CONFIDENTIAL 8 FEBRUARY 2021

LAZARD REPORT TO THE TENNESSEE VALLEY AUTHORITY



CONFIDENTIAL STRATEGIC REVIEW

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Abstract

In late 2013 to early 2014, Lazard conducted a strategic review of the Tennessee Valley Authority ("TVA") with respect to TVA's financial situation, strategic alternatives (including a full or partial divestiture of TVA), and the potential impact of those alternatives on the Federal Government and the citizens of TVA's service area (the "2014 Strategic Assessment"). After analyzing TVA's business and financial condition and evaluating various alternatives for TVA, Lazard recommended that TVA not be divested due to factors which included those below (among others).

Summary of 2014 Strategic Assessment Findings

- TVA's strong financial position, ability to self-fund its construction program and anticipated improvements in cost structure, environmental
 profile and asset mix, and other benefits as a result of long-term initiatives, suggested no impetus for the Federal Government to change
 course with respect to TVA
- TVA's financing did not appear to be a true draw on the government's balance sheet, as TVA was not receiving (and was not forecasted to receive) appropriations, and its debt is not guaranteed by the Federal Government; in addition, TVA was not expected to exceed its \$30 billion statutory debt limit by 2023, and deleveraging contemplated by TVA's financial forecast would appear to help the federal budget
- The high level of implementation complexity associated with a potential TVA divestiture would likely lead to a costly, multi-year process to execute any such strategy, during which time TVA would experience organizational disruption and which would result in an uncertain outcome
- The complex network of TVA stakeholders would further make it difficult to divest TVA in a manner that would create value for all parties
- The Federal Government appeared likely to realize minimal, if any, value from a divestiture without a significant value transfer from ratepayers in the form of higher rates, even prior to taking into account various other costs which could significantly detract from value realized
- TVA's non-power mission and activities seemingly would not logically fit within a divested TVA structure—any reductions in the scope of the non-power mission and activities could potentially have a negative impact on the region

Lazard was subsequently engaged in November 2020 by TVA to assist in an updated strategic review, for which the scope of analysis was set out as follows:

"Contractor agrees to assist the TVA to (1) evaluate TVA's financial performance from 2014, when Contractor conducted a strategic review of TVA, through fiscal year 2020 (or later as agreed upon by the parties); and (2) reassess whether the public power model and TVA's existing business structure is a reasonable approach to support TVA's missions as defined in the TVA Act. With respect to TVA's performance, Contractor will specifically review and evaluate TVA's performance in meeting its long-term financial plan, enhancing governance and increasing the transparency of TVA's decision-making on important agency actions."

Abstract (cont'd)

The enclosed report is based on analysis conducted in consultation with TVA personnel and is based on written and oral inputs from TVA. The report was written with an assumption of an accompanying oral presentation, explanation and discussion, and should be considered in this context.

Based on information received, analyses performed and considering the criteria provided, Lazard has concluded that (i) TVA's financial performance from 2014 through fiscal year 2020 has been notably strong when measured against TVA's financial performance objectives as set forth in its FY14 Board Approved Long Range Financial Plan (the "FY14 Plan") and other benchmarks (e.g., the performance of other large utility companies); and (ii) the public power model and TVA's existing business structure is a reasonable approach to support TVA's mission. Key observations supporting these conclusions include the following:

- TVA has met or exceeded the key financial and operating objectives established in the FY14 Plan. Importantly, TVA has decreased wholesale rates over the period—TVA has also outperformed its customer rate forecasts resulting in more affordable rates than expected (i.e., customers pay a lower rate for electricity than TVA projected). By managing costs, TVA has achieved its 2023 strategic financial obligations goal of reducing debt to \$21.8 billion three years ahead of schedule
- TVA's professional management team has pursued a variety of initiatives, including ongoing cost reductions, enhanced long-term partnership
 agreements with the vast majority of its local power companies ("LPCs"), renewable energy solutions and innovation plans to advance its
 energy, environmental and economic development missions; TVA has also made significant progress in mitigating past areas of weakness
 such as coal ash safety
- TVA generally compares well against peer (i.e., large customer base) investor-owned utilities. In 2019, retail rates in TVA's service area were in the second-best quartile both nationally and among regional peers; additionally, TVA expects FY21 retail rates to decline further as a result of the \$200 million pandemic relief credit and long-term partnership credits and has seen progress in line with this expectation over the first two months of FY21. TVA continues to lag its peers in production non-fuel operations and maintenance ("O&M") and non-production non-fuel selling, general and administrative ("SG&A") expenses (absolute dollar basis), but it should be noted that TVA has significantly reduced its non-fuel O&M expense since 2014, with TVA's cost reductions exceeding those of many of its peers (who do not have the same non-power mission-related obligation as TVA has) on a relative basis
- TVA has been able to carry out its broader mission with respect to energy, environment and economic development under the public power model, including as measured by TVA's performance vs. its forecast set forth in the FY14 Plan. TVA's rate-setting authority and statutory protections that balance service area restrictions are key features of the model. TVA's structural advantages (e.g., tax-advantaged debt, lack of a required equity return, etc.) allow TVA to charge lower rates than it would as an investor-owned utility. Additionally, TVA is positioned to serve and protect the communities and natural resources of the Tennessee Valley in ways that private enterprises may not be equipped or incentivized to do (e.g., TVA's expansive economic stewardship activities, flood protection programs and recreational initiatives). TVA's performance in recent years and current positioning suggest that the public power model is a reasonable approach to support TVA's mission. In this regard, Lazard believes that its previous conclusions in the 2014 Strategic Assessment with respect to the benefits and considerations of alternative business models vs. the public power model are still valid today

