Interest Rates Used in Appropriations, Including PECO Executive Summary

February 15, 2023

The Revenue Estimating Conference adopted a series of interest rates for use in the state budgeting process, including any bonding related to Public Education Capital Outlay (PECO). The adopted interest rates take into consideration current benchmark rates and market volatility.

The long-term interest rate is used for bond issues with maturity structures of 20 years or more. The Conference adopted a long-term interest rate of 5.25%, 25 basis points higher than the rate adopted in July 2022, after considering information provided by the Division of Bond Finance. The Division of Bond Finance recommends a range for the long-term interest rate based on a benchmark rate of 3.99% plus a spread of 140 basis points for volatility for an interest rate of 5.39% on the low end and a benchmark rate of 3.99% plus a spread of 223 basis points for volatility for an interest rate of 6.22% on the high end. The 5.25% adopted rate has a spread of 126 basis points over the benchmark rate.

Long-Term Int	erest Rate
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Fiscal Year	2023-24	2024-25	2025-26	2026-27	2027-28
Interest Rate	5.25%	5.25%	5.25%	5.25%	5.25%

As recommended by the Division of Bond Finance in December 2019, the Conference discontinued the adoption of a short-term or variable interest rate forecast. The adopted short-term interest rate was previously used to calculate debt service on the outstanding Everglades variable rate bonds. Variable rate bonds were initially issued in 2006 and 2007. The last outstanding issue of Everglades VR 2007A&B Bonds has now been refunded with fixed-rate bonds and was called for redemption on December 4, 2019. The Division of Bond Finance has no plans to recommend the issuance of variable rate bonds in the future.

Finally, the Conference adopted interest rates for use by the Revenue Estimating Conference in its calculation of the Maximum Appropriations for Public Education Capital Outlay (PECO). The adopted interest rates take into consideration current benchmark rates and the February 2023 National Economic Estimating Conference forecast for the yield on municipal bonds – the Bond Buyer 20-Bond Index. The February forecast for the Bond Buyer 20-Bond Index indicated a decrease in interest rates, with the exception of the third quarter of 2023. The Conference maintained the prior conference's FY 2023-24 rate and decreased the rates in each remaining fiscal year to maintain a spread of at least 50 basis points above the new Bond Buyer 20-Bond Index. This decreased the rate by 25 basis points in all fiscal years, except FY 2023-24.

Fiscal Year	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Interest Rate - July 2022	4.00%	4.25%	4.25%	4.25%	4.25%	4.25%
Interest Rate - February 2023	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%

PECO Bonds Interest Rate

Division of Bond Finance Interest Rate Calculations

February 15, 2023

Division of Bond Finance Calculation of Long-Term Interest Rate

Long-Term Interest Rate Information*					
	Low End	<u>High End</u>			
Current Estimated Long-Term Interest Rate ¹	3.99%	3.99%			
Plus: Volatility Spread ²	1.40%	2.23%			
Long-Term Interest Rate Range	5.39%	6.22%			

¹ Interest rate estimate for a 30-year bond issue based on 5% coupons and estimated yields and credit spreads as of February 10, 2023. 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 Used two measures to calculate interest rate volatility; (1) Bond Buyer 11 GO Bond Index maximum annual change over the last 20 fiscal years of 140 basis points and (2) TM3 Municipal Market Data ("MMD") 30-year AAA benchmark yield high-low range over the prior 12 months of 223 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 10, 2023, the Division's methodology produces a range of 5.39% to 6.22% for the long-term interest rate.

The municipal market saw continued weakness in the third quarter of 2022, with ongoing rate hikes by the Federal Reserve and steady outflows from tax-exempt bond funds putting pressure on municipal interest rates. As of the last conference in July 2022, the estimated long-term interest rate, before applying volatility spreads, stood at 3.89%. In October 2022, the equivalent estimated long-term interest rate reached 4.59%, an increase of 70 basis points in a span of three months. However, the municipal market rallied late in the year, with rates decreasing as a result of strong technical dynamics including low levels of new issue volume and year-end coupon reinvestments. Still, benchmark AAA MMD interest rates ended 2022 significantly higher than the start of year, with rates rising 159-272 basis points across the curve. Municipal rates have started 2023 strong, driven by year-to-date net inflows for municipal bond funds and light new issuance volume.

