

**EXHIBIT 5:**  
**COST OF CAPITAL AND**  
**RATE OF RETURN**

## Table of Contents

	<b>Page</b>
2.5 EXHIBIT 5 - COST OF CAPITAL AND RATE OF RETURN .....	2
2.5.1 Capital Structure .....	2
2.5.1.1 Return on Equity .....	2
2.5.1.2 Cost of Debt: Long Term.....	2
2.5.1.3 Cost of Debt: Short Term .....	4
2.5.2 Cost of Capital (Return on Equity and Cost of Debt).....	4
2.5.2.1 Weighted Average Cost of Long-Term Debt.....	6
2.5.2.2 Notional Debt .....	7
2.5.2.3 Profit or Loss on Redemption of Debt or Preferred Shares.....	7
2.5.3 Not-For-Profit Corporations .....	8

1    **2.5    EXHIBIT 5 - COST OF CAPITAL AND RATE OF RETURN**

2    The purpose of this evidence is to summarize the method and cost of financing capital requirements for the  
3    2021 Test Year.

4    **2.5.1    CAPITAL STRUCTURE**

5    NBHDL has a current deemed capital structure of 56% long term debt with a return of 4.24%, 4% short term  
6    debt with a return of 2.16% and 40% equity with a return of 9.30% as approved in the 2015 cost of service  
7    ("COS") rate decision EB-2014-0099.

8    NBHDL has prepared this 2021 COS Application in accordance with the Board's guidelines provided in the  
9    *Report of the Board on Cost of Capital for Ontario's Regulated Utilities* (the "2009 Report") issued on  
10   December 11, 2009. For the purposes of preparing this Application, NBHDL has used the cost of capital  
11   parameters issued by the Board on November 9, 2020 for 2021 cost of service rate applications for rates  
12   with effective dates in 2021. NBHDL proposes no deviation from the Board's cost of capital methodology.

13   **2.5.1.1    Return on Equity**

14   As outlined above, for the purposes of preparing this Application NBHDL has used the cost of capital  
15   parameters issued by the Board on November 9, 2020 for 2021 COS rate applications which reflects a  
16   return on equity of 8.34%.

17   **2.5.1.2    Cost of Debt: Long Term**

18   NBHDL is requesting a return on long term debt for the 2021 Test Year of 2.48%. This rate of return  
19   represents the weighted average cost of long-term debt that NBHDL currently holds with Toronto-Dominion  
20   Bank ("TD") for multiple SWAP loan agreements representing annual lending from 2014 through 2020, and  
21   anticipated lending in the 2021 Test Year. NBHDL would note that this rate is lower than the OEB's most  
22   recently announced deemed long-term debt rate of 2.75% and reflects favourable financing rates that  
23   NBHDL has been able to negotiate with its lender with benefits that flow to the rate payer through lower  
24   interest costs incorporated into rates.

25   NBHDL entered into a financing agreement with Infrastructure Ontario on November 19, 2009 for  
26   \$3,500,000 to finance the Smart Meter project. This financing agreement was converted to a 10-year  
27   debenture with Infrastructure Ontario on April 15, 2011 for \$3,500,000 at a rate of 3.9% maturing on April  
28   15, 2021. The principal balance at the end of the 2021 Test Year is \$0. The average principal amount owing  
29   in 2021 on this loan is \$24,416. This loan carries an immaterial interest cost of \$974.

30   NBHDL signed an ISDA Master Agreement on September 26, 2014 and the trade confirmation was  
31   completed on October 1, 2014 with an effective date of October 2, 2014. The ISDA covers all SWAPs that

1 NBHDL enters into. NBHDL entered into its first SWAP agreement in 2014 and has continued to do so on  
2 an annual basis since.

3 For both the short-term and long-term bank debt NBHDL has a general security agreement in favour of TD  
4 as a "Second Charge" security covering all company assets; Infrastructure Ontario ("IO") has a first charge  
5 and TD and IO have Pari-Passu Agreements in place.