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I Introduction

STRATEGIC REVIEW I INTRODUCTION

Lazard's Scope of Work and Framework for This Report

Lazard has focused on selected areas of evaluation to address the scope of work request, which include evaluating TVA's performance and reassessing whether the public power model and TVA's existing business structure is a reasonable approach to support TVA's mission

TVA Act Statutory Authority

"To improve the navigability and to provide for the flood control of the Tennessee River; to provide for reforestation and the proper use of marginal lands in the Tennessee Valley; to provide for the agricultural and industrial development of said valley; to provide for the national defense by the creation of a corporation for the operation of Government properties at and near Muscle Shoals in the State of Alabama and for other purposes"

Lazard's Scope of Work

"Contractor agrees to assist the TVA to:

- Evaluate TVA's financial performance from 2014, when Contractor conducted a strategic review of TVA, through fiscal year 2020 (or later as agreed upon by the parties)
- Reassess whether the public power model and TVA's existing business structure is a reasonable approach to support TVA's missions as defined in the TVA Act
- With respect to TVA's performance, Contractor will specifically review and evaluate TVA's performance:
 - In meeting its long-term financial plan
 - Enhancing governance
 - Increasing the transparency of TVA's decision-making on important agency actions"

Lazard's Areas of Evaluation

- Has TVA, now led by a full-time CEO as a result of the 2005 Amendment, succeeded in meeting the objectives set forth in TVA's FY14 Plan?
- Under TVA's existing model/business structure, has TVA's professional management team pursued initiatives aligned with TVA's broader mission?

Generate safe, clean, reliable and affordable power for the region's homes and businesses, working with LPCs to keep service steady and dependable

Environment

Manage the Tennessee River system to provide multiple benefits to the people of the region, including flood control, clean power production, navigation, enhanced water quality and recreation

Attract new businesses to the Tennessee Valley, engage with communities and existing companies to grow the region's economy, and serve the region by partnering with state, regional and local economic development organizations to amplify iobs growth and capital investment

As TVA has increasingly adopted policies of a private sector corporation, how does it stack up against peer investor-owned utilities as measured by TVA's own strategic imperatives?

Rates

Maintain low rates and align O&M spending with revenues

Asset Portfolio

- Pursue operational excellence
 - Balance the portfolio to provide cleaner. efficient and affordable energy

Stewardship

- Protect and improve the natural resources and the use and enjoyment of public lands Stimulate
- economic development and investment in the Valley

Debt

ensure long-term

financial health

Effectively

- Work safely and effectively manage debt to
 - · Focus on values. competencies and behaviors

People

What is TVA's current public positioning and is the public power model and TVA's existing business structure a reasonable approach to support TVA's mission?

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Scope of Work Responsiveness

Notwithstanding the structure of this report, which has been organized and grouped by topic in the manner indicated in the table of contents and framework on the previous pages, we have responded to each specific topic that has been requested in our scope of work as follows

	Specific Scope of Work Topic	Section(s)	Pages
1	Evaluate TVA's financial performance from 2014 through fiscal year 2020, when Lazard last conducted a strategic review of TVA	• 11	• 7 – 14
2	Reassess whether the public power model and TVA's existing business structure is a reasonable approach to support TVA's mission as defined in the TVA Act	• III; IV; V	• 15 – 64
3	With respect to TVA's performance, Lazard will specifically review and evaluate TVA's performance in the following respects:		
	In meeting its long-term financial plan	• 11; 111	• 5 – 29
E	B Enhancing governance		
	Increasing transparency of TVA's decision making on important agency actions ⁽¹⁾		

