

No. 19-04

Approved by the Board of Directors
at its February 13, 2020, 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
November 14, 2019

A meeting of the Board of Directors of the Tennessee Valley Authority was held in the Halloran Centre for Performing Arts & Education, 225 S. Main Street, Memphis, Tennessee, on November 14, 2019. The meeting was called to order at 9:30 a.m. (CST). The meeting agenda was announced to the public on November 7, 2019. The meeting was open to public observation.

Board members in attendance were: Director and Chair James (Skip) Thompson, and Directors Richard C. Howorth, Virginia Tyler (Gina) Lodge, Ronald A. Walter, Kenneth E. Allen, Jeff W. Smith, John L. Ryder, and William (Bill) Kilbride.

Also present were TVA officers, including Jeffrey J. (Jeff) Lyash, 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; and Michael D. (Mike) Skaggs.

Chair Thompson 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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19-04-1. Welcome

Chair Thompson welcomed all, thanked those attending, both in person and online, and expressed the Board's pleasure at being in Memphis. Chair Thompson then expressed the Board's appreciation for the hospitality received from the City of Memphis and the opportunity to meet with representatives from the Economic Development Growth Engine ("EDGE"), the agency charged with economic development in greater Memphis and Shelby County. Chair Thompson discussed the Board's dinner on the evening before, during which the Board met with Memphis Mayor Jim Strickland and Shelby County Mayor Lee Harris and received information on their vision for development of a new port. Chair Thompson commented that TVA wants to be a part of realizing that vision. Chair Thompson thanked the local Chamber of Commerce for hosting a breakfast on the morning of the meeting, and stated it was clear that the common goals of the Chamber and TVA align around economic prosperity for the communities each serves. Chair Thompson then discussed recent economic development announcements in the Memphis area, specifically mentioning JNJ Express, Indigo Agriculture, and the expansion of Federal Express and St. Jude Children's Hospital, and he stated the Board looks forward to its continued economic development partnership with EDGE.

Chair Thompson next summarized the topics and some of the comments received during the public listening session conducted on the day before the meeting. Eighteen people spoke. Speakers included representatives of local power companies serving communities in the Valley as well as individuals addressing a range of topics, including renewable energy, management of the Tennessee River system, TVA's support for the Memphis community's Mid-South Food Bank program, TVA's work on programs to help consumers use energy more wisely, and opportunities provided by TVA for small businesses. Chair Thompson then acknowledged the comments of one speaker regarding the accountability of TVA and its Board members. He stated it is a pleasure for the Directors to serve the ten million people of the Valley, accountability is important to the Board, and being questioned by the public regarding issues of accountability makes TVA better. Chair Thompson then thanked everyone who spoke at the listening session. At this point Director Ryder commented on the recent opportunity that TVA provided for the public to tour the coal ash ponds at TVA's decommissioned Allen Fossil Plant, and commended the efforts of TVA's President and Chief Executive Officer, Jeff Lyash, for seeking community participation in dealing with the coal ash issue at Allen Fossil Plant.

Chair Thompson stated the Board encourages people to participate in TVA's public comment opportunities and to share their thoughts and ideas. He then made reference to the web page TVA has launched, entitled "Get Involved, Stay Involved," which is accessible through TVA's main internet site. Chair Thompson explained the "Get Involved, Stay Involved" web page is part of TVA's effort to improve transparency, and it lists upcoming public meetings, projects open for public comment, TVA contact information, and more. Chair Thompson stated the Board encourages the public to take part in TVA's decision-making process and to stay informed, and he added that anyone can submit questions and comments through the web page.

Chair Thompson then mentioned that TVA also receives input from its two federal advisory groups, the Regional Resource Stewardship Council (RRSC) and the Regional Energy Resource Council (RERC), each of which conducts its own listening sessions to obtain stakeholder input.

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Old Business

The Board approved the minutes of its August 22, 2019 meeting.

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New Business

19-04-2. President's Report

President and Chief Executive Officer Jeff Lyash stated that he and the Board were glad to be in Memphis. He praised the hospitality they had received and spoke of the discussions he had engaged in with EDGE and members of the local Chamber of Commerce. Mr. Lyash then thanked Memphis Light, Gas, and Water (MLGW) for its partnership with TVA, and mentioned his recent communications with direct-served customers in the region. Mr. Lyash congratulated Memphis on its 200th anniversary, stated he is impressed with Memphis' focus on the next 100 years, and expressed his hope that TVA will continue delivering value to Memphis for another 85 years.