6 In the 2015 COS application, NBHDL had a promissory note with the City of North Bay ("CNB"), its municipal  
7 shareholder, for \$19,511,601. On January 25, 2016, the City of North Bay called the promissory note that  
8 was originally issued March 17, 2003 with an anticipated settlement date of November 1, 2016. The actual  
9 interest rate on the promissory note was 5%, with rates incorporating the loan at 4.88% (the deemed long-  
10 term debt rate at that time). In July 2016, NBHDL entered into a credit facility with TD to put into place  
11 borrowing options that covered all financing requirements for the company until 2020. The agreement  
12 provided for replacement lending to cover the promissory note called by the CNB and provided for capital  
13 financing up to \$26M over the 2016-2020 period. NBHDL had the capability of drawing down in the capital  
14 facility in multiple installments and did so on an annual basis. In November 2016, TD entered into a SWAP  
15 agreement with TD for the CNB replacement loan at a rate of 2.5%.

16 Table 5-1 below provides a summary of the loans currently in place. NBHDL forecasted 2021 lending at a  
17 rate of 2.06%, approximately 0.5% above the 2020 interest rate that was locked in September 2020. This  
18 increase is aligned with the long-term forecast from TD Economics released in September 2020. NBHDL  
19 has forecasted obtaining the loan in December and has accounted for one month of interest expense and  
20 the appropriate pro-rated principal balance. NBHDL notes that the forecasted rate is lower than the deemed  
21 long-term debt rate.

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**Table 5 - 1: Long-Term Debt**

Loan Detail	Year	Term	Interest Rate	P&I Payments	Loan		2021 Test Year	
					Date	Amount	Year-End Balance	Average Principal Balance
Infrastructure Ontario - due April 15, 2021	2011	10	3.90%	\$29,403	April 15, 2011	\$3,500,000	\$0	\$24,416
TD - SWAP - due October 2024 - 2014 term loan	2014	10	3.095%	\$38,800	October 2, 2014	\$4,000,000	\$1,261,455	\$1,489,758
TD - SWAP - due October 2025 - 2015 term loan	2015	10	2.45%	\$56,426	October 15, 2015	\$6,000,000	\$2,475,013	\$2,805,796
TD - SWAP - due November 2036 - CNB replacement loan	2016	20	2.50%	\$103,331	November 1, 2016	\$19,500,000	\$15,425,765	\$15,884,080
TD - SWAP - due November 2026 - 2016 term loan	2016	10	2.36%	\$46,817	November 30, 2016	\$5,000,000	\$2,607,760	\$2,875,847
TD - SWAP - due October 2027 - 2017 term loan	2017	10	2.88%	\$48,004	October 2, 2017	\$5,000,000	\$3,089,771	\$3,350,660
TD - SWAP - due December 2028 - 2018 term loan	2018	10	3.55%	\$44,604	December 3, 2018	\$4,500,000	\$3,313,178	\$3,536,310
TD - SWAP - due September 2029 - 2019 term loan	2019	10	2.37%	\$51,524	September 3, 2019	\$5,500,000	\$4,373,491	\$4,650,886
TD - SWAP - due September 2030 - 2020 term loan	2020	10	1.56%	\$54,034	September 15, 2020	\$6,000,000	\$5,300,147	\$5,604,744
TD - SWAP - forecast - 2021 term loan	2021	10	2.06%	\$57,215	December 1, 2021	\$6,200,000	\$6,200,000	\$516,667
<b>Total Principal Balances</b>							<b>\$44,046,579</b>	<b>\$40,739,163</b>

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3 **2.5.1.3 Cost of Debt: Short Term**

4 For the purposes of preparing this Application, NBHDL has used the cost of capital parameters issued by  
 5 the Board on November 9, 2020 for 2021 COS rate applications which reflects a deemed short term debt  
 6 rate of 1.75%. NBHDL proposes no deviation from the Board's cost of capital methodology.

7 **2.5.2 COST OF CAPITAL (RETURN ON EQUITY AND COST OF DEBT)**

8 Table 5-2 below is a reproduction of Appendix 2-OA that demonstrates the elements of the capital structure  
 9 and cost of capital for the 2015 Board-approved and 2021 Test Year. For 2021, the weighted average cost  
 10 of capital of 4.80% will be applied to the rate base of \$76,227,486, which is explained in detail in Exhibit 2,  
 11 to determine a return on rate base of \$3,655,772 that is included in the proposed revenue requirement.

