

No. 18-02

Approved by the Board of Directors
at its August 22, 2018, meeting:

Original Signed by Sherry A. Quirk
Executive Vice President, General
Counsel and Secretary

MINUTES OF MEETING
OF
THE BOARD OF DIRECTORS
TENNESSEE VALLEY AUTHORITY

May 10, 2018

A meeting of the Board of Directors of the Tennessee Valley Authority was held in the Shoals Marriott and Conference Center, 10 Hightower Place, Florence, Alabama, on May 10, 2018. The meeting was called to order at 11:27 a.m. (CDT) after an approximately nineteen minute break following completion of the listening session, which began at 9:29 a.m. (CDT). The meeting agenda was announced to the public on May 3, 2018. The meeting was open to public observation.

Board members in attendance were: Director and Chair Richard C. Howorth, and Directors Virginia Tyler (Gina) Lodge, Ronald A. Walter, Eric M. Satz, Kenneth E. Allen, A.D. Frazier, James “Skip” Thompson, and Jeff W. Smith.

Also present were TVA officers, including William D. (Bill) Johnson, President and Chief Executive Officer; Sherry A. Quirk, Executive Vice President, General Counsel and

Secretary; John M. Thomas, Executive Vice President and Chief Financial Officer; Michael D. (Mike) Skaggs, Executive Vice President, Operations; Jay C. Stowe, Senior Vice President, Distributed Energy Resources; and David W. Sorrick, Senior Vice President, Power Operations.

Chair Howorth presided over the meeting, which was duly called, notice to each Director having been delivered pursuant to section 1.2 of the Bylaws governing meetings of the Board of Directors of the Tennessee Valley Authority. A quorum was present.

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18-02-1. Welcome

Chair Howorth welcomed all, mentioned the role of Muscle Shoals in the founding of TVA, offered a brief remembrance of former TVA Director and Board Chair John B. Waters who passed away on April 20, and discussed the Tennessee River Valley map guide recently produced by National Geographic. Chair Howorth then gave a special welcome to the local governments in the area and the Northwest Alabama Council of Local Governments in particular, expressed the Board's appreciation for the Association of Tennessee Valley Governments, and thanked both organizations for the dinner and breakfast, respectively, hosted by each and attended by the Board. Chair Howorth next recognized and received remarks from Greg Williams, Chairman of the Tennessee Valley Public Power Association (TVPPA), then recognized and received remarks from Lloyd Webb, Chairman of the Tennessee Valley Industrial Committee (TVIC).

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Old Business

The Board approved the minutes of its February 16, 2018, meeting.

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New Business**18-02-2. President's Report**

President and Chief Executive Officer William D. (Bill) Johnson made brief remarks regarding TVA's history and development, then thanked TVPPA's outgoing Chairman, Greg Williams. He then discussed the servicing of TVA's original debt to the federal government and the fact that power sales provide all revenue for TVA's power system and TVA's many other activities on behalf of the Tennessee Valley's residents. Mr. Johnson then pointed out that TVA is actually a source of income for the federal government, and does not contribute to the national debt.

Mr. Johnson discussed TVA's mission, strategic imperatives, and execution in the context of its long-term financial plan and operational objectives, emphasizing the financial and environmental benefits associated with the diversification of TVA's generating fleet and the operational discipline that has allowed TVA to invest almost \$13 billion in capital projects since 2013 without increasing its debt. Mr. Johnson commented on the changing business environment marked by little or no growth in demand for energy and a demand for more renewable energy, particularly among commercial and industrial customers. This changing

business environment has led TVA to propose a change in its rate structure, which will allow TVA to continue to recover both its variable costs that fluctuate with demand, and its fixed costs to pay for investments such as the transmission system. Mr. Johnson explained that the proposed change in rate structure will not result in a rate increase and will not produce additional revenue for TVA, but consumers might see slight variations in monthly power bills as their local power companies implement the new structure.

Mr. Johnson summarized the current status of TVA generation projects, discussing the extended power uprate at Browns Ferry Nuclear Plant, completion of the Allen Combined Cycle Plant, and the recent retirement of the Allen Fossil Plant after the unexpected re-start of two units in response to the intense cold experienced this winter. Mr. Johnson stated that more than one-half of TVA's power supply is now carbon free.

