

**Division of Bond Finance
Interest Rate Calculations**

February 20, 2025

Division of Bond Finance

Calculation of Long-Term Interest Rate

Long-Term Interest Rate Information*		
	<u>Low End</u>	<u>High End</u>
Current Estimated Long-Term Interest Rate ¹	4.36%	4.36%
Plus: Volatility Spread ²	0.71%	1.40%
Long-Term Interest Rate Range	5.07%	5.76%

¹ Interest rate estimate for a 30-year bond issue based on 5% coupons and estimated yields and credit spreads as of February 13, 2025. Estimate represents the true interest cost, which factors in the cost of call optionality based on the market standard 10-year par call structure. Excludes costs of issuance and underwriter's discount, which would increase the true cost of borrowing.

² Two measures to have been used to calculate interest rate volatility; (1) TM3 Municipal Market Data ("MMD") 30-year AAA benchmark stated yield high-low range over the prior 12 months of 71 basis points and (2) Bond Buyer 11 GO Bond Index maximum annual change over the last 20 fiscal years of 140 basis points.

Long-Term Interest Rate:

The interest rate range noted above is based on the Division of Bond Finance's historical methodology that analyzes interest rate trends and volatility over the past 20 years and most recent 12-month period. Based on estimated yields and credit spreads as of February 13, 2025, the Division's methodology produces a range of 5.07% to 5.76% for the long-term interest rate.

Since the last conference in July 2024, municipal market rates have seen heightened volatility amid an overall increasing rate environment, as evidenced by the base rate used in the long-term interest rate range increasing by 0.23%. The municipal market saw record issuance in 2024, with tax-exempt supply growing 36% year-over-year and reaching approximately \$447 billion. Most of this supply was well received as demand for municipal bonds was strong, as evidenced by net inflows to municipal bond funds of over \$42 billion. But the market faced macroeconomic headwinds, with any positive impacts of the Federal Reserve cutting rates by a total of 1.00% from September through December offset by shifting expectations in the timing of future cuts, with the market coming to terms with the possibility that rates remain "higher for longer." Recent inflation prints have not shown progress towards the Federal Reserve's inflation target, and alongside a resilient economy, provide no justification for anticipating additional rate cuts in the near-term. Issuance has remained elevated to start 2025, with market participants viewing this as a result of the impact of inflation on the costs of construction projects and issuers pulling deals forward to avoid uncertainty around future US fiscal policy and the potential impacts of federal tax legislation (which could include the loss of tax-exemption for municipal bonds).

Short-Term Interest Rate:

