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February 9, 2018

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, Suite 2700
Toronto, Ontario M4P 1E4

Dear Ms. Walli:

Re: EB-2017-0375 – Ontario Power Generation – Fair Hydro Plan General Fee Application

Attached please find supplemental evidence filed in support of an Application filed on December 15, 2017 by Ontario Power Generation (“OPG”) acting as the Financial Services Manager (“FSM”) of the Fair Hydro Plan (or the Fair Hydro Trust), for an order approving the general fee for the period beginning January 1, 2018 and ending on March 31, 2019.

The supplemental evidence is filed in accordance with paragraphs 8 and 9 of the EB-2017-0375 Application, which specifically identified that OPG would file additional supporting written evidence.

OPG felt it was prudent to file the supplemental evidence at the same time the first funding tranche was issued, as there was significant volatility over the past week, and an unprecedented drop in the market. This resulted in substantial uncertainty regarding prices, especially for a new security that had never been offered in the Canadian market, and which people were unfamiliar with. Therefore, OPG waited until we had greater certainty over pricing, and the closing of the first term-debt funding tranche to submit this supplementary evidence.

Please let me know if you require further information.

Sincerely,

[Original Signed By]

Lubna Ladak

cc. Ian Richler, Ontario Energy Board
Andrew Bishop, Ontario Energy Board
Leslie Wong, OPG
Randy Pugh, OPG

**SUPPLEMENTAL EVIDENCE - GENERAL FEE
FOR JANUARY 1, 2018 TO MARCH 31, 2019**

1.0 PURPOSE

This supplemental evidence provides the interest rate forecasts for long-term debt to be issued by the Fair Hydro Trust (the “FH Trust”) and comparable market forecast interest rates for the period beginning on January 1, 2018 and ending on March 31, 2019 (the “Application Term”). This supplemental evidence is being provided as contemplated in paragraph 8 of the EB-2017-0375 application (the “Application”) to the Ontario Energy Board (“OEB”) for approval of fees in accordance with section 10.5 of Ontario Regulation 206/17 (the “FHP Regulation”) filed December 15, 2017. The proposed forecast interest rates will be used in the calculation of the portion of the general fee determined pursuant to subsection 10.5(2) paragraphs 1 to 4 (the “Incentive Fee”) of the FHP Regulation. Additional information on the portion of the general fee determined pursuant to subsection 10.5(2) paragraph 5 (the “Base Fee”) of the FHP Regulation is being provided as contemplated in paragraph 9 of the Application to provide insight into the magnitude of the general fee and to assist the OEB in determining a review process for the Application.

2.0 OVERVIEW

Ontario Power Generation Inc. (“OPG”), acting as the Financial Services Manager (“FSM”) of the FH Trust, expects that the term of debt to be issued will be 10-year, 15-year, 20-year or 30-year debt. The methodology OPG uses to forecast interest rates is provided in Section 3.0. Based on the forecast methodology, Section 4.0 provides the details of the interest rate forecasts for the FH Trust for each of the four issue terms listed above. OPG proposes that the OEB approve the rate forecasts for the Application Term summarized in Table 1 (details per Table 2).

Table 1: Summary of OPG-proposed forecast interest rates by term

10-year term	15- year term	20-year term	30-year term
3.53%	3.70%	3.94%	4.05%

1 The interest rate forecasts provided above meet the review requirement in subsection 10.5(6)
2 of the FHP Regulation as they are not materially inconsistent with market comparable forecast
3 interest rates provided in Section 5.0.

4
5 As described in Section 6.0, the total general fee for the Application Term is forecast to be
6 between \$0.5M and \$5M. The magnitude of the total general fee further supports OPG's
7 request to the OEB to proceed without a hearing as requested in paragraph 10 of the
8 Application.

9 10 **3.0 FORECAST METHODOLOGY**

11 Forecast and market comparable information is determined using independent, verifiable
12 information. The information reflected in this Application has been sourced through Bloomberg
13 L.P. ("Bloomberg"). Bloomberg supplies a computer software system that enables
14 professionals in the financial services sector and other industries to access the Bloomberg
15 Professional service through which users can monitor and analyze real-time and historical
16 financial market data. Bloomberg is one of the most subscribed financial data services in the
17 industry and is the primary source of financial market information used by OPG.

18
19 As much of the information required to support forecast and comparative information requires
20 historical analysis using the external data base of an independent service provider, OPG has
21 supplied a number of screenshots to support the financial information used to prepare its
22 forecast and comparative information. To assist the OEB in reviewing references made to
23 Bloomberg screenshots, arrows have been placed beside the screenshots in the attachments
24 to highlight the specific information being referenced. Charts have also been prepared to
25 summarize the highlighted information and provide analysis (e.g., averages, relationships)
26 supporting the interest rate forecasts. The screenshots provide evidence as to the source of
27 the information used in the charts and analysis provided therein.

28
29 Paragraph 8 of the Application stated that the supplemental evidence to be filed in February
30 2018 will include forecasts derived from the following three factors: (i) a forecast of long-
31 Canada bond rates; (ii) a forecast risk premium for Ontario long-term interest rates; and (iii) a
32 risk premium for the FH Trust. The forecast interest rates for each of the 10-year, 15-year, 20-

1 year and 30-year term debt issues is the sum of these three factors. Additional detail supporting
2 the approach to determining the forecast for these three factors is provided below:

3
4 **i) Forecast long-Canada bond rates:**

5 a) Bloomberg provides forecast quarterly interest rates for 10-year and 30-year term
6 Government of Canada bonds ("GoC yield"). The GoC yield for these terms is determined as
7 the average of the five quarterly issues provided by Bloomberg during the Application Term.
8 An average is used as the frequency of the FH Trust's long-term debt issuances depends on
9 the accumulated regulatory assets available to be acquired from the Independent Electricity
10 System Operator ("IESO").

11
12 b) As Bloomberg does not provide 15-year or 20-yr GoC yield forecasts, historical yield
13 analysis has been conducted to determine the relationships between 15-year and 20-year term
14 GoC yields and the 30-year term GoC yield. The most recent five-year historical relationships
15 between 15-year to 30-year term debt (the "15-year Adjustment Factor") and 20-year to 30-
16 year term debt (the "20-year Adjustment Factor") are then applied to the 30-year term forecast
17 GoC yield determined above to calculate the 15-year and 20-year GoC yield equivalent.

18
19 **ii) Forecast Ontario risk premium:** The forecast Ontario risk premium is determined using
20 the most recent five-year historical spread between Government of Ontario bonds ("ONT
21 bonds") and GoC bonds for the same term.

22
23 **iii) FH Trust risk premium:** The FH Trust issued its first long-term debt issue on February 9,
24 2018 with a term of 15-years. The risk premium in basis points ("bps") over ONT bonds
25 provides a relevant basis for forecasting both future risk premiums for 15-year term debt and
26 for other term debt (i.e., 10-year, 20-year and 30-year term debt).

