REDACTED (CONFIDENTIAL INFORMATION REMOVED)

Nova Scotia Utility and Review Board

IN THE MATTER OF *The Public Utilities Act,* R.S.N.S. 1989, c.380, as amended

-and-

IN THE MATTER OF an Application for approval of NS Power's Pre-Tax Weighted Average Cost of Capital (WACC) and Allowance for Funds Used During Construction (AFUDC) Rates.

Nova Scotia Power

WACC and AFUDC Rates for 2025 Application

November 28, 2024

CONFIDENTIAL (ATTACHMENT ONLY)

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1.0 INTRODUCTION

In this Application, Nova Scotia Power Inc. (NS Power, the Company) sets the Allowance for Funds Used During Construction (AFUDC) and Weighted Average Cost of Capital (WACC) rate for the Company for use in 2025 and requests it be approved by the Nova Scotia Utility and Review Board (UARB, Board).

As described in the Board-approved Summary Capital Expenditure Justification Criteria (CEJC):

> WACC is used to calculate Allowance for Funds Used During Construction (AFUDC) applied to eligible capital projects. The WACC used by NS Power to calculate AFUDC will be the WACC most recently approved by the UARB. NS Power applies for approval of an AFUDC rate annually through a separate proceeding.[1]

The use of the same rate for AFUDC and WACC is consistent with prior years and avoids the confusion of having separate rates for capital and non-capital deferrals and separate approval processes.

The current WACC/AFUDC rate in effect is 6.72 percent, effective since April 1, 2024 and was approved by the Board in its Order dated April 3, 2024.[2]

For 2025, NS Power requests approval of a single WACC/AFUDC rate of 6.66 percent, for both capital and non-capital matters, to be effective the latter of January 1, 2025 or the first day of the month in which Board approval is received, or as otherwise directed by the Board. The Company will continue to use the 2024 WACC/AFUDC rate of 6.72 percent until a new rate approved by the Board comes into effect.

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[1] M08984, Nova Scotia Power Inc., 2019 Annual Capital Expenditure Plan - Capital Expenditure Justification Criteria Documents, approved by the NSUARB in a letter dated April 16, 2020.

[2] M11536, Nova Scotia Power Inc., Pre-Tax Weighted Average Cost of Capital (WACC) and Allowance for Funds Used During Construction (AFUDC) Rates, approved by the NSUARB April 3, 2024.

The proposed WACC/AFUDC rate is supported by the information contained in **Appendix A**. **Appendix A** provides the forecast cost of capital for NS Power in 2025, including additional supporting details of forecast capital structure and forecast interest costs in 2025. As requested by the Board in its letter of September 13, 2018,[3] NS Power has provided how the debt presented in CS-1-3 ties to FOR-11 and how the interest rates reconcile to the rate reported in FOR-10 using the information filed under M08416.

NS Power submits that the Company's forecast WACC of 6.66 percent is the appropriate rate for AFUDC to apply to construction work in progress and for non-capital items. It represents the forecast weighted average cost of capital of the Company for 2025 based on the Board approved methodology.

[3] M08876, Board letter, September 13, 2018.

2.0 FINANCING OUTLOOK & METHODOLOGY

NS Power is an asset intensive business that owns and operates many large facilities and systems. As a result, the Company's financing costs are significant. To minimize these costs, it is essential that the Company has access to various kinds of financing. This flexibility is fundamental to providing cost-effective service to customers.

NS Power is requesting a WACC/AFUDC rate of 6.66 percent for 2025. The calculation of this rate is consistent with the methodology used in the past General Rate Application (GRA) and WACC/AFUDC Application. This methodology entails NS Power forecasting its capital structure for the upcoming year and estimating the cost of each component of financing, including short-term debt, long-term debt and equity. Please refer to **Appendix A** for the forecast.

For the purpose of calculating WACC/AFUDC, the Board Order on the 2022 Application reiterated that NS Power was to use the principles set out in the 2016 WACC Decision,[4] which directed NS Power to calculate WACC using the same debt/equity ratio that was used in determining the revenue requirement in a GRA. In the Board Order for M10431, the equity ratio was established at 40 percent.[5] As such, NS Power may have an actual debt/equity ratio different from the ratio used in the calculation of WACC/AFUDC.