Mr. Lyash stated that during his first seven months at TVA he has learned how powerful the Tennessee Valley's public power model can be, particularly when the interests of TVA, local power companies, and communities are aligned. He mentioned that one challenge is to treat all

customers and communities consistently while recognizing that different customers and communities have different needs. Commenting on Memphis in particular, Mr. Lyash stated that TVA has served the city well in the past 85 years, but can do better.

At this point Mr. Lyash recapped Fiscal Year (FY) 2019 highlights. He reported that during the fiscal year TVA delivered top-decile safety performance, 99.999% reliability for the twentieth consecutive year, and increased its CO₂-free generation to more than 54% of all power produced by TVA. He stated that the key to achieving the latter milestone was the completion of the Browns Ferry extended power uprate project, which added 465 MW to the nuclear plant's generating capacity. Mr. Lyash then discussed the challenges posed by peak generation records set in September, October and, most recently, in November. Turning to environmental performance, Mr. Lyash repeated that TVA continued reducing greenhouse gas emissions in FY 2019 and reported that TVA is in the top quartile of the industry in greenhouse gas intensity per kilowatt-hour generated. Mr. Lyash stated that TVA's system performed well during record rainfall at the outset of calendar year 2019, with river management efforts during that period enabling the Valley to avoid approximately \$1.6 billion in economic damage. With regard to financial results, Mr. Lyash reported that TVA's net income in FY 2019 was \$1.4 billion, and that money was used to reduce TVA's debt to less than \$23 billion, TVA's lowest debt level in 30 years. Reaching that debt level enabled TVA to complete the objectives of its previous ten-year financial plan in six years, and that allowed TVA to roll out its current ten-year financial plan, the objective of which is to hold base rates flat for TVA's customers over the next decade. Mr. Lyash reported that the price paid for power by TVA's customers over the last six years, combining the base rate and fuel costs, had remained flat, and that has positioned TVA and its local power companies to deliver power to customers at a price lower than that offered by 75%

of TVA's industry peers across the country. Reporting on economic development, Mr. Lyash stated that during FY 2019, TVA and its partners delivered approximately \$9 billion in capital investment and 66,000 jobs to the Valley.

Commenting on TVA's areas of focus during FY 2020, Mr. Lyash stated that TVA is focused on making its nuclear fleet the best in the country. Mr. Lyash also stated TVA is beginning to lever its state of the art gas-fired combined cycle plants, including the new Allen plant in Memphis, in order to make further improvements in reliability and to maintain low fuel costs. TVA is also focused on its Grid 2023 program, which will result in a state of the art operations center, a fiber network throughout TVA's footprint for monitoring and control, and transmission projects, including \$62 million of work in the Memphis region that will strengthen TVA's grid in the area to position it to fit within the integrated energy network TVA will build over upcoming decades. Mr. Lyash stated another area of focus during FY 2020 will be to begin work on bringing the 14 GW of new solar generating capacity, called for in the 2019 Integrated Resource Plan (IRP), into existence. TVA will also focus on the long-term partnership agreements with its local power company partners approved by the Board in August, 2019. Mr. Lyash discussed the reasoning behind and advantages of offering these agreements, and reported that 85% of TVA's local power company partners have so far accepted the long-term agreement along with the discounted rate it confers. Mr. Lyash explained that the rate discount was structured so that local power companies can apply the savings as they choose. Mr. Lyash reported that, in association with the provisions of the long-term agreements allowing local power companies the flexibility to serve a portion of their own loads, TVA is working with local power companies on governing principles and will be bringing those to the Board for approval in the near future.

Mr. Lyash next discussed TVA's relationship with Memphis in the context of the ongoing effort by Memphis to determine whether it will remain a TVA customer or seek to obtain its power from another supplier. Mr. Lyash provided examples of the value realized by Memphis through its relationship with TVA, specifically mentioning price, reliability, environmental stewardship, economic development, engagement, and the mitigation of risk arising from TVA's scale and diverse generation portfolio. Mr. Lyash then commented on the value its partnership with Memphis offers to TVA, noting that Memphis is TVA's largest customer, an important part of Tennessee's economy, and a center of innovation.