27
28 To determine the forecast FH Trust risk premium for other issue terms, the risk premiums
29 associated with comparable debt were used as the basis for the forecast. OPG has estimated
30 the risk premium of Hydro One bonds over ONT bonds for terms between 10-years (36bps)
31 and 30-years (52bps) in Attachment 7. This 16 bps range (i.e., 52 bps for 30-year term debt
32 less 36 bps for 10-year term debt) over the 20 year difference in issue term (i.e., 30-year term

less 10-year term) supports a risk premium of 0.8 bps per year (i.e., 16bps / 20 year term). As a result and for simplicity in setting forecast rates, the FH Trust risk for 10-year, 20-year and 30 year terms is determined using the 15-year term forecast premium plus or minus one basis point per year to reflect the difference in the issue term.

4.0 FORECAST INTEREST RATES

The methodology described in Section 3.0 above is used to determine the three components (i.e., GoC yield, Ontario risk premium and FH Trust risk premium) that comprise the interest rate forecast for each of the four debt terms the FH Trust may use. These three components are described below and are summarized in table 2.

Table 2: Summary of OPG-proposed Forecast Interest Rates by Component and by Term

Forecast Component	10-year term	15-year term	20-year term	30-year term
(i) GoC Yield	2.46%	2.57%	2.68%	2.73%
(ii) Ontario Risk Premium	0.88%	0.89%	0.97%	0.93%
(iii) FHP Trust Risk Premium	0.19%	0.24%	0.29%	0.39%
Total Forecast Interest Rate	3.53%	3.70%	3.94%	4.05%

1) GoC Yield:

The quarterly 10-year term (2.46%) and 30-year term (2.73%) forecast interest rates and the calculation of the average yield for these terms is provided in Attachment 1, Part a).

The 15-year debt forecast of (2.57%) is the product of the 15-year Adjustment Factor of 94% multiplied by the 30-year forecast term debt rate of 2.73% (i.e., $2.73\% \times 94\% = 2.57\%$). The 15-year Adjustment Factor of 94% is determined as the quotient of the historical 5-year average yield for 15-year term GoC bonds of 2.2528% (Attachment 2, Part b) divided by the historical average 5-year yield for 30-year GoC bonds of 2.398% (Attachment 2, Part d) (i.e., $2.2528\% / 2.398\% = 94\%$).

The 20-year debt forecast of (2.68%) is the product of the 20-year Adjustment Factor of 98% multiplied by the 30-year forecast term debt rate of 2.73% (i.e., $2.73\% \times 98\% = 2.68\%$).

The 20-year Adjustment Factor of 98% is determined as the quotient of the historical 5-

1 year average yield for 20-year term GoC bonds of 2.355% (Attachment 2, Part c) divided
2 by the historical 5-year average yield for 30-year GoC bonds of 2.398% (Attachment 2,
3 Part d) (i.e., $2.355\% / 2.398\% = 98\%$).

4
5 2) Ontario Risk Premium:

6 The 10-year yield premium of 88% is the difference between the historical 5-year average
7 yield for 10-year term ONT bonds of 2.6986% (Attachment 3, Part a) and the historical 5-
8 year average yield for 10-year term GoC bonds of 1.816% (Attachment 2, Part a) (i.e.,
9 $2.6986\% - 1.816\% = 0.88\%$).

10
11 The 15-year yield premium of 89% is the difference between the historical 5-year average
12 yield for 15-year term ONT bonds of 3.147% (Attachment 3, Part b) and the historical 5-
13 year average yield for 15-year term GoC bonds of 2.2528% (Attachment 2, Part b) (i.e.,
14 $3.147\% - 2.2528\% = 0.89\%$).

15
16 The 20-year yield premium of 97% is the difference between the historical 5-year average
17 yield for 20-year term ONT bonds of 3.3287% (Attachment 3, Part c) and the historical 5-
18 year average yield for 20-year term GoC bonds of 2.355% (Attachment 2, Part c) (i.e.,
19 $3.3287\% - 2.355\% = 0.97\%$).

20
21 The 30-year yield premium of 93% is the difference between the historical 5-year average
22 yield for 30-year term ONT bonds of 3.3247% (Attachment 3, Part d) and the historical 5-
23 year average yield for 30-year term GoC bonds of 2.398% (Attachment 2, Part d) (i.e.,
24 $3.3247\% - 2.398\% = 0.93\%$).

25
26 3) FH Trust Premium:

27 The FH Trust risk premium for 15-year term debt issued February 9, 2018 is 24 bps. OPG
28 expects the risk premium to remain stable over the Application Term; therefore 24 bps is
29 used as the forecast FH Trust risk premium for 15-year term debt for the Application Term.
30 Using the 15-year term debt as a base, applying one basis point per year for the difference
31 in term, the 10-year term debt FH Trust risk premium is 5 bps lower at (19 bps), the 20-

1 year term debt FH Trust risk premium is 5 bps higher at (29 bps) while the 30-year term
2 debt FH trust risk premium is 15 bps higher (39 bps).

3 4 **5.0 MARKET COMPARABLE RATES**

5 FHP Regulation section 1(1) defines “market comparable forecast interest rates” in relation to
6 a funding tranche as interest rates for a debt obligation that,

7 *(a) has a principal amount that is comparable to the principal amount of the*
8 *funding tranche,*

9 *(b) has a term that is comparable to the term of the funding tranche,*

10 *(c) is based on a type of instrument that is comparable to the type of*
11 *instrument of the funding tranche,*

12 *(d) has payment rights that are similar to the payment rights of the funding*
13 *tranche, and*

14 *(e) is issued by an issuer with a risk profile comparable to the risk profile of*
15 *the financing entity issuing the funding tranche*
16

17 Bonds with characteristics similar to FH Trust bonds have been issued in the United States;
18 however there are differences in law that impact the risk profile of these securities that are both
19 complex and difficult to quantify. As a result, OPG has looked to Canadian markets for
20 comparative market forecast interest rate information.

21
22 Bonds with the characteristics that the FH Trust is offering have never been issued in the
23 Canadian markets; however ONT bonds have similarities to FH Trust bonds and therefore the
24 forecast rate for ONT bonds can be used as a basis for comparison.

25
26 Both securities have similar credit risk. FH Trust bonds are backed by regulatory assets
27 created through the *Ontario Fair Hydro Plan Act, 2017* (the “Act”), as well as the FHP
28 Regulation by the Province of Ontario (the “Province”). In addition, the Province provides a
29 guarantee to FH Trust bondholders through the Change of Law Protection Agreement. As per
30 this agreement, the Province provides a limited guarantee to creditors that upon certain events
31 (mainly change of law) which adversely affect the ability of the FH Trust to pay its obligations
32 when due and payable, the Province will pay the obligations on behalf of the FH Trust.
33 Consequently, investors rely on the Province’s guarantee, combined with the Act and FHP
34 Regulation, for future uncertainties. The Province’s credit risk is therefore comparable to the
35 FH Trust’s credit risk.

