MINUTES OF MEETING

OF THE BOARD OF DIRECTORS

RETIREMENT SYSTEM OF THE TENNESSEE VALLEY AUTHORITY

March 3, 2016

[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 Thursday, March 3, 2016, at 4:02 p.m., CST, at the TVA Nashville corporate offices, Highland Ridge Tower, 535 Marriott Drive, OCP 6 201, Nashville, Tennessee.

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The following directors were present: Anthony L. Troyani, Vice Chair; Brian M. Child; John M. Hoskins (via telephone); James W. Hovious; Leonard J. Muzyn; and Tammy W. Wilson (via telephone). Allen E. Stokes, Chair, was not present. Also present were Patrick D. Brackett, Executive Secretary; Pamela K. Ramsey, Assistant Secretary (via telephone); W. Colby Carter, Senior Counsel, Retirement Benefits & Compliance (via telephone); Veenita Bisaria, Manager, Investment & Risk Management; Chris A. Stinnett, Sr. Analyst, Investment & Risk Management; Michael B. Barnes, Analyst, Investment & Risk Management; Sally R. Weber, Lead Sr. Consultant, Retirement Benefits; Michael Brakebill, Board Adviser; and Vincent V. Sands, Board Adviser.

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461-1 Each director was notified in a memorandum dated February 12, 2016, of the regular quarterly meeting to be held on March 3, 2016. A copy of the notice from the Executive Secretary is filed as Exhibit 461-1.

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461-2 (A-6309). The Vice Chair welcomed Vince Sands as a non-voting member of and adviser to the Investment, Retirement and Audit Committees of the Board.

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461-3 (A-6310). There were no items to report from the Executive Secretary.

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461-4 (A-6311). Senior Counsel discussed with the Board the status of the current lawsuit against TVA and the System.

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461-5 (A-6312). The Board approved the minutes of Meeting No. 459 held December 10, 2015.

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461-6 (A-6313). The Board noted its previous notational action approving amendments to the Trust Agreement between TVARS and Fidelity Management Trust Company implementing the new investment fund lineup and fee structure for the Tennessee Valley Authority Savings and Deferral Retirement Plan (401(k) Plan). A copy of these amendments is filed as Exhibit 461-6.

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461-7 (A-6314). The Board accepted the Treasurer's Report for the quarter ended December 31, 2015. A copy of the Treasurer's Report is filed as Exhibit 461-7.

461-8 (A-6315). The Board accepted the Investment Performance Report prepared by Wilshire Associates Incorporated (Wilshire) for the quarter ended December 31, 2015. A copy of the Investment Performance Report is filed as Exhibit 461-8.

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461-9 (A-6316). The Board accepted the report of retirements approved for the quarter ended December 31, 2015. A copy of the report with summary demographic information regarding retirements in the quarter is filed as Exhibit 461-9.

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461-10 (A-6317). The Board accepted the quarterly review for the 401(k) Plan prepared by Fidelity Investment Institutional Services Company (Fidelity) for the quarter ended December 31, 2015. A copy of the 401(k) Plan quarterly review is filed as Exhibit 461-10.

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461-11 (A-6318). The Investment Committee report consisted of the items reported below at A-6319, A-6320, A-6321 and A-6322, and of the following items:

- The Board was provided and took note of the quarterly report on manager compliance with investment guidelines. A copy of the report, dated December 31, 2015, is filed as Exhibit 461-11(a).
- The Board was provided and took note of information regarding investment manager asset transfers during the fourth quarter of 2015. A copy of this information is filed as Exhibit 461-11(b).
- 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 December 2015 through February 2016. A copy of the information is filed as Exhibit 461-11(c).
- The Board was provided an update on the funded status of the System through December 31, 2015. A copy of the report is filed as Exhibit 461-11(d).
- The Board was provided and took note of the quarterly 401(k) Plan Discussion Guide from Aon Hewitt Investment Consulting (AHIC) covering the following:

performance of the legacy investment funds in the 401(k) Plan's lineup, performance of the new investment funds in the 401(k) Plan's lineup, new investment manager updates, and information on current fiduciary issues. A copy of the AHIC 401(k) Plan Discussion Guide is filed as Exhibit 461-11(e).