Mr. Lyash thanked TVA's employees for the performance they delivered in FY 2019 and for the value TVA will realize from their efforts in FY 2020. He then thanked Director Lodge and Director Walter for their service, guidance, and support, and closed his presentation by thanking all military veterans and members of the military currently serving who were watching or listening for their service.

At this point Mr. Lyash received comments and responded to questions from Directors Allen, Kilbride, Ryder, Howorth, and Thompson dealing with: challenges faced by TVA and the Valley; how TVA can assist local power companies with their own challenges; advantages for Memphis derived from the long-term agreement on offer; remaining opportunities for energy efficiency; TVA's debt trajectory; how TVA's coal combustion residual program will address concerns about the Memphis Sands aquifer; and the positive effects of TVA's transition to a nine-member, part-time Board structure.

Copies of the slides used by Mr. Lyash in his report are filed with the records of the Board as Exhibit 11/14/19A.

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19-04-3. Report of the Finance, Rates, and Portfolio Committee

Director Walter, Chair of the Committee, reported that the Committee met on October 24. He then requested and received a report from John Thomas, Executive Vice President and Chief Financial Officer, regarding Minute Item 19-04-4. Following Mr. Thomas' report, Director Walter stated the Committee is pleased with the FY 2019 financial results, and the fact that TVA was able to achieve the goals of its prior ten-year financial plan in only six years. Director Walter then requested and received reports from Mike Skaggs, Executive Vice President and Chief Operating Officer, regarding Minute Items 19-04-5 and 19-04-6.

Following the vote on Minute Item 19-04-6, Director Walter stated that the Committee received an update on the progress of implementation of the long term agreement option with local power company partners approved by the Board at its August, 2019, meeting. He then reported that by the end of September, 131 local power companies had signed the 20-year agreements, representing 85% of the 154 local power companies in TVA's service area, and accounting for 56% of TVA's total revenue. Director Walter characterized this as exceptionally successful, and stated the Committee applauds TVA and its local power company partners for their efforts to forge longer-term partnerships and strengthen the public power model. Director Walter stated TVA is already working with these long-term partners to address opportunities identified by the local power companies to meet end-use customers' needs with regard to renewable resources.

Director Walter closed by reporting that the Committee had reviewed its work in FY 2019, and its planning calendar for FY 2020, and stated that TVA's corporate Secretary concluded that the Committee had satisfied the obligations imposed by its charter in FY 2019, and that it would do so again in FY 2020.

Copies of the slides used by Mr. Thomas in his report on Minute Item 19-04-4 are filed with the records of the Board as Exhibit 11/14/19B. Copies of the slides used by Mr. Skaggs in his report on Minute Item 19-04-6 are filed with the records of the Board as Exhibit 11/14/19C.

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19-04-4. Financial Performance Update

John Thomas, Executive Vice President and Chief Financial Officer, presented financial results for FY 2019, which he characterized as a very successful financial year. Mr. Thomas began his presentation with a review of highlights. He reported that operating revenues were \$604 million favorable to budget, controllable operations and maintenance expenses were \$81 million favorable to budget, interest expense was \$93 million favorable to budget, and overall net income was \$1.4 billion, but exclusive of write-offs it was closer to \$2.1 billion. Mr. Thomas then discussed the effect weather had on results, specifically remarking on the effect of hot weather over the summer and early fall, and the effect of the extended warm season on generation plant outage work. Mr. Thomas next reviewed the FY 2019 fourth quarter Summary Income Statement and Summary Cash Flow Statement, after which he provided a brief summary of results compared to the plan for the fourth quarter.

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19-04-5. Generation Fleet Performance Update

Mike Skaggs, Executive Vice President and Chief Operating Officer, stated that TVA met high peak demands in September and October due to hot weather. He reported the average peak for the full month of September was 26,300 MW, and generation exceeded 28,000 MW during each of the first three days in October. Mr. Skaggs explained that TVA normally uses the months of September, October, and November, as well as the early spring, to take units out of service for maintenance in order to ensure reliability during the cold and heat of winter and summer. He then reported that just two days prior to the meeting TVA experienced a generation peak of 27,700 MWh due to cold weather. Because 55 of TVA's 263 generating units were out of service for maintenance outages TVA was required to purchase somewhat more than 1,000 MW of power at a price of approximately \$50.00 per MW. Mr. Skaggs stated this was a favorable price, and TVA was able to obtain favorable pricing because of the configuration of its system interconnections. Mr. Skaggs next reported that this past September was the third driest on record and October was the third wettest on record, and these conditions challenged TVA's hydro generation capabilities as well as TVA's river management operations. Mr. Skaggs stated that the various teams across TVA's operations business unit came together and did a great job. Mr. Skaggs also addressed transmission reliability, worker safety, environmental compliance, and supply chain strategy.

