

File Number: EB-2015-0083

Date Filed: June 1, 2015

Exhibit 6 CALCULATION OF REVENUE DEFICIENCY OR SUFFICIENCY



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Exhibit 6

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Overview



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Revenue Deficiency or Sufficiency

2

1

CALCULATION OF REVENUE DEFICIENCY OR SUFFICIENCY

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- 5 Kingston Hydro has calculated a Gross Revenue Deficiency of \$444,116 for the 2016
- 6 Test Year as well as estimated revenue deficiencies, for the 2017-2020 test years as
- 7 follows:

8

9 **2017** - \$891,057, **2018** - \$1,322,879, **2019** - \$1,759,906, **2020**- \$2,105,607

10

- 11 The above-noted revenue deficiencies are based on comparisons to a projection of
- 12 2016 revenue at current distribution rates.

13

- 14 The revenue deficiency calculations are net of electricity price differentials captured in
- the RSVAs and also net of any cost associated with LV charges or DVA balances.

16

Determination of Utility Net Income

18

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- 19 For 2016, the utility's net income of \$1,826,636 is as detailed in Exhibit 6, Tab 1,
- 20 Schedule 1, Attachment 1, Number 1.

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- For 2017, the utility's net income of \$1,577,562 is as detailed in Exhibit 6, Tab 1,
- 23 Schedule 1, Attachment 1, Number 2.

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- For 2018, the utility's net income of \$1,312,030 is as detailed in Exhibit 6, Tab 1,
- 26 Schedule 1, Attachment 1, Number 3.



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- 1 For 2019, the utility's net income of \$1,065,616 is as detailed in Exhibit 6, Tab 1,
- 2 Schedule 1, Attachment 1, Number 4.

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- 4 For 2020, the utility's net income of \$883,631 is as detailed in Exhibit 6, Tab 1,
- 5 Schedule 1, Attachment 1, Number 5.

6 7

Statement of Rate Base

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- 9 Rate Base represents the average balance of opening and closing balances for net
- 10 capital assets in service plus 13% of the cost of power and controllable operating
- 11 expenses for each of the 2016-2020 Test years.

12 13

Actual Utility Return on Equity Portion of Rate Base

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- 15 For 2016, the utility's actual return on equity portion of Rate Base is 7.89% as detailed
- in Exhibit 6, Tab 1, Schedule 1, Attachment 1, Number 1.

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- For 2017, the utility's actual return on equity portion of Rate Base is 6.57% as detailed
- in Exhibit 6, Tab 1, Schedule 1, Attachment 1, Number 2.

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- 21 For 2018, the utility's actual return on equity portion of Rate Base is 5.34% as detailed
- in Exhibit 6, Tab 1, Schedule 1, Attachment 1, Number 3.

23

- For 2019, the utility's actual return on equity portion of Rate Base is 4.2% as detailed in
- Exhibit 6, Tab 1, Schedule 1, Attachment 1, Number 4.

- For 2020, the utility's actual return on equity portion of Rate Base is 3.38% as detailed
- in Exhibit 6, Tab 1, Schedule 1, Attachment 1, Number 5.



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Indicated Rate of Return

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- For 2016, the utility's indicated rate of return is 5.68% as detailed in Exhibit 6, Tab 1,
- 4 Schedule 1, Attachment 1, Number 1.

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- 6 For 2017, the utility's indicated rate of return is 5.19% as detailed in Exhibit 6, Tab 1,
- 7 Schedule 1, Attachment 1, Number 2.

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- 9 For 2018, the utility's indicated rate of return is 4.72% as detailed in Exhibit 6, Tab 1,
- 10 Schedule 1, Attachment 1, Number 3.

11

- For 2019, the utility's indicated rate of return is 4.34% as detailed in Exhibit 6, Tab 1,
- 13 Schedule 1, Attachment 1, Number 4.

