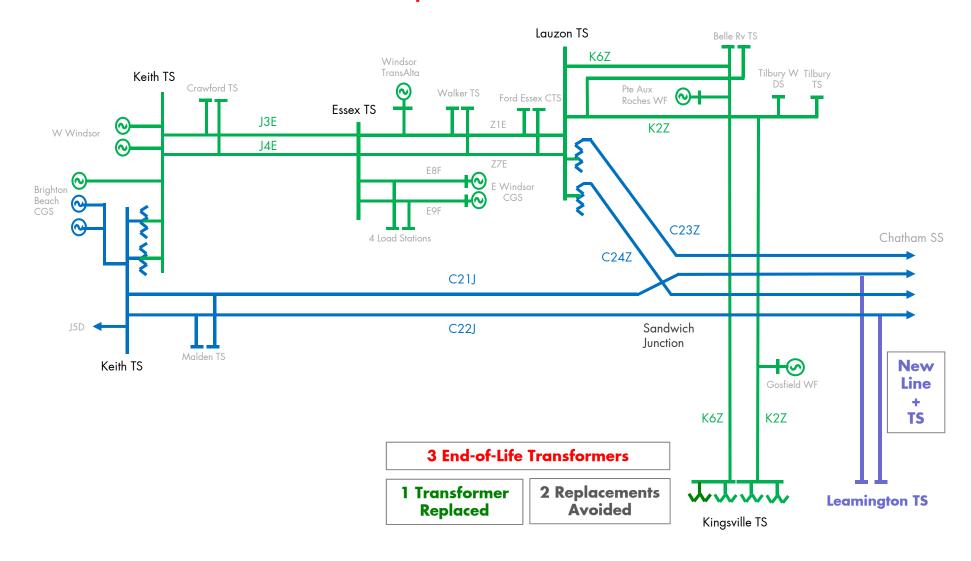
## Kingsville-Leamington Area Capacity Needs



### J3E/J4E Subsystem Load Restoration Needs



## New and Replacement Facilities





## Thank you

Filed: 2015-06-05 EB-2013-0421 Presentation 2 Page 1 of 10

### EB-2013-0421 – Hydro One Networks' Section 92 – Supply to Essex County Transmission Reinforcement Project

Independent Electricity System Operator (IESO)
Technical Conference Presentation



#### **Presentation Outline**

- IESO's Role in this Proceeding
- Two Regional Planning Needs in the Windsor-Essex Area
- Addressing the Two Needs Individually and Together
- IESO's Proposed Cost Allocation

### IESO's Role in this Proceeding

- Board proposed TSC amendments (S. 6.3.8) in 2013 suggested the IESO undertake an assessment of the appropriate allocation between customers and the pool
- IESO and OPA agreed the OPA was the appropriate party to undertake the assessment, with input from the IESO
  - The two organizations merged on January 1, 2015

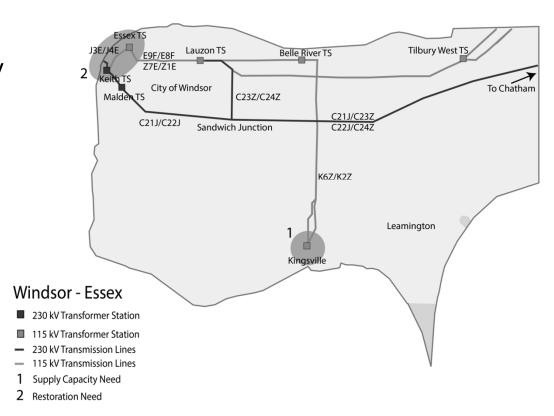


## Two Regional Planning Needs in Windsor-Essex

- 1) Supply Capacity Need

  Need for additional supply capacity in the KingsvilleLeamington area to supply forecast growth in electricity demand
- 2) Restoration Need

  Need for additional
  restoration capability on
  the 115 kV system (the
  J3E-J4E subsystem) to
  comply with the ORTAC





### Addressing the Two Needs Individually

- SECTR is the lowest cost alternative to address the supply capacity need
  - Learnington TS plus 13 km connection line
  - Cost to customers would be \$77.4 million
- A package of three investments to increase the restoration capability of the J3E/J4E transmission path is the lowest cost solution to address the restoration need in isolation
  - Package consists of upgraded transformers, reconductoring and reactive power compensation
  - Cost to the pool would be \$22.5 million
  - Situation would arise if the restoration need were addressed in advance of the supply capacity need



#### **SECTR Addresses Both Needs**

- SECTR project addresses the supply capacity need <u>as well as</u> the restoration need
  - A '2 for 1' solution
- Avoids \$22.5 million network facility investment for the J3E/J4E transmission upgrade
  - The restoration need will be addressed by SECTR