Mr. Johnson next discussed TVA's work to prepare for the upcoming recreation season, mentioning river clean-ups, bass fishing tournaments, TVA's visitor centers and campgrounds, and the fact that TVA's River Forecast Center is operating the river system for recreation and many other benefits. Mr. Johnson then spoke of recent heavy rains, TVA's flood control efforts, and the value of the river system's use for the transportation of cargo.

Discussing economic development, Mr. Johnson made reference to the recent auction of 900 acres in Colbert County, Alabama, making property previously owned by TVA available for private investment. He also mentioned that in the first six months of this fiscal year TVA's efforts have helped to attract or retain 40,200 jobs and \$8.5 billion in capital investment in the

Valley. Mr. Johnson stated that TVA's educational outreach has helped 5,000 students participate in TVA-sponsored robotics programs and prepare for jobs of the future, and provided Valley college students the opportunity to practice investment strategies through management of a TVA-sponsored fund.

Copies of the slides used by Mr. Johnson in his report are filed with the records of the Board as Exhibit 5/10/18A.

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18-02-3. Designation of Assistant Secretaries

The Board adopted the following resolution:

WHEREAS the Executive Vice President and General Counsel has recommended the designation of two individuals to serve as an Assistant Secretary of TVA, with full authority to affix the corporate seal to approved documents and to attest to the seal and signatures of persons authorized to sign such documents on behalf of TVA;

BE IT RESOLVED, That effective immediately, and continuing until the earlier of separation from service as an employee of TVA or further action by the Board, Christopher C. Chandler and Kelly A. Love are each designated and appointed as an Assistant Secretary of TVA with full power to affix the corporate seal to approved documents and to attest to the seal and signatures of persons authorized to sign such documents on behalf of TVA.

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18-02-4. Report of the Audit, Risk, and Regulation Committee

Director Thompson, Chair of the Committee, reported the Committee met April 18 and again on May 1 to review TVA's 10-Q report for the second quarter. The Committee sat in executive session with the Office of the Inspector General, TVA's external auditor Ernst &

Young, and with TVA's internal Operational and Regulatory Assurance group. In addition, staff provided the Committee with updates on a number of topics, including operational and regulatory assurance, and ongoing litigation. The Committee also discussed TVA's role as regulator and its interface with local power companies (LPCs) on regulatory matters, spent time on cybersecurity, and received an update on TVA's work to ensure a professional and respectful workplace.

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18-02-5. Report of the People and Performance Committee

Director Lodge, Chair of the Committee, reported the Committee met April 19, at which time management presented information on TVA's year-to-date performance. The Committee also received an annual report on labor relations and workforce climate, conducted its own initial review of potential corporate goals for Fiscal Year (FY) 2019, and worked with its independent compensation advisor to review TVA's compensation plan and the peer group utilized to measure performance.

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18-02-6. Report of the Finance, Rates, and Portfolio Committee

Director Walter, Chair of the Committee, reported the Committee met April 18, and advised that the Committee would be presenting four items for Board approval. He then requested and received a report from John Thomas, Executive Vice President and Chief Financial Officer, regarding Minute Item 18-02-7. Following the completion of Mr. Thomas'

report, Director Walter stated the Committee received a generation fleet planning update and had extensive discussions with management regarding the proposed rate structure change. Director Walter then requested and received reports from Jay Stowe, Senior Vice President, Distributed Energy Resources, regarding Minute Items 18-02-8 and 18-02-9. Following the completion of the reports by Mr. Stowe, Director Walter requested and received reports from David Sorrick, Senior Vice President, Power Operations, regarding Minute Items 18-02-10 and 18-02-11.

Copies of the slides used by Mr. Stowe in his reports are filed with the records of the Board as Exhibit 5/10/18B and Exhibit 5/10/18C. Copies of the slides used by Mr. Sorrick in his reports are filed with the records of the Board as Exhibit 5/10/18D and Exhibit 5/10/18E.