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- For 2020, the utility's indicated rate of return is 4.03% as detailed in Exhibit 6, Tab 1,
- 16 Schedule 1, Attachment 1, Number 5.

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Requested Rate of Return

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- For 2016, the utility's requested rate of return is 6.24% as detailed in Exhibit 6, Tab 1,
- 21 Schedule 1, Attachment 1, Number 1.

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- For 2017, the utility's requested rate of return is 6.28% as detailed in Exhibit 6, Tab 1,
- 24 Schedule 1, Attachment 1, Number 2.

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- For 2018, the utility's requested rate of return is 6.31% as detailed in Exhibit 6, Tab 1,
- 27 Schedule 1, Attachment 1, Number 3.



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- 1 For 2019, the utility's requested rate of return is 6.38% as detailed in Exhibit 6, Tab 1,
- 2 Schedule 1, Attachment 1, Number 4.

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- 4 For 2020, the utility's requested rate of return is 6.39% as detailed in Exhibit 6, Tab 1,
- 5 Schedule 1, Attachment 1, Number 5.

6 7

Deficiency or Sufficiency in Revenue

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- 9 For 2016, the utility's deficiency in revenue is \$326,426 and gross deficiency in revenue
- is \$444,116 as detailed in Exhibit 6, Tab 1, Schedule 1, Attachment 1, Number 1.

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- For 2017, the utility's deficiency in revenue is \$654,927 and gross deficiency in revenue
- is or \$891,057 as detailed in Exhibit 6, Tab 1, Schedule 1, Attachment 1, Number 2.

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- For 2018, the utility's deficiency in revenue is \$972,316 and gross deficiency in revenue
- is \$1,322,879 as detailed in Exhibit 6, Tab 1, Schedule 1, Attachment 1, Number 3.

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- For 2019, the utility's deficiency in revenue is \$1,293,531 and gross deficiency in
- revenue is \$1,759,906 as detailed in Exhibit 6, Tab 1, Schedule 1, Attachment 1,
- 20 Number 4.

21

- 22 For 2020, the utility's deficiency in revenue is \$1,547,621 and gross deficiency in
- revenue is \$2,105,607 as detailed in Exhibit 6, Tab 1, Schedule 1, Attachment 1,
- 24 Number 5.

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A summary of the major drivers for the 2016-2020 deficiencies are as follows:



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- 1 2016 The increase in rate base from the last Board approved 2011 rate base of \$42.3
- 2 million (Exhibit 2 Tab 1 Schedule 1) to the 2016 rate base of \$57.9 million (Exhibit 2 Tab
- 3 1 Schedule 1). Also shown is the increase in operating expenses from the 2011 Board
- 4 approved of \$6.3 million to the 2016 projected operating expenses of \$7.1 million. In
- 5 addition, there is a reduction in depreciation expense from the Board approved amount
- of \$2.0 million to the 2016 calculated amount of \$1.9 million. Since the 2011 Board
- 7 approved revenue requirement, the applicant has also included smart meters into rate
- 8 base as well as annual 3 GIRM rate adjustments to arrive at the revenue deficiency
- 9 amounts.

10

- 11 2017 Kingston Hydro is projecting an additional revenue deficiency from 2016 of
- \$328,501. The major drivers of the increase are additional operating expenses,
- including depreciation, (Exhibit 4 Tab 4 Schedule 1 Attachment 1) of \$263,865 and
- return on additional rate base (Exhibit 2 Tab 1 Schedule 1) of \$79,427.

15

- 16 2018 Kingston Hydro is projecting an additional revenue deficiency from 2017 of
- 17 \$317,839. The major drivers of the increase are additional operating expenses,
- including depreciation, (Exhibit 4 Tab 4 Schedule 1 Attachment 1) of \$258,757 and
- return on additional rate base (Exhibit 2 Tab 1 Schedule 1) of \$51,857.

