MINUTES OF MEETING

THE BOARD OF DIRECTORS OF

THE TENNESSEE VALLEY AUTHORITY RETIREMENT SYSTEM

March 6, 2020

[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 on Friday, March 6, 2020, at 12:04 p.m., EST, at the TVA Chattanooga Office Complex, MR 1S 419, Chattanooga, Tennessee.

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The following directors were present: Tammy W. Wilson, Vice-Chair; Michael L. Belcher; Samuel J. DeLay; James W. Hovious; and Tina R. Wallace. Also present were Mark N. Meigs, Executive Secretary; Sally R. Weber, Manager, Retirement Operations; Veenita Bisaria, Manager, Investment & Risk Management; Chris A. Stinnett, Sr. Analyst, Investment & Risk Management; Brent B. Roberts, Manager, Financial Reporting; and W. Colby Carter, Senior Counsel.

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485-1 Each director was notified in a memorandum dated February 26, 2020, of the regular quarterly meeting to be held on March 6, 2020. A copy of the notice from the Executive Secretary is filed as Exhibit 485-1.

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485-2 (A-6697). Pursuant to the TVARS By-Laws, the Vice Chair informed the Board that she would be leading the meeting in the absence of the Chair.

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485-3 (A-6698). The Executive Secretary's report included the following:

- The Executive Secretary provided to the Board a revised quarterly meeting schedule for the remainder of calendar year 2020. A copy of the 2020 meeting calendar is filed as Exhibit 485-3.
- The Executive Secretary provided a report to the Board on the System's assets and performance of the System's investments in light of the recent market volatility as a result of the COVID-19 pandemic.

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485-4 (A-6699). The Senior Counsel's update included the following:

- Senior Counsel informed the Board that the plan document compliance review by Groom Law Group will be completed shortly and included in the System's Annual Report.
- Senior Counsel informed the Board that an update e-mail from the Executive Secretary to the Board dated January 27, 2020, included a summary of the provisions of the SECURE Act that are or could be potentially applicable to the System and the actions that will need to be taken with respect to the retirement plans administered by TVARS as a result of the SECURE Act.

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485-5. As a part of the Consent Agenda, the Board approved the minutes for the meeting reported below in A-6700, and accepted the reports as of December 31, 2019, listed below in A-6701, A-6702, A-6703, and A-6704.

- A-6700 Meeting No. 484 held December 5, 2019
- A-6701 Treasurer's Report (filed as Exhibit 485-5(a))
- A-6702 Investment Performance Report prepared by Wilshire Associates Incorporated (Wilshire) (filed as Exhibit 485-5(b))

- A-6703 Report of Retirements Approved (filed as Exhibit 485-5(c))
- A-6704 Quarterly review for the TVA Savings and Deferral Retirement Plan (401(k) Plan) prepared by Fidelity Investments (Fidelity) (filed as Exhibit 485-5(d))

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485-6 (A-6705). The Audit Committee report consisted of the items reported below at A-6706 and A-6707, and of the following items:

- Prior to the meeting, the System's financial reporting staff provided and discussed with the Board a financial statement risk assessment performed by the System staff and requested by Crowe LLP, the System's external auditor, which analyzed and assessed any risks that the System's financial statements could be misstated due to error or fraud. A copy of this information is filed as Exhibit 485-6(a).
- Prior to the meeting, the System's financial reporting staff provided and discussed with the Board an updated annual risk assessment and key control listing for the System and various processes. A copy of this information is filed as Exhibit 485-6(b).
- Prior to the meeting, the System staff updated the Board on the status of the System's 2019 fiscal year-end audit being performed by Crowe LLP.
- The Executive Secretary informed the Board that a renewal application will be filed with Marsh for continuing fiduciary liability insurance coverage for the Board and System staff and that the Board will likely need to take notational approval action on the renewal prior to the next quarterly meeting. The current 1-year policy expires on May 20.

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485-7 (A-6706). As a part of the System's governance policy review process, prior to the meeting, Senior Counsel reviewed with the Board the TVARS Governance Policy and discussed with the Board certain amendments to the policy. These amendments to the Governance Policy will be presented at the next quarterly meeting for approval by the Board. A copy of the current version of the TVARS Governance Policy is filed as Exhibit 485-17.

485-8 (A-6707). The Board was provided information on the upcoming annual Wilshire consulting client conference, which the Board and System staff deem to be beneficial for education and development in their roles for the System. In accordance with the Board's Travel Policy and Ethics and Code of Conduct Policy, the Board accepted the payment of expenses from Wilshire for any Board members and System staff who attend the Wilshire consulting client conference and any events integral to the conference. A copy of the information regarding the Wilshire conference is filed as Exhibit 485-8.

