MINUTES OF MEETING

THE BOARD OF DIRECTORS OF

THE TENNESSEE VALLEY AUTHORITY RETIREMENT SYSTEM

December 12, 2022

The regular quarterly meeting of the Board of Directors (Board) of the TVA Retirement System (System) was held on Monday, December 12, 2022, at 1:32 p.m., EST, at the TVA Chattanooga Office Complex, MR 1S 202, Chattanooga, Tennessee.

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The following directors were present: Brian M. Child, Chair; Samuel J. DeLay, Vice-Chair; Michael L. Belcher (via WebEx); Michael A. Blakely; Marilyn G. Brown; Eric J. Davis; and Tina R. Wallace. Also present were Mark N. Meigs, Executive Secretary; William B. Jenkins, Jr., Assistant Secretary; Sally R. Weber, Manager, Retirement Operations; Brent B. Roberts, Manager, Financial Reporting; Veenita Bisaria, Manager, Investment & Risk Management; Chris A. Stinnett, Sr. Analyst, Investment & Risk Management; and W. Colby Carter, Managing Counsel (via WebEx).

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498-1 Each director was notified in a memorandum dated December 1, 2022, of the regular quarterly meeting to be held on December 12, 2022. A copy of the notice from the Executive Secretary is filed as Exhibit 498-1.

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498-2 (A-6938). For the Chair's report, the Chair designated the following members for the Board's standing committees for calendar year 2023:

Audit Committee	Retirement Committee

Marilyn G. Brown, Chair
Michael A. Blakely
Tina R. Wallace

Samuel J. DeLay, Chair
Michael A. Blakely
Tina R. Wallace

<u>Investment Committee</u> <u>Election Committee</u>

[Committee of the whole Board] Michael L. Belcher, Chair Eric J. Davis, Chair Marilyn G. Brown Eric J. Davis

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498-3 (A-6939). The Executive Secretary's report included the following:

- Prior to the meeting in an executive work session, the Executive Secretary met with the Board to provide information and updates on the System's organization structure and staffing and to discuss succession planning within the organization. In addition, the Executive Secretary provided and discussed with the Board an overview of the fiscal year work plan. A copy of the fiscal year 2023 work plan is filed as Exhibit 498-3(a).
- The Executive Secretary provided to the Board the proposed quarterly meeting schedule for calendar year 2023. A copy of the quarterly meeting dates is filed as Exhibit 498-3(b).

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498-4 (A-6940). For the Legal Update, Managing Counsel provided information to the Board on upcoming housekeeping amendments to the TVARS Rules and Regulations and 401(k) Plan Provisions in 2023 that will memorialize operational provisions implemented by the System pursuant to the SECURE Act and CARES Act. A copy of the Legal Update is filed as Exhibit 498-4.

498-5. As a part of the Consent Agenda, the Board approved the minutes for the meetings reported below in A-6941 and A-6942, and accepted the reports as of September 30, 2022, listed below in A-6943, A-6944, A-6945, and A-6946.

- A-6941 Meeting No. 496 held September 29, 2022
- A-6942 Special-Called Meeting No. 497 held November 14, 2022
- A-6943 Treasurer's Report (filed as Exhibit 498-5(a))
- A-6944 Investment Performance Report prepared by Wilshire Advisors LLC (Wilshire) (filed as Exhibit 498-5(b))
- A-6945 Report of retirements approved (filed as Exhibit 498-5(c))
- A-6946 Quarterly review for the 401(k) Plan prepared by Fidelity Investments Institutional Services Company (Fidelity) (filed as Exhibit 498-5(d))

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498-6 (A-6947). The Retirement Committee report consisted of items reported below at A-6948, A-6949, and A-6950.

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498-7 (A-6948). Upon the recommendation of the Retirement Committee, the Board approved by a 6 to 0 vote the calculation of a 6% cost-of-living adjustment (COLA) in the monthly pension and supplemental benefits payable to eligible retirees and beneficiaries in accordance with the TVARS Rules. Director Blakely abstained from the vote. The COLAs are effective with the January 2023 payments as provided for in sections 6I, 7L and 18C3 of the TVARS Rules. A copy of the memo from the Executive Secretary to the Board dated November 11, 2022, with the COLA calculation is filed as Exhibit 498-7.