- The Board was provided information on the upcoming annual Wilshire consulting client conference. In addition, in accordance with the Board's travel policy, the Board accepted the payment of expenses from Wilshire for any Board member and System staff who attend the Wilshire consulting client conference and any events integral to the conference. A copy of the information regarding the conference is filed as Exhibit 461-11(f).
- The Board was provided an update on Wilshire's 10-year forward-looking capital market assumptions and the investment characteristics of the System's current asset allocation policy based on Wilshire's new capital market assumptions. A copy of this information from Wilshire, as well as information comparing consultants 2016 capital market assumptions, is filed as Exhibit 461-11(g).
- The Board was provided a structural analysis by Wilshire of the System's fixed income portfolio. A copy of this Wilshire analysis is filed as Exhibit 461-11(h).
- The Board was provided with a draft Request for Proposal for TVARS's master trustee and custodian, which the Board discussed with the TVARS staff. The RFP will be distributed by the TVARS staff to the trustees/custodians who meet the minimum requirements under the RFP in March. A copy of the draft master trustee/custodian RFP is filed as Exhibit 461-11(i).
- The Board was provided information on the System's portfolios managed by Pacific Investment Management Company (PIMCO), Wellington Management Company, Western Asset Management Company (WAMCO), and Oaktree Capital Management. A copy of this information is filed as Exhibit 461-11(j).
- The Board was provided updated information on BNY Mellon's securities lending program and proposal for TVARS. A copy of this information from BNY Mellon is filed as Exhibit 461-11(k).
- The Board was provided and took note of net internal rate of return (net IRR) performance information as of September 30, 2015, for all of the funds in the System's private markets portfolio (private equity, private real estate, and private real assets) compared to both vintage year IRRs for each fund and public market equivalent annualized performance. A copy of this information from Wilshire is filed as Exhibit 461-11(l).

461-12 (A-6319). After discussion, and upon the recommendation of the Investment Committee, the Board approved an amended and restated 401(k) Plan Investment Policy Statement to reflect the new 401(k) Plan investment lineup and fee structure. A copy of the amended and restated 401(k) Plan Investment Policy Statement is filed as Exhibit 461-12.

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461-13 (A-6320). Under the System's current asset allocation policy, five percent (5%) of the System's assets are allocated to each of the following asset classes: Treasury-inflation protection securities ("TIPS"), commodities, and master limited partnerships (MLPs). Given the nature of these asset classes and recent and potential future volatility within each asset class, the Board discussed with Wilshire creating a public real assets bucket for the System's asset allocation policy that would include strategic individual allocations to TIPS, commodities, MLPs, and global real estate investment trusts ("global REITs"). After discussion, and upon the recommendation of Wilshire, the Executive Secretary and the Investment Committee, the Board approved amending the System's asset allocation policy to create a public real assets allocation with a policy weight of 15% of the System's total portfolio with the allocation of individual assets within the public real assets bucket to be strategically managed. The initial allocations within the public real assets bucket, based on an equal risk-balanced approach, will be structured with the following weights: 50% TIPS, 20% commodities, 15% global REITs, and 15% MLPs. A copy of a memo from Wilshire to the Board on the move to a public real assets bucket for the System's asset allocation policy is filed as Exhibit 461-13.

