## COST OF CAPITAL

### 1.0 INTRODUCTION

The purpose of this evidence is to summarize the method and cost of financing of Remotes' capital requirements for the 2018 test year.

### 2.0 CAPITAL STRUCTURE

Consistent with the Board's Decision in RP-1998-0001 and subsequent Decisions, Remotes is $100 \%$ debt-financed and is operated as a break-even company. Remotes does not plan to seek a return on equity. As such, Remotes' cost of capital is based on $100 \%$ debt, consisting of $4 \%$ deemed short term debt and $96 \%$ long term debt.

Long term debt includes $\$ 43,000 \mathrm{~K}$ of long term debt issued to Hydro One Inc., reflecting debt issued by Hydro One Inc. to third party public debt investors, and (\$333)K of deemed long term debt.

### 3.0 DEEMED SHORT-TERM DEBT

The Board has determined that the deemed amount of short-term debt that should be factored into rate setting be fixed at $4 \%$ of rate base and that the deemed short-term debt rate be based on the forecast three-month bankers’ acceptance rate plus the average spread as determined through a Board staff survey of real market quotes from major

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banks ${ }^{1}$. For Remotes, the deemed short-term rate is $1.76 \%$, consistent with the Deemed Short-Term Debt Rate in the OEB’s Cost of Capital Parameter Updates for 2017 Cost of Service Applications for Rates Effective January 1, 2017, dated October 27, 2016. Remotes assumes that the deemed short term debt rate for 2018 will be updated in accordance with the Board's December 11, 2009, Cost of Capital Report upon the final decision in this case.

### 4.0 THIRD PARTY LONG-TERM DEBT

The long-term debt rate is calculated as the weighted average cost rate on embedded debt, and new debt (debt issued after the last OEB-approved rate application). The weighted average rate on long-term debt is $4.63 \%$ for 2018. Details of Remotes long-term debt rate calculation for the 2018 test year are shown in Exhibit E2, Tab 2, Schedule 1, Attachment 6.

### 4.1 Embedded Debt

The Board has determined in its Cost of Capital Report that for embedded debt, the rate approved in prior Board decisions shall be maintained for the life of each active instrument, unless a new rate is negotiated, in which case it will be treated as new debt. Remotes’ embedded long-term debt was issued in 2005 has a maturity date of May 20, 2036, an interest coupon rate of $5.36 \%$ per annum and an effective cost rate of $5.60 \%$. It is shown at Exhibit C2, Tab 8, Schedule 2, page 1. The effective cost rate on this embedded debt was approved by the Board as part of EB-2008-0232.

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### 4.2 New Debt

The Board has determined in its Cost of Capital Report that the rate for new debt that is held by a third-party public debt investor will be the prudently negotiated contract rate. This would include recognition of premiums and discounts.

In June 2014, Hydro One Inc. issued $\$ 350$ million of thirty-year notes, of which $\$ 10$ million was mapped to Remotes. The new debt has a maturity date of June 6, 2044, an interest coupon rate of $4.17 \%$ per annum and an effective cost rate of $4.21 \%$, including issuance costs such as issue discount and agency commissions.

In February 2016, Hydro One Inc. issued $\$ 500$ million of ten-year notes, of which $\$ 10$ million was mapped to Remotes. The new debt has a maturity date of February 24, 2026, an interest coupon rate of $2.77 \%$ per annum and an effective cost rate of $2.82 \%$, including issuance costs such as issue discount and agency commissions.

### 5.0 DEEMED LONG-TERM DEBT

Deemed long-term debt of (\$333)K in 2018 reflects the remaining amount of debt required to balance the total financing with the rate base. In its Decision in EB-20080232, the Board indicated that, "For companies with embedded debt, it is the cost of this embedded debt which should be applied to any additional notional (or deemed) debt that is required to balance the capital structure." Accordingly, the deemed long-term debt is calculated at 4.63\%.