### **IESO's Proposed Cost Allocation**

- SECTR is not a "transmitter-owned connection facility that exceeds the capacity needs of the triggering load customer(s)" as envisioned in the proposed 6.3.8A
- IESO's proposed transmission cost allocation is consistent with the Board's shift in emphasis to the beneficiary pays principle
  - Proposed 6.3.8A reflects the shift to a beneficiary pays approach



### **IESO's Proposed Cost Allocation cont.**

- Proposes that savings from the avoided pool investment should be shared between the pool and the customer
- Proposes to apportion the benefit between customers and the pool
  - Total cost of individually addressing the two needs is approximately \$99.9 million
    - \$22.5 M + \$77.4 M = \$99.9 M
  - Percentage allocated to local customers:\$77.4 M/\$99.9 M = 77.5%
  - Percentage allocated to pool: \$22.5/\$99.9 M = 22.5%



## Summary of Transmission Level Cost Allocation

- Applying the 77.5% and 22.5% breakdown to the SECTR project cost of \$77.4 M:
  - Allocation to local customers = 77.5% x \$77.4 M= \$60 M
  - Allocation to pool =  $22.5\% \times $77.4 M = $17.4 M$



## Both SECTR and the J3E/J4E Upgrade Provide Additional System Benefit

- Reduce constraints on generation connected at Keith TS (i.e. congestion relief)
  - Benefits all transmission ratepayers
- Not a driving need for the project, but would be addressed by the \$22.5M investment (J3E/J4E transmission upgrade)
- Cost vs. benefit: Cost is \$22.5 M although value may be much higher

Filed: 2015-06-05 EB-2013-0421 Presentation 3

## TSC – Connection Cost Responsibility Rule Changes & Transition Period

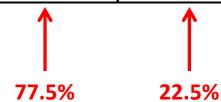
- Previously, customers pay only for costs above "otherwise planned" costs [section 6.3.6]— i.e., system benefits
- Section 6.3.6 technically removed in 2013, but rule changes not finalized (EB-2011-0043 proceeding still active)
- In the interim, H1 continues to rely on previous rules—until new rules are put in place.

#### **SECTR Cost Allocation Method**

- Is based on the beneficiary pays principle that underlies the Supplementary Proposed Amendments
- Three cost allocation approaches described in Interrogatory I-P2, Tab 2, Sched 7:
  - A. Customer pays in excess of Pool's avoided cost
  - B. Proportional benefit (SECTR Proposal)
  - C. Pool pays in excess of Customer's avoided cost

# Approach B: Pool & Customer Pays Proportional Benefit — Proposed (Without Kingsville Cost Reduction)

Cost Responsibility  in \$ million, excluding HST	Cost of Work	Cost Responsibility		Capital Contribution
	(per B-4-2)	Customers	Pool	
<b>Transmission Line Facilities</b>	45.3	35.1	10.2	31.2
<b>Station Facilities</b>	32.1	24.9	7.2	12.9
Total	77.4	60.0	17.4	44.1



## **Approach B**: Pool & Customer Pays Proportional Benefit - Proposed

With Kingsville Cost Reduction (\$6M)

Cost Responsibility  in \$ million, excluding HST	Cost of Work	Cost Responsibility		Capital Contribution
	(per B-4-2)	Customers	Pool	
<b>Transmission Line Facilities</b>	45.3	35.1	10.2	31.2
<b>Station Facilities</b>	32.1	20.2	11.9	8.2
Total	77.4	55.3	22.1	39.4

Station Facilities: \$32.1M Kingsville Cost reduction: -6.0M

 $$26.1M \times 77.5\% = 20.2$ 

## **Approach A:** Customer Pays in Excess of Pool's Avoided Cost

Cost Responsibility  in \$ million, excluding HST	Cost of Work	Cost Resp	oonsibility	Capital Contribution
	(per B-4-2)	Customers	Pool	
<b>Transmission Line Facilities</b>	45.3	32.1	13.21	<mark>28.1</mark>
<b>Station Facilities</b>	32.1	16.8	15.3 <sup>2</sup>	<mark>4.6</mark>
Total	77.4	48.9	28.5	<b>32.7</b>

 $<sup>^{1}</sup>$  \$13.2 million = \$22.5 million pool avoided cost x line-to-total cost ratio = 22.5 x (45.3 / 77.4)

J3E/J4E Transmission Path Upgrades: \$22.5M

Kingsville Cost Reduction: 6.0M

Total Avoided Pool Cost: \$28.5M

 $<sup>^2</sup>$  \$15.3 million = \$22.5 million pool avoided cost x station-to-total cost ratio plus \$6 million Kings ville cost reduction = 22.5 x (32.1 / 77.4) + 6