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II Review of TVA's Historical Performance

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A The Professionalization of TVA over Time

The "Professionalization" of TVA over Time

In many respects, TVA has become more aligned over time with President Roosevelt's vision of a government corporation "possessed of the flexibility and initiative of a private enterprise"—TVA has increasingly adopted policies of private sector corporations and reduced its reliance on the Federal Government. Today, TVA funds all its operations primarily from the sale of electricity and power system financings

This "professionalization" of TVA has been a driving force behind TVA's strong performance over the last 10 – 15 years

TVA fulfilled its requirement TVA introduced the "I, therefore, suggest to the Congress legislation to create a under the 1959 amendment to Financial Guiding Tennessee Valley Authority, a corporation clothed with the Principles(1) to the TVA Act to repay \$1.0 billion of the Federal Government's power of Government but possessed of the flexibility and improve financial original ~\$1.4 billion Power discipline and initiative of a private enterprise. It should be charged with the alignment within Program Appropriation broadest duty of planning for the proper use, conservation and Investment TVA development of the natural resources of the Tennessee River drainage basin and its adjoining territory for the general social and The Energy and Water economic welfare of the Nation." Development Act of 1998 ended PRESIDENT FRANKLIN D. ROOSEVELT, MESSAGE TO CONGRESS SUGGESTING THE federal appropriations to TVA TENNESSEE VALLEY AUTHORITY, 10 APRIL 1933 including for certain multipurpose and other non-power, mission-1959 related activities as well as for its Congress passed an amendment to the stewardship activities(2) 1933 TVA Act that required TVA's power President Roosevelt signed program to be self-financing from power the Tennessee Valley revenues and proceeds from its power Authority Act on May 18, program 1933, creating TVA Congress eliminated the backing of TVA as a federal corporation debt by the full faith and credit of the **United States** Under the Consolidation Appropriations Act of 2005 (the "2005 Amendment"), TVA increasingly adopts policies of private sector corporations, such 1979 as management by a Chief Executive Officer and an Congress modified President Reagan appointed Marvin Runyon, former Nissan U.S.A. TVA's debt ceiling to expanded Board structure and a \$30 billion(3) requirement to make SEC filings executive, as Chairman of the Board. The 2005 Amendment also Mr. Runyon was instrumental in transitioning TVA from a regional, effectively subjects TVA to the David Lilienthal acted as the chief negotiator for TVA in the Sarbanes-Oxley Act by virtue of government model to a more purchase of Tennessee Electric Power facilities from competitive, efficiently-run corporation the filing requirement Commonwealth and Southern for \$78.6 million. Lilienthal commented that the TVA was now "an established institution, a going concern" Discussed in greater detail on the following page Source: TVA disclosures and public information. LAZARD 5 The Financial Guiding Principles were later approved and memorialized by the TVA Board in 2010.

- TVA is still required to perform the mission-related non-power activities even with federal appropriations ending.
- TVA's debt limit is set by the Congress and was established at \$750 million in 1959. Since then, TVA's debt limit has been increased four times by Congress: to \$1.75 billion in 1966, \$5 billion in 1970, \$15 billion in 1975 and \$30 billion in 1979.

The "Professionalization" of TVA over Time (cont'd)

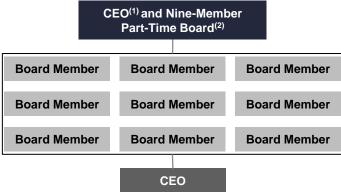
The 2005 Amendment further aligned TVA with investor-owned corporations of similar size and scope by reorganizing TVA's organizational structure and increasing TVA's accountability and transparency

Overview of Changes to TVA's Organizational Structure

Pre 2005 Amendment Organizational Structure



Post 2005 Amendment Organizational Structure



Overview of Other 2005 Amendment Impacts

- Increased Stakeholder Transparency
 - As mandated by the 2005 Amendment, TVA publishes regulatory filings, including annual and quarterly SEC reports
 - In recent years, TVA has successfully increased stakeholder transparency in some cases beyond its mandatory disclosures. Examples of stakeholder engagement include:
 - 1 Publishing a Sustainability Report, Integrated Resource Plan ("IRP") and Natural Resources Report ("NRP")
 - Holding open houses (e.g., to share information about coal ash handling and storage)
 - 3 Creating Community Action Groups for interested citizens to act as liaisons between the public and the utility
 - 4 Attending industry working groups, webcasts and other events (e.g., co-hosted Utility Marketplace Forum)
 - 5 Renewing charters of TVA's public advisory councils (i.e., Regional Resource Stewardship Council and Regional Energy Resource Council)
 - 6 Maintaining TVA's website, traditional and social media, and special online applications