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### 6.0 COST OF CAPITAL SUMMARY

Remotes’ 2018 rate base is $\$ 44,445 \mathrm{~K}$ which results in a weighted cost on rate base of $4.52 \%$, as shown in table below.

| Particulars | (in \$K) | \% <br> Of Rate <br> Base | Cost Rate <br> (\%) | Weighted <br> Cost Rate <br> \% | Cost of <br> Capital <br> (in \$K) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Deemed short-term debt | 1,788 | $4.0 \%$ | $1.76 \%$ | $0.07 \%$ | 31 |
| Third Party long-term debt | 43,000 | $96.7 \%$ | $4.63 \%$ | $4.48 \%$ | 1,991 |
| Deemed long-term debt | $(333)$ | $-0.7 \%$ | $4.63 \%$ | $-0.03 \%$ | $(15)$ |
| Total | $\mathbf{4 4 , 4 4 5}$ | $\mathbf{1 0 0 \%}$ |  | $\mathbf{4 . 5 2 \%}$ | $\mathbf{\$ 2 , 0 0 7}$ |

The historical debt summary schedules have been provided at Exhibit E2, Tab 2, Schedule 1, Attachments 1 to 4. The capital structure and cost of capital for the Board Approved Year 2013 and the Test Year 2018 have been provided at Exhibit E2, Tab 1, Schedules 1 and 2.

## Appendix 2-OA

Page 1 of 1

## Capital Structure and Cost of Capital

This table must be completed for the last Board-approved year and the test year.


## Appendix 2-OA

 Capital Structure and Cost of CapitalThis table must be completed for the last Board-approved year and the test year.

|  | Particulars | Year: |  | 2018 Test Year | Cost Rate | Return |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  | Capitalization Ratio |  |  |  |  |
|  |  | (\%) |  | (\$) | (\%) | (\$) |
|  | Debt |  |  |  |  |  |
| 1 | Long-term Debt | 96.00\% |  | \$42,667 | 4.63\% | \$1,975 |
| 2 | Short-term Debt | 4.00\% | (1) | \$1,778 | 1.76\% | \$31 |
| 3 | Total Debt | 100.0\% |  | \$44,445 | 4.52\% | \$2,007 |
|  | Equity |  |  |  |  |  |
| 4 | Common Equity |  |  | \$ - |  | \$ - |
| 5 | Preferred Shares |  |  | \$ - |  | \$ - |
| 6 | Total Equity | 0.0\% |  | \$- | 0.00\% | \$ |
| 7 | Total | 100.0\% |  | \$44,445 | 4.52\% | \$2,007 |

(1)
4.0\% unless an applicant has proposed or been approved for a different amount.

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Tab 2
Schedule 1
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## REMOTES DEBT INSTRUMENTS 2013 TO 2018

The following attachments contain the OEB Chapter 2, Appendices 2-OB, Debt Instruments for the years 2013 to 2018 inclusive.

Attachment 1: Hydro One Remote Communities Inc. Debt Instruments 2013
Attachment 2: Hydro One Remote Communities Inc. Debt Instruments 2014
Attachment 3: Hydro One Remote Communities Inc. Debt Instruments 2015
Attachment 4: Hydro One Remote Communities Inc. Debt Instruments 2016
Attachment 5: Hydro One Remote Communities Inc. Debt Instruments 2017
Attachment 6: Hydro One Remote Communities Inc. Debt Instruments 2018

Appendix 2-OB Debt Instruments

Exhibit E2-02-01
Attachment 1
Page 1 of 1

This table must be completed for all required historical years, the bridge year and the test year.
Year $\square$

| Row | Description | Lender | Affiliated or ThirdParty Debt? | Fixed or Variable-Rate? | Start Date | Term (years) |  | Principal <br> (\$) | Effective <br> Rate (\%) ${ }^{2}$ | Interest (\$) ${ }^{1}$ |  | Additional Comments, if any |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$23M note maturing May 20, 2036 | Hydro One Inc. | Third-Party | Fixed Rate | 19-May-05 | 31 | \$ | 23,000,000 | 5.60\% | \$ | 1,288,000 |  |
| 2 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 3 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 4 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 5 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 6 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 7 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 8 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 9 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 10 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 11 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 12 |  |  |  |  |  |  |  |  |  | \$ | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  | \$ | 23,000,000 | 5.60\% | \$ | 1,288,000 |  |

