



File Number: EB-2015-0083

Date Filed: June 1, 2015

Exhibit 6

CALCULATION OF REVENUE DEFICIENCY OR SUFFICIENCY



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Tab 1 of 1

Overview

1 Revenue Deficiency or Sufficiency

3 **CALCULATION OF REVENUE DEFICIENCY OR SUFFICIENCY**

4
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
15 the RSVAs and also net of any cost associated with LV charges or DVA balances.

17 ***Determination of Utility Net Income***

18
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.

21
22 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.

24
25 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.

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.

3

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***

8

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***

14

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

17

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

20

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

23

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

26

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

1 ***Indicated Rate of Return***

2

3 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.

5

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.

8

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

12 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.

14

15 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.

17

18 ***Requested Rate of Return***

19

20 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.

22

23 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.

25

26 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.

28

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.

3

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***

8

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

11

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

14

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

17

18 For 2019, the utility's deficiency in revenue is \$1,293,531 and gross deficiency in
19 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
23 revenue is \$2,105,607 as detailed in Exhibit 6, Tab 1, Schedule 1, Attachment 1,
24 Number 5.

25

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

27

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
6 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
12 \$328,501. The major drivers of the increase are additional operating expenses,
13 including depreciation, (Exhibit 4 Tab 4 Schedule 1 Attachment 1) of \$263,865 and
14 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,
18 including depreciation, (Exhibit 4 Tab 4 Schedule 1 Attachment 1) of \$258,757 and
19 return on additional rate base (Exhibit 2 Tab 1 Schedule 1) of \$51,857.

20

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,
23 including depreciation, (Exhibit 4 Tab 4 Schedule 1 Attachment 1) of \$219,055 and
24 return on additional rate base (Exhibit 2 Tab 1 Schedule 1) of \$74,801.

25

26 2020 – Kingston Hydro is projecting an additional revenue deficiency from 2019 of
27 \$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.

3

4 **Revenue Requirement Work Form**

5

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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Attachment 1 of 1

OEB RRWF Model



Revenue Requirement Workform (RRWF) for 2015 Filers

Revenue Requirement

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

Notes

(1) Line 11 - Line 8



Revenue Requirement Workform (RRWF) for 2015 Filers

Revenue Requirement

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

Notes

(1) Line 11 - Line 8



Revenue Requirement Workform (RRWF) for 2015 Filers

Revenue Requirement

| 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 | | \$ - | \$ - |
| 8 | Service Revenue Requirement (before Revenues) | <u>\$13,743,759</u> | | <u>\$9,871,469</u> | <u>\$9,871,469</u> |
| 9 | Revenue Offsets | \$580,278 | | \$ - | \$ - |
| 10 | Base Revenue Requirement (excluding Transformer Owership Allowance credit adjustment) | <u>\$13,163,482</u> | | <u>\$9,871,469</u> | <u>\$9,871,469</u> |
| 11 | Distribution revenue | \$13,163,482 | | \$ - | \$ - |
| 12 | Other revenue | \$580,278 | | \$ - | \$ - |
| 13 | Total revenue | <u>\$13,743,760</u> | | <u>\$ -</u> | <u>\$ -</u> |
| 14 | Difference (Total Revenue Less Distribution Revenue Requirement before Revenues) | <u>\$0</u> | (1) | <u>(\$9,871,469)</u> | (1) <u>(\$9,871,469)</u> |

Notes

(1) Line 11 - Line 8



Revenue Requirement Workform (RRWF) for 2015 Filers

Revenue Requirement

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

Notes

(1) Line 11 - Line 8



Revenue Requirement Workform (RRWF) for 2015 Filers

Revenue Requirement

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

Notes

(1) Line 11 - Line 8