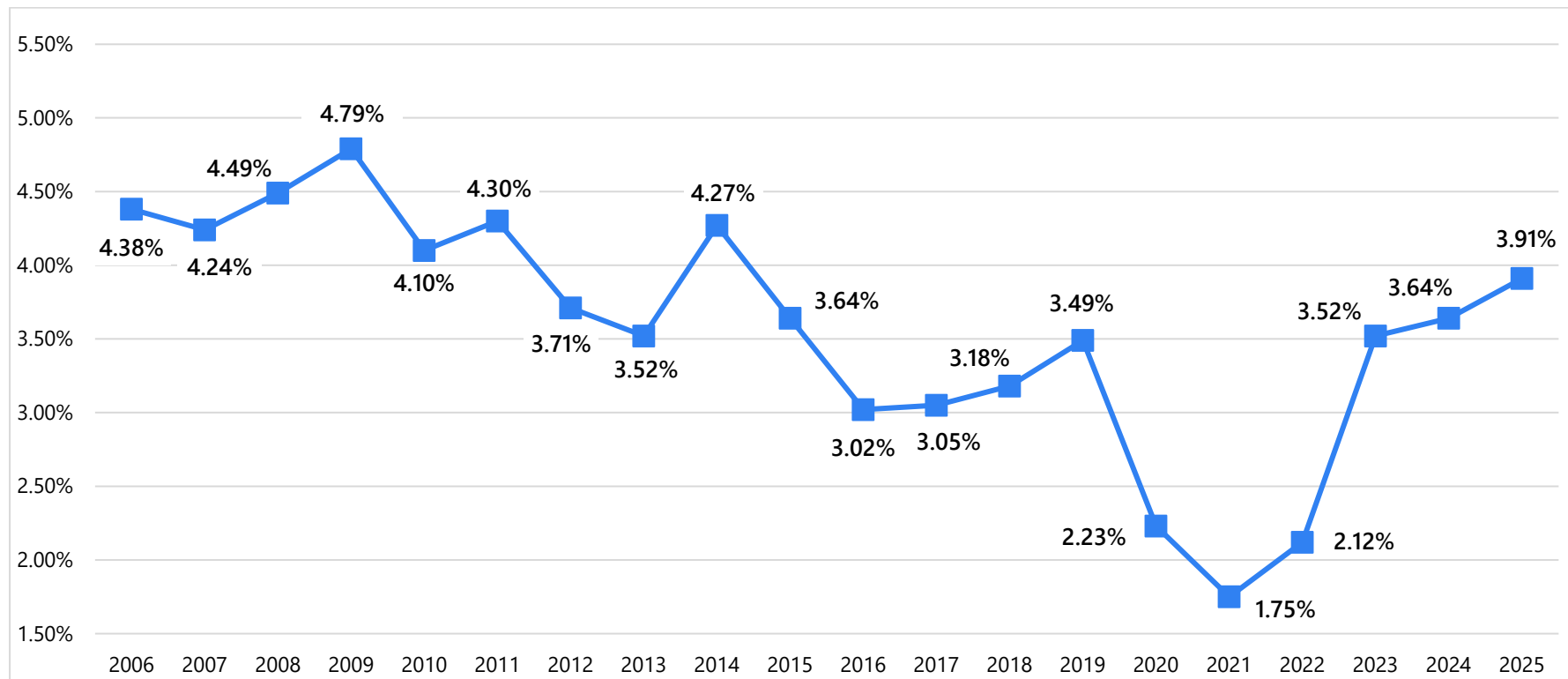
The State does not have any outstanding variable rate debt and there are no current plans for the issuance of additional variable rate debt. As a result, the Division has not produced a short-term interest rate analysis for this conference.

* The Division of Bond Finance has supplied the above interest rates to assist the REC in adopting official rates that would be used by State agencies for planning and budgetary purposes. There can be no assurance that actual interest rates for any particular bond issue will not exceed the rates shown above.

Long-Term Interest Rate Volatility

Change in Bond Buyer 11 GO Bond Average Annual Interest Rates Last 20 Years

The largest year-over-year change in the annual average Bond Buyer GO Bond Index over the last 20 fiscal years is 140 basis points.



Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Average
BB 11 GO Avg	4.38%	4.24%	4.49%	4.79%	4.10%	4.30%	3.71%	3.52%	4.27%	3.64%	3.02%	3.05%	3.18%	3.49%	2.23%	1.75%	2.12%	3.52%	3.64%	3.91%	3.57%
YOY Change		(0.04)%	(0.14)%	0.25%	(0.69)%	0.20%	(0.59)%	(0.19)%	0.75%	(0.63)%	(0.62)%	0.03%	0.13%	0.31%	(1.26)%	(0.48)%	0.37%	1.40%	0.12%	0.27%	0.44%*

*Average calculated using absolute values of year-over-year changes.

Long-Term Interest Rate Volatility Change in 30-Year Benchmark AAA MMD Rate Last 12 Months

The 30-year benchmark AAA MMD interest rate ranged from a low of 3.40% to a high of 4.11% over the last 12 months, a difference of 71 basis points. These are stated yields assuming 5% coupons and do not factor the effect of call optionality (yield-to-maturity). Also excludes costs of issuance and underwriter's discount.