Notes
1 If financing is in place only part of the year, separately calculate the pro-rated interest in the year and input in the cell.
2 Input actual or deemed long-term debt rate in accordance with the guidelines in The Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, issued December 11, 2009, or with any subsequent update issued by the Board
3 Add more lines above row 12 if necessary

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Appendix 2-OB

## Debt Instruments

EB-2017-005
Exhibit E2-02-01
Attachment 2
This table must be completed for all required historical years, the bridge year and the test year.
Page 1 of 1

| Row | Description | Lender | Affiliated or Third Party Debt? | Fixed or Variable-Rate? | Start Date | Term (years) |  | Average Principal (\$) | Effective Rate (\%) ${ }^{2}$ |  | est (\$) ${ }^{1}$ | Additional Comments, if any |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$23M note maturing May 20, 2036 | Hydro One Inc. | Third-Party | Fixed Rate | 19-May-05 | 31 | \$ | 23,000,000 | 5.60\% | \$ | 1,288,000 |  |
| 2 | \$10M note maturing June 6, 2044 | Hydro One Inc. | Third-Party | Fixed Rate | 6-Jun-14 | 30 | \$ | 5,698,630 | 4.21\% | \$ | 239,912 | Average principal represents the pro-rated amount outstanding in 2014 |
| 3 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 4 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 5 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 6 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 7 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 8 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 9 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 10 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 11 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 12 |  |  |  |  |  |  |  |  |  | \$ | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  | 28,698,630 | 5.32\% | \$ | 1,527,912 |  |

Notes
1 If financing is in place only part of the year, separately calculate the pro-rated interest in the year and input in the cell.
Input actual or deemed long-term debt rate in accordance with the guidelines in The Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, issued December 11, 2009, or with any subsequent update issued by the Board. Add more lines above row 12 if necessary.

## This table must be completed for all required historical years, the bridge year and the test year.

 Year 2015| Row | Description | Lender | Affiliated or Third Party Debt? | Fixed or Variable-Rate? | Start Date | Term (years) |  | Principal <br> (\$) | Effective $\text { Rate (\%) }{ }^{2}$ | Interest (\$) ${ }^{1}$ |  | Additional Comments, if any |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$23M note maturing May 20, 2036 | Hydro One Inc. | Third-Party | Fixed Rate | 19-May-05 | 31 | \$ | 23,000,000 | 5.60\% | \$ | 1,288,000 |  |
| 2 | \$10M note maturing June 6, 2044 | Hydro One Inc. | Third-Party | Fixed Rate | 6-Jun-14 | 30 | \$ | 10,000,000 | 4.21\% | \$ | 421,000 |  |
| 3 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 4 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 5 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 6 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 7 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 8 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 9 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 10 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 11 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 12 |  |  |  |  |  |  |  |  |  | \$ | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  | \$ | 33,000,000 | 5.18\% | \$ | 1,709,000 |  |

Notes
1 If financing is in place only part of the year, separately calculate the pro-rated interest in the year and input in the cell.
Input actual or deemed long-term debt rate in accordance with the guidelines in The Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, issued December 11, 2009, or with any subsequent update issued by the Board.
3 Add more lines above row 12 if necessary.

## This table must be completed for all required historical years, the bridge year and the test year

 Year 2016| Row | Description | Lender | Affiliated or ThirdParty Debt? | Fixed or Variable-Rate? | Start Date | $\begin{aligned} & \text { Term } \\ & \text { (years) } \end{aligned}$ |  | Average Principal (\$) | Effective Rate (\%) ${ }^{2}$ |  | st (\$) ${ }^{1}$ | Additional Comments, if any |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$23M note maturing May 20, 2036 | Hydro One Inc. | Third-Party | Fixed Rate | 19-May-05 | 31 | \$ | 23,000,000 | 5.60\% | \$ | 1,288,000 |  |
| 2 | \$10M note maturing June 6, 2044 | Hydro One Inc. | Third-Party | Fixed Rate | 6-Jun-14 | 30 | \$ | 10,000,000 | 4.21\% | \$ | 421,000 |  |
| 3 | \$10M note maturing Feb 24, 2026 | Hydro One Inc. | Third-Party | Fixed Rate | 24-Feb-16 | 10 | \$ | 8,497,268 | 2.82\% | \$ | 239,623 | Average principal represents the pro-rated amount outstanding in 2016 |
| 4 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 5 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 6 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 7 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 8 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 9 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 10 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 11 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 12 |  |  |  |  |  |  |  |  |  | \$ | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  | \$ | 41,497,268 | 4.70\% | \$ | 1,948,623 |  |

Notes
If financing is in place only part of the year, separately calculate the pro-rated interest in the year and input in the cell
Input actual or deemed long-term debt rate in accordance with the guidelines inThe Report of the Board on the Cost of Capital for Ontario's Regulated Utilities issued December 11, 2009, or with any subsequent update issued by the Board. Add more lines above row 12 if necessary.