1 The FH Trust risk premium is driven primarily by the differences in the underlying securities.
2 Additional premiums are required for FH Trust bonds due to the following considerations:

- 3 1) Structure: FH Trust bonds are structured as asset-backed securities, which have more
4 complicated structures than basic ONT bonds. Higher premiums are typically
5 associated with more complicated investments;
- 6 2) Familiarity: FH Trust bonds are new to the market. Higher premiums are often
7 associated with new investments; and
- 8 3) Liquidity: The total FH Trust bonds outstanding (\$500 million) is not material in size
9 relative to the total amount of ONT bonds outstanding (over \$300 billion). Less liquid
10 investments typically result in higher premiums.

11 Based on these considerations the results of the comparison of FH Trust bonds to ONT bonds
12 directionally supports a moderate positive FH Trust risk premium.

13
14 The second market comparative interest rate, based on the criteria above, is for Hydro One
15 bonds. Hydro One bond issuances provide a reasonable basis of market comparable interest
16 rate information as there are a number of similarities in the underlying securities.

17
18 OPG's assessment has focussed on the risk premium over forecast ONT bonds. There is no
19 public information providing Hydro One's historical five year average spreads over GoC or
20 ONT bonds; therefore OPG has used Hydro One's current risk premium for analysis. The
21 current Hydro One risk premium over GoC bond rates is available through Bloomberg
22 (Attachment 5); however, as the terms to maturity of outstanding Hydro One bonds are not of
23 10, 15, 20 or 30 year duration, interpolation is required to equate the observed Hydro One term
24 to maturity to the term of the GoC bonds (Attachment 7). The ONT bond spread over GoC
25 bonds (Attachment 4) is deducted to determine the estimated Hydro One risk premium.

26
27 Table 3 compares the resulting Hydro One premiums to the proposed FH Trust premium
28 determined in Section 4.0, part 3.

Table 3: Comparison of Premiums by Debt Issue Term (bps)

Security Premium Versus ONT bonds	10-year term	15- year term	20-year term	30-year term	Average Premium
FH Trust	19	24	29	39	28
Hydro One	36	48	53	52	47
Variance	(17)	(24)	(24)	(13)	(19)

Hydro One and FH Trust Risk Premium Comparison:

Hydro One bond issuances provide comparable market interest rates consistent with the definition of comparable market forecast interest rates as discussed below:

- a) Principal Amounts: As shown in Section 6.0 below, FH Trust's forecast bond issuance over the Application Term is approximately \$1.6B based on information provided by the Ministry of Energy ("MOE") in September 2017. The size of each tranche is expected to be in the range of \$300M - \$600M, which is comparable to the principal amounts of Hydro One's bonds used for comparison in Attachment 6.
- b) Term: Hydro One has issued debt with terms of 10, 15, 20 and 30 years over the last 5 years. The debt terms issued by Hydro One are comparable to the debt terms expected to be issued by the FH Trust.
- c) Type of Instrument: Both the Hydro One bond and the FH Trust bond are part of the DEX All Corporate Bond Index. In addition, the cash flow that services both the Hydro One and the FH Trust debt instruments are collected from utility ratepayers, so they are comparable instruments. However, Hydro One bonds would be considered traditional corporate/utility bonds, whereas FH Trust bonds are structurally more complicated. The FH Trust bonds are considered a structured product by the rating agencies as they are asset-back securities (i.e., the asset represents the right to recover finance amounts, including principal, interest and other costs from specified electricity consumers over time). The FH Trust bonds cannot be redeemed in advance of the maturity dates which lowers risk to creditors.
- d) Payment Rights: Hydro One bond payments are effectively backed by regulated rates determined by the OEB. As one of the guiding legislative principles of the OEB is to ensure the financial integrity of Ontario's electricity industry, rates are expected to be set in a manner that will provide for the payment of Hydro One's debt obligations. FH

1 Trust bonds will be issued to acquire regulatory assets created through the enactment
2 of the Act, as well as the FHP Regulation. Ownership of this asset gives the FH Trust
3 the right to collect finance amounts from specified electricity consumers over time to
4 service the FH Trust bonds, including a “true-up” mechanism intended to ensure that
5 the full amount required to service the bonds is recovered from consumers. In addition,
6 the Province provides a guarantee to FH Trust bondholders that they will receive these
7 payments.

- 8 e) Issuer Risk Profile: The FH Trust’s senior bond is rated higher than that of Hydro One.
9 In particular, FH Trust is rated Aa2(sf) by Moody’s and AAA(sf) by DBRS while Hydro
10 One is rated A by S&P, A3 by Moody’s and A (H) by DBRS.

11
12 Based on the above, OPG believes that the FH Trust risk profile and the Hydro One risk profile
13 are comparable, and the differences in the risk premium are justifiable. The Hydro One and
14 FH Trust risk premium assessment supports the conclusion that the investments are
15 comparable and that there are a few factors which result in a lower risk premium for FH Trust
16 bonds. The forecast FH Trust risk premium is 19 bps lower on average than the estimated
17 Hydro One risk premium, which is consistent with the assessment provided above. The
18 average FH Trust risk premium of 28 bps is also consistent with the conclusion that it should
19 reflect a moderate positive risk premium over ONT bonds. The results of the analysis support
20 the conclusion that the forecast FH Trust risk premium is reasonable.

21
22 As the FH Trust and the two comparable securities are all Ontario based securities, the
23 differences in interest rates is reflected in the risk premium of the security. As the forecast FH
24 Trust risk premium is reasonable based on the considerations noted above, the forecast
25 interest rate for the FH Trust is not materially inconsistent with market comparable interest
26 rates and should be approved by the OEB.

27 28 **6.0 BASE RATE FORECAST**

29 This section includes information in accordance with paragraph 9 of the Application to provide
30 insight into the magnitude of the fee determined in subsection 10.5(2) paragraph 6 (the
31 “General Fee”) of the FHP Regulation, OPG has provided information on the sum of the Base
32 Fee (i.e., the amount determined under 10.5(2) paragraph 5) and the Incentive Fee (i.e., the

amount determined under 10.5(2) paragraph 2 after applying paragraphs 3 and 4). The supporting evidence filed on December 15, 2017 provided examples describing the Incentive Fee to demonstrate that the fee would range between plus or minus \$2.25M based on the expected funding tranches to be issued during the Application Term. The supporting evidence described the operation of the Base Fee, but did not provide an example of the Base Fee to provide insight into the magnitude of the General Fee.