- B Competitive Employee Compensation
 - Today's compensation structure is designed to help TVA attract, retain and motivate the skilled employees necessary to manage TVA's complex operations and achieve superior performance
 - As updated by the 2005 Amendment, TVA's Board determines CEO and employee compensation as follows:
 - CEO and Employee Compensation
 - The Board approves a compensation plan that specifies all compensation (including salary or any other pay, bonuses, benefits, incentives and any other form of remuneration)
 - 2 Target Compensation Levels
 - TVA determines appropriate target compensation levels and incentive opportunities to maintain the desired degree of market competitiveness
 - TVA's Board's compensation consultant⁽³⁾ recommends a peer group for TVA to benchmark against
 - The compensation plan is based on an annual survey of the prevailing compensation for peers, including engineering and electric utility companies, publicly owned electric utilities and federal, state and local governments
 - Overall, although TVA does not provide equity awards to its employees, TVA has a modern and customary compensation structure, which includes a redesigned qualified defined contribution plan (i.e., a 401(k) plan)

Source: Consolidated Appropriations Act of 2005, TVA filings and public information.

- _AZARD (1) The CEO must have senior executive-level management experience in large, complex organizations and must not be a current member of the Board or have served as a member of the Board within two years before being appointed CEO.
 - (2) Directors are appointed by the President of the United States with the advice and consent of the Senate and serve five-year terms. At least seven directors must be legal residents of the service area of TVA.
 - (3) TVA's Board engages an independent compensation consultant to annually review the competitiveness of TVA's compensation structure.

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B Review of TVA's Historical Performance vs. FY14 Plan

Selected TVA Developments Post 2014

2014

- January 2014: In consultation with TVA, Lazard conducted a strategic assessment of TVA and its business model, ultimately recommending that TVA not be divested
 - TVA approved and began implementing the FY14 Plan
- July 2014: TVA adopted a 401(k) plan for new hire employees; employees hired prior to July 1, 2014 would continue to be covered by TVA's traditional pension plan
- August 2014: Moody's affirmed TVA's Aaa/Stable rating

2015

 August 2015: TVA Board approved a demand-and-energy pricing system that sets prices based both on how much power is consumed and when it is consumed

2016

- January 2016: TVA and Google announced a partnership to build a renewable-powered data center in Tennessee May 2016: TVA Board accepted amendments to TVA's pension plan provisions; TVA agreed to contribute at least \$300 million a
- year into the pension plan to reduce TVA's pension funding shortfall November 2016: TVA and NextEra commissioned Alabama's largest solar energy project, the River Bend Solar Energy Center

2017

- February 2017: Richard Howorth elected as Chair-Elect of the TVA Board
- June 2017: After the U.S. removed itself from the Paris Climate Agreement and the Clean Power Rule was repealed, TVA reiterated its intention to maintain its clean energy goals and invest in a low-carbon future
- August 2017: TVA Board voted to make an extra one-time contribution to the employees' pension fund of \$500 million
- December 2017: U.S. Senate approved four TVA Board member nominations

2018

 2018: TVA founded the Green Invest Program, which is the nation's first renewable energy program that creates public-private partnerships between large customers and solar developers via a competitive bid process

2019

- February 2019: TVA announced that Jeffrey Lyash will succeed Bill Johnson as President and CEO
- February 2019: TVA Board approved the closing of two of its six remaining coal plants. Paradise Unit 3 by December 2020 and Bull Run by the end of 2023
- June 2019: TVA released an updated 20-year IRP, addressing the substantial changes in the utility industry and emphasizing solar expansion plans
- June 2019: Moody's reaffirmed TVA's Aaa/Stable rating
- August 2019: TVA Board approved plan to offer a 3.1% monthly rebate and additional power supply flexibility to any LPC that agrees to sign new 20-year contracts with TVA

- March 2020 Today: Since the onset of COVID-19, TVA has implemented various cost-saving and customer-focused initiatives, including cost savings and community support of over \$40 million to the people of Memphis, a \$200 million Pandemic Relief Credit for the coming fiscal year to help communities and businesses recover more quickly from the pandemic and up to \$1 billion in "credit support" for LPCs
- August 2020: TVA joined the Low-Carbon Resources Initiative to advance clean power and decarbonization technologies and announced that it plans to invest \$5 million over the next five years to support the initiative
- August 2020: After criticizing TVA for outsourcing technology jobs to foreign-based companies and for making its CEO the highest paid federal employee in the country, President Trump removed the Chairman of the TVA Board, Skip Thompson, and another Board member, Richard Howorth
- August 2020: TVA and the Trades and Labor Council for Annual Employees announced a 10-year extension of their Trades and Labor Agreement
- October 2020: TVA and North America's Building Trades Unions announced a 10-year extension of their Project Labor Agreements
- November 2020: The Board approved a new commercial rate structure intended to support the expansion of electric vehicle charging infrastructure across the region