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19-04-6. Board Practice – Implementation and Contract Authority

The Board adopted the following resolution as recommended by the Finance, Rates, and Portfolio Committee following its review of the document entitled “Implementation and Contract Authority,” filed with the records of the Board as Exhibit 11/14/19D:

WHEREAS the Board has from time to time adopted practices to address the authority of the Chief Executive Officer (CEO) under the Bylaws of the Tennessee Valley Authority (TVA Bylaws);

WHEREAS the TVA Bylaws provide, among other things, that the principal responsibilities of the CEO are to achieve the broad strategies, goals, objectives, long-range plans, and policies established by the Board and to ensure the continuity and reliability of TVA’s operations;

WHEREAS the Bylaws further specify that the CEO has all powers, authorities, and duties “necessary or appropriate to carry out those principal responsibilities, including but not limited to those to carry out projects and activities approved by the Board of Directors or to maintain continuity and/or reliability of ongoing operations”;

WHEREAS the Board acknowledges that a routine part of carrying out approved projects and activities and maintaining continuity and/or reliability of ongoing operations involves actions to implement those projects and activities and committing TVA to contracts under which TVA purchases, sells, and disposes of goods, services, and fuel, including related transportation, processing, storage, and services (Procurement Contracts);

WHEREAS the Board exercises ultimate authority over such implementation and contracting activity through the budget review and approval process; and

WHEREAS to provide more definitive guidance as to what implementation actions and Procurement Contracts the Board considers to be within the CEO’s authority under the Bylaws, the Finance, Rates, and Portfolio Committee has reviewed the TVA Board Practice entitled "Implementation and Contract Authority", as filed with the records of the Board as Exhibit 11/14/19D, and recommends approval of the Practice by the Board;

BE IT RESOLVED, That the Board hereby adopts the Board Practice entitled Implementation and Contract Authority.

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19-04-7. Report of the People and Performance Committee

Director Lodge, Chair of the Committee, reported the Committee met on October 25, and that its main focus during the last quarter was TVA's financial and operational performance for FY 2019. Director Lodge stated that, overall, TVA achieved excellent results, and that TVA continues to perform well financially and otherwise. Director Lodge stated that TVA's debt level is the lowest it has been in almost 30 years, and is approximately \$1.3 billion below the planned debt level for FY 2019. She noted that FY 2019 net income was \$1.4 billion, which was also better than planned for FY 2019, especially considering the impact of accelerated depreciation and write-offs that totaled over \$700 million. Director Lodge stated expenses were also favorable in comparison to the FY 2019 plan, driven by lower operations and maintenance and interest costs. Director Lodge noted that the reliability of TVA's power supply remains high, and that TVA's economic development team, working with many partners, helped to create and maintain 66,000 jobs and attracted investment of over \$8.9 billion in the region.

Director Lodge stated that a portion of every TVA employee's pay is at risk, and this pay is only earned when performance for any year meets goals established at the outset of each year. This program is known as the Winning Performance Team Incentive Plan. Director Lodge then noted that the Board has the authority to reduce this at-risk pay if any performance gaps are identified. After assessing TVA's performance and discussing it with Mr. Lyash, the Committee did not find any qualitative factors warranting a reduction in quantitative scores, and as a result Director Lodge stated the Committee recommended paying employees the full amount of their at-risk pay, reflecting a corporate multiplier of 1.

For TVA's long-term and sustainable success, there is also a set of incentives that apply to executives and officers using metrics measuring key performance over a three-year horizon to reflect long term results. This program is known as the Executive Annual Incentive Plan, and is also at-risk compensation. Director Lodge reported that TVA has delivered strong results as measured by the long term incentive metrics, and she stated the Committee recommended an incentive pay-out of 116% under the Executive Annual Incentive Plan.