OPG's Base Fee forecast is approximately \$2.75M based on the actual funding obligation of \$1,179M as of January 1, 2018 and information provided by the MOE in September 2017 forecasting expected funding requirements increasing to \$3,770M as of the end of 2018 and \$6,323M as of the end of 2019. The Base Fee forecast reflects a monthly incremental funding obligation from January 2018 to December 2018 calculated on a straight-line basis, i.e. $(\$3,770M - \$1,179M) / 12 = \$216M$. Similarly, the monthly incremental funding obligation from January 2019 to March 2019 is calculated as $(\$6,323M - \$3,770M) / 12 = \$213M$. The monthly Base Fee and total Base Fee for the Application Term is determined as described on pages 3 and 4 of the EB-2017-0375 supporting evidence filed on December 15, 2017. The monthly Base Fee and total Base Fee for the Application Term of approximately \$2.75M determined under 10.5 (2) paragraph 5 of the FHP Regulation are highlighted in green in the following illustration:

General Fee (\$M)	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
funding obligation balance - beginning of month	0	1,179	1,395	1,611	1,827	2,043	2,259	2,475	2,691	2,907	3,122	3,338	3,554	3,770	3,983	4,196
Incremental funding obligation	1,179	216	216	216	216	216	216	216	216	216	216	216	216	213	213	213
funding obligation balance - end of month	1,179	1,395	1,611	1,827	2,043	2,259	2,475	2,691	2,907	3,122	3,338	3,554	3,770	3,983	4,196	4,409
Base Fee \$M (0.00625% of average monthly balance)		0.08	0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.19	0.20	0.22	0.23	0.24	0.26	0.27
Sum Base Fee \$M for the period of Jan 18 - Mar 19	2.623															

The magnitude of the proposed General Fee for the Application Term is the sum of the Base Fee (\$2.75M) plus the Incentive Fee described on pages 4 and 5 of the EB-2017-0375 supporting evidence filed on December 15, 2017 (plus or minus \$2.25M). The total for both components of the general fee is in the range of \$0.5M to \$5M.

ATTACHMENT 1	FORECAST GOVERNMENT OF CANADA BOND RATES
ATTACHMENT 2	HISTORIC 5-YEAR AVERAGE CANADA BOND RATES
ATTACHMENT 3	HISTORIC 5-YEAR AVERAGE GOVERNMENT OF ONTARIO BOND RATES
ATTACHMENT 4	RELATIONSHIP BETWEEN CANADA BOND RATES AND ONTARIO BOND RATES ON JANUARY 31, 2018
ATTACHMENT 5	RELATIONSHIP BETWEEN HYDRO ONE BOND RATES AND GOVERNMENT OF CANADA BOND RATES ON JANUARY 31, 2018
ATTACHMENT 6	OUTSTANDING BALANCES FOR HYDRO ONE SECURITIES REFLECTED IN ATTACHMENT 5
ATTACHMENT 7	RELATIONSHIP BETWEEN HYDRO ONE BOND RATES AND GOVERNMENT OF ONTARIO BOND RATES – THE HYDRO ONE RISK PREMIUM

ATTACHMENT 1
FORECAST GOVERNMENT OF CANADA BOND RATES

a) 10-Year and 30-Year Terms

The Government of Canada issues debt of 10-year and 30-year terms and Bloomberg provides an interest rate forecast for these issues. OPG has used the interest rate forecast available at the end of January 2018 to develop its FHP Trust interest rate forecast. OPG has provided screenshots of the Bloomberg forecast information of the 10-year and 30-year bond to validate the source of the information. The Arrow on the bottom right highlights the January 29, 2018 date of the forecast. The top arrow on the left highlights row 6, which is the 30-year bond forecast while the bottom arrow on the left highlights row 7, which is the 10-year bond forecast. The information extracted from this screenshot is summarized in Chart 1 below, along with a calculation of the average interest rate for 2018.

Chart 1

GoC Term	Q1-2018	Q2-2018	Q3-2018	Q4-2018	Q1-2019	Average
10-Year	2.19%	2.34%	2.47%	2.59%	2.69%	2.46%
30-Year	2.43%	2.60%	2.75%	2.84%	3.01%	2.73%

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Enter # <GO> for details

Chart Page 2/3 Bond Yield Forecasts

Region G7 Spread 2 Year - 10 Year

Rate	Market Yld	Q1 18	Q2 18	Q3 18	Q4 18	Q1 19	Q2 19	Q3 19	Q4 19	Q1 20	Q2 20
Japan											
1 Japan 10-Year	0.08	0.06	0.07	0.09	0.11	0.11	0.14	0.16	0.16	0.20	0.24
2 Japan 2-Year	-0.13	-0.15	-0.14	-0.12	-0.11	-0.10	-0.07	-0.07	-0.06	-0.03	0.04
3 Japan 3-Month Libor	-0.04	-0.01	-0.01	-0.01	0.00	0.00	0.01	0.00	0.01	0.02	0.02
4 BOJ Target Rate	0.00	-0.10	-0.10	-0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5 BOJ Policy-Rate Balance	-0.10	-0.10	-0.10	-0.10	-0.09	-0.08	-0.08	-0.08	-0.08	-0.07	-0.05
2 Year - 10 Year Spread	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.20
Canada											
6 Canada 30-Year	2.36	2.43	2.60	2.75	2.84	3.01	3.21	3.27	3.27	3.36	3.35
7 Canada 10-Year	2.30	2.19	2.34	2.47	2.59	2.69	2.87	2.95	2.98	3.10	3.15
8 Canada 2-Year	1.83	1.78	1.88	1.98	2.06	2.25	2.46	2.52	2.48	2.66	2.72
9 Canada 3-Month Banker Accepta-	1.67	1.63	1.75	1.90	2.07	2.21	2.35	2.46	2.57	2.65	2.75
10 Canada 3-Month Bill	1.20	1.20	1.42	1.57	1.78	1.95	2.12	2.24	2.33	2.57	2.66
10 BOC Overnight Lending Rate	1.25	1.20	1.35	1.50	1.65	1.95	2.05	2.25	2.30	2.55	2.65
2 Year - 10 Year Spread	0.47	0.41	0.45	0.50	0.53	0.44	0.41	0.43	0.50	0.44	0.42
France											
12 France 10-Year	0.97	0.84	1.02	1.12	1.25	1.29	1.48	1.70	1.71	1.94	2.04
13 France 2-Year	-0.41	-0.48	-0.45	-0.32	-0.18	-0.10	0.30	0.60	0.90	1.00	1.30
14 3-Month Euribor	-0.33	-0.34	-0.33	-0.31	-0.29	-0.22	-0.09	0.06	0.14	0.38	0.49
15 ECB Main Refinancing Rate	0.00	0.00	0.00	0.00	0.00	0.05	0.10	0.20	0.35	0.55	0.75
16 ECB Deposit Rate	-0.40	-0.40	-0.40	-0.40	-0.39	-0.34	-0.24	-0.14	-0.03	0.14	0.28
2 Year - 10 Year Spread	1.38	1.33	1.47	1.43	1.43	1.39	1.18	1.10	0.81	0.94	0.74

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ATTACHMENT 2

HISTORIC 5-YEAR AVERAGE CANADA BOND RATES

The arrow at the top left of each screenshot reflects the security as Government of Canada ("GCAN") and the term of the security (e.g., 10Yr, 15Yr, 20Yr or 30Yr).