TVA aligned around its revised FY14 Plan, which emphasized deleveraging, low-carbon emissions, expense management and capital allocation

TVA has continued to maintain its clean energy and decarbonization goals despite various political headwinds

TVA's 20-year IRP highlights TVA's plans to transform its current generation fleet into "a more flexible power-generation system," to provide low-cost electricity to its customers and to increase renewable and gasfired combined-cycle capacity

In response to COVID-19, TVA has initiated a variety of customer-centric relief programs and cost-saving initiatives, such as the Public Power Support and Stabilization Program, Back-to-Business Credit Program, Community Care Fund and Pandemic Relief Credit



2020

_AZARD Source: TVA filings and public information.

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In 2014, TVA implemented the FY14 Plan to improve TVA's financial position, particularly with respect to TVA's total financing obligations and fuel expenses, and to maintain reliable, affordable customer rates. TVA has met or exceeded all key metrics outlined in the FY14 Plan

• Importantly, TVA reduced its total financing obligations⁽¹⁾ by ~\$6.1 billion since fiscal year-end ("FYE") 2013, reaching a balance of ~\$21.4 billion in 2020 and achieving its 2023 strategic financial obligations goal of \$21.8 billion three years ahead of schedule

FY14 Board Approved Plan Actual Performance through FY20 Wholesale rates to increase by 1.08 ¢/kWh, reaching 7.78 ¢/kWh by ✓ Wholesale rates decreased by 0.29 ¢/kWh, reaching 6.69 ¢/kWh in **Customer Rates** Retail rates⁽²⁾ to increase by 1.52 ¢/kWh, reaching 10.33 ¢/kWh by 2020 Retail rates⁽²⁾ increased by 0.05 ¢/kWh, reaching 9.14 ¢/kWh in 2020 Total electricity sales decreased by a 0.7% CAGR, reaching ~151 TWh **Electricity Sales** • Total electricity sales to grow at a 0.5% CAGR, reaching ~158 TWh in Operating revenue decreased by a 1.4% CAGR or ~(\$900) million and Operating 2020 • Operating revenue to grow at a 2.9% CAGR or ~\$1.9 billion this decrease can be partially attributed to TVA's ~\$1.4 billion fuel cost Revenue reduction over the period Non-fuel O&M expenses to decrease by ~\$86 million or ~2.5%. ✓ Non-fuel O&M expenses decreased by ~\$620 million or ~19%, Non-Fuel O&M reaching ~\$3.4 billion in 2020 reaching ~\$2.7 billion in 2020 Non-fuel O&M expenses per MWh to decrease by \$1.16/MWh, reaching Non-fuel O&M expenses per MWh decreased by \$3.15/MWh, reaching **Expenses** \$17.98/MWh in 2020 \$21.21/MWh in 2020 • Fuel & purchased power expenses to increase by ~\$500 million or ✓ Fuel & purchased power expenses decreased by ~\$1.4 billion or ~36%, **Fuel & Purchased** ~14%, reaching ~\$4.0 billion in 2020 reaching ~\$2.5 billion in 2020 **Power Expenses** Fuel & purchased power expenses per MWh to increase by \$2.52/MWh, Fuel and purchased power expenses per MWh decreased by reaching \$25.29/MWh in 2020 \$7.90/MWh, reaching \$16.29/MWh in 2020 ✓ Statutory debt decreased by ~\$3.5 billion, reaching ~\$20.1 billion in Statutory Debt(3) • Statutory debt to decrease by ~\$2.2 billion, reaching ~\$23.7 billion in and Total TFO decreased by ~\$4.7 billion (or ~\$6.1 billion since FYE 2013), **Financing** TFO to decrease by ~\$3.2 billion, reaching ~\$25.1 billion in 2020 reaching ~\$21.4 billion in 2020 and achieving the 2023 strategic • At the beginning of fiscal year 2014, TVA's S&P and Moody's credit financial obligations goal of \$21.8 billion three years ahead of schedule **Obligations** ✓ TVA maintained its 2014 S&P and Moody's credit ratings and ratings/outlook were AA+/Stable and Aaa/Stable, respectively ("TFO") associated 'Stable' outlooks through 2020 Total net income increased by an ~19% CAGR, reaching ~\$1.4 billion **Net Income and** Total net income to reach ~\$1.0 billion in 2020 in 2020—higher net income provided TVA with additional cash for **Interest Coverage** Interest coverage ratio to increase by ~0.9x, reaching ~3.1x in 2020 deleveraging and capital expenditures Ratio⁽⁴⁾ ✓ Interest coverage ratio increased by ~1.1x, reaching ~3.8x in 2020 Capital Capital expenditures totaled ~\$15.8 billion over 2014 - 2020 • Capital expenditures to total ~\$15.2 billion over 2014 - 2020 Expenditures⁽⁵⁾ Net PP&E grew by an ~2.5% CAGR, reaching ~\$33.6 billion in 2020 Net PP&E to grow by a 0.3% CAGR, reaching ~\$31.0 billion in 2020 Rates were not adversely impacted, as highlighted above and Net PP&E(6) Source: TVA FY14 Plan. TVA disclosures and TVA filings. FY14 Plan and actual performance growth rates and nominal changes are based on the FY14 Plan 2014E forecasts and 2014 actuals, respectively. Figures may not sum due to rounding.