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- 21 2019 Kingston Hydro is projecting an additional revenue deficiency from 2018 of
- 22 \$321,215. The major drivers of the increase are additional operating expenses.
- including depreciation, (Exhibit 4 Tab 4 Schedule 1 Attachment 1) of \$219,055 and
- return on additional rate base (Exhibit 2 Tab 1 Schedule 1) of \$74,801.

- 26 2020 Kingston Hydro is projecting an additional revenue deficiency from 2019 of
- \$254,090. The major drivers of the increase are additional operating expenses,



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- 1 including depreciation, (Exhibit 4 Tab 4 Schedule 1 Attachment 1) of \$175,743 and
- 2 return on additional rate base (Exhibit 2 Tab 1 Schedule 1) of \$72,105.

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Revenue Requirement Work Form

- 6 Kingston Hydro has filed, in pdf and live Microsoft Excel versions of the Revenue
- 7 Requirement Work Form ("RRWF") for each of the Custom IR years of 2016-2020.

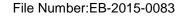


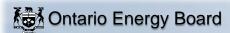


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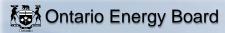
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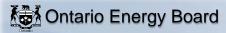
OEB RRWF Model



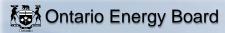
Line No.	Particulars	Application				Per Board Decision	
1 2 3	OM&A Expenses Amortization/Depreciation Property Taxes	\$6,992,675 \$1,889,986 \$138,135		\$6,992,675 \$1,889,986 \$138,135		\$6,992,675 \$1,889,986 \$138,135	
5 6 7	Income Taxes (Grossed up) Other Expenses Return	\$227,171 \$ -		\$227,171		\$227,171	
	Deemed Interest Expense Return on Deemed Equity	\$1,460,689 \$2,153,061		\$ - \$ -		\$ - \$ -	
8	Service Revenue Requirement (before Revenues)	\$12,861,718		\$9,247,968		\$9,247,968	
9 10	Revenue Offsets Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	\$576,998 \$12,284,720		\$ - \$9,247,968		\$ - \$9,247,968	
11 12	Distribution revenue Other revenue	\$12,284,719 \$576,998		\$ - \$ -		\$ - \$ -	
13	Total revenue	\$12,861,717		\$ -		\$ -	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	(\$1)	(1)	(\$9,247,968)	(1)	(\$9,247,968)	(1)
Notes (1)	Line 11 - Line 8						



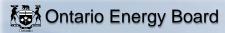
Line No.	Particulars	Application				Per Board Decision	
1 2 3 5 6 7	OM&A Expenses Amortization/Depreciation Property Taxes Income Taxes (Grossed up) Other Expenses Return	\$7,112,867 \$2,031,310 \$140,484 \$260,322 \$ -		\$7,112,867 \$2,031,310 \$140,484 \$260,322		\$7,112,867 \$2,031,310 \$140,484 \$260,322	
•	Deemed Interest Expense Return on Deemed Equity	\$1,538,108 \$2,232,488		\$ - \$ -		\$ - \$ -	
8	Service Revenue Requirement (before Revenues)	\$13,315,580		\$9,544,983		\$9,544,983	
9 10	Revenue Offsets Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	\$583,921 \$12,731,659		\$ - \$9,544,983		\$ - \$9,544,983	
11 12	Distribution revenue Other revenue	\$12,731,659 \$583,921		\$ - \$ -		\$ - \$ -	
13	Total revenue	\$13,315,580		\$ -		\$ -	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	(\$0)	(1)	(\$9,544,983)	(1)	(\$9,544,983)	(1)
Notes (1)	Line 11 - Line 8						