For the purposes of this application NS Power has utilized an equity thickness of 40.0 percent, as illustrated in **Appendix A**, and as directed by the Board.

[4] M07215, UARB Decision 2016 NSUARB 42, NS Power WACC and AFUDC, April 12, 2016, paragraph 22
[5] M10431, Board Order, p.2

3.0 DEBT, INTEREST AND EQUITY

NS Power's funding requirements are financed through shareholder equity, preferred shares, internally generated cash flows, short-term credit facilities, and ongoing access to debt capital markets.

3.1 Debt

The Company uses a mix of fixed (long-term) and floating rate (short-term) debt in its capital structure. Long-term interest rates are generally higher and less volatile than shorter-term interest rates.

NS Power's floating rate debt is obtained largely through short-term debt instruments and Commercial Paper. Commercial Paper is short-term debt issued to investors with maturities of anywhere from a day to less than one year. NS Power currently can issue up to $800 million of Commercial Paper.

The predominant rating used by Commercial Paper investors in Canada is provided by the DBRS Morningstar (DBRS). NS Power's current Commercial Paper rating is R-2 (high) and is below the minimum credit rating of R-1 (low) required to participate in the Commercial Paper market. The Company received an exemptive relief from the requirement to have R-1 (low) rating in 2023.

Commercial Paper is the lowest-cost form of borrowing for NS Power. Participating in this market provides NS Power with flexibility in managing its cash flow. Maintaining current credit ratings is imperative to preserving access to this advantageous form of debt financing. NS Power intends to participate in the Commercial Paper market throughout 2025. NS Power can also access debt capital markets consisting of medium-term notes and debentures.

Refinitiv Benchmark Services (UK) Limited ("RBSL"), the administrator of the Canadian Dollar Offered Rate ("CDOR"), permanently ceased the calculation and publication of CDOR after June 28, 2024. The Canadian Overnight Repo Rate Average ("CORRA") has been adopted as the

Canadian dollar benchmark reference rate in response to CDOR's discontinuation. NS Power's short-term interest rate forecast methodology has been updated accordingly to reflect the Term CORRA benchmark reference rate.

3.1.1 Short-term Interest Rate Forecast Methodology

As part of its decision in Matter M11563 - NS Power Inc - WACC and AFUDC Rates Application for 2024, the Board directed NS Power to file a Compliance Filing, comparing the rate that would have been obtained using the previous method of three-month T-Bills to the Bloomberg methodology. NS Power filed its Compliance Filing on April 16. 2024.

In response to NS Power's Compliance Filing, by letter dated April 23, 2024, the Board stated:

> The Board finds that, in this application, the difference between using the Bloomberg forecast and applying the method used in prior years of forecasting short-term interest is negligible. As noted in the Board's decision letter dated April 3, 2024, there is efficiency in using data from an outside source, and incorporating a larger number of banks may provide a more robust estimate. On the other hand, basing WAAC/AFUDC calculations on forecasts from the banks that NS Power will likely borrow from also has merit. Therefore, the Board is reluctant to adopt the Bloomberg forecast as a permanent replacement without an objective analysis of which forecast methodology is more accurate over time.
>
> The Board requires more information to determine this. The burden is upon NS Power to demonstrate in future applications which forecast methodology is more accurate. If NS Power can establish this based on past data over the last number of years, this information should be included in the next application.
>
> Alternatively, if NS Power does not have access to sufficient past forecasts from Bloomberg, the Board directs that future WACC/AFUDC rate applications provide a table comparing the Bloomberg forecast rate to the estimated short-term rate obtained using three-month T-Bills from Scotiabank, BMO, RBC, CIBC and TD Bank, and the actual short-term interest rates the company achieves.[6]

[6] M11563, 312780, NSUARB Decision Letter, Nova Scotia Power Inc. – WACC and AFUDC Rates Application for 2024, April 23, 2024, page 2.

Please refer to the figure below for a table comparing the Bloomberg forecast rate to the estimated short-term rate obtained using three-month T-Bills from the five major Canadian Banks.