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18-02-7. Financial Performance Update

John Thomas, Executive Vice President and Chief Financial Officer, reported on TVA's financial results for the second quarter of FY 2018. Mr. Thomas started by reporting financial highlights, including net income, operating cash flow, and total financing obligations. Mr. Thomas then reviewed the summary income statement, during which he discussed the effects of weather and fuel costs on revenue and rates. Mr. Thomas next reviewed the summary cash flow statement, which compared favorably to this time last year due to higher revenue and lower operating expenses. Mr. Thomas closed his presentation with a summary of actual results indicating that demand sales, operating expenses, and debt were all favorable to plan during the second quarter.

Copies of the slides used by Mr. Thomas in his report are filed with the records of the Board as Exhibit 5/10/18F.

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18-02-8. 2018 Rate Change

The Board adopted the following resolution, as recommended in a memorandum from the Executive Vice President and Chief External Relations Officer, dated April 9, 2018, and filed with the records of the Board as Exhibit 5/10/18G:

WHEREAS since the fall of 2016, TVA has discussed certain structural changes in the rates and charges for electric power; and

WHEREAS the terms and conditions to TVA's wholesale power contracts provide that TVA may change the rate structure "from time to time... in order to assure TVA's ability to continue to supply the power requirements of [distributors] and TVA's other customers on a financially sound basis with due regard for the primary objectives of the TVA Act, including the objective that power shall be sold at rates as low as feasible;" and

WHEREAS a memorandum from the Executive Vice President and Chief External Relations Officer, dated April 9, 2018 (Memorandum), a copy of which is filed with the records of the Board as Exhibit 5/10/18G, recommends approval of the proposed rate changes as they have been further developed through discussions with both distributors of TVA power (Distributors) and directly served customers;

BE IT RESOLVED, That the Board of Directors hereby approves (1) the proposed rate changes to be made effective (a) for bills rendered from wholesale meter readings scheduled to be taken on and after October 2, 2018, and (b) for resale bills rendered from resale meter readings taken for the Distributors' October 2018 revenue month; (2) the proposed wholesale power rate schedules WS and WSD applicable to Distributors where the Schedule of Rates and Charges in the power contract includes resale schedules, as described in Attachment I, Exhibits 1A and 1B; (3) the proposed wholesale power rate schedules WSA and WSAD applicable to Distributors where the Schedule of Rates and Charges in the power contract no longer includes resale schedules, as described in Attachment I, Exhibits 1C and 1D; (4) the proposed resale rate and resale rate related changes in Attachment II; (5) continuation of the General Manufacturing Credit program, as described in Attachment II; and (6) the proposed changes to the Direct Service Power Rate Schedules as described in Attachment II, Exhibit 2.

RESOLVED further, That the Board hereby authorizes and directs the Vice President, Pricing & Contracts, or that officer's duly authorized signatory: (i) to put the rate changes into effect in accordance with the provisions of the power contracts; (ii) to execute amendatory agreements for the purpose of memorializing customers' adoption of the rate changes; (iii) to enter into contract amendments with Distributors as necessary (a) to approve revisions to the resale rate schedules as described in the Memorandum and (b) to continue the General Manufacturing Credit program; and (iv) to make any necessary technical corrections to any document required to accurately implement any changes approved herein.

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18-02-9. Electric Vehicle Charging Rate

The Board adopted the following resolution, as recommended in a memorandum from the Executive Vice President and Chief External Relations Officer, dated March 29, 2018, and filed with the records of the Board as Exhibit 5/10/18H:

WHEREAS TVA recognizes an increased interest in electric vehicles in the Valley; and

WHEREAS because current rate schedules are not designed specifically for electric vehicles, the only option for charging vehicles is to pay standard rate schedule charges; and

WHEREAS TVA and local power companies (LPCs) that distribute TVA power wish to explore rate options designed to learn more about the impact of emerging technologies on distribution systems and send appropriate price signals for electric vehicle charging; and

WHEREAS a memorandum from the Executive Vice President, External Relations, dated March 29, 2018 (Memorandum), a copy of which is filed with the records of the Board as Exhibit 5/10/18H, recommends approval of, for a three-year pilot period, optional Electric Vehicle Rate Schedules.

BE IT RESOLVED, That the Board of Directors finds it to be appropriate and in the interest of consumers of TVA power to approve of such schedules.