At this point Director Lodge introduced, recommended approval of, and moved for votes on Minute Items 19-04-8, 19-04-9, and 19-04-10. Following those votes, Director Lodge reported that the Committee, working with the Board Chair and the Committee's independent compensation consultant, reviewed the performance of TVA's Chief Executive Officer (CEO) and set his compensation structure for FY 2020. Director Lodge stated that information on peer company practices and market trends was received from the independent compensation consultant, and in setting the compensation structure the Committee focused not only on performance, but also on the complexity of leading a large utility and the fact that TVA's business is public service. After consideration of all of the above, the Committee recommended an increase in the CEO's total direct compensation of 15.38%, positioning the CEO's compensation below the 25th percentile of market peers. At this point Director Lodge recommended approval of and moved for a vote on Minute Item 19-04-11. Following the vote on Minute Item 19-04-11, Director Lodge noted that the CEO's FY 2020 compensation is also below the median industry target of TVA's own compensation plan. Director Lodge explained that the pay of TVA's CEO is below that of most other CEO's in the industry because TVA is a public power entity.

Director Lodge reported that TVA is required by law to file its annual 10-K report with the Securities and Exchange Commission (SEC), and that actions approved by the Board during the meeting will be reflected in TVA's 2019 10-K annual report. Most will be covered under the section entitled "Compensation Discussion and Analysis," and Director Lodge, on behalf of the Committee, recommended that the Compensation Discussion and Analysis be included in the 10-K report. In addition to items previously discussed, Director Lodge reported that the Committee reviewed its FY 2019 activities and its planning calendar for FY 2020, and TVA's corporate Secretary concluded that the Committee satisfied its obligations in FY 2019 and is expected to do so in FY 2020. Director Lodge noted that the Board of Directors also conducted an annual self-assessment in executive session. Director Lodge then thanked the Committee's compensation consultant, Frederic W. Cook & Company, for its independent perspectives and peer analyses.

Following the conclusion of the Committee's report, Director Howorth, noting a comment during the listening session on the day before the meeting disparaging high pay for employees of TVA, asked that Chair Thompson, Director Lodge, or Mr. Lyash elaborate on TVA's compensation philosophy and practice. Director Lodge responded, stating that TVA looks at the market, then tries to ensure that pay on offer is competitive because TVA wants the best talent it can get; however, Director Lodge noted the Board also wants prospects to understand that TVA is a public entity and the public power compensation model is part of the package. At this point Director Howorth stated that TVA is also subject to losing its talent to other employers if pay is not somewhere in the ballpark for the industry, and here Director Lodge noted that such losses would risk foregoing the good financial results TVA has been achieving as well as system reliability.

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19-04-8. Winning Performance Team Incentive Plan and Executive Annual Incentive Plan and Corporate Multiplier Approval for Fiscal Year 2019

The Board adopted the following resolution as recommended in a memorandum from the President and Chief Executive Officer dated October 29, 2019, and filed with the records of the Board as Exhibit 11/14/19E:

WHEREAS in a memorandum dated October 29, 2019, a copy of which is filed with the records of the Board as Exhibit 11/14/19E (Memorandum), the Chief Executive Officer (CEO) recommended approval of TVA's Winning Performance Team Incentive Plan (WPTIP) and Executive Annual Incentive Plan (EAIP) Corporate Multiplier for FY 2019 as set out in that Memorandum and its attachment; and

WHEREAS on August 22, 2018, the TVA Board approved the WPTIP and EAIP Corporate Multiplier measures and goals for FY 2019; and

WHEREAS the People and Performance Committee has reviewed the proposed WPTIP and EAIP Corporate Multiplier for FY 2019, as described above, and recommends its approval;

BE IT RESOLVED, That the Board approves the WPTIP and EAIP Corporate Multiplier as set out in the Memorandum and its attachments effective for FY 2019.

