MINUTES OF MEETING

THE BOARD OF DIRECTORS OF

THE TENNESSEE VALLEY AUTHORITY RETIREMENT SYSTEM

June 8, 2021

[Edited to remove personal information of members and retirees and proprietary or other confidential information pursuant to TVARS Confidentiality Policy]

The regular quarterly meeting of the Board of Directors (Board) of the TVA Retirement System (System) was held virtually on Tuesday, June 8, 2021, at 3:37 p.m., EDT, via WebEx videoconferencing.

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The following directors were present: Brian M. Child, Chair; Samuel J. DeLay, Vice-Chair; Michael L. Belcher; Marilyn G. Brown; Eric J. Davis; James W. Hovious; 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; Michael B. Barnes, Sr. Analyst, Investment & Risk Management; and W. Colby Carter, Managing Counsel.

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491-1 Each director was notified in a memorandum dated May 27, 2021, of the regular quarterly meeting to be held on June 8, 2021. A copy of the notice from the Executive Secretary is filed as Exhibit 491-1.

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491-2 (A-6809). For the Chair's report, the Chair provided recognition of Arnold Cagley on the TVARS staff who passed away earlier that morning.

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491-3 (A-6810). The Executive Secretary's report included the following:

- The Executive Secretary shared additional thoughts on the work and life of TVARS staff member, Arnold Cagley.
- As a part of the staff update, the Executive Secretary provided information on the support being provided by TVARS staff to employees related to recent coal plant announcements. In addition, the Executive Secretary shared an example of recent positive correspondence from a TVA employee validating the customer-service focus of the TVARS staff.
- Pursuant to the CARES Act, participants in the TVA Savings and Deferral Retirement Plan (401(k) Plan) had the option during 2020 to elect eligible COVID-related distributions. As a part of continuously working to increase the retirement readiness of participants, the TVARS staff will be working with Fidelity Investments to reach out to participants who elected these distributions to remind them of the ability to re-contribute those distributions to their 401(k) Plan account.

A copy of the Executive Secretary's report is filed as Exhibit 491-3.

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491-4 (A-6811). For the Legal Update, the Senior Counsel informed the Board that TVARS has notified TVA of the \$300 million minimum required contribution to TVARS for FY 2022, as required by Section 9B of the TVARS Rules and Regulations, and has also provided TVA with a copy of Mercer's valuation report and a copy of the 2020 TVARS annual report with audited financials of TVARS and the 401(k) Plan, which is also required by the TVARS Rules and Regulations on an annual basis. A copy of the Legal Update is filed as Exhibit 491-4.

491-5 (A-6812). The Board noted its previous notational approval on April 13, 2021, of the Minutes for Meeting No. 490 held March 12, 2021. Following notational approval, the approved minutes were posted on the TVARS website.

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491-6 (A-6813). As a part of the Consent Agenda, the Board accepted the reports as of March 31, 2021, listed below in A-6814, A-6815, A-6816, and A-6817.

- A-6814 Treasurer's Report (filed as Exhibit 491-6(a))
- A-6815 Investment Performance Report prepared by Wilshire Associates Incorporated (Wilshire) (filed as Exhibit 491-6(b))
- A-6816 Report of retirements approved (filed as Exhibit 491-6(c))
- A-6817 Quarterly review for the 401(k) Plan prepared by Fidelity Investments Institutional Services Company (Fidelity) (filed as Exhibit 491-6(d))

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491-7 (A-6818). The Retirement Committee report consisted of the item reported below at A-6819, and of the following item:

• Prior to the meeting, Fidelity met with the Board and provided the following: (i) the annual review of the performance and health of the 401(k) Plan, (ii) an income replacement analysis for the 401(k) Plan participant population, (iii) future integration opportunities through the NetBenefits platform, and (iv) information from Jeff Givens, one of the Fidelity retirement planners dedicated to TVARS, on insights from meetings with plan participants. TVA's 401(k) Plan score, based on plan design, participant engagement, and participant retirement readiness, continues to be one of the top plan scores when compared to all other plans in Fidelity's recordkeeping peer group. In addition, the income replacement analysis shows that the majority of the TVA employee population across all demographics and age groups are on track to replace an appropriate amount of income needed for retirement from their 401(k) retirement benefit. A copy of Fidelity's presentation dated June 8, 2021, is filed as Exhibit 491-7.