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461-14 (A-6321). As a part of Wilshire's fixed income portfolio analysis (see Minute Entry 461-11), Wilshire analyzed the fixed income portfolios managed by PIMCO for the

System with the goal of bucketing fixed income assets into core and opportunistic mandates and simplifying the overall portfolio. After discussion, and upon the recommendation of Wilshire and the Investment Committee, the Board approved the following with respect to PIMCO's Total Return strategies: (i) termination of the Total Return fixed income portfolio of approximately \$114 million and transferring management of these assets to TCW Asset Management Company's Core Fixed Income strategy, and (ii) with respect to the Russell 2000 portfolio, removal of the Total Return overlay strategy to be replaced by PIMCO's Short-Term Fixed Income overlay strategy. A copy of a memo from Wilshire to the Board on the reallocation of the PIMCO mandates is filed as Exhibit 461-14.

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461-15 (A-6322). As a part of and in addition to the analysis by Wilshire in Minute Entries 461-11 and 461-14 above, the Board discussed with Wilshire PIMCO's managed volatility portfolio. Upon the recommendation of Wilshire and the Investment Committee, the Board approved terminating PIMCO's managed volatility portfolio of approximately \$93 million and transferring management of those assets in equal amounts to the System's two Global Low-Volatility Equity managers, Los Angeles Capital Management and Acadian Asset Management.

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461-16 (A-6323). The Retirement Committee report consisted of items reported below at A-6324 and A-6325, and of the following item:

• The Board was provided with a Quarterly Communication Update for the first quarter of 2016 including TVARA chapter meetings attended, pension proposal meetings with number of attendees, and 401(k) Plan fund lineup meetings with number of attendees. A copy of the Quarterly Communication Update is filed as Exhibit 461-16.

461-17 (A-6324). Pursuant to the System's Administrative Claims and Appeals Procedures, the Board considered an appeal from [redacted], the spouse of a deceased TVA retiree, requesting the waiver of an overpayment of TVARS benefits related to supplemental benefit payments. After review and discussion of the appeal, because the System, pursuant to IRS guidance, must collect the overpayment of benefits to which beneficiaries are not entitled under the TVARS Rules and Regulations, the Board voted to deny the appeal; however, given that this overpayment occurred by no fault of her own, the Board directed the Executive Secretary to provide [redacted] flexibility in the repayment of the amount due to the System. A copy of the appeal materials is filed as Exhibit 461-17.

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461-18 (A-6325). Upon the recommendation of the Retirement Committee, the Board approved a Statement of Work with Mercer Human Resource Consulting (Mercer), the System's actuary, to provide certain information and analysis in support of the Board's response to TVA's pension proposal, and delegated to the Executive Secretary the authority to take any actions necessary to effect that approval. A copy of Mercer's Statement of Work is filed as Exhibit 461-18.

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461-19 (A-6326). The Election Committee report consisted of the item reported below at A-6327.

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461-20 (A-6327). Upon the recommendation of the Election Committee, the Board voted to approve a 3-year extension of its Board election services contract with VR Election Services.

A copy of the contract with VR Election Services is filed as Exhibit 461-20.

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461-21 (A-6328). The Audit Committee report consisted of the item reported below at A-6329, and of the following items:

- Prior to the Board meeting, the Board met with Brenda Torres and Stephanie Obermeyer of Crowe Horwath, LLP, the System's external auditor, to discuss the status of the fiscal year 2015 financial statement audit being performed by Crowe Horwath and the fiscal year 2015 annual report.
- In accordance with the Board's Ethics and Code of Conduct Policy, the Audit Committee confirmed that each Director is filing an annual financial disclosure report (OGE Form 450 or 450-A) with TVA's Designated Agency Ethics Official.
- The Board was provided and took note of the System Board's travel expenses for the previous quarter.
- The Board was provided and took note of a summary of charges on the System's credit card for the previous quarter.

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461-22 (A-6329). The Executive Secretary provided the Board with an update on the upcoming renewal of the fiduciary liability insurance policy with AIG in the process of being secured through Marsh & McLennan. A copy of information on the AIG insurance policy renewal is filed as Exhibit 461-22.

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The meeting was adjourned at 4:15 p.m., CST.

Executive Secretary

Chair

Il la Stopes