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19-04-9. Long-Term Incentive Plan Payout Approval for Cycle Ending in Fiscal Year 2019

The Board adopted the following resolution as recommended in a memorandum from the President and Chief Executive Officer dated October 29, 2019, and filed with the records of the Board as Exhibit 11/14/19F:

WHEREAS in a memorandum dated October 29, 2019, a copy of which is filed with the records of the Board as Exhibit 11/14/19F (Memorandum), the Chief Executive Officer (CEO)

recommended approval of the Long-Term Incentive Plan (LTIP) payout percentage for the cycle ending in FY 2019; and

WHEREAS on August 22, 2016, the TVA Board approved the LTIP measures and goals for the cycle ending in FY 2019, and on August 22, 2018, the TVA Board approved the replacement of the Wholesale Rate Excluding Fuel measure and related goals with the Non-Fuel Delivered Cost of Power measure and related goals; and

WHEREAS the People and Performance Committee has reviewed the LTIP payout percentage for the cycle ending in FY 2019 and recommends its approval at the percentage set forth in the Memorandum and its attachment;

BE IT RESOLVED, That, with regard to the LTIP performance cycle ending in FY 2019, the Board approves the LTIP payout percentage as set out in the Memorandum and its attachment.

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19-04-10. Fiscal Year 2020 Salaries in Excess of Executive Schedule Level IV

The Board adopted the following resolution as recommended in a memorandum from the Senior Vice President and Chief Human Resources and Communications Officer dated October 8, 2019, and filed with the records of the Board as Exhibit 11/14/19G:

WHEREAS the People and Performance Committee has reviewed and made information available to other Board members regarding the employees with salaries in excess of Executive Schedule Level IV other than the Chief Executive Officer and the Deputy Inspector General Performing the Duties of the Inspector General; and

WHEREAS the Board previously delegated to the Chief Executive Officer the authority to approve lists of TVA employees whose salaries would exceed Executive Schedule Level IV for Fiscal Years 2008 through 2019; and

WHEREAS the Board does not desire to alter the previously approved guidance as part of any delegation related to Executive Schedule Level IV for Fiscal Year 2020;

BE IT RESOLVED, That the Board hereby delegates to the Chief Executive Officer the authority to approve a list of TVA employees whose salaries will exceed Executive Schedule Level IV for Fiscal Year 2020 other than the Chief Executive Officer and the Deputy Inspector General Performing the Duties of the Inspector General.

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19-04-11. CEO Fiscal Year 2020 Compensation

The Board adopted the following resolution as recommended in a memorandum from the Chair, People and Performance Committee, dated November 13, 2019, and filed with the records of the Board as Exhibit 11/14/19H:

WHEREAS in accordance with the TVA Act, as amended, and the TVA Compensation Plan, as approved by the Board, the People and Performance Committee (“Committee”) has considered and recommends proposed compensation adjustments for TVA’s Chief Executive Officer (“CEO”) beginning in Fiscal Year 2020 consisting of an increase in base salary and a performance grant (“LTP”) and a retention grant (“LTR”) under TVA’s Long-Term Incentive Plan (“LTIP”), as set forth in the November 13, 2019, memorandum from Virginia T. Lodge to the Board, a copy of which is filed with the records of the Board as Exhibit 11/14/19H; and

WHEREAS FW Cook, the Committee’s independent executive compensation consultant, has reviewed and concurred in this recommendation;

BE IT RESOLVED, That the Board hereby approves adjustments to the CEO’s compensation beginning in Fiscal Year 2020 consisting of an increase in base salary and a performance grant (“LTP”) and a retention grant (“LTR”) under TVA’s Long-Term Incentive Plan (“LTIP”), as set out in Exhibit 11/14/19H. Previously approved components of total compensation will remain unchanged.

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19-04-12. Report of the Audit, Risk, and Regulation Committee

Director Ryder, Chair of the Committee, reported the Committee met on October 24 for its regular quarterly meeting, then again on November 12 via teleconference to review TVA’s annual 10-K report to the SEC. During its October 24 meeting, management provided updates on regulatory assurance activities and reviewed benchmarking information on TVA’s ethics and compliance program. Director Ryder stated the Committee applauds TVA’s efforts in benchmarking and continuous improvement that go beyond simple compliance with

requirements imposed on government agencies. Director Ryder reported that Directors also conducted an annual review of the Board approved conflict of interest policy, which applies to the Board, the CEO, and to TVA employees.

Director Ryder reported that during its November 12 meeting staff briefed the Committee on TVA's 2019 annual 10-K report, and TVA's external auditors Ernst & Young (EY) provided an independent assessment of TVA's financial reporting process. After review, the Committee recommended the inclusion of financial statements in TVA's 10-K report, and Director Ryder stated that the 10-K report will be filed following close of business later in the day. Director Ryder stated the Committee also met in executive session with the Deputy Inspector General and her staff, as well as TVA's external auditor, and that the Committee appreciates the independent views of both groups and their support of the Committee's oversight responsibilities. Director Ryder reported that several written documents were provided to the Committee, including updates on: enterprise risk; cybersecurity; operational assurance; corporate insurance; Board and CEO expenditures; and the meeting minutes of TVA's Disclosure Control Committee.