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498-8 (A-6949). Upon the recommendation of the Retirement Committee, the Board approved the calculation of the following interest crediting rates for calendar year 2023: (i) a

10% annual interest crediting rate to the cash balance accounts of participants hired before

January 1, 1996, pursuant to Section 7C3(a) of the TVARS Rules; (ii) a 6.25% annual interest
crediting rate to the cash balance accounts of participants hired on or after January 1, 1996,
pursuant to section 7C3(b)(ii) of the TVARS Rules; and (iii) a 6.25% annual interest crediting
rate for fixed fund accounts pursuant to Section 17 of the Actuarial Assumptions in the Appendix
to the TVARS Rules. A copy of the memo from the Executive Secretary to the Board dated
November 11, 2022, with these cash balance and fixed fund annual interest rate calculations is
filed as Exhibit 498-8.

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498-9 (A-6950). As a result of the new "benefits-weighted" mortality tables and improvement scale approved by the Board for the System's annual actuarial assumptions, upon the recommendation of the Retirement Committee, the Board approved the following amendments to the Actuarial Assumptions in the Appendix to the TVARS Rules and Regulations consistent with the new mortality assumptions by deleting Section 1(g) and replacing it with a new Section 1(g) as follows:

APPENDIX TO THE RULES AND REGULATIONS OF THE TVA RETIREMENT SYSTEM

Actuarial Assumptions

Certain benefit payments are calculated on the basis of actuarial assumptions, mortality tables, and interest rates. The following have been adopted by the board. The board may change these assumptions, tables, and rates from time to time.

1. g. Effective September 30, 2020, for purposes of the System's actuarial valuations as set forth under the Rules and Regulations, the following service mortality and disability mortality tables will be used. For service mortality, the mortality table shall be the base healthy mortality table Pri-2012 from the Society of Actuaries' 2019 mortality study multiplied by a load factor of 100% for both male and female employees, 102% for male annuitants, and 115% for female annuitants, with no collar adjustment, and with mortality improvement projection based on Mercer's mortality improvement scale MSS-2020 (as

updated annually, and reviewed and approved by the Board) which reflects generational mortality improvement based on the Social Security Administration's projected mortality experience. For disability mortality, the mortality table shall be the base disabled mortality table Pri-2012 from the Society of Actuaries' 2019 mortality study multiplied by a load factor of 125% for males and 95% for females, with no collar adjustment, and with mortality improvement projection based on Mercer's mortality improvement scale MSS-2020 (as updated annually, and reviewed and approved by the Board) which reflects generational mortality improvement based on the Social Security Administration's projected mortality experience.

g. Effective September 30, 2022, for purposes of the System's actuarial valuations as set forth under the Rules and Regulations, the following mortality tables will be used for service retirements and disability retirements. For service retirements, the mortality table shall be the benefit amount-weighted upper quartile healthy mortality table Pri-2012 from the Society of Actuaries' 2019 mortality study multiplied by a load factor of 100% for both male and female employees and 105% for both male and female annuitants, with no collar adjustment, and with mortality improvement projection based on Mercer's mortality improvement scale MSS-2022 (as updated annually, and reviewed and approved by the Board) which reflects generational mortality improvement based on the Social Security Administration's projected mortality experience. For disability retirements, the mortality table shall be the benefit amount-weighted disabled mortality table Pri-2012 from the Society of Actuaries' 2019 mortality study multiplied by a load factor of 110% for both males and females, with no collar adjustment, and with mortality improvement projection based on Mercer's mortality improvement scale MSS-2022 (as updated annually, and reviewed and approved by the Board) which reflects generational mortality improvement based on the Social Security Administration's projected mortality experience.

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498-10 (A-6951). The Audit Committee report consisted of the items reported below at A-6952 and A-6953, and of the following item:

 Prior to the meeting, Crowe LLP, the System's auditor (Crowe), and the TVARS financial reporting staff provided the Board an update on the beginning of the System's 2022 fiscal year-end audit.

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498-11 (A-6952). Prior to the meeting, the Board met with Crowe and the TVARS financial reporting staff to review and discuss the results of the System and Organization Controls Report SOC 1 Type 2 related to the System's administration services for the period

August 1, 2021, to July 31, 2022. Upon the recommendation of the Audit Committee, the Board voted to accept the SOC1 Type 2 Report, a copy of which is filed as Exhibit 498-11.