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**Table 5 - 2: Capital Structure and Cost of Capital (Appendix 2-OA)**

Year: **2015 Board Approved**

Line No.	Particulars	Capitalization Ratio		Cost Rate	Return
		(%)	(\$)	(%)	(\$)
	<b>Debt</b>				
1	Long-term Debt	56.00%	\$34,058,537	4.24%	\$1,444,504
2	Short-term Debt	4.00% (1)	\$2,432,753	2.16%	\$52,547
3	<b>Total Debt</b>	<b>60.0%</b>	<b>\$36,491,290</b>	<b>4.10%</b>	<b>\$1,497,051</b>
	<b>Equity</b>				
4	Common Equity	40.00%	\$24,327,527	9.30%	\$2,262,460
5	Preferred Shares		\$ -		\$ -
6	<b>Total Equity</b>	<b>40.0%</b>	<b>\$24,327,527</b>	<b>9.30%</b>	<b>\$2,262,460</b>
7	<b>Total</b>	<b>100.0%</b>	<b>\$60,818,816</b>	<b>6.18%</b>	<b>\$3,759,511</b>

Year: **2021 Test Year**

Line No.	Particulars	Capitalization Ratio		Cost Rate	Return
		(%)	(\$)	(%)	(\$)
	<b>Debt</b>				
1	Long-term Debt	56.00%	\$42,687,392	2.48%	\$1,059,464
2	Short-term Debt	4.00% (1)	\$3,049,099	1.75%	\$53,359
3	<b>Total Debt</b>	<b>60.0%</b>	<b>\$45,736,492</b>	<b>2.43%</b>	<b>\$1,112,823</b>
	<b>Equity</b>				
4	Common Equity	40.00%	\$30,490,994	8.34%	\$2,542,949
5	Preferred Shares		\$ -		\$ -
6	<b>Total Equity</b>	<b>40.0%</b>	<b>\$30,490,994</b>	<b>8.34%</b>	<b>\$2,542,949</b>
7	<b>Total</b>	<b>100.0%</b>	<b>\$76,227,486</b>	<b>4.80%</b>	<b>\$3,655,772</b>

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1 **2.5.2.1 WEIGHTED AVERAGE COST OF LONG-TERM DEBT**

2 Table 5-3 below is a reproduction of Appendix 2-OB listing NDHDL's long term debt instruments and  
 3 weighted average cost of long-term debt from 2015 to the 2021 test year.

4 **Table 5 - 3: Debt Instruments (Board Appendix 2-OB)**

Year **2015 Board Approved**

Row	Description	Lender	Affiliated or Third-Party	Fixed or Variable-	Start Date	Term (years)	Principal (\$)	Rate (%) (Note 2)	Interest (\$) (Note 1)	Additional Comments, if any
1	Shareholder loan	City of North Bay	Affiliated	Fixed Rate	17-Mar-03		\$ 19,511,601	4.77%	\$ 930,703	Deemed debt rate, actual principal
2	Smart Meter Loan	Infrastructure Ontario	Third-Party	Fixed Rate	15-Apr-11	10	\$ 2,056,450	3.90%	\$ 80,202	Actual interest rate, average principal
3	Capital Loan 2014	TD	Third-Party	Fixed Rate	2-Oct-14	10	\$ 3,784,136	3.10%	\$ 117,119	Actual interest rate, average principal
4	Capital Loan 2015	TD	Third-Party	Fixed Rate	30-Jun-15	10	\$ 2,946,397	2.45%	\$ 72,187	Actual interest rate, average principal
<b>Total</b>							<b>\$28,298,584</b>	<b>4.24%</b>	<b>\$ 1,200,211</b>	