e: FY14 Plan and actual performance growth rates and nominal changes are based on the FY14 Plan 2014E forecasts and 2014 actuals, respectively. Figures may not sum due to roundin Total financing obligations includes statutory debt plus debt from variable interest entities, lease/leaseback obligations, energy prepayment obligations and finance lease liabilities.

Actual annual retail rates represent the fiscal year-end trailing-twelve-month effective rate. Retail rates are composed of residential, commercial and industrial rates. Retail rates in TVA's service area represent LPCs' sales to retail customers and TVA sales to direct-served industrials.

Total statutory debt includes short-term debt, long-term debt and current portion of long-term debt.

- Interest coverage ratio is calculated as (net income + net interest expense + depreciation & amortization expense)/net interest expense. Tax equivalents are included in operating expenses.

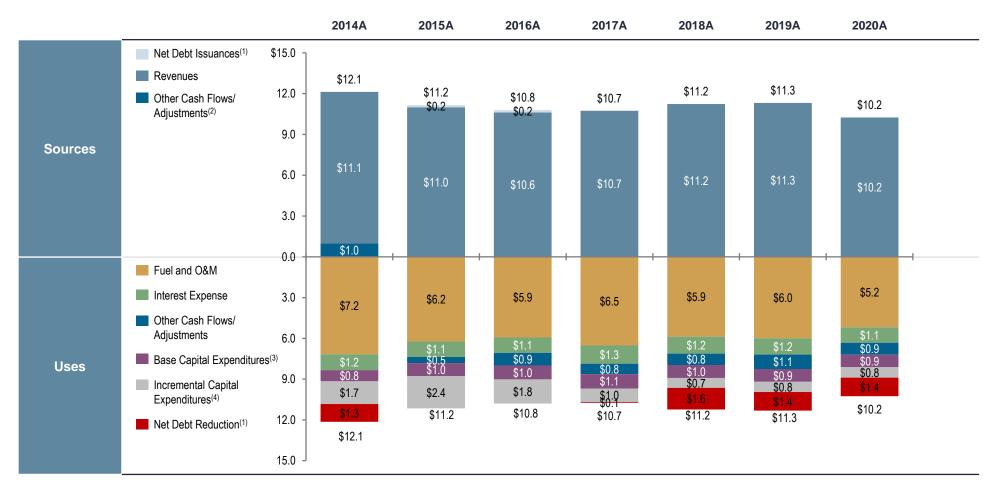
 Capital expenditures exclude nuclear fuel expenditures.
- (6) Net Property, Plant & Equipment ("PP&E") excludes nuclear fuel and finance (formerly capital) leases

A Reminder on How TVA Is Funded

(\$ in billions)

Over 2014A – 2020A, TVA has essentially been funded 100% by rate revenues it collects from its customers (i.e., TVA receives no funding from the Federal Government). These rate revenues fund TVA's operations, ranging from fuel costs to O&M to debt service (interest and principal reduction), and capital investments including non-power mission-related activities

Rates in TVA's service area have remained essentially flat over this period (retail rates modestly increased by 0.05 ¢/kWh) despite
decreasing energy sales, significant capital investments and the reduction of TVA's debt balance faster than planned



Source: TVA filings.

LAZARD (1) Net Debt Issuances/Reduction is equal to the net change in short-term debt, long-term debt and finance leases.