RESOLVED further, That the Board hereby authorizes and directs the Vice President, Pricing and Contracts, or that officer's designee, to enter into agreements to implement such Electric Vehicle Charging Rates as may be proposed by individual LPCs that are otherwise consistent with the Board approved rate review process.

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18-02-10. Firm Natural Gas Transportation Contracts - Tennessee Gas Pipeline Company

The Board adopted the following resolution, as recommended in a memorandum from the Executive Vice President, Generation, dated April 9, 2018, and filed with the records of the Board as Exhibit 5/10/18I:

WHEREAS TVA has an opportunity to secure the reservation of gas transportation from Marcellus Shale reserves and to further extend its current transportation agreements to better serve its gas facilities; and

WHEREAS TVA has the opportunity to transfer the ownership of its Johnsonville lateral pipeline to an established operator, which will relieve TVA of operation and maintenance responsibilities on the line; and

WHEREAS a memorandum from the Executive Vice President of Generation dated April 9, 2018, and attached hereto as Exhibit 5/10/18I recommends that the Board delegate to the Chief Executive Officer (CEO) the authority to execute long-term contracts with Tennessee Gas Pipeline Company, LLC (TGP) for firm transportation that will serve multiple plants on TVA's system and will encompass a new twelve-year term for firm transportation service originating from the Marcellus Shale reserves, as well as an extension of existing transportation services and options for extensions at TVA's discretion for up to seven years, subject to a total commitment for reservation charges under the contracts of \$150 million;

BE IT RESOLVED, That the Board delegates to the CEO the authority to enter into one or more contracts with TGP for firm long-term natural gas transportation and to convey the Johnsonville lateral pipeline, associated equipment and associated land or land rights, as recommended in the Executive Vice President of Generation's April 9, 2018, memorandum.

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18-02-11. Firm Natural Gas Transportation Contract - Texas Gas Transmission

The Board adopted the following resolution, as recommended in a memorandum from the Executive Vice President, Generation, dated April 9, 2018, and filed with the records of the Board as Exhibit 5/10/18J:

WHEREAS TVA has an opportunity to secure long term gas transportation at competitive prices and terms to serve certain of its gas facilities; and

WHEREAS a memorandum from the Executive Vice President of Generation dated April 9, 2018, and attached hereto as Exhibit 5/10/18J recommends that the Board approve entering into a long-term contract with Texas Gas Transmission, LLC (TGT) for firm transportation that will serve TVA's Lagoon Creek and Southaven plants, subject to a total commitment for reservation charges under the contract of \$133 million;

BE IT RESOLVED, That the Board approves entering into a contract with TGT for firm long-term natural gas transportation, as recommended in the Executive Vice President of Generation April 9, 2018, memorandum.

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18-02-12. Report of the External Relations Committee

Director Satz, Chair of the Committee, reported the Committee met April 19. During the meeting, management provided the Committee updates on various topics, including TVA's communication efforts, customer contracts, and government relations. The Committee also discussed TVA's role in technology innovation, and management provided an overview on its strategic direction with regard to distributed energy. Director Satz announced TVA has a new employee resource group dedicated to innovation, and that he was the keynote speaker at its first meeting. Director Satz stated the Committee was briefed on the proposed rate change, and also received comments from the Regional Resource Stewardship Council and the Regional Energy Resource Council. The Committee also discussed the ways the Board receives public input, and he stated the Committee is considering different options intended to improve that process. At this point, Director Satz requested and received a report from Mike Skaggs, Executive Vice President, Operations, regarding Minute Item 18-02-13.

Copies of the slides used by Mr. Skaggs in his report are filed with the records of the Board as Exhibit 5/10/18K.

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18-02-13. Modified Land and Equipment Conveyance Delegations

The Board adopted the following resolution, as recommended in a memorandum from the Executive Vice President, Operations, dated April 2, 2018, and filed with the records of the Board as Exhibit 5/10/18L:

WHEREAS the Board of Directors (Board) wishes to retain general decision-making authority with respect to conveyances of non-bulk electric system assets or natural gas lateral pipelines serving TVA plants involving land or land rights and/or facilities and equipment wherein the value of any land or land rights involved is greater than \$4,000,000 and/or the value of any facilities and equipment involved is greater than \$25,000,000; and