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491-8 (A-6819). Pursuant to the System's Administrative Claims and Appeals Procedures, the Board considered a disability retirement appeal by [redacted], a current TVA employee. As a part of the appeal review, [redacted] provided the System staff with additional medical information regarding her disability claim, which was resubmitted to the System's medical review board. Following a discussion of the results of the medical review board, upon the recommendation of the Retirement Committee, the Board voted 6 to 0 to approve [redacted] appeal and disability application. Director Hovious abstained from the vote. A copy of the memo from the Executive Secretary to the Board regarding this disability retirement appeal is filed as Exhibit 491-8.

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491-9 (A-6820). The Audit Committee report consisted of the items reported below at A-6821, A-6822, A-6823, and A-6824, and of the following items:

- Prior to the meeting, the Board met with Crowe to discuss the results of fiscal year 2020 financial statement audits of the System and the 401(k) Plan and Crowe's opinion letters with the audit. Following the meeting with Crowe, the TVARS financial reporting staff reviewed with the Board the 2020 TVARS Annual Report. A copy of the 2020 TVARS Annual Report, including audited financial statements and opinion letters, has been provided to the Board, posted to the TVARS website, and is filed as Exhibit 491-9(a).
- Prior to the meeting, the Executive Secretary presented to and discussed with the Board the estimated fiscal year 2022 TVARS budget compared with the current fiscal year 2021 budget. A copy of the TVARS fiscal year budget comparison is filed as Exhibit 491-9(b).
- As a part of the System's governance policy review process, prior to the meeting, Managing Counsel reviewed with the Board the Confidentiality Policy and discussed with the Board certain amendments to the Policy. These amendments to the Confidentiality Policy will be presented at the next quarterly meeting for approval by the Board. A copy of the Confidentiality Policy for review with the Board is filed as Exhibit 491-9(c).

491-10 (A-6821). Upon the recommendation of the Audit Committee, the Board voted to approve an engagement letter with Crowe LLP to perform the fiscal year 2021 financial statement audits of the System and the 401(k) Plan under the second year of a 3-year fixed fee arrangement. A copy of the engagement letter between Crowe and the System is filed as Exhibit 491-10.

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491-11 (A-6822). Following a review of insurance policy renewal program recommendations from McGriff, the System's insurance broker, the Board voted 6 to 1 to approve a 1-year renewal of the System's fiduciary liability insurance policy for the Board and System staff with \$10 million in total coverage, subject to a \$500,000 general deductible and \$1.5 million class action deductible, using Chubb for the first \$5 million in coverage and Euclid for the second \$5 million in coverage. Directors Belcher, Brown, Child, Davis, DeLay and Wallace voted for the fiduciary insurance renewal, and Director Hovious voted against the renewal. A copy of the insurance policy renewal information from McGriff is filed as Exhibit 491-11.

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491-12 (A-6823). As a part of the System's governance policy review process, the Board previously reviewed the Ethics and Code of Conduct Policy with Managing Counsel (see Minute Entry 490-11). After discussion of the proposed amendments from the review (including recommended amendments from TVA's ethics office), upon the recommendation of the Audit Committee, the Board approved these amendments to the Ethics and Code of Conduct Policy. A copy of the amended and restated policy is filed as Exhibit 491-12.

491-13 (A-6824). The Election Committee updated the Board on the election cycle that has begun pursuant to the 2021 TVARS Election Schedule.