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485-9 (A-6708). The Investment Committee report consisted of the items reported below at A-6709, A-6710, A-6711, and A-6712, and of the following items:

- The Board was provided and took note of information regarding asset allocation and asset class transfers during the fourth quarter of 2019. A copy of this information is filed as Exhibit 485-9(a).
- The Board was provided and took note of information on due diligence meetings and conference calls between System staff and investment managers and service providers for the period November 2019 through February 2020. A copy of the information is filed as Exhibit 485-9(b).
- Prior to the meeting, Wilshire discussed with the Investment Committee the current de-risking glide path for the pension investments and proposed updates to the glide path that may include new discount rate assumptions and incorporating the new asset allocation policy and cash flow projections. A copy of the Wilshire discussion material is filed as Exhibit 485-9(c).
- Prior to the meeting, Wilshire discussed with the Investment Committee several types of investment strategies that could potentially mitigate large investment losses without a significant reduction in the expected returns of the System's investment portfolio. A copy of Wilshire's pension risk mitigation strategies presentation is filed as Exhibit 485-9(d).
- The Board was provided and took note of information on several investment managers and their portfolios and strategies. A copy of this Investment Manager Product Discussion List is filed as Exhibit 485-9(e).

- Prior to the meeting, the Wilshire Private Markets group reviewed with the Investment Committee the performance and investments of the System's private credit and private real assets portfolios through the Summit Hill Credit Fund and the Summit Hill Real Assets Fund. A copy of Wilshire's Summit Hill Fund review is filed as Exhibit 485-9(f).
- The Board was provided and took note of net internal rate of return (net IRR) performance information as of September 30, 2019, for all of the funds in the System's private equity portfolio compared to both vintage year IRRs for each fund and public market equivalent annualized performance. A copy of this report is filed as Exhibit 485-9(g).
- Wilshire and the System investment staff reviewed current fee agreements among the System's public markets investment managers relative to a peer universe and provided this analysis to the Board. A copy of this fee analysis is filed as Exhibit 485-9(h).
- The Board was provided the quarterly 401(k) Plan Discussion Guide from Aon covering the following: asset allocation and quarterly flows, performance of the investment funds in the 401(k) Plan's lineup, manager and fee updates, and an overview of the SECURE Act. In addition, the 401(k) Plan Discussion Guide included a lowest cost share class/vehicle analysis for all of the investment funds in the 401(k) Plan's lineup. Prior to the meeting, the Investment Committee met with Aon and the System staff to review the quarterly 401(k) Plan Discussion Guide. A copy of the Guide is filed as Exhibit 485-9(i).
- Prior to the meeting, Aon provided the Investment Committee a comprehensive annual review of the 401(k) Plan's Target Retirement Portfolios (TRPs), which included a review of the TRP glide path, asset class diversification, underlying fund selection, fees, performance compared to expectations, and performance compared to peers, including performance during the volatile markets as a result of the pandemic during the first quarter of 2020. A copy of Aon's TRP Review and performance data for the first quarter of 2020 is filed as Exhibit 485-9(j).
- Prior to the meeting, Senior Counsel provided an update to the Board on the RFP process for defined contribution plan consulting services, including a copy of the RFP that was released by TVARS on February 24, 2020, the list of six consultants that received the RFP, and the timeline for the RFP. A copy of this information is filed as Exhibit 485-9(k).

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485-10 (A-6709). Prior to the meeting, Wilshire and the System investment staff discussed with the Investment Committee the purpose of transition management services for both

the pension plan investments and 401(k) Plan investments and the benefit of the System's having an approved list of transition managers to consider for bids when preparing to conduct a transition of assets from one manager to another. TVARS currently has agreements with two firms for transition management services – BlackRock and Russell Investments – and the System investment staff has worked with Wilshire to evaluate new potential firms for these services. At the meeting, upon the recommendation of Wilshire and the Investment Committee, the Board approved the selection of three new firms to be available to bid for transition management services when needed by TVARS: Abel Noser, Fidelity Capital Markets Group (an affiliate of Fidelity Investments), and Loop Capital. As a part of the approval, the Board delegated to the Executive Secretary the authority to enter into agreements with Abel Noser, Fidelity, and Loop Capital for these services. A copy of the memo on transition management services from Wilshire to the Board, dated March 6, 2020, is filed as Exhibit 485-10.

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485-11 (A-6710). Under the new asset allocation policy adopted by the Board at the December meeting, the allocation target to long-duration credit increased from 5% to 7.5%. Prior to the meeting, Wilshire and the System investment staff discussed with the Investment Committee a search that was conducted for a new manager in this space in order to build out this allocation and complement PGIM, the current System manager with a long-duration credit portfolio. At the meeting, upon the recommendation of Wilshire and the Investment Committee, the Board approved the selection of Western Asset Management Company (WAMCO), another current System manager, to manage a new long-duration credit portfolio. This portfolio will initially be funded at \$250 million, which will come from the reduction in public real assets as a result of the new asset allocation policy. As a part of this approval, the Board delegated to the

Executive Secretary the authority to enter into any agreements with WAMCO necessary to fund and manage the portfolio. A copy of the memo from Wilshire to the Board, dated March 5, 2020, on the long-duration credit manager search is filed as Exhibit 485-11.