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498-12 (A-6953). Upon the recommendation of the Audit Committee, the Board voted to approve an engagement letter with Crowe to perform the System's SOC1 audit for the period August 1, 2022, to July 31, 2023. A copy of the engagement letter between Crowe and TVARS is filed as Exhibit 498-12.

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498-13 (A-6954). Prior to the meeting, the Election Committee discussed with the Board the recent number of nominations for the annual election cycles and ways the Committee could promote increased interest in the elected director positions by potential candidates.

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498-14 (A-6955). The Investment Committee report consisted of the item reported below at A-6956, and of the following items:

- The Board was provided and took note of information regarding asset allocation and investment manager asset transfers during the third quarter of 2022. A copy of the information is filed as Exhibit 498-14(a).
- The Board was provided and took note of information on TVARS staff due diligence meetings with investment managers and service providers for the period September 2022 through November 2022. A copy of the information is filed as Exhibit 498-14(b).
- On December 9, 2022, Wilshire presented to and discussed with the Investment Committee the risk reporting dashboard for the total investment portfolio through September 2022 and the various changes in investment risk as a result of certain factors over the past 1-year period. A copy of Wilshire's Risk Analysis report for TVARS dated September 2022 is filed as Exhibit 498-14(c).
- As a part of the on-going implementation of the Summit Hill Alternative Yield Fund, the System's new fund-of-one program for alternative fixed income investments managed by Wilshire Private Markets, on December 9, 2022, Wilshire Private

Markets reviewed with the Investment Committee the following: (i) Fund portfolio objectives and guidelines, (ii) preliminary portfolio construction, (iii) existing investments included in the Fund, and (iv) additional investments Wilshire has identified for the Fund. A copy of the Wilshire Private Markets' presentation for the Summit Hill Alternative Yield Fund is filed as Exhibit 498-14(d).

- On December 9, 2022, Wilshire provided education to the Investment Committee on the current market environment the impact on interest rates, forward-looking asset class assumptions, and the return assumptions on the TVARS asset allocation policy. A copy of Wilshire's education materials dated December 9, 2022, is filed as Exhibit 498-14(e).
- On December 9, 2022, Wilshire provided to the Investment Committee a fee analysis report on the traditional managers used by TVARS in approximately 50% of its investment portfolio, including the total amount of annual fees, the average weighted fee rate, and how each manager's fee compares to the relevant peer group. A copy of Wilshire's Traditional Manager Fee Analysis Report is filed as Exhibit 498-14(f).
- On December 9, 2022, Mercer Investment Consulting, Inc. (Mercer), the System's defined contribution plan consultant, provided to the Investment Committee and TVARS staff the 401(k) Plan quarterly review covering the following: updated committee calendar through September 2023, current 401(k) Plan statistics, including an analysis of Fidelity annual fees as the provider of recordkeeping and trustee services, litigation and enforcement updates (including recent lawsuits against plan sponsors offering BlackRock LifePath Index TDFs), regulatory and legislative updates (including SECURE Act 2.0 and 2023 retirement plan limits), trending retirement plan sponsor topics, updated investment menu chart, and investment performance and expense ratio analysis of the 401(k) Plan fund line-up. A copy of Mercer's Q3 2022 DC Quarterly Review dated December 9, 2022, is filed as Exhibit 498-14(g).
- on December 9, 2022, Mercer provided to the Investment Committee and TVARS staff education on the capital preservation asset class options for defined contribution plans, education and information on money market and stable value funds (including how the funds are potentially impacted in a rising interest rate environment), and a review and analysis of the Vanguard Cash Reserves money market fund and Fidelity MIP II stable value fund available to participants in the 401(k) Plan. A copy of Mercer's educational materials on the capital preservation asset class in defined contribution plans dated December 9, 2022, is filed as Exhibit 498-14(h).

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498-15 (A-6956). On December 9, 2022, the Investment Committee and TVARS

investment staff discussed and evaluated the investment consulting and customized risk analysis

and reporting services provided by Wilshire for TVARS. At the Board meeting, upon the recommendation of the Investment Committee, the Board approved a 3-year extension to Wilshire's consulting services agreement effective January 1, 2023. A copy of Wilshire's consulting services agreement is filed as Exhibit 498-15.

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The meeting was adjourned at 1:48 p.m., EST.



Brian M. Wild