The next arrow on the left of the screenshot is the term reflected in the information provided. The 5-year term used is from January 30, 2013 to January 29, 2018.

The remaining arrow on the chart identifies the average yield for the 5-year term identified above.

- a) GoC 10Yr Bond (ticker GCAN10Yr) with an average yield of 1.816%.



b) GoC 15Yr Bond (ticker C10115Y) with an average yield of 2.2528%.



c) GoC 20Yr Bond (ticker GCAN20Yr) with an average yield of 2.355%.



d) GOC 30Yr Bond (ticker GCAN30YR) with an average yield of 2.398%.



ATTACHMENT 3

HISTORIC 5-YEAR AVERAGE GOVERNMENT OF ONTARIO BOND RATES

The arrow at the top left of each screenshot reflects the a code for the type of security as being Government of Ontario bonds (C289) and the term of the security (e.g., 10Yr, 15Yr, 20Yr or 30Yr).

The next arrow on the left of the screenshot is the term reflected in the information provided. The 5-year term used is from January 30, 2013 to January 29, 2018.

The remaining arrow on the chart identifies the average yield for the 5-year term identified above.

- a) ONT 10Yr Bond (ticker C28910Y) with an average yield of 2.6986%.



b) ONT 15Yr Bond (ticker C28915Y) with an average yield of 3.147%.



c) ONT 20Yr Bond (ticker C28920Y) with an average yield of 3.3287%.



d) ONT 30Yr Bond (ticker C28930Y) with an average yield of 3.3247%.



ATTACHMENT 4

RELATIONSHIP BETWEEN CANADA BOND RATES AND ONTARIO BOND RATES ON JANUARY 31, 2018

The arrow at the top left provides the date of the security comparison. The comparison is done on a single date (January 31, 2018) versus the 5-year historical averages provided in Attachments 2 and 3. This is to facilitate comparison with the yield difference between Hydro One bonds and Government of Canada bonds (Attachment 5) which is also done on a single day (January 31, 2018). A consistent basis of comparison is required to determine the Hydro One risk premium over Government of Ontario bonds described in Attachment 7.

The second arrow identifies the securities being compared and the yield for that security on January 31, 2018. The two securities being compared are the same securities reflected in Attachment 2: Government of Canada bonds ("GCAN") and the term of the security (e.g., 10Yr, 15Yr, 20Yr or 30Yr) and Attachment 3: Government of Ontario bonds (C289) and the term of the security (e.g., 10Yr, 15Yr, 20Yr or 30Yr).

The Ontario risk premium is the difference between the yields of the two securities on January 31, 2108 as reflected in Chart 1 below.

Chart 1

Security		10-year Term	15-Year Term	20-year Term	30-year Term
Government of Ontario		2.7923%	2.9424%	3.0212%	3.057%
Government of Canada		2.308%	2.3784%	2.383%	2.389%
Ontario Risk Premium		0.48%	0.56%	0.64%	0.67%

- a) ONT 10Yr bond index (ticker C28910Yr yield of 2.7932%) and GoC 10yr rate (ticker GCAN10Yr yield of 2.308%)



- b) ONT 15Yr bond index (ticker C28915Yr yield of 2.9424%) and GoC 15yr rate (ticker C10115Y yield of 2.3784%)



- c) ONT 20Yr bond index (ticker C28920Yr yield of 3.0212%) and GoC 20yr rate (ticker GCAN20Yr yield of 2.383%)



- d) ONT 30Yr bond index (ticker C28930Yr yield of 3.057%) and GoC 30yr rate (ticker GCAN30Yr yield of 2.389%)



ATTACHMENT 5

RELATIONSHIP BETWEEN HYDRO ONE BOND RATES AND GOVERNMENT OF CANADA BOND RATES ON JANUARY 31, 2018

The arrow at the top left identifies the security as Hydro One bonds ("Hydone"), provides a code number for the security (e.g., 3.2, 7.35, etc.) the expiry date (e.g., 01/13/22, 06/03/30, etc.) and the type of security ("Corp"). All securities listed in Attachment 5 are listed in Attachment 6 which provides the related outstanding balance.

The second arrow on the left provides the basis point spread between the yield of the Hydro One security identified above and the security to which it is being compared. As in Attachment 2, the security name identifies the type of security as Government of Canada bonds ("GCAN") and the term of the security (e.g., 10Yr, 15Yr, 20Yr or 30Yr).

The arrow on the lower right identifies the date of the comparison as January 31, 2018. Consistent with Attachment 4, the comparison is done on a single date (January 31, 2018) to facilitate comparison with the yield difference between Government of Ontario and Government of Canada bonds which is also done on a single day (January 31, 2018). A consistent basis of comparison is required to determine the Hydro One Premium over Government of Ontario bonds described in Attachment 7.

Hydro One Securities all have different terms to maturity that do not coincide directly with the 10-year, 15-year, 20-year and 30-year terms of Government of Canada Bonds. Therefore, for each of the four Government of Canada terms, the relative yield of two Hydro One bonds have been provided, one with a term to maturity of less than the Government of Canada term and the other with a term to maturity that is longer than the Government of Canada term. For each of the eight yield comparisons provided in Chart 1 below (i.e., two yield comparisons for each of the 4 terms listed), the chart below summarizes the term to maturity and the relative yield and the basis of comparison (i.e., the term of the Government of Canada bonds against which the relative yield was determined).

Chart 1

Government of Canada Term	Term to Maturity (Years)	Relative Yield (BPs)	Term to Maturity (Years)	Relative Yield (BPs)
10-Year Term	4	19.66	12	104.91
15-Year Term	14	101.69	16	106.05
20-Year Term	19	116.12	21	117.80
30-Year Term	29	118.18	34	122.25

- a) Hydro One Bonds Relative to 10-year Term Government of Canada Bonds
- (i) Hydro One bond (ticker Hydone 3.2 01/13/22) to mature January 13, 2022 (approximately 4 years): its spread over GoC 10Yr rate (ticker GCAN10Yr) was 19.66bps.