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491-14 (A-6825). The Investment Committee report consisted of the items reported below at A-6826, A-6827, and A-6828, and of the following items:

- The Board was provided and took note of information regarding asset allocation and investment manager asset transfers during the first quarter of 2021. A copy of the information is filed as Exhibit 491-14(a).
- The Board was provided and took note of information on due diligence meetings between TVARS staff and investment managers and service providers for the period March 2021 through May 2021. A copy of the information is filed as Exhibit 491-14(b).
- On June 3, 2021, Wilshire presented to and discussed with the Investment Committee the risk reporting dashboard for the total investment portfolio through March 2021. A copy of Wilshire's risk reporting dashboard snapshot and total fund risk contributions report dated March 2021 is filed as Exhibit 491-14(c).
- The Investment Committee was provided and took note of net internal rate of return (net IRR) performance information as of December 31, 2020, for all of the funds in the System's legacy private equity portfolio compared to both vintage year IRRs for each fund and public market equivalent annualized performance. A copy of this report from Wilshire and the TVARS investment staff is filed as Exhibit 491-14(d).
- On June 3, 2021, Wilshire presented to and discussed with the Investment Committee an investment structure analysis of the System's global equity portfolios, including the System's U.S. and non-U.S. equity portfolios. The goals of the analysis are to set the target to each underlying manager in the portfolio, test the efficiency of the structure in an optimization framework, address active risk (tracking error) and active return (alpha), and address portfolio size and style. A copy of Wilshire's global equity portfolio investment structure analysis dated June 2021 is filed as Exhibit 491-14(e).
- On June 3, 2021, 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 March 2022, investment performance and expense ratio analysis of the 401(k) Plan fund line-up, and a governance review that included a fiduciary duty review regarding fees, current 401(k) Plan statistics, Fidelity quarterly fees as the provider of recordkeeping and trustee services, litigation and enforcement updates, regulatory and legislative updates, including recent DOL guidance on cybersecurity

and missing participants, and an update on the fiduciary liability insurance market. A copy of Mercer's Q1 2021 DC Quarterly Review dated June 3, 2021, is filed as Exhibit 491-14(f).

• Over the last two years, TVARS staff have been meeting with BlackRock, the investment manager of the LifePath Conservative Index Funds (Conservative) within the 401(k) Plan's Target Retirement Portfolios, about a new LifePath Paycheck Fund strategy that will offer lifetime income units within LifePath Fund investments, from which participants could elect to receive a lifetime income stream from selected insurers at the time of retirement. On June 3, 2021, BlackRock provided the Investment Committee another overview of the LifePath Paycheck Funds and answered any questions from Committee members.

Following BlackRock's presentation, Mercer provided the Investment Committee with the results of a review and analysis of the strategy, including the following: (i) an analysis of the target date fund glide path relative to the current Conservative glide path and the flagship BlackRock LifePath Index Funds (LifePath) glide path, and (ii) a comprehensive review of LifePath Paycheck relative to TVA's 401(k) Plan and participants. Based on Mercer's glide path review, the LifePath glide path provides an overall better fit for most participants in the Plan than the Conservative glide path. Based on Mercer's review of the Paycheck strategy and pricing, the LifePath Paycheck Funds are an appropriate solution for Plan participants providing integrated access to guaranteed income through the Target Retirement Portfolios. A copy of BlackRock's presentation and Mercer's Target Date Glide Path and BlackRock LifePath Paycheck Review, both dated June 3, 2021, are filed as Exhibit 491-14(g).

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491-15 (A-6826). Under the System's asset allocation policy, there is a 10% target for credit-oriented strategies with 1/3 target allocations to private credit, marketable alternatives, and liquid credit strategies. Within liquid credit strategies, there are two investment managers in place with PIMCO and an investment in the PIMCO Income Fund and Federated Hermes with an investment in the International Unconstrained Credit strategy. In order to "right size" allocations between the two managers to give approximate equal weighting between the two strategies, an additional follow-up investment of approximately \$100 million is needed to the PIMCO Income Fund. Accordingly, upon the recommendation of Wilshire and the Investment

Committee, the Board approved an additional \$100 million investment to the PIMCO Income Fund. A copy of Wilshire's memo on this additional investment is filed as Exhibit 491-15.