Figure 1: Short-term Interest Rate Forecast Method Comparison and Actuals (percent)

Year	Short-term Interest Rate Forecast using 3-month T-Bills from 5 Canadian Banks	Short-term Interest Rate Forecast using Bloomberg Outlook 1 month T-Bills	Actual Short-term Interest Rate
2022	0.55	0.52	2.51
2023	1.37	1.22	5.77
2024	5.62	5.32	5.39
2025	4.86	5.19	N/A

The figure above demonstrates the difference between short-term interest rates forecast using Bloomberg and the method used in prior years. As the short-term debt represents a small portion of the Company's capital structure, the impact of a difference in short-term interest rates is not significant to the forecast WACC rate. For example, if the Company used the three-month T-Bills rate of 4.86 percent instead of the Bloomberg Outlook rate of 5.19 percent, the 2025 WACC rate would change by 0.005 percent. This would result in a WACC rate of 6.66 percent consistent with the Company's current application. The use of Bloomberg data strengthens the Company's rate forecast by incorporating a larger sample size of short-term interest rate estimates from a more diverse group of financial institutions. The new methodology also results in an improved forecast process by reducing a number of manual steps previously required to estimate short-term interest rates. Bloomberg is regarded as a highly reputable source and is widely used in the industry. As such, the Company requests approval to use the Bloomberg forecast as a permanent replacement to the prior method.

Bond markets determine the maximum amount of interest NS Power pays, based in part on the financial health of the Company and the regulatory risk.

NS Power's debt is currently rated BBB (high) by DBRS and BBB- by S&P Global (S&P).

3.2 Cost of Long-Term Debt

Long-term debt, which has a fixed interest rate, represents approximately 58.5 percent of the forecast capital structure for the Company in 2025. NS Power's calculation of the cost of long-term debt is provided in **Appendix A**.

NS Power's low-cost debt obtained from the Canada Infrastructure Bank (CIB) is forecast to reduce debt financing costs for customers by approximately $2M in 2025 relative to the forecast market rates for a long-term debt issuance.

3.3 Cost of Short-Term Debt

Short-term debt, which has a variable interest rate, is forecast to represent 1.5 percent of the capital structure. NS Power's calculation of the cost of short-term debt and the forecasted outstanding monthly balances are provided in **Appendix A**.

3.4 Equity

As approved by the Board, NS Power's return on equity (ROE) is 9.0 percent and equity thickness is 40.0 percent for rate setting purposes[7]. As such, NS Power has used a deemed common equity thickness of 40.0 percent and a 9.0 percent ROE for the purpose of calculating the WACC rate for 2025.

[7] M10431, Board Order, p.2

4.0 CONCLUSION

NS Power respectfully requests approval of a single WACC/AFUDC rate of 6.66 percent for both capital and non-capital matters to be effective the latter of January 1, 2025 or the first day of the month in which Board approval is received, or as otherwise directed by the Board. The WACC/AFUDC rate will remain in place until the effective date of a new rate approved by the Board. The rate requested is supported by the information contained in **Appendix A**.

NS Power also requests approval to use the Bloomberg forecast methodology for the purposes of forecasting short-term debt rates in future applications.

Nova Scotia Power Inc. **FOR-10**

Estimated Average Capital and Cost of Capital

Year Ended December 31st

Thousands of Dollars

2025 Budget

2025	(1) Opening	(2) Closing	(3) Average Capital	(4) Capital Ratio	(5) Cost Pre-tax Factor	(6) Cost After-tax Factor	(7) Weighted Pre-tax Cost	(8) Weighted After-tax Cost
Estimated Cost of Capital								
Short-term debt	$9,835	$165,932	$87,884	1.5%	5.19%	3.68%	0.08%	0.06%
Long-term debt	$3,207,801	$3,435,467	$3,321,634	58.5%	5.09%	3.62%	2.98%	2.11%
Total debt	$3,217,636	$3,601,399	$3,409,518	60.0%			3.06%	2.17%
Common equity	$2,145,091	$2,400,933	$2,273,012	40.0%	9.00%	9.00%	3.60%	3.60%
Total	**$5,362,728**	**$6,002,332**	**$5,682,530**	**100.0%**			**6.66%**	**5.77%**

Notes:

1) Figures presented reflect whole numbers which may cause $1 Thousand rounding differences on some line items.
2) Pre-tax equity cost excludes the income tax gross-up factor.
3) Average capital reflects average of year-end balances.