Includes payments in lieu of taxes, payments to the U.S. Treasury, changes in cash balance and other cash flow items. TVA's ending cash balance declined from ~\$1.6 billion to \$500 million in 2014, providing financing support for debt reduction.

Represents rate-funded capital expenditures generally used to maintain existing productive assets.

Represents capital expenditures related to capacity expansion, environmental capital, etc.

TVA Performance vs. FY14 Plan—Operating Metrics

(\$ in billions unless otherwise noted)

Over 2014 – 2020, TVA decreased wholesale rates, and retail rates in TVA's service area remained relatively flat, outperforming TVA's FY14 Plan targets for wholesale and retail rates by 1.09 ¢/kWh and 1.19 ¢/kWh, respectively; TVA's electricity sales and operating revenue, which were expected to increase under the FY14 Plan, decreased over the period



Source: TVA FY14 Plan, TVA disclosures and TVA filings.

Figures may not sum due to rounding.

Actual annual retail rates represent the fiscal year-end trailing-twelve-month effective rate.

Electricity sales decreased over the period due to factors such as: decreased sales volumes for LPCs (which are weather sensitive), federal agencies and industrial customers, milder weather in TVA's service area and COVID-19. These impacts were partially offset by factors such as: increased sales volumes for LPCs, federal agencies and industrial customers as well as colder weather

LAZARD (3)

Operating revenue decreased over the period due to factors such as: decreased fuel cost recovery revenues (due to lower fuel rates and lower energy sales) and decreased base revenue (due to 10 lower sales volume and lower effective rates). These impacts were partially offset by factors such as: increased base revenue (due to periodic base rate adjustments and higher energy sales) and increased fuel cost recovery revenue (due to higher fuel rates).

Declining revenues can be a positive or negative outcome depending on the cause. For example, declining revenues underpinned by fuel cost savings or energy efficiency is a beneficial outcome. However, declining revenues due to fewer customers adversely impacts remaining customers, who must bear a higher portion of TVA's fixed and non-power mission costs.

TVA Performance vs. FY14 Plan—Operating Metrics (cont'd)

(\$ in billions unless otherwise noted)

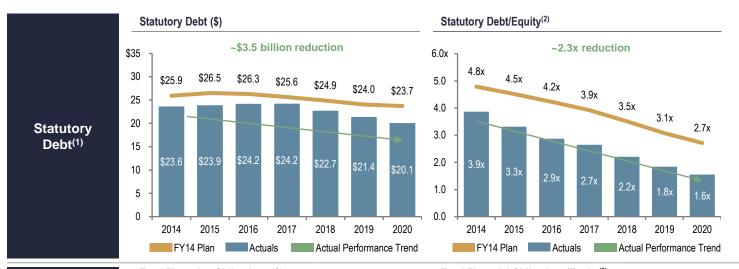
TVA outperformed both the FY14 Plan non-fuel O&M and fuel & purchased power expense forecasts, reducing both expenses over 2014 – 2020



TVA Performance vs. FY14 Plan—Financial Metrics

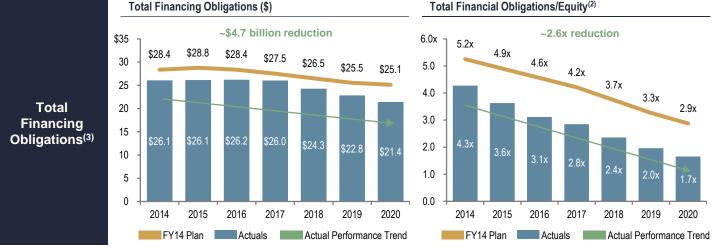
(\$ in billions unless otherwise noted)

Notwithstanding relatively flat retail rates and decreased wholesale rates, TVA outperformed the FY14 Plan total financing obligations and statutory debt reduction goals, achieving the \$21.8 billion total financing obligations goal three years ahead of schedule (reached \$21.4 billion in 2020); TVA also maintained its strong S&P and Moody's credit ratings over the period



Selected Observations

- TVA has reduced its total debt by ~\$3.5 billion, from ~\$23.6 billion in 2014 to ~\$20.1 billion in 2020
- TVA significantly reduced its statutory debt to equity ratio from 2014 – 2020, beating the FY14 2020 estimates by ~1.1x



- TVA has reduced its total financial obligations by ~\$4.7 billion,⁽⁴⁾ from ~\$26.1 billion in 2014 to ~\$21.4 billion in 2020
- TVA's FY20 total financing obligations balance is ~\$3.7 billion lower than the FY14 Plan projections for FY20
- TVA achieved its \$21.8 billion total financing obligations target three years ahead of schedule

LAZARD Note:

Source: TVA FY14 Plan, TVA disclosures and TVA filings.