GRAB

HYDONE 3.2 01/13/22 Corp Settings Yield and Spread Analysis

19 Buy 19 Sell

1 Yield & Spread 3 Graphs 3 Pricing 4 Description 9 Custom

HYDONE 3.2 01/13/22 (44810ZBF6) Risk

Spread 19.66 bp vs GCAN10YR Index

Price 102.617

Yield 2.498957 Wst 2.302404

Wkout 01/13/2022 @ 100.00

Settle 02/02/18

	Workout	OAS
M.Dur	3.688	3.701
Risk	3.791	3.804
Convexity	0.159	0.160
DV 01 on 1MM	379	380
Benchmark Risk	0.000	0.000
Risk Hedge	N.A.	N.A.
Proceeds Hedge	N.A.	N.A.

Spreads		Yield Calculations		Invoice	
11) G-Sprd	46.7	Street Convention	2.498957	Face	1,000 M
12) I-Sprd	7.4	Equiv 1 /Yr	2.514569	Principal	1,026,170.00
Basis	N.A.	Mmkt (Act/ 365)		Accrued (20 Days)	1,753.42
14) Z-Sprd	7.4	True Yield	2.499257	Total (CAD)	1,027,923.42
15) ASW	7.5	Bank of Canada	2.498957		
16) OAS	43.7	Current Yield	3.118		

After Tax (Inc 44.000 % CG 83.000 %) 1.322847

Australia 61 2 9777 3600 Brazil 55 11 2395 9000 Europe 44 20 7330 7500 Germany 49 49 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 1000 Singapore 65 6212 1000 U.S. 1 212 311 2000 Copyright 2018 Bloomberg Finance L.P.
04 529005 6819-2992-2 31-Jan-18 14:17:20 EST GMT-5:00

- (ii) Hydro One bond (ticker Hydome 7.35 06/03/30) to mature June 3, 2030 (approximately 12 years): its spread over GoC 10Yr rate (ticker GCAN10Yr) was 104.91bps.

GRAB			
HYDOME 7.35 06/03/30 Corp		Settings	Yield and Spread Analysis
		Buy	Sell
Yield & Spread		Graphs	Pricing
Description		Custom	
HYDOME 7.35 06/03/30 (448810ACS)		Risk	
Spread	104.91 bp vs	GCAN10YR Index	Workout
Price	140.124		OAS
Yield	3.350622 Wst	2.301502	
Wkout	06/03/2030 @	100.00	
Settle	02/02/18		
		M.Dur	Dur
		8.775	8.812
		Risk	12.403
		12.456	
		Convexity	0.979
		0.987	
		DV	on 1MM
		1,240	1,246
		Benchmark Risk	0.000
		0.000	
		Risk Hedge	N.A.
		N.A.	
		Proceeds Hedge	N.A.
		N.A.	
Spreads		Yield Calculations	
11) G-Sprd	102.4	Street Convention	3.350622
12) I-Sprd	61.4	Equiv L /Yr	3.378689
Basis	N.A.	Mmkt (Act/ 365)	
14) Z-Sprd	66.2	True Yield	3.350679
15) ASW	80.7	Bank of Canada	3.350622
16) OAS	104.3	Current Yield	5.245
After Tax (Inc 44.000 % CG 83.000 %)		1.516699	
		Invoice	
		Face	1,000 M
		Principal	1,401,240.00
		Accrued (61 Days)	12,283.56
		Total (CAD)	1,413,523.56
Australia 61 2 9777 0030 Brazil 5511 2295 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000			
Japan 61 3 3201 0000 Singapore 65 6212 1000 U.S. 1 212 310 2000 Copyright 2010 Bloomberg Finance L.P.			
SN 625005 C919-2992-2 31-Jan-18 14:18:26 EST GMT-5:00			

b) Hydro One Bonds Relative to 15-year Term Government of Canada Bonds

- 101.69 bps.

SN 529085 G819-2992-2 31-Jan-18 13:45:32 EST GMT-5:00

- (ii) Hydro One bond (ticker Hydone 6.35 01/31/34) to mature January 31, 2034 (approximately 16 years): its spread over GoC 15Yr rate (ticker C10115Y) was 106.05bps.

GRAB			
HYDONE 6.35 01/31/34 Corp		Settings	Yield and Spread Analysis
		99 Buy	99 Sell
1 Yield & Spread		2 Graphs	3 Pricing
4 Description		5 Custom	
HYDONE 6.35 01/31/34 (44810ZAD2)		Risk	
Spread	106.05 bp vs C10115Y Index		Workout OAS
Price	135.584	• M.Dur • Dur	10.954 11.000
Yield	3.438939 Wst 2.378400	Risk	14.856 14.918
Wkout	01/31/2034 @ 100.00	Convexity	1.540 1.552
Settle	02/02/18	D/A 01 on 1MM	1.486 1.492
		Benchmark Risk	0.000 0.000
		Risk Hedge	N.A. N.A.
		Proceeds Hedge	N.A.
Spreads		Yield Calculations	
1) G-Sprd	108.9	Street Convention	3.438939
12) I-Sprd	64.8	Equiv 1 /Yr	3.468504
Basis	N.A.	Mmkt (Act/ 365)	
14) Z-Sprd	69.4	True Yield	3.438680
15) ASW	82.8	Bank of Canada	3.438939
16) OAS	109.8	Current Yield	4.683
After Tax (Inc 44.000 % CG 83.000 %)		1.658161	
		Invoice	
		Face	1,000 M
		Principal	1,355,840.00
		Accrued (2 Days)	347.95
		Total (CAD)	1,356,187.95
Australia 61 2 9777 8690 Brazil 5511 2386 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6282 1000 U.S. 1 212 316 2000 Copyright 2018 Bloomberg Finance L.P. SN 929085 C619-2992-2 31-Jan-18 13:59:29 EST GMT+5:00			

- c) Hydro One Bonds Relative to 20-year Term Government of Canada Bonds
(i) Hydro One bond (ticker Hydone 4.89 03/13/37) to mature March 13, 2037 (approximately 19 years): its spread over GoC 20Yr rate (ticker GCAN20Yr) was 116.12 bps.

GRAB

HYD ONE 4.89 03/13/37 Corp Settings Yield and Spread Analysis

99 Buy 99 Sell

1 Yield & Spread 2 Graphs 3 Pricing 4 Description 5 Custom

HYD ONE 4.89 03/13/37 (44810ZAS9) Risk

Spread 116.12 bp vs GCAN20YR Index

Price 118.632

Yield 3.539698 Wst 2.378504

Wkout 03/13/2037 @ 100.00

Settle 02/02/18

	Workout	OAS
M.Dur	12.779	12.841
Risk	15.403	15.478
Convexity	2.133	2.152
DV 01 on 1MM	1,540	1,548
Benchmark Risk	0.000	0.000
Risk Hedge	N.A.	N.A.
Proceeds Hedge	N.A.	N.A.