## **Approach C**: Pool Pays in Excess of Customer's Avoided Cost

Cost Responsibility  in \$ million, excluding HST	Cost of Work	Cost Resp	onsibility	Capital Contribution
	(per B-4-2)	Customers	Pool	
<b>Transmission Line Facilities</b>	45.3	45.3	0.0	<mark>41.8</mark>
<b>Station Facilities</b>	32.1	32.1	0.0	<mark>20.6</mark>
Total	77.4	77.4	0	<mark>62.4</mark>

## Capital Contribution Summary for the 3 Cost Allocation Approaches (\$M)

Transmission Facility	Customer Pays in Excess of Pool's Avoided Cost	B  Pool & Customers Pays  Proportional Benefit	Pool Pays in Excess of Customer's Avoided Cost
Lines	28.1	31.2	41.8
Station	4.6	8.2	20.6
Total	32.7	39.4	62.4

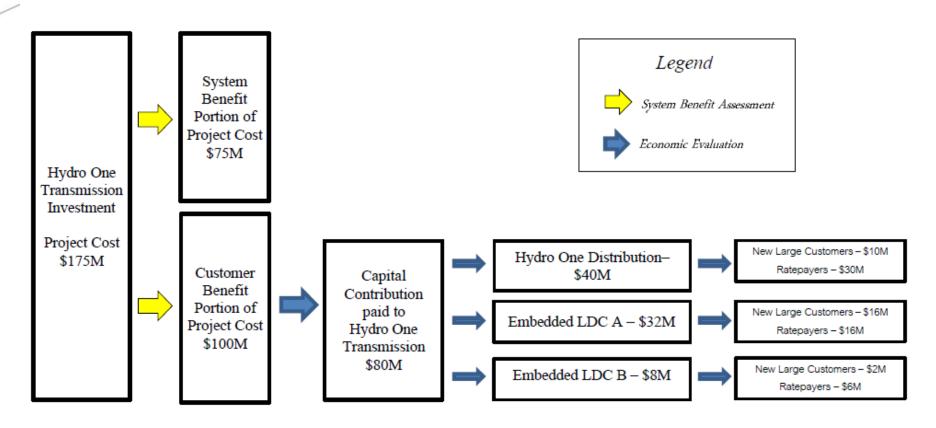


## Summary of Proposed Cost Allocation Approach



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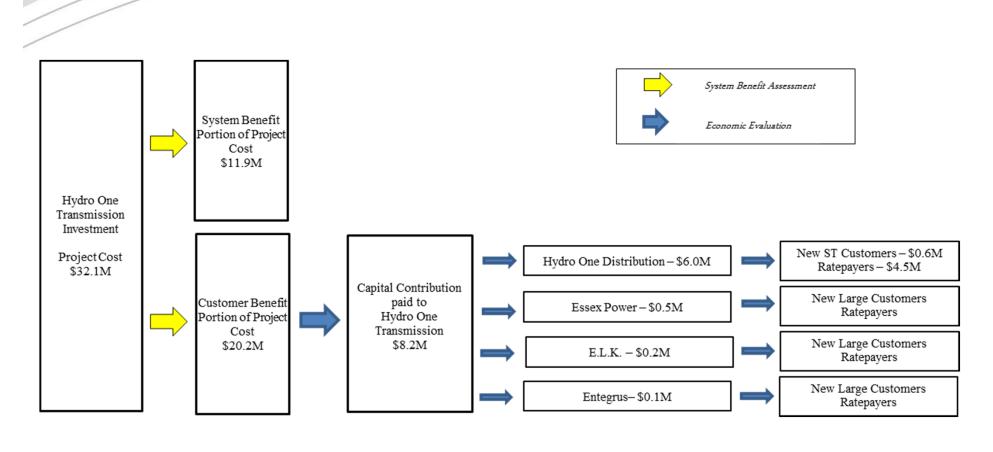
#### Flow of Costs Diagram (Illustrative Only)



#### Line Pool Allocation System Benefit Assessment System Benefit Economic Evaluation Portion of Project Cost \$10.2M Hydro One Transmission Investment New ST Customers - \$12.1M Project Cost Hydro One Distribution - \$26.3M Ratepayers - \$13.8M \$45.3M Capital Contribution New Large Customers Customer Benefit paid to Essex Power - \$2.2M Ratepayers Hydro One Portion of Project Transmission Cost New Large Customers \$31.2M \$35.1M E.L.K. - \$1.8M Ratepayers New Large Customers Entegrus-\$0.3M Ratepayers

### Transformation Pool Allocation





### Allocation to Customers



Capital Contribution (\$M)	Line Pool	Transformation Pool	Total
Distribution to Transmission	31.2	8.2	39.4