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491-16 (A-6827). Over the last few months, the Board and TVARS staff have been in discussions with Wilshire, the System's investment consultant, and Mercer Human Resources Consulting, the System's actuarial consultant, modeling the System's assets and liabilities and asset allocation policy's de-risking strategy in light of the current state of the markets, the forwarding-looking capital market assumptions, which show reduced expected returns from public equity and core fixed income, TVA's annual minimum contribution of \$300 million, and the goal of both TVA and TVARS for the pension plan to be fully funded. As a part of this, Wilshire has modeled new asset allocation policies that would reduce allocations to equities and increase allocations to alternative fixed income credit strategies as an alternate to traditional fixed income in the current low-yield environment.

On June 3, 2021, Wilshire discussed with the Investment Committee and TVARS staff the following new asset allocation policy that would provide greater stability in the System's current asset value and reduce the System's funded status volatility while working toward the goal of fully-funded liabilities:

Asset Class	Current Target Allocation	New Target Allocation
Public Equity	32.5%	17.5%
Private Equity	7.5%	7.5%
Safety Oriented	20.0%	20.0%
Fixed Income		
Opportunistic	20.0%	30.0%
Fixed Income		
Public Real Assets	10.0%	15.0%
Private Real Assets	10.0%	10.0%

At the meeting, upon the recommendation of Wilshire, the Board approved the adoption of this new asset allocation policy for the investment of the System's assets. A copy of Wilshire's report, Asset Allocation Considerations – A Focus on De-Risking in 2021, dated June 2021, is filed as Exhibit 491-16.

As a result of the retirement benefit changes implemented in October 2016, under the TVARS Rules and Regulations, the calculation of the interest crediting rate for cash balance accounts of participants hired on or after January 1, 1996, and for fixed fund accounts, is as follows: the percent increase of the 12-month average of the Consumer Price Index for All Urban Consumers (CPI-U) for the period ending the previous October 31 over the preceding 12-month period, plus two percent (2%) with a floor equal to the System's assumed rate of investment return minus two percent (2%) and a ceiling equal to the System's assumed rate of investment return minus one-half percent (0.5%).

After discussing these interest crediting rates, the Board expressed its desire to make the prudent change in the System's asset allocation policy, which could result in a change in the System's assumed rate of investment return, without having a negative impact on the retirement benefits for participants with cash balance and fixed fund accounts whose benefits were changed in October 2016. Accordingly, as a part of the Board's action to approve a new asset allocation policy, the Board voted at the meeting, and by notational vote on June 23, 2021, to adopt the following amendments to Section 7C(3)(b) of the TVARS Rules and Section 17 to the Actuarial Assumptions in the Appendix to the TVARS Rules to make the floor in the calculation of the interest crediting rates the greater of the System's assumed rate of investment return minus 2% or 4.75%, which is the current rate being provided to these participant accounts, and the ceiling in the calculation of the interest crediting rates the greater of the System's assumed rate of

investment return minus 0.5% or 6.25%, which is the current ceiling in the formula in the event of higher inflation:

Cash Balance Interest Crediting Rate

Section 7C(3)(b) of the TVA Retirement System Rules and Regulations is amended to add the underlined language as follows:

SECTION 7

- 7. Cash Balance Benefit Structure
- C. Accounts and Credits to Accounts
- 3. Interest-Based Credits to Accounts
 - b. Cash Balance Participants Who First Became Members of the System On or After January 1, 1996
 - (ii) On or after October 1, 2016

As of the last day of each month beginning on or after October 1, 2016, and before the date distribution of benefits to or on behalf of a Participant or retiree commences under section 7D, the Account of each Cash Balance Participant shall be credited with an amount determined by multiplying the monthly interest rate by the Participant's Account balance as of the previous January 1 plus any paybased credits since that time.