Year **2015 Actual**

Row	Description	Lender	Affiliated or Third-Party	Fixed or Variable-	Start Date	Term (years)	Principal (\$)	Rate (%) (Note 2)	Interest (\$) (Note 1)	Additional Comments, if any
1	Shareholder loan	City of North Bay	Affiliated	Fixed Rate	17-Mar-03		\$ 19,511,601	5.00%	\$ 975,580	Actual interest rate
2	Smart Meter Loan	Infrastructure Ontario	Third-Party	Fixed Rate	15-Apr-11	10	\$ 1,866,667	3.90%	\$ 80,186	Actual interest rate
3	Capital Loan 2014	TD	Third-Party	Fixed Rate	2-Oct-14	10	\$ 3,594,479	3.10%	\$ 125,793	Actual interest rate
4	Capital Loan 2015	TD	Third-Party	Fixed Rate	15-Oct-15	10	\$ 1,270,122	2.45%	\$ 31,118	Actual interest rate, average principal
<b>Total</b>							<b>\$26,242,870</b>	<b>4.62%</b>	<b>\$ 1,212,677</b>	

Year **2016 Actual**

Row	Description	Lender	Affiliated or Third-Party	Fixed or Variable-	Start Date	Term (years)	Principal (\$)	Rate (%) (Note 2)	Interest (\$) (Note 1)	Additional Comments, if any
1	Shareholder loan	City of North Bay	Affiliated	Fixed Rate	17-Mar-03		\$ 16,290,868	5.00%	\$ 814,543	Actual interest rate, average principal
2	Smart Meter Loan	Infrastructure Ontario	Third-Party	Fixed Rate	15-Apr-11	10	\$ 1,516,667	3.57%	\$ 66,729	Actual interest rate
3	Capital Loan 2014	TD	Third-Party	Fixed Rate	2-Oct-14	10	\$ 3,235,059	3.10%	\$ 105,043	Actual interest rate
4	Capital Loan 2015	TD	Third-Party	Fixed Rate	15-Oct-15	10	\$ 5,373,266	2.45%	\$ 137,859	Actual interest rate
5	Capital Loan 2016	TD	Third-Party	Fixed Rate	30-Nov-16	10	\$ 416,667	2.36%	\$ 9,833	Actual interest rate, average principal
6	Replacement loan (CNB)	TD	Third-Party	Fixed Rate	1-Nov-16	10	\$ 3,244,774	2.50%	\$ 81,119	Actual interest rate, average principal
<b>Total</b>							<b>\$30,077,301</b>	<b>4.04%</b>	<b>\$ 1,215,127</b>	

Year **2017 Actual**

Row	Description	Lender	Affiliated or Third-Party	Fixed or Variable-	Start Date	Term (years)	Principal (\$)	Rate (%) (Note 2)	Interest (\$) (Note 1)	Additional Comments, if any
1	Smart Meter Loan	Infrastructure Ontario	Third-Party	Fixed Rate	15-Apr-11	10	\$ 1,166,667	3.49%	\$ 52,886	Actual interest rate
2	Capital Loan 2014	TD	Third-Party	Fixed Rate	2-Oct-14	10	\$ 2,864,355	3.10%	\$ 94,270	Actual interest rate
3	Capital Loan 2015	TD	Third-Party	Fixed Rate	15-Oct-15	10	\$ 4,821,637	2.45%	\$ 125,125	Actual interest rate
4	Capital Loan 2016	TD	Third-Party	Fixed Rate	30-Nov-16	10	\$ 4,516,595	2.36%	\$ 112,285	Actual interest rate
5	Replacement loan (CNB)	TD	Third-Party	Fixed Rate	1-Nov-16	10	\$ 18,674,553	2.50%	\$ 475,643	Actual interest rate
6	Capital Loan 2017	TD	Third-Party	Fixed Rate	2-Oct-17	10	\$ 1,214,498	2.88%	\$ 34,978	Actual interest rate, average principal
<b>Total</b>							<b>\$33,258,305</b>	<b>2.69%</b>	<b>\$ 895,187</b>	