## Debt Instruments

Exhibit E2-02-01
Attachment 5
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This table must be completed for all required historical years, the bridge year and the test year.
Year 2017

| Row | Description | Lender | Affiliated or ThirdParty Debt? | Fixed or Variable-Rate? | Start Date | Term (years) | Average Principal <br> (\$) |  | Effective $\text { Rate (\%) }{ }^{2}$ | Interest (\$) ${ }^{1}$ |  | Additional Comments, if any |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$23M note maturing May 20, 2036 | Hydro One Inc. | Third-Party | Fixed Rate | 19-May-05 | 31 | \$ | 23,000,000 | 5.60\% | \$ | 1,288,000 |  |
| 2 | \$10M note maturing June 6, 2044 | Hydro One Inc. | Third-Party | Fixed Rate | 6-Jun-14 | 30 | \$ | 10,000,000 | 4.21\% | \$ | 421,000 |  |
| 3 | \$10M note maturing Feb 24, 2026 | Hydro One Inc. | Third-Party | Fixed Rate | 24-Feb-16 | 10 | \$ | 10,000,000 | 2.82\% | \$ | 282,000 |  |
| 4 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 5 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 6 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 7 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 8 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 9 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 10 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 11 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 12 |  |  |  |  |  |  |  |  |  | \$ | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  | \$ | 43,000,000 | 4.63\% | \$ | 1,991,000 |  |

Notes

If financing is in place only part of the year, separately calculate the pro-rated interest in the year and input in the cell.
Input actual or deemed long-term debt rate in accordance with the guidelines in The Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, issued December 11, 2009, or with any Add more lines above row 12 if necessary.

## Debt Instruments

Attachment 6
Page 1 of 1
This table must be completed for all required historical years, the bridge year and the test year.

## Year

$\qquad$ 2018

| Row | Description | Lender | Affiliated or Third Party Debt? | Fixed or Variable-Rate? | Start Date | Term (years) |  | Average Principal (\$) | Effective <br> Rate (\%) ${ }^{2}$ |  | t (\$) ${ }^{1}$ | Additional Comments, if any |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$23M note maturing May 20, 2036 | Hydro One Inc. | Third-Party | Fixed Rate | 19-May-05 | 31 | \$ | 23,000,000 | 5.60\% | \$ | 1,288,000 |  |
| 2 | \$10M note maturing June 6, 2044 | Hydro One Inc. | Third-Party | Fixed Rate | 6-Jun-14 | 30 | \$ | 10,000,000 | 4.21\% | \$ | 421,000 |  |
| 3 | \$10M note maturing Feb 24, 2026 | Hydro One Inc. | Third-Party | Fixed Rate | 24-Feb-16 | 10 | \$ | 10,000,000 | 2.82\% | \$ | 282,000 |  |
| 4 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 5 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 6 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 7 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 8 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 9 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 10 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 11 |  |  |  |  |  |  |  |  |  | \$ | - |  |
| 12 |  |  |  |  |  |  |  |  |  | \$ | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  | \$ | 43,000,000 | 4.63\% | \$ | 1,991,000 |  |

Notes

1 If financing is in place only part of the year, separately calculate the pro-rated interest in the year and input in the cell.
2 Input actual or deemed long-term debt rate in accordance with the guidelines in The Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, issued December 11, 2009, or with any 3 Add more lines above row 12 if necessary.


[^0]:    ${ }^{1}$ The Board indicated in Appendix D of the December 11, 2009 Cost of Capital Report that, once a year, Board staff will obtain real market quotes from major banks, for issuing spreads over Bankers Acceptance rates to calculate an average spread.