Allocation to Distributors (\$M)	Line Pool	Transformation Pool	Total
Hydro One Distribution	26.3	6.0	32.3
Essex Powerlines	2.2	0.5	2.7
E.L.K.	1.8	0.2	2.0
Entegrus	0.3	0.1	0.4
<b>Total Allocation</b>	30.7	6.8	37.4
Unallocated Capital Contribution	0.5	1.4	2.0
Total	31.2	8.2	39.4

<b>Hydro One Distribution New</b>			
ST Customers Allocation (\$M)	Line Pool	Transformation Pool	Total
New ST Customers	12.1	0.6	12.7

### No New ST Customers Scenario



<b>Capital</b>	
<b>Contribution</b>	Total w/No ST
<u>Allocation</u>	Customers
Hydro One	26.7
Distribution	36.7
Essex Powerlines	5.7
ELK Hydro	4.8
Entegrus	0.9
Total	48.1

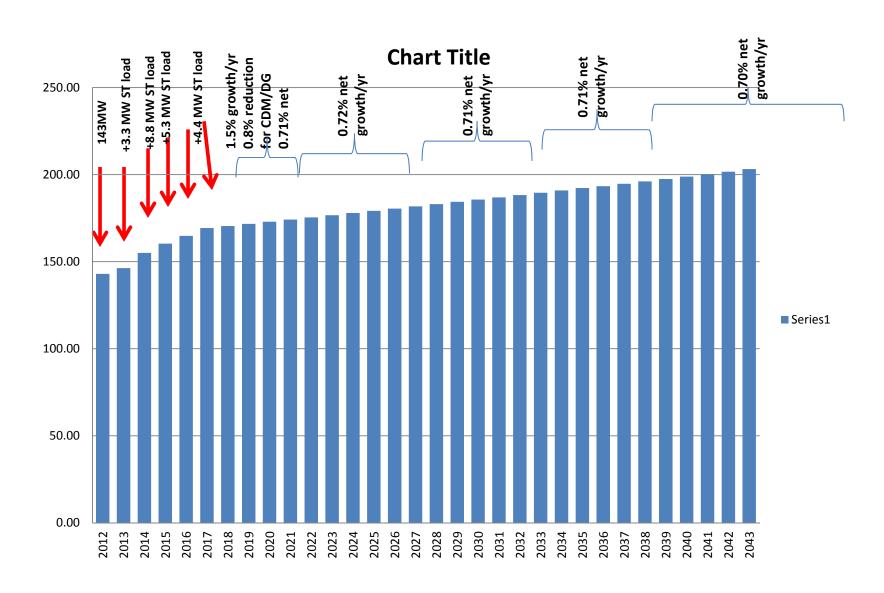
Capital Contribution
Allocation w/ST
Customers
32.3
2.7
2.0
0.4
37.4

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#### **Load Forecast**

- Top-down approach beginning with historical loads from the Kingsville feeders
- Application of the forecast large connections from the Essex Energy Report
- Econometric view of load increases over the longer term
- Net loads were grossed up by considering DG and CDM impacts
- Net load view of this on next slide

#### **Hydro One's Load Forecast for SECTR**



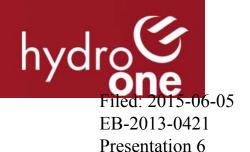
### Load Forecast/Cost Allocation Chronology

- 2012 top-down approach described in previous slide
- 2013 First set of load forecasts received from the E3C utilities that were generally aligned with the top-down approach.
- Jan. 2014 Hydro One submitted the SECTR application.
- March 2014 Hydro One received a second set of forecasts from the E3C LDCs, which were lower than the 2013 numbers.
- Aug. 2014 Hydro One provided capital contribution estimates to the E3C LDCs which had been developed using the 2013 forecast, not the later one.

### Load Forecast/Cost Allocation Chronology

- November, 2014 The E3C LDCs intervened in this proceeding, quoting concerns about the size of the capital contributions.
- April 2015 In response to an E3C interrogatory (Exhibit 1-P2-2-9),
  Hydro One provided a second set of capital contribution estimates
  to the E3C LDCs based on their most recent (i.e., March, 2014) load
  forecast; capital contributions dropped largely due to the decrease
  in the new forecasts used.

#### In Summary



- Two needs in the Windsor-Essex area:
  - Customer Need: New capacity to meet growth in Kingsville-Leamington Page 1 at 1
  - System Need: Meeting the ORTAC restoration requirement
- Instead of two separate projects, one project (SECTR) can address both System and Customer needs
- H1/IESO has proposed a Proportional Benefit cost allocation consistent with beneficiary pays principle
- H1 has proposed an approach to allocate upstream transmission costs among Distributors and their major customers
- Reviewed TSC rules, load forecast assumptions and allocation costs based on the proposed approaches.
  - Actual cost allocations and contributions will be established in CCRA's based on customer commitment, finalized customer load forecasts and actual project costs (T&D)