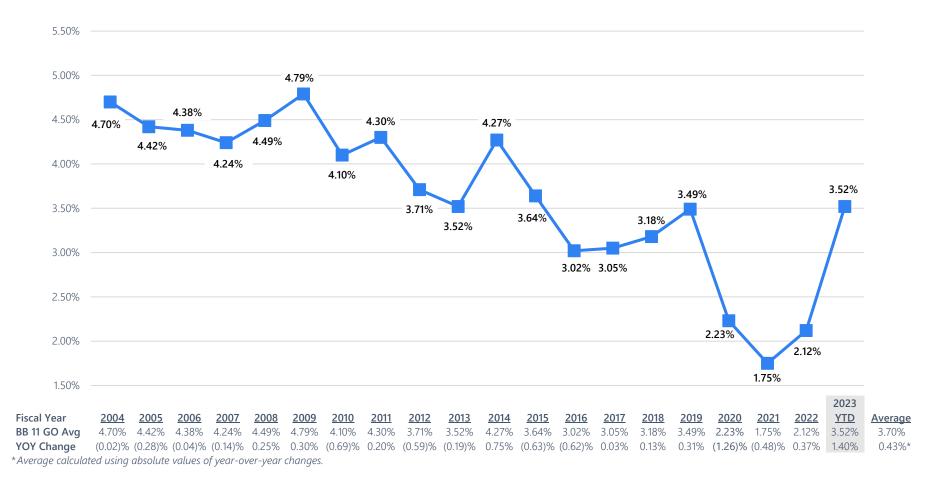
Short-Term Interest Rate:

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.

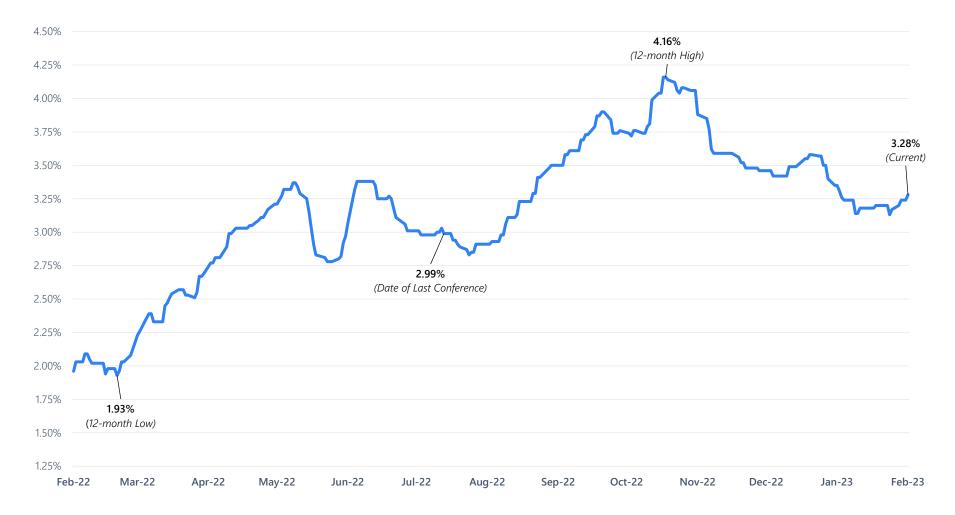
Long-Term Interest Rate Volatility Change in Bond Buyer 11 GO Bond Average Annual Interest Rates Last 20 Years

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.



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 1.93% to a high of 4.16% over the last 12 months, a difference of 223 basis points. These are stated yields assuming 5% coupons and do not factor in costs of issuance, underwriter's discount, or the effect of call optionality.



(BOLD font indicates forecasted values)

YIELD	Bond Buyer 2	0-Bond Index	Series 2023	Series 2024	Series 2025	Series 2026	Series 2027	Series 2028
	Jul 2022	Feb 2023	<u>FY23-24</u>	<u>FY24-25</u>	FY25-26	<u>FY26-27</u>	<u>FY27-28</u>	<u>FY28-29</u>
2023 Q3	3.45%	3.53%	4.00% Feb 2023					
2023 Q4	3.48%	3.49%	4.00% Jul 2022					
2024 Q1	3.51%	3.43%						
2024 Q2	3.53%	3.37%						
2024 Q3	3.54%	3.33%		4.00% Feb 2023				
2024 Q4	3.54%	3.30%		4.25% Jul 2022				
2025 Q1	3.55%	3.29%						
2025 Q2	3.56%	3.28%						
2025 Q3	3.56%	3.29%			4.00% Feb 2023			
2025 Q4	3.57%	3.29%			4.25% Jul 2022			
2026 Q1	3.58%	3.29%						
2026 Q2	3.59%	3.29%						
2026 Q3	3.60%	3.29%				4.00% Feb 2023		
2026 Q4	3.61%	3.30%				4.25% Jul 2022		
2027 Q1	3.62%	3.30%						
2027 Q2	3.62%	3.31%						
2027 Q3	3.63%	3.31%					4.00% Feb 2023	
2027 Q4	3.63%	3.31%					4.25% Jul 2022	
2028 Q1	3.63%	3.31%						
2028 Q2	3.64%	3.32%						
2028 Q3	3.64%	3.32%						4.00% Feb 2023
2028 Q4	3.64%	3.32%						4.25% Jul 2022
2029 Q1	3.64%	3.33%						
2029 Q2	3.65%	3.33%						
ADOPTED PECO B	OND RATES, Feb	oruary 2023	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%

2/15/2023