Year **2018 Actual**

Row	Description	Lender	Affiliated or Third-Party	Fixed or Variable-	Start Date	Term (years)	Principal (\$)	Rate (%) (Note 2)	Interest (\$) (Note 1)	Additional Comments, if any
1	Smart Meter Loan	Infrastructure Ontario	Third-Party	Fixed Rate	15-Apr-11	10	\$ 816,667	3.36%	\$ 39,236	Actual interest rate
2	Capital Loan 2014	TD	Third-Party	Fixed Rate	2-Oct-14	10	\$ 2,482,014	3.10%	\$ 82,336	Actual interest rate
3	Capital Loan 2015	TD	Third-Party	Fixed Rate	15-Oct-15	10	\$ 4,256,340	2.45%	\$ 111,177	Actual interest rate
4	Capital Loan 2016	TD	Third-Party	Fixed Rate	30-Nov-16	10	\$ 4,055,554	2.36%	\$ 101,554	Actual interest rate
5	Replacement loan (CNB)	TD	Third-Party	Fixed Rate	1-Nov-16	10	\$ 17,892,524	2.50%	\$ 456,314	Actual interest rate
6	Capital Loan 2017	TD	Third-Party	Fixed Rate	2-Oct-17	10	\$ 4,488,006	2.88%	\$ 134,397	Actual interest rate
7	Capital Loan 2018	TD	Third-Party	Fixed Rate	3-Dec-18	10	\$ 326,613	3.55%	\$ 11,595	Actual interest rate, average principal
<b>Total</b>							<b>\$34,317,717</b>	<b>2.73%</b>	<b>\$ 936,609</b>	

Year 2019 Actual

Row	Description	Lender	Affiliated or Third-Party	Fixed or Variable-	Start Date	Term (years)	Principal (\$)	Rate (%) (Note 2)	Interest (\$) (Note 1)	Additional Comments, if any
1	Smart Meter Loan	Infrastructure Ontario	Third-Party	Fixed Rate	15-Apr-11	10	\$ 466,667	3.08%	\$ 25,189	Actual interest rate
2	Capital Loan 2014	TD	Third-Party	Fixed Rate	2-Oct-14	10	\$ 2,087,670	3.10%	\$ 70,304	Actual interest rate
3	Capital Loan 2015	TD	Third-Party	Fixed Rate	15-Oct-15	10	\$ 3,677,036	2.45%	\$ 97,155	Actual interest rate
4	Capital Loan 2016	TD	Third-Party	Fixed Rate	30-Nov-16	10	\$ 3,584,016	2.36%	\$ 90,259	Actual interest rate
5	Replacement loan (CNB)	TD	Third-Party	Fixed Rate	1-Nov-16	10	\$ 17,090,718	2.50%	\$ 436,497	Actual interest rate
6	Capital Loan 2017	TD	Third-Party	Fixed Rate	2-Oct-17	10	\$ 4,035,269	2.88%	\$ 122,293	Actual interest rate
7	Capital Loan 2018	TD	Third-Party	Fixed Rate	3-Dec-18	10	\$ 4,118,330	3.55%	\$ 152,596	Actual interest rate
8	Capital Loan 2019	TD	Third-Party	Fixed Rate	3-Sep-19	10	\$ 1,769,641	2.37%	\$ 41,940	Actual interest rate, average principal
<b>Total</b>							<b>\$36,829,347</b>	<b>2.81%</b>	<b>\$ 1,036,234</b>	

Year 2020 Bridge Year

Row	Description	Lender	Affiliated or Third-Party Debt?	Fixed or Variable-Rate?	Start Date	Term (years)	Principal (\$)	Rate (%) (Note 2)	Interest (\$) (Note 1)	Additional Comments, if any
1	Smart Meter Loan	Infrastructure Ontario	Third-Party	Fixed Rate	15-Apr-11	10	\$ 116,667	2.57%	\$ 11,980	Actual interest rate
2	Capital Loan 2014	TD	Third-Party	Fixed Rate	2-Oct-14	10	\$ 1,680,947	3.10%	\$ 58,876	Actual interest rate
3	Capital Loan 2015	TD	Third-Party	Fixed Rate	15-Oct-15	10	\$ 3,083,379	2.45%	\$ 83,451	Actual interest rate
4	Capital Loan 2016	TD	Third-Party	Fixed Rate	30-Nov-16	10	\$ 3,101,513	2.36%	\$ 79,389	Actual interest rate
5	Replacement loan (CNB)	TD	Third-Party	Fixed Rate	1-Nov-16	10	\$ 16,268,636	2.50%	\$ 417,891	Actual interest rate
6	Capital Loan 2017	TD	Third-Party	Fixed Rate	2-Oct-17	10	\$ 3,569,319	2.88%	\$ 110,097	Actual interest rate
7	Capital Loan 2018	TD	Third-Party	Fixed Rate	3-Dec-18	10	\$ 3,722,889	3.55%	\$ 139,808	Actual interest rate
8	Capital Loan 2019	TD	Third-Party	Fixed Rate	3-Sep-19	10	\$ 4,882,764	2.37%	\$ 122,086	Actual interest rate
9	Capital Loan 2020	TD	Third-Party	Fixed Rate	15-Sep-20	10	\$ 1,488,437	1.56%	\$ 23,220	Actual interest rate, average principal
<b>Total</b>							<b>\$37,914,549</b>	<b>2.76%</b>	<b>\$ 1,046,797</b>	