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19-04-13. Report of the Nuclear Oversight Committee

Director Smith, Chair of the Committee, reported that the Committee met on October 3 at Browns Ferry Nuclear Plant. Management updated the Committee on fleet performance and recent activities including outage events, lessons learned, and measures undertaken to anticipate issues and prevent unscheduled outages. Director Smith stated the Committee believes plant management understands the challenges they are facing and the Committee will continue to

monitor progress. Director Smith reported the Committee continued its discussions on unit capability factor (UCF), a measure indicating the percentage of time a nuclear plant is up and running. He stated the Committee would like to see improvement in this metric, and management has performed an analysis of events that have had a negative impact on it. Director Smith stated that management is focused on equipment issues and human performance, two major drivers of UCF, and it recognizes that oftentimes equipment issues also have a human performance component behind them. Director Smith reported the Committee also spent a good amount of time dealing with culture, leadership, and the importance of first line supervisor effectiveness.

Director Smith stated that one of the benefits of meeting at nuclear plant sites is that doing so gives the Committee the opportunity to interact with staff and see different aspects of each plant. The Committee toured the FLEX Building at Browns Ferry Nuclear Plant, more appropriately named the Diverse and Flexible Mitigation Capability Building. Director Smith stated this facility came into being after the incident in Fukushima, Japan, wherein a tsunami swamped a nuclear plant, and is designed to prevent any similar incident from affecting the TVA system. It is a hardened facility with back-up equipment to provide emergency power and cooling regardless of hazard.

Director Smith reported that Bill Dean, the Chair of the Nuclear Safety Review Board (NSRB), discussed the NSRB's reviews and activities over recent months with the Committee. Director Smith reported the Committee received updates on TVA's Clinch River site and viable small modular reactor technologies. The Committee also received a brief report on TVA's Employee Concerns Program and the top risks being managed and monitored by TVA's nuclear

management team. Director Smith stated the Committee expects regular reports on these issues at future Committee meetings.

Director Smith stated the Committee conducted its annual review of its charter and its planning calendar to ensure it is dealing with everything it should. The Committee also conducted a self-assessment of the various activities it undertakes, and had a brief executive session wherein they primarily discussed leadership changes being implemented by the nuclear team.

Director Smith next asked if the other members of the Committee present had additional input. Director Kilbride responded with a brief discussion about a presentation to the Committee at Browns Ferry that touched heavily on culture, after which he requested and received extended comments from Mr. Lyash regarding his perception of the current state of TVA's enterprise-wide cultural initiatives.

Following Mr. Lyash's response to Director Kilbride's question, Director Smith made note of the fact that the Nuclear Regulatory Commission (NRC) has taken an interest in the topic of employee concerns, and that both TVA's Office of Inspector General and its management have performed reviews related to TVA's Employee Concerns Program. Director Smith then requested and received extended comments from Mr. Lyash regarding his perspective on TVA's Employee Concerns Program.

In response to Director Smith's invitation for comments, Director Allen stated he is very encouraged by his observations during the Committee's nuclear plant visits during 2019 when

comparing them to his observations during the prior year, and he agreed with Mr. Lyash's observation that individual human performance is key. He stated that he saw a new level of excitement and participation among employees at each site visited in 2019.

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19-04-14. Report of the External Relations Committee

Director Howorth, Chair of the Committee, reported the Committee met on October 25. During the meeting the Committee received an update on TVA's ongoing transparency review, and Director Howorth reported that a TVA team has completed an internal evaluation, helping to increase TVA's public engagement and the clarity of information shared on TVA's internet site. Director Howorth stated management has discussed next steps that will include external benchmarking and further actions to enhance transparency in coming months, and he added that TVA leadership puts considerable effort into customer and community outreach, including listening to and addressing concerns of the public, regulators, elected officials, and other key stakeholders. One example is TVA's direct-served customer survey conducted through J.D. Power & Associates. Director Howorth stated the Committee received a briefing on the results of the survey, is pleased those results indicate that direct-served customers are satisfied overall with TVA's service, and is also pleased that the results indicate TVA is one of the top performers among utilities in the United States.