Nova Scotia Power Inc. **CS-1-3**

Capital Structure and Ratios

Year Ended December 31st

Millions of Dollars

2025 Budget

		(1)	(2)	(3)	(4)	(5)
		Proposed Rates 2025	**Actual Interest Rate**	**Projected Interest Rates**	**Weighted Average Interest Rate**	**Total Interest Cost**
Capitalization:						
Debt %		60.0%				
Common %		40.0%				
Total Regulated Capitalization ($):		$6,002				
Financial Ratios:						
Return on average common equity (%)		9.0%				
Average common equity ($)		$2,273				
Details of Debt:						
Short-Term ($M):						
Current portion of long-term debt		-				
Bank indebtedness		165.9		4.13%		4.6
Total Short-Term Debt		**165.9**	**-**	**4.13%**		**4.6**
Long-Term ($M):	**Maturity Date**					
Series: "F"	19-May-2025	-	8.85%		0.13%	4.2
Series: "M"	14-Aug-2026	40.0	8.50%		0.10%	3.4
Series: "P"	9-Apr-2029	40.0	6.28%		0.08%	2.5
Series: "R"	14-Jul-2031	75.0	7.45%		0.17%	5.6
Series: "S"	25-Aug-2033	200.0	6.95%		0.42%	13.9
Series: "V"	14-Nov-2035	150.0	5.67%		0.26%	8.5
Series: "L"	21-Mar-2036	60.0	8.30%		0.15%	5.0
Series: "N"	25-Jul-2097	50.0	7.60%		0.11%	3.8
Series: "W"	27-Jul-2039	200.0	5.95%		0.36%	11.9
Series: "X"	15-Jun-2040	300.0	5.61%		0.51%	16.8
Series "Y"	5-Mar-2042	250.0	4.15%		0.31%	10.4
Series "Z"	5-Jul-2043	300.0	4.50%		0.41%	13.5
Series "AA"	1-May-2045	175.0	3.61%		0.19%	6.3
Series "AB"	3-Apr-2049	400.0	3.57%		0.43%	14.3
Series "2020-1"	24-Apr-2050	300.0	3.31%		0.30%	9.9
"2023-1" 4.951% NOV 15/32	15-Nov-2032	300.0	4.95%		0.45%	14.9
"2023-2" 5.355% MAR 24/53	24-Mar-2053	200.0	5.36%		0.32%	10.7
WMA Preferred Shares	[redacted]					
Forecasted Issue (2025)						
Forecasted Issuance (CIB)	21-May-2047	89.9	2.51%		0.05%	1.7
Total Long-Term Debt		**$ 3,439.9**			**5.01%**	**$166.5**
Unamortized discounts, net		(4.5)			0.08%	2.6
Capital Lease Obligations		-				
Total Long-Term Debt, net of Financing costs		**$ 3,435.5**			**5.09%**	**$169.1**

Notes:

1) Figures presented reflect whole numbers which may cause $0.1M in rounding differences on some line items.

Nova Scotia Power Inc. **FOR-11**

Details of Interest and Other Expenses

Year Ended December 31st

Millions of Dollars

2025 Budget

	(1) Proposed Rates 2025
Interest on long-term debt	$167
Interest on short-term borrowings	$5
Other financing charges & adjustments	$1
Amortization of deferred financing charges	$2
Foreign Exchange	-
Total Regulated Financing Cost	**$174**

Notes:

1) Figures presented reflect whole numbers which may cause $1M in rounding differences on some line items.

Nova Scotia Power Inc.

Details of Long-Term Debt Interest Calculation
Year Ended December 31st
Millions of Dollars