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485-12 (A-6711). As a part of the System's governance policy review process, Wilshire and the System staff reviewed the current Investment Policy Statement for the System's pension assets (IPS), and at the meeting, discussed proposed updates to IPS with the Board, including the incorporation of the System's new asset allocation policy and the addition of language related to environmental, social, and governance (ESG) considerations in investing. After discussion, upon the recommendation of Wilshire and the Investment Committee, the Board approved these amendments to the IPS. A copy of the IPS with amendments is filed as Exhibit 485-12.

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485-13 (A-6712). As a part of the System's governance policy review process, Aon and the System staff reviewed the current Investment Policy Statement for the 401(k) Plan (401(k) IPS), and at the meeting, discussed proposed updates to 401(k) IPS with the Board. After discussion, upon the recommendation of Aon and the Investment Committee, the Board approved these amendments to the 401(k) IPS. A copy of the 401(k) IPS with amendments is filed as Exhibit 485-13.

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485-14 (A-6713). The Retirement Committee report consisted of items reported below at A-6714, A-6715, A-6716, and A-6717, and of the following item:

• At the December meeting, the Board considered disability retirement benefit appeals by [redacted] and [redacted] (see Minute Entries 484-18 and 484-19). Following those considerations, the Board requested additional information from both individuals for a second medical review. System staff provided the Board an update

on the status of the requests. Since the process has yet to be completed, the Board took no action on either appeal.

 At the request of Director Belcher, the Board was provided information on and discussed TVA's long-term and short-term disability insurance benefits provided and made available to employees and how those benefits compare to the TVARS disability retirement benefits.

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485-15 (A-6714). Prior to the meeting, the Board reviewed with Mercer the Report of Actuary on the Eightieth Actuarial Valuation of the TVA Retirement System prepared as of September 30, 2019 (Actuarial Valuation Report). At the meeting, upon the recommendation of the Retirement Committee, the Board voted to accept the Actuarial Valuation Report performed by Mercer. As set forth in the report, Mercer calculated the minimum required contribution to the System for fiscal year 2021 to be \$300 million per section 9B4 of the System Rules and Regulations. A copy of Mercer's Actuarial Valuation Report is filed as Exhibit 485-15.

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485-16 (A-6715). Prior to the meeting, Mercer presented to the Board a qualitative risk assessment of the System as required by the new actuarial standard of practice (ASOP) #51 in order to help the Board better understand the various risks that could impact the System. At the meeting, upon the recommendation of the Retirement Committee, the Board voted to accept Mercer's Risk Assessment under ASOP #51. A copy of Mercer's Risk Assessment is filed as Exhibit 485-16.

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485-17 (A-6716). Prior to the meeting, the Board reviewed with Mercer the actuarial valuation of the Variable Annuity Fund as of September 30, 2019 (Variable Annuity Valuation Report). At the meeting, upon the recommendation of the Retirement Committee, the Board

accepted the Variable Annuity Valuation Report performed by Mercer, and its recommendation that the outstanding variable units should be increased by 141,873. The increase in number of units will result in a decrease in the unit value and will be applied beginning with the July 2020 payroll. A copy of the Variable Annuity Valuation Report is filed as Exhibit 485-17.

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485-18 (A-6717). Pursuant to Section 7H1 of the TVARS Rules and Regulations, the Board considered an appeal of the disability retirement application of [redacted], a current TVA employee. After review and discussion of the medical evaluation, human resources information, and an independent medical review, the Board determined that [redacted] did not meet the eligibility criteria for a disability retirement and disapproved his appeal. A copy of the disability retirement application and appeal materials is filed as Exhibit 485-18.

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485-19 (A-6718). The Election Committee report consisted of the items reported below at A-6719 and A-6720.

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485-20 (A-6719). Prior to the meeting, the Election Committee discussed with System staff the schedule proposed for this year's election. At the meeting, upon the recommendation of the Election Committee, the Board approved the 2020 TVARS Election Schedule. A copy of the Election Schedule is filed as Exhibit 485-20.

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485-21 (A-6720). Prior to the meeting, the Election Committee discussed with System staff the performance and fees of Election-America, which has served as the System's election vendor since 2017. At the meeting, upon the recommendation of the Election Committee, the

Board approved a 3-year renewal of the contract with Election-America to provide election services for the same fees over the 3-year renewal period as the current contract. As a part of the approval, the Board delegated to the Executive Secretary the authority to take any actions necessary to renewal the contract. A copy of the Election-America renewal pricing is filed as Exhibit 485-21.

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485-22 (A-6721). The 7th Director Search Committee reviewed and discussed with the Board a proposed process and schedule for the selection of the 7th Director. In addition, the Search Committee informed the Board that it would share this proposed selection process with Aon, the Board's governance consultant, in order for them to provide feedback based on best practices. A copy of the 7th Board Member Search Timeline for 2020 is filed as Exhibit 485-22.

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The meeting was adjourned at 12:21 p.m., EST.

Executive Secretary

Brian M. Child

Chair