Spreads		Yield Calculations		Invoice	
1) G-Sprd	116.3	Street Convention	3.539698	Face	1,000 M
12) I-Sprd	72.2	Equiv 1 /Yr	3.571022	Principal	1,186,320.00
Basis	N.A.	Mmkt (Act/ 365)		Accrued (142 Days)	19,024.11
14) Z-Sprd	75.9	True Yield	3.540548	Total (CAD)	1,205,344.11
15) ASW	83.3	Bank of Canada	3.539698		
16) OAS	117.1	Current Yield	4.122		

After Tax (Inc 44.000 % CG 33.000 %) 1.846487

Australia 61 2 9777 6600 Brazil 5511 2395 9090 Canada 44 29 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6900
Japan 81 3 3291 6900 Singapore 65 6212 1000 U.S. 1 212 310 2000 Copyright 2010 Bloomberg Finance L.P.
SN 529005 0313-2592-2 31-Feb-18 13:51:36 EST GMT-6:00

- (ii) Hydro One bond (ticker Hydone 6.03 03/03/39) to mature March 3, 2039 (approximately 21 years): its spread over GoC 20Yr rate (ticker GCAN20Yr) was 117.80 bps.

GRAB			
HYDONE 6.03 03/03/39 Corp		Settings	Yield and Spread Analysis
		99 Buy	90 Sell
1 Yield & Spread		2 Graphs	3 Pricing
4 Description		5 Custom	
HYDONE 6.03 03/03/39 (44810ZAX8)		Risk	
Spread	117.80 bp vs	GCAN20Yr Index	Workout
Price	136.461		OAS
Yield	3.556778	Wst 2.378741	
Wkout	03/03/2039 @ 100.00		
Settle	02/02/18		
		M.Dur	Dur
		13.058	13.109
		Risk	18.147
		18.217	
		Convexity	2.312
		2.329	
		DV on 1MM	1.815
		1.822	
		Benchmark Risk	0.000
		0.000	
		Risk Hedge	N.A.
		N.A.	
		Proceeds Hedge	N.A.
Spreads		Yield Calculations	
1) G-Sprd	117.8	Street Convention	3.556778
12) I-Sprd	73.6	Equiv 1 /Yr	3.588405
Basis	N.A.	Mmkt (Act/ 365)	
14) Z-Sprd	77.9	True Yield	3.557641
15) ASW	94.1	Bank of Canada	3.556778
16) OAS	118.8	Current Yield	4.419
After Tax (Inc 14.000 % CG 83.000 %)		1.770194	
Australia 61 2 9777 0600 Brazil 5511 2355 9060 Europe 44 20 7330 7600 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 Japan 81 3 5261 6900 Singapore 65 6212 1000 U.S. 1 212 316 2000 Copyright 2018 Bloomberg Finance L.P. SH 529005 6019-2992-2 31-Jan-18 13:52:34 EST 600-5:00			

- (i) Hydro One bond (ticker Hydone 5 10/19/46) to mature October 19, 2046 (approximately 29 years): its spread over GoC 30Yr rate (ticker GCAN30Yr) was 118.18 bps.

- (ii) Hydro One bond (ticker Hydone 4 12/22/51) to mature December 22, 2051: its spread over GoC 30Yr rate (ticker GCAN30Yr) was 122.25 bps.

GRAB		HYD ONE 4 12/22/51 Corp		Settings	Yield and Spread Analysis	
				99 Buy	98 Sell	
1 Yield & Spread		2 Graphs		3 Pricing		4 Description
						5 Custom
HYD ONE 4 12/22/51 (44810ZBE9)				Risk		
Spread	122.25 bp vs	GCAN30YR Index		Workout		OAS
Price	107.636			18.971		18.986
Yield	3.607567	Wst	2.385060	20.507		20.523
Wkout	12/22/2051 @	100.00		5.097		5.111
Settle	02/02/18			2.051		2.052
				0.000		0.000
				N.A.		N.A.
				N.A.		N.A.
Spreads		Yield Calculations		Invoice		
1) G-Sprd	122.3	Street Convention	3.607567	Face		1,000 M
2) I-Sprd	83.4	Equiv 1 /Yr	3.640103	Principal		1,076,360.00
Basis	N.A.	Mmkt (Act/365)		Accrued (42 Days)		4,602.74
4) Z-Sprd	91.3	True Yield	3.607459	Total (CAD)		1,080,962.74
5) ASW	96.6	Bank of Canada	3.607567			
6) OAS	124.6	Current Yield	3.716			
After Tax (Inc 44.000 % CG 33.000 %)				1.981978		

ATTACHMENT 6

**OUTSTANDING BALANCES FOR HYDRO ONE SECURITIES REFLECTED IN
ATTACHMENT 5**

“Principle Amounts” is a component of the definition of market comparable forecast interest rates as defined in the FHP Regulation. The Bloomberg screenshot below provides evidence as to the outstanding balance of the specific Hydro One debt issues reflected in Attachment 5:

a) Hydro One Bonds Relative to 10-year Term Government of Canada Bonds

(a – i) Hydro One bond (ticker Hydone 3.2 01/13/22) to mature January 13, 2022

Row 6 - \$600M outstanding

(a – ii) Hydro One bond (ticker Hydone 7.35 06/03/30) to mature June 3, 2030

Row 7 - \$400M outstanding

b) Hydro One Bonds Relative to 15-year Term Government of Canada Bonds

(b – i) Hydro One bond (ticker Hydone 6.93 06/01/32) to mature June 1, 2032

Row 8 - \$500M outstanding

(b – ii) Hydro One bond (ticker Hydone 6.35 01/31/34) to mature January 31, 2034

Row 9 - \$385M outstanding

c) Hydro One Bonds Relative to 20-year Term Government of Canada Bonds

(c – i) Hydro One bond (ticker Hydone 4.89 03/13/37) to mature March 13, 2037

Row 11 - \$400M outstanding

(c – ii) Hydro One bond (ticker Hydone 6.03 03/03/39) to mature March 3, 2039

Row 12 - \$300M outstanding

d) Hydro One Bonds Relative to 30-year Term Government of Canada Bonds

(d – i) Hydro One bond (ticker Hydone 5 10/19/46) to mature October 19, 2046

Row 16 - \$325M outstanding

(d – ii) Hydro One bond (ticker Hydone 4 12/22/51) to mature December 22, 2051

Row 17 - \$225M outstanding

SN 529085 G564-1759-0 30-Jan-18 11:00:13 EST GMT-5:00

ATTACHMENT 7

RELATIONSHIP BETWEEN HYDRO ONE BOND RATES AND GOVERNMENT OF ONTARIO BOND RATES – THE HYDRO ONE RISK PREMIUM

There is no public information providing Hydro One's historical five year average spreads over GoC or ONT bonds; therefore OPG has used Hydro One's current risk premium for analysis. The Hydro One risk premium is based on yield information at January 31, 2018. It is comparable to the FH Trust risk premium as 15-year term debt was issued by the FH Trust on February 9, 2018.