Year 2021 Test Year

Row	Description	Lender	Affiliated or Third-Party Debt?	Fixed or Variable-Rate?	Start Date	Term (years)	Principal (\$)	Rate (%) (Note 2)	Interest (\$) (Note 1)	Additional Comments, if any
1	Smart Meter Loan	Infrastructure Ontario	Third-Party	Fixed Rate	15-Apr-11	10	\$ 24,416	3.88%	\$ 947	Actual interest rate, average principal
2	Capital Loan 2014	TD	Third-Party	Fixed Rate	2-Oct-14	10	\$ 1,489,758	3.10%	\$ 46,108	Actual interest rate, average principal
3	Capital Loan 2015	TD	Third-Party	Fixed Rate	15-Oct-15	10	\$ 2,805,796	2.45%	\$ 68,742	Actual interest rate, average principal
4	Capital Loan 2016	TD	Third-Party	Fixed Rate	30-Nov-16	10	\$ 2,875,847	2.36%	\$ 67,870	Actual interest rate, average principal
5	Replacement loan (CNB)	TD	Third-Party	Fixed Rate	1-Nov-16	10	\$ 15,884,080	2.50%	\$ 397,102	Actual interest rate, average principal
6	Capital Loan 2017	TD	Third-Party	Fixed Rate	2-Oct-17	10	\$ 3,350,660	2.88%	\$ 96,499	Actual interest rate, average principal
7	Capital Loan 2018	TD	Third-Party	Fixed Rate	3-Dec-18	10	\$ 3,536,310	3.55%	\$ 125,539	Actual interest rate, average principal
8	Capital Loan 2019	TD	Third-Party	Fixed Rate	3-Sep-19	10	\$ 4,650,886	2.37%	\$ 110,226	Actual interest rate, average principal
9	Capital Loan 2020	TD	Third-Party	Fixed Rate	15-Sep-20	10	\$ 5,604,744	1.56%	\$ 87,434	Actual interest rate, average principal
10	Capital Loan 2021	TD	Third-Party	Fixed Rate	30-Jun-15	10	\$ 516,667	2.06%	\$ 10,643	Actual interest rate, average principal
<b>Total</b>							<b>\$40,739,163</b>	<b>2.48%</b>	<b>\$ 1,011,110</b>	

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3 **2.5.2.2 NOTIONAL DEBT**

4 NBHDL's deemed and actual long-term debt are different. For the 2021 Test year, the actual amount of  
 5 long-term and short-term debt is \$44,046,579 (Table 5-1) and the deemed long-term debt is \$45,736,492  
 6 (Table 5-2). Therefore, NBHDL has positive notional debt of \$1,689,913. NBHDL is requesting that the  
 7 notional debt attract the weighted average cost of actual long-term debt rather than the current deemed  
 8 long-term debt rate issued by the Board.

9 **2.5.2.3 PROFIT OR LOSS ON REDEMPTION OF DEBT OR PREFERRED SHARES**

10 There is no profit or loss on redemption of debt or preferred shares.

1 **2.5.3 NOT-FOR-PROFIT CORPORATIONS**

2 A Reserve Requirement is not applicable because NBHDL is a for-profit corporation.