

**Ontario Energy Board
Commission de l'Énergie de l'Ontario**

Appendix 1 – 2022 Cost of Capital Parameter Calculations
(For cost-based rates that have an effective date commencing in 2022)
October 28, 2021

Step 1: Analysis of Business Day Information in the Month

Month: September 2021		Bond Yields (%)			Bond Yield Spreads (%)	
Day		Government of Canada		A-rated Utility	30-yr Govt over 10-yr Govt	30-yr Util over 30-yr Govt
		10-yr	30-yr	30-yr		
1	1-Sep-21	1.18	1.74	3.08	0.56	1.34
2	2-Sep-21	1.15	1.72	3.06	0.57	1.34
3	3-Sep-21	1.19	1.75	3.10	0.56	1.35
4	4-Sep-21					
5	5-Sep-21					
6	6-Sep-21					
7	7-Sep-21	1.23	1.79	3.13	0.56	1.34
8	8-Sep-21	1.20	1.77	3.12	0.57	1.35
9	9-Sep-21	1.17	1.74	3.08	0.57	1.34
10	10-Sep-21	1.23	1.80	3.15	0.57	1.35
11	11-Sep-21					
12	12-Sep-21					
13	13-Sep-21	1.22	1.78	3.14	0.56	1.36
14	14-Sep-21	1.17	1.74	3.09	0.57	1.35
15	15-Sep-21	1.22	1.77	3.12	0.55	1.35
16	16-Sep-21	1.23	1.77	3.13	0.54	1.36
17	17-Sep-21	1.29	1.82	3.18	0.53	1.36
18	18-Sep-21					
19	19-Sep-21					
20	20-Sep-21	1.22	1.76	3.13	0.54	1.37
21	21-Sep-21	1.22	1.78	3.15	0.56	1.37
22	22-Sep-21	1.21	1.75	3.12	0.54	1.37
23	23-Sep-21	1.33	1.83	3.18	0.50	1.35
24	24-Sep-21	1.38	1.90	3.26	0.52	1.36
25	25-Sep-21					
26	26-Sep-21					
27	27-Sep-21	1.41	1.91	3.27	0.50	1.36
28	28-Sep-21	1.50	1.97	3.33	0.47	1.36
29	29-Sep-21	1.51	1.98	3.34	0.47	1.36
30	30-Sep-21					
31						
		1.26	1.80	3.16	0.54	1.35

Sources: Bank of Canada, Bloomberg L.P.

Step 2: 10-Year Government of Canada Bold Yield Forecast

Source: Consensus Forecasts	Survey Date: September 13, 2021
September 2021	Average
3-month: 1.400	12-month: 1.800
Average: 1.600 %	

Step 3: Long Canada Bond Forecast

10 Year Government of Canada Consensus Forecast (from Step 2)	1.600 %
Actual Spread of 30-year over 10-year Government of Canada Bond Yield (from Step 1)	0.541 %
Long Canada Bond Forecast (LCBF)	2.141 %

Step 4: Return on Equity (ROE) forecast

Initial ROE	9.75 %
Change in Long Canada Bond Yield Forecast from September 2009	
LCBF (September 2021) (from Step 3)	2.141 %
Base LCBF	4.250 %
Difference	-2.110 %
0.5 X Difference	-1.055 %
Change in A-rated Utility Bond Yield Spread from September 2009	
A-rated Utility Bond Yield Spread (September 2021) (from Step 1)	1.354 %
Base A-rated Utility Bond Yield Spread	1.415 %
Difference	-0.061 %
0.5 X Difference	-0.031 %
Return on Equity based on September 2021 data	8.66 %

Step 5: Deemed Long-term Debt Rate Forecast

Long Canada Bond Forecast for September 2021 (from Step 3)	2.141 %
A-rated Utility Bond Yield Spread September 2021 (from Step 1)	1.354 %
Deemed Long-term Debt Rate based on September 2021 data	3.49 %

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Step 1: Average Annual Spread over Bankers' Acceptance

Once a year, typically in September, OEB staff contacts prime Canadian banks to get estimates for the spread of short-term debt issuances over Bankers' Acceptance rates. Up to six estimates are provided.

A.	Average Spread over 90-day Bankers' Acceptance Rate (basis points)		Date of input
Bank 1	100.0	bps	Oct. 2021
Bank 2	80.0	bps	Sept. 2021
Bank 3	100.0	bps	Sept. 2021
Bank 4	90.0	bps	Sept. 2021
Bank 5			
Bank 6			

B.	Discard high and low estimates If less than 4 estimates, take average without discarding high and low.		
Number of estimates	4		
High estimate	100.00	bps	
Low estimate	80.0	bps	

C.	Average annual Spread	95.000	bps	●
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Step 3: Deemed Short-Term Debt Rate Calculation

Calculate Deemed Short-term debt rate as sum of average annual spread (Step 1) and average 3-month Bankers' Acceptance Rate (Step 2)

Average Annual Spread	0.95	%	①
Average Bankers' Acceptance Rate	0.22	%	②
Deemed Short Term Debt Rate	1.17	%	

Step 2: Average 3-month Bankers' Acceptance Rate
Calculation of Average 3-month Bankers' Acceptance Rate during month of September 2021

Month:	September 2021	
Day	Bankers' Acceptance Rate (%)	3-month
1	1-Sep-2021	0.22 %
2	2-Sep-2021	0.22 %
3	3-Sep-2021	0.22 %
4	4-Sep-2021	
5	5-Sep-2021	
6	6-Sep-2021	
7	7-Sep-2021	0.22 %
8	8-Sep-2021	0.22 %
9	9-Sep-2021	0.22 %
10	10-Sep-2021	0.21 %
11	11-Sep-2021	
12	12-Sep-2021	
13	13-Sep-2021	0.22 %
14	14-Sep-2021	0.22 %
15	15-Sep-2021	0.22 %
16	16-Sep-2021	0.23 %
17	17-Sep-2021	0.22 %
18	18-Sep-2021	
19	19-Sep-2021	
20	20-Sep-2021	0.22 %
21	21-Sep-2021	0.22 %
22	22-Sep-2021	0.22 %
23	23-Sep-2021	0.23 %
24	24-Sep-2021	0.21 %
25	25-Sep-2021	
26	26-Sep-2021	
27	27-Sep-2021	0.22 %
28	28-Sep-2021	0.23 %
29	29-Sep-2021	0.22 %
30	30-Sep-2021	
31		
		0.22 %
		●

Source: Investment Industry Regulatory Organization of Canada (IIROC)