The current Hydro One risk premium over GoC bond rates is available through Bloomberg (Attachment 5); however, as the terms to maturity of outstanding Hydro One bonds are not of 10, 15, 20 or 30 year duration, interpolation is required to equate the observed Hydro One term to maturity to the term of the GoC bonds. The approach to interpolation and estimation of the Hydro One premium over GoC bonds is provided separately for the 10-year, 15-year, 20-year and 30-year debt terms, the results of which are summarized in line 1 of Chart 1 below.

The ONT bond spread over GoC bonds (Attachment 4) is provided in line 2 of Chart 1. The ONT bond spread over GoC bonds is deducted from Hydro One premium over GoC bonds to determine the estimated Hydro One risk premium over ONT bonds provided in line 3 of Chart 1.

Chart 1

Security	10-year Term (bps)	15-Year Term (bps)	20-year Term (bps)	30-year Term (bps)
Hydro One vs GoC Comparative Yield (below)	84	104	117	119
Ontario risk premium (Attachment 4)	48	56	64	67
Hydro One risk premium	36	48	53	52

Hydro One Premium Over and Government of Canada Bonds

All of the Hydro One securities identified in Attachment 5 have terms to maturity that do not coincide with the 10-year, 15-year, 20-year and 30-year terms of GoC bonds. To interpolate the Hydro One bond yield for the comparable term of the GoC debt requires two data points: the current yield for a Hydro One bond with a term to maturity less than the comparable GoC bond term; and the current yield for a Hydro One bond with a term to maturity greater than the comparable GoC bond term. The difference between the two Hydro One bond yields is assumed to be a straight line relationship. The Hydro One yield is determined at the point on that straight line that is comparable to the GoC term.

Chart 2 below summarizes, for each of the four GoC terms, the relative yield of two Hydro One bonds that were selected for analysis: one with a term to maturity of less than the GoC term and the other with a term to maturity that is longer than the Government of Canada term. The Hydro One bonds selected are the same as those provided in Attachment 5. The last column reflects the results of interpolation analysis, provided separately for each of the four GOC terms below. The interpolation formula and the steps to calculate the result have been provided in the interpolation analysis for each of the four GoC terms.

Chart 2

Government of Canada Term	Term to Maturity (Years)	Relative Yield (BPs)	Term to Maturity (Years)	Relative Yield (BPs)	Hydro One Premium over GoC bonds (bps)
10-Year Term	4	19.66	12	104.91	84
15-Year Term	14	101.69	16	106.05	104
20-Year Term	19	116.12	21	117.80	117
30-Year Term	29	118.18	34	122.25	119

- a) Interpolation of current Hydro One risk premiums to estimate 10-year Hydro One risk premium over 10-Year GoC term debt

	(A)	10Yr
Maturity		13-Jan-22
Term	(B)	4
Spread to GoC15Yr	(C)	19.66
Maturity		3-Jun-30
Term	(D)	12
Spread to GoC15Yr	(E)	104.91
Hydro One Spread vs GoC (bp)		84

$$\begin{aligned}
 *Hydro\ One\ Spread\ vs\ GoC &= C + [(A-B) \times (E-C) / (D-B)] \\
 &= 19.66 + [(10-4) \times (104.91-19.66) / (12-4)] \\
 &= 19.66 + [(6) \times (85.25) / (8)] \\
 &= 19.66 + (511.50/8) \\
 &= 19.66 + 63.94 \\
 &= 84
 \end{aligned}$$

$$**Term = (Maturity\ Date - Feb.\ 1,\ 2018) / 365$$

- b) Interpolation of current Hydro One risk premiums to estimate 15-year Hydro One risk premium over 15-Year GoC term debt

	(A)	<u>15Yr</u>
Maturity		1-Jun-32
Term	(B)	14
Spread to GoC15Yr	(C)	101.69
Maturity		31-Jan-34
Term	(D)	16
Spread to GoC15Yr	(E)	106.05
Hydro One Spread vs GoC (bp)		104

$$\begin{aligned}
 *Hydro\ One\ Spread\ vs\ GoC &= C + [(A-B) \times (E-C) / (D-B)] \\
 &= 101.69 + [(15-14) \times (106.05-101.69) / (16-14)] \\
 &= 101.69 + [(1) \times (4.36) / (2)] \\
 &= 101.69 + (4.36/2) \\
 &= 101.69 + 2.18 \\
 &= 104
 \end{aligned}$$

$$**Term = (Maturity\ Date - Feb.\ 1,\ 2018) / 365$$

- c) Interpolation of current Hydro One risk premiums to estimate 20-year Hydro One risk premium over 20-Year GoC term debt

	(A)	<u>20Yr</u>
Maturity		13-Mar-37
Term	(B)	19
Spread to GoC15Yr	(C)	116.12
Maturity		3-Mar-39
Term	(D)	21
Spread to GoC15Yr	(E)	117.80
Hydro One Spread vs GoC (bp)		117

$$\begin{aligned}
 *Hydro\ One\ Spread\ vs\ GoC &= C + [(A-B) \times (E-C) / (D-B)] \\
 &= 116.12 + [(20-19) \times (117.80-116.12) / (21-19)] \\
 &= 116.12 + [(1) \times (1.68) / (2)] \\
 &= 116.12 + (1.68/2) \\
 &= 116.12 + 0.84 \\
 &= 117
 \end{aligned}$$

$$**Term = (Maturity\ Date - Feb.\ 1,\ 2018) / 365$$

- d) Interpolation of current Hydro One risk premiums to estimate 30-year Hydro One risk premium over 30-Year GoC term debt

	(A)	<u>30Yr</u>
Maturity		19-Oct-46
Term	(B)	29
Spread to GoC15Yr	(C)	118.18
Maturity		22-Dec-51
Term	(D)	34
Spread to GoC15Yr	(E)	<u>122.25</u>
Hydro One Spread vs GoC (bp)		119

$$\begin{aligned}
 *Hydro\ One\ Spread\ vs\ GoC &= C + [(A-B) \times (E-C) / (D-B)] \\
 &= 118.18 + [(30-29) \times (122.25-118.18) / (34-29)] \\
 &= 118.18 + [(1) \times (4.07) / (5)] \\
 &= 118.18 + (4.07/5) \\
 &= 118.18 + 0.81 \\
 &= 119
 \end{aligned}$$

$$**Term = (Maturity\ Date - Feb.\ 1,\ 2018) / 365$$