WHEREAS as detailed in an April 2, 2018, memorandum, a copy of which is filed with the records of the Board as Exhibit 5/10/18L (the "Memorandum"), the Executive Vice President, Operations, has recommended that decision-making authority with respect to conveyances of non-bulk electric system assets or natural gas lateral pipelines serving TVA plants involving land or land rights and/or facilities and equipment wherein any land or land rights are valued at \$4,000,000 or less and any facilities and equipment are valued at \$25,000,000 or less be delegated by the Board to the Chief Executive Officer (CEO); and

WHEREAS the delegation shall be exercised in accordance with relevant Board-approved policies such as the TVA Land Policy, in conformance with standard business practices for these types of conveyances that are satisfactory to the CEO, following the completion of all necessary legal and programmatic reviews in accordance with TVA's procedures and protocols, and in compliance with the National Environmental Policy Act and other applicable laws and requirements; and

WHEREAS as detailed in the Memorandum, the Executive Vice President, Operations, has further recommended that the previously delegated decision-making authority with respect to conveyances consisting of land or land rights and associated facilities and equipment valued at \$4,000,000 or less for any purpose be modified to allow the CEO to approve conveyances of facilities and equipment only valued at \$4,000,000 or less for any purpose; and

WHEREAS actions taken by the CEO under these delegations will be included on the periodic report of delegation activities provided to the Board; and

WHEREAS the Board has determined that the approval of such delegation of authority will not be adverse to the interests of the United States of America or TVA;

BE IT RESOLVED, That the Board hereby reserves the authority, subject to the specific delegation as hereinafter provided, to approve conveyances of non-bulk electric system assets or natural gas lateral pipelines serving TVA plants involving land or land rights and/or facilities and equipment wherein any land or land rights are valued at greater than \$4,000,000 and any facilities and equipment are valued at greater than \$25,000,000, and to approve any other land-related or equipment-related conveyances not specifically covered by the below-listed delegations or other delegations;

RESOLVED further, That the Board hereby delegates to the CEO the authority to approve conveyances of non-bulk electric system assets or natural gas lateral pipelines serving TVA plants involving land or land rights and/or facilities and equipment when any land or land rights involved are valued at \$4,000,000 or less and any facilities and equipment involved are valued at \$25,000,000 or less, provided such conveyances conform to standard business practices for these types of conveyances that are satisfactory to the CEO;

RESOLVED further, That the delegation to the CEO of the authority to approve transactions consisting of land or land rights and associated facilities and equipment valued at \$4,000,000 or less for any purpose, in Minute Entry No. 10-05-17 on November 4, 2010, is hereby amended to delegate to the CEO the authority to approve conveyances consisting of land or land rights and/or facilities and equipment valued at \$4,000,000 or less for any purpose.

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18-02-14. Report of the Nuclear Oversight Committee

Director Smith, Chair of the Committee, reported the Committee met April 10 at Watts Bar Nuclear Plant. Director Smith stated the Committee has focused its efforts on selection and training of first line supervisors in TVA's nuclear operations because these people are responsible for day-to-day work and are critical for setting expectations and behavioral norms. The Committee received briefings on the First Line Supervisor Development program and interacted with some graduates of that program. The Committee members also spent time walking through different areas of the plant, without members of plant management present,

interacting with first line supervisors. Director Smith stated the Committee received briefings on performance at Watts Bar and overall nuclear fleet performance, and also received reports from the Nuclear Safety Review Board. In addition, the Committee interacted with management on a review recently completed by the Institute of Nuclear Power Operators, received feedback on various topics from Sam Collins, its external advisor, and received a preliminary briefing on a recent electrical safety event that is under investigation. Management also discussed with the Committee the results of a recently completed Nuclear Regulatory Commission (NRC) review at Watts Bar on chilled work environment, which results are that TVA is implementing appropriate corrective actions, and that NRC identified no new concerns. Director Smith stated that since the April meeting, the NRC separately has advised that it will send an inspection team to Watts Bar to evaluate the plant's emergency cooling system, after TVA engineers identified issues with gas accumulation in the system. Notwithstanding those issues, management has assured the Committee that Watts Bar's emergency cooling system is capable of performing its function.

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The meeting was adjourned at 12:44 p.m. (CDT).