Line No.	Particulars	Application				Per Board Decision	
1	OM&A Expenses	\$7,235,146		\$7,235,146		\$7,235,146	
2	Amortization/Depreciation	\$2,165,400		\$2,165,400		\$2,165,400	
3	Property Taxes	\$142,872		\$142,872		\$142,872	
5	Income Taxes (Grossed up)	\$328,052		\$328,052		\$328,052	
6	Other Expenses	\$ -					
7	Return						
	Deemed Interest Expense	\$1,587,944		\$ -		\$ -	
	Return on Deemed Equity	\$2,284,346		<u> </u>		<u> </u>	
•	Service Revenue Requirement						
8	(before Revenues)	\$13,743,759		\$9,871,469		\$9,871,469	
	(before Revenues)	\$13,743,739		\$9,071,409		\$9,071,409	
9	Revenue Offsets	\$580,278		\$ -		\$ -	
10	Base Revenue Requirement	\$13,163,482		\$9,871,469		\$9,871,469	
10	(excluding Tranformer Owership	ψ10,100,402		ψ3,071,403		Ψο,οτ 1,400	
	Allowance credit adjustment)						
	Anowance credit adjustment,						
11	Distribution revenue	\$13,163,482		\$ -		\$ -	
12	Other revenue	\$580,278		\$ -		\$ -	
		φοσο,Ξ. σ					
13	Total revenue	\$13,743,760		\$ -		\$ -	
14	Difference (Total Revenue Less						
	Distribution Revenue Requirement						
	before Revenues)	\$0_	(1)	(\$9,871,469)	(1)	(\$9,871,469)	(1)
<u>Notes</u>							
(1)	Line 11 - Line 8						



Line No.	Particulars	Application				Per Board Decision	
1 2 3 5 6	OM&A Expenses Amortization/Depreciation Property Taxes Income Taxes (Grossed up) Other Expenses	\$7,359,547 \$2,257,625 \$145,301 \$385,493 \$ -		\$7,359,547 \$2,257,625 \$145,301 \$385,493		\$7,359,547 \$2,257,625 \$145,301 \$385,493	
7	Return Deemed Interest Expense Return on Deemed Equity	\$1,683,767 \$2,359,147		\$ - \$ -		\$ - \$ -	
8	Service Revenue Requirement (before Revenues)	\$14,190,880		\$10,147,965		\$10,147,965	
9 10	Revenue Offsets Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	\$590,370 \$13,600,510		\$ - \$10,147,965		\$ - \$10,147,965	
11 12	Distribution revenue Other revenue	\$13,600,509 \$590,370		\$ - \$ -		\$ - \$ -	
13	Total revenue	\$14,190,879		\$ -		\$ -	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	(\$1)	(1)	(\$10,147,965)	(1)	(\$10,147,965)	(1)
Notes (1)	Line 11 - Line 8						



Line No.	Particulars	Application				Per Board Decision	
1	OM&A Expenses	\$7,486,110		\$7,486,110		\$7,486,110	
2	Amortization/Depreciation Property Taxes	\$2,304,335 \$147,771		\$2,304,335 \$147,771		\$2,304,335 \$147,771	
3	Income Taxes (Grossed up)	\$430,318		\$430,318		\$430,318	
5	Other Expenses	\$430,316 \$-		Ђ430,316		\$430,316	
6 7	Return	φ-					
'	Deemed Interest Expense	\$1,747,122		\$ -		\$ -	
	Return on Deemed Equity	\$2,431,252		<u> </u>		<u> </u>	
8	Service Revenue Requirement						
	(before Revenues)	\$14,546,907		\$10,368,534		\$10,368,534	
9	Revenue Offsets	\$600,697		\$ -		\$ -	
10	Base Revenue Requirement	\$13,946,210		\$10,368,534		\$10,368,534	
	(excluding Tranformer Owership Allowance credit adjustment)						
11	Distribution revenue	\$13,946,210		\$ -		\$ -	
12	Other revenue	\$600,697		\$ -		\$ -	
13	Total revenue	\$14,546,907		\$ -		\$-	
14	Difference (Total Revenue Less						
	Distribution Revenue Requirement before Revenues)	(\$0)	(1)	(\$10,368,534)	(1)	(\$10,368,534)	(1)
Notes (1)	Line 11 - Line 8						