The monthly interest rate shall be a percentage equal to one-twelfth of the annual cash balance interest rate. The annual cash balance interest rate shall be determined by the Board effective January 1 of each year and shall be a percentage equal to the percent increase of the 12-month average of the Consumer Price Index for All Urban Consumers (CPI-U) for the period ending the previous October 31 over the preceding 12-month period, plus two percent (2%). Provided, however, that the annual interest rate shall not be less than the <a href="higher of (i) the System's assumed rate of investment return minus two percent (2%) or (ii) 4.75%, nor greater than the higher of (x) the System's assumed rate of investment return minus one-half percent (0.5%) or (y) 6.25%, except that the Board may, with the approval of TVA, apply an annual interest rate greater than this maximum for any year.

Section 17 of the Actuarial Assumptions in the Appendix to the TVA Retirement System Rules and Regulations is amended to add the underlined language as follows:

17. The annual rate of interest credited to the Annuity Savings Account shall be determined by the Board effective January 1 of each year and shall be equal to the percentage increase in the 12-month average of the Consumer Price Index for All Urban Consumers (CPI-U) for the period ending the previous October 31 over the preceding 12-month period, plus two percent (2%). Provided, however, that the annual rate of interest shall not be less than the <a href="higher of (i) the System's assumed rate of investment return minus two percent (2%) or (ii) 4.75%, nor greater than the higher of (x) the System's assumed rate of investment return minus one-half percent (0.5%) or (y) 6.25%.

In accordance with Section 4(7) and Section 13 of the TVARS Rules and Regulations, TVARS will provide notice to TVA of the following two actions, which are subject to review and veto.

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491-17 (A-6828). Following discussion of the meetings with BlackRock and Mercer on BlackRock's LifePath Paycheck Fund strategy, upon the recommendation of Mercer and the Investment Committee, the Board approved the following: (i) transitioning from the BlackRock LifePath Conservative glide path to BlackRock's flagship LifePath Index glide path for the 401(k) Plan's Target Retirement Portfolios, and (ii) offering the BlackRock LifePath Paycheck solution, which will offer lifetime income units within LifePath Fund investments from which participants could elect to receive a lifetime income stream from selected insurers at the time of retirement, subject to implementation considerations.

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491-18. As a new business item, the following proposal to eliminate the Director term limit provision in Section 3(2)(c) of the TVARS Rules and Regulations was presented by Director Belcher for discussion and consideration by the Board:

Section 3(2)(c) of the TVA Retirement System Rules and Regulations is amended to delete the entire Section as follows and renumber the remaining subsections accordingly:

SECTION 3

- 3. Administration of the System
- 2. e. An individual is eligible to serve as a director of the board (either elected, appointed, or selected) no more than three full 3-year terms. Any partial term less than 3 years for which an individual has been elected, appointed, or selected under the provisions of this section 3(2) for the unexpired portion of a predecessor's term does not count toward this term limit of three full 3-year terms. Notwithstanding the above, any individual who has already served as a director for three full 3-year terms as of the effective date of this provision will be eligible to continue as a member of the board for the remainder of the director's current 3-year term.

In response to the veto by TVA of the previous amendment adopted by the Board placing a SERP-participation restriction on eligible individuals that may be appointed to the Board by TVA, Director Belcher made a motion to approve the proposed amendment to Section 3(2) of the TVARS Rules and Regulations and the motion received a second from Director DeLay. The Board voted by roll call vote, and the motion to amend Section 3(2) failed to pass by a vote of 4 to 3. Directors Belcher, DeLay and Hovious voted for the motion, and Directors Brown, Child, Davis and Wallace voted against the motion.

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The meeting was adjourned at 4:01 p.m., EDT.

Chair

Executive Secretary

Brian M. Wild