2025 Budget

1						**2025**
2		**Issue Date**	**Maturity**	**Volume ($)**	**Rate**	**Total**
3	**Long-Term Debt Interest Expense**					
4	Series "F"	19-May-1995	19-May-2025	-	8.85%	**4.2**
5	Series "L"	21-Mar-1996	21-Mar-2036	60	8.30%	**5.0**
6	Series "M"	07-Aug-1996	14-Aug-2026	40	8.50%	**3.4**
7	Series "N"	25-Jul-1997	25-Jul-2097	50	7.60%	**3.8**
8	Series "R"	12-Jul-2001	14-Jul-2031	75	7.45%	**5.6**
9	Series "S"	25-Aug-2003	25-Aug-2033	200	6.95%	**13.9**
10	Series "P"	09-Apr-1999	09-Apr-2029	40	6.28%	**2.5**
11	Series "V"	14-Nov-2005	14-Nov-2035	150	5.67%	**8.5**
12	Series "W"	27-Jul-2009	27-Jul-2039	200	5.95%	**11.9**
13	Series "X"	15-Jun-2010	15-Jun-2040	300	5.61%	**16.8**
14	Series "Y"	05-Mar-2012	05-Mar-2042	250	4.15%	**10.4**
15	Series "Z"	05-Jul-2013	05-Jul-2043	300	4.50%	**13.5**
16	Series "AA"	30-Apr-2015	01-May-2045	175	3.61%	**6.3**
17	Series "AB"	04-Apr-2019	05-Apr-2049	400	3.57%	**14.3**
18	Series "2020-1"	24-Apr-2020	25-Apr-2050	300	3.31%	**9.9**
19	"2023-1" 4.951% NOV 15/32	24-Mar-2023	15-Nov-2032	300	4.95%	**14.9**
20	"2023-2" 5.355% MAR 24/53	24-Mar-2023	24-Mar-2053	200	5.36%	**10.7**
21	WMA Preferred Shares	[redacted]				
22	Forecast Issuance 2025					
23	Forecast Issuance (CIB)	26-Jul-2024	21-May-2047	90	2.51%	**1.7**
24	Capital Lease Obligations			-		**-**
25	Unamortized Discount, net			(4)		**-**
26	**Total Long-Term Debt Interest Expense**					**166.5**
27	**Other financing charges and adjustments (note 1)**					**0.8**
28	**Amortization of deferred financing charges**					**1.8**
29	**Total Long-Term Debt Expenses**					**169.1**
30						
31	Opening, Long-Term Debt					3,207.8
32	Ending, Long-Term Debt					3,435.5
33	**Average Long-Term Debt, 2024**					**3,321.6**
34	**Long-Term Debt Cost**					**5.09%**
35						
36						

37 Notes:
38 (1) Other financing charges are based on historical fees charged by financial service providers (bank, rating agencies), offset by interest income earned on Nova Scotia Power's on bill financing program.
39 (2) Figures presented reflect whole numbers which may cause $0.1M in rounding differences on some line items.

Nova Scotia Power Inc.

Details of Short-Term Debt Interest Calculation

Year Ended December 31st

Thousands of Dollars

2025 Budget

NSPI CP Forecast, As of August 20, 2024

	2025			
Commercial Paper Rates	**Q1/25**	**Q2/25**	**Q3/25**	**Q4/25**
Bloomberg Outlook T-Bills	3.64%	3.35%	3.14%	3.05%
Outlook T-Bills to Term CORRA Rates spread	0.32%	0.32%	0.32%	0.32%
Estimated CP Rate	**3.96%**	**3.67%**	**3.46%**	**3.37%**
Current NSPI spread	0.51%	0.51%	0.51%	0.51%
All In CP Rates	**4.47%**	**4.18%**	**3.97%**	**3.88%**

Interest Rate Calculation per WACC methodology

Opening, Short-Term Debt	9,835
Ending, Short-Term Debt	165,932
Average Short-Term Debt Balance, 2025	**87,884**
Interest on Short-Term Debt:	**4,558**
Short-Term Debt cost	**5.19%**

	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Forecasted Balances of Short-Term debt by month	9,835	60,568	44,785	61,177	145,891	255,252	20,475	45,207	90,237	102,722	175,071	179,053	165,932	
Interest Expense by month		226	167	228	508	889	71	150	299	340	566	579	537	**4,558**

1) Figures presented reflect whole numbers which may cause $1 Thousand rounding differences on some line items.

Nova Scotia Power Inc.
Details of CIB Debt Interest Calculation
Year Ended December 31st
Thousands of Dollars

2025 Budget

	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Forecasted Balances of CIB debt by month	35,703	35,703	35,792	35,792	35,792	77,457	77,457	77,457	83,356	83,356	83,356	89,934	89,934	
CIB Interest Rate		2.51%	2.51%	2.51%	2.51%	2.51%	2.51%	2.51%	2.51%	2.51%	2.51%	2.51%	2.51%	
CIB Interest Expense by month		75	75	75	75	162	162	162	174	174	174	188	188	**1,685**

1) Figures presented reflect whole numbers which may cause $1 Thousand rounding differences on some line items.