Director Howorth reported that management updated the Committee on its efforts to manage coal combustion residuals (CCR), and was informed of TVA's strategy going forward for its CCR sites. The Committee also received a status update on the long-term partnership

option offered to TVA's local power company partners following approval of the option at the last Board meeting, and Director Howorth stated it is encouraging that so many local power companies have chosen to sign the new long-term agreements. Director Howorth opined that, by working together with TVA's long-term partners, the public power model will continue to benefit all end-users, deliver value for the region, keep power costs low, and support economic development. He stated that, in addition, TVA's long-term partnership with local power companies positions TVA well to continue managing the natural resources it is entrusted with in a responsible manner, make steady progress on environmental issues, and lead the utility industry in carbon footprint reduction and overall environmental stewardship.

Director Howorth stated the Committee reviewed TVA's environmental policy, as it typically does every other year, and reported that management intends to update this policy and bring change recommendations to the Board in future meetings. Director Howorth noted that TVA is already among the top 100 "greenest" utilities in the world according to a report by Energy Intelligence, an independent provider of energy data and analysis, based on its carbon emissions and renewable energy. Director Howorth stated TVA's environmental policy should reflect a continuous focus on the importance of environmental stewardship to the TVA mission.

Director Howorth reported the Committee also received a written report on the activities and advice of TVA's federal advisory committees and the results of TVA's Voice of the Customer survey. He then thanked those who participated and shared comments, and stated the feedback received will help TVA recognize those things it needs to continue doing and opportunities for improvement.

Following the conclusion of the Committee’s report, Chair Thompson invited questions and comments. In response, Director Ryder referenced Director Howorth’s earlier comments on TVA’s strategy going forward regarding CCR sites, then requested and received extended comments from Mr. Lyash on the community participation aspect of that strategy. Following the completion of Mr. Lyash’s comments, Director Howorth discussed the “Get Involved, Stay Involved” page on TVA’s internet site, and he encouraged members of the public listening to the meeting to go to that web page. Following this, Director Kilbride stated that he attended the TVA retiree luncheon during the month prior to the meeting, and he indicated he was surprised at the number of attendees who volunteer in their communities. He stated those volunteer efforts largely focus on public schools, STEM technologies, and robotics, but also involve other organizations, and by performing this work TVA’s retirees bring TVA culture back to their communities.

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At this point, Chair Thompson announced that the Board needed to make adjustments to the Board Committee roster because of the impending expiration of the terms of Directors Lodge and Walter. Chair Thompson then presented a revised Board Committee roster, recommending and moving for the new roster to be approved and become effective January 3, 2020.

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19-04-15. Board Committee Appointments

The Board adopted the following resolution:

WHEREAS Section 2(g)(1) of the TVA Act requires that the Board create and maintain an “audit committee” and directs the Board to create such other committees of Board members as the Board considers to be appropriate; and

WHEREAS Section 2.1 of the Bylaws further provides that appointees for the membership of committees shall be submitted by the Chair of the Board to the Board for its approval as a single slate of appointees; and

WHEREAS the Chair hereby recommends the following slate of committee members:

Audit, Risk, and Regulation Committee

John Ryder, Chair
Kenny Allen
Skip Thompson

Nuclear Oversight Committee

Jeff Smith, Chair
Kenny Allen
A.D. Frazier
Bill Kilbride

External Relations Committee

Richard Howorth, Chair
A.D. Frazier
John Ryder
Jeff Smith

People and Performance Committee

Kenny Allen, Chair
Bill Kilbride
Skip Thompson

Finance, Rates, and Portfolio Committee

A.D. Frazier, Chair
Richard Howorth
Bill Kilbride

BE IT RESOLVED, That the Board of Directors hereby approves the slate of committee members as recommended by the Chair, with said assignments to become effective January 3, 2020, and continue in place as provided in the Bylaws or until modified by further action of the Board.

* * *

At this point Chair Thompson recognized and thanked Directors Lodge and Director Walter, whose terms will expire simultaneously with the expiration of the current Congressional term, for their contributions. Further comments and thanks were offered by Directors Allen,

Ryder, and Howorth, after which both Director Lodge and Director Walter offered their own parting comments.

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The meeting was adjourned at 11:26 p.m. (CST).