Figures may not sum due to rounding.

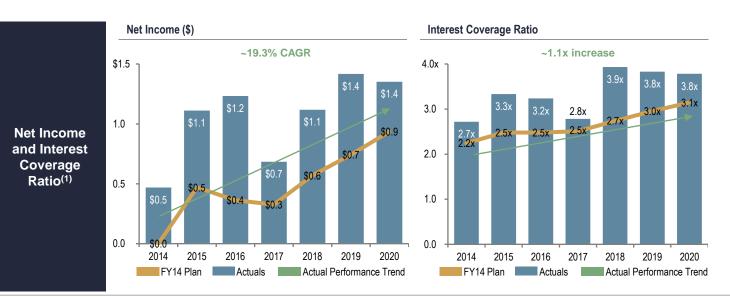
- Statutory debt includes short-term debt, long-term debt and current portion of long-term debt.
- TVA's equity represents TVA's proprietary capital.
- (3) Total financing obligations include statutory debt plus debt from variable interest entities, lease/leaseback obligations, energy prepayment obligations and finance lease liabilities.

(4) Since FYE 2013, TVA has reduced its total financing obligations by ~\$6.1 billion, from ~\$27.5 billion to ~\$21.4 billion in FYE 2020.

TVA Performance vs. FY14 Plan—Financial Metrics (cont'd)

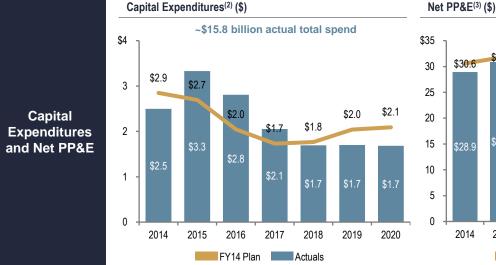
(\$ in billions unless otherwise noted)

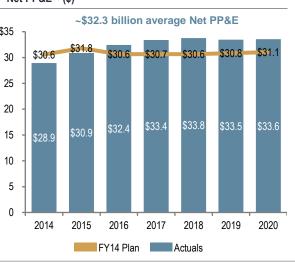
TVA outperformed net income and interest coverage ratio FY14 Plan estimates and met capital expenditures and net PP&E estimates



Selected Observations

- TVA surpassed the FY14 Plan net income forecast; 2020A net income was ~44% higher than that of the FY14 Plan
 - TVA's higher net income provided additional cash for deleveraging efforts and capital expenditures
- · TVA increased its interest coverage ratio to 3.8x in 2020, ~0.7x higher than that of the FY14 Plan





- TVA invested ~\$15.8 billion in capital expenditures from 2014 -2020, slightly above the ~\$15.2 billion FY14 Plan forecasted investment
- These investments helped to maintain the system, enhance reliability and make other improvements to TVA's infrastructure
- Despite decreasing wholesale rates and deleveraging, TVA was able to grow net PP&E at an ~2.5% CAGR over the period, which was meaningfully higher than the FY14 Plan forecast of an ~0.3% CAGR over 2014 - 2020

Source: TVA FY14 Plan, TVA disclosures and TVA filings. LAZARD

- Figures may not sum due to rounding.
- Interest coverage ratio is calculated by (net income + net interest expense + depreciation & amortization expense)/net interest expense. Tax equivalents are included in operating expenses.
- (2)Capital expenditures include AFUDC.
- Net PP&E excludes nuclear fuel and finance (formerly capital) leases. (3)

Discussion of Key Takeaways from Section II—Review of TVA's Historical Performance

1

• TVA met or exceeded all key financial and operating metrics outlined in the FY14 Plan

2



TVA decreased wholesale rates, and retail rates in TVA's service area remained relatively
flat over the period in furtherance of TVA's commitment to provide customers with
affordable power and encourage economic development in its service area. TVA expects
FY21 retail rates to decline further to ~9 ¢/kWh as a result of the \$200 million pandemic
relief credit combined with long-term partnership credits

3



 TVA reduced non-fuel O&M and fuel & purchased power expenses in excess of the forecasted reductions, facilitating TVA's efforts to provide customers with affordable power and deploy capital towards non-power and other activities

4



 TVA has steadily reduced its statutory debt and financing obligations since 2014, achieving its 2023 financing goal three years ahead of schedule; TVA has also maintained its strong S&P and Moody's credit ratings since 2014 CONFIDENTIAL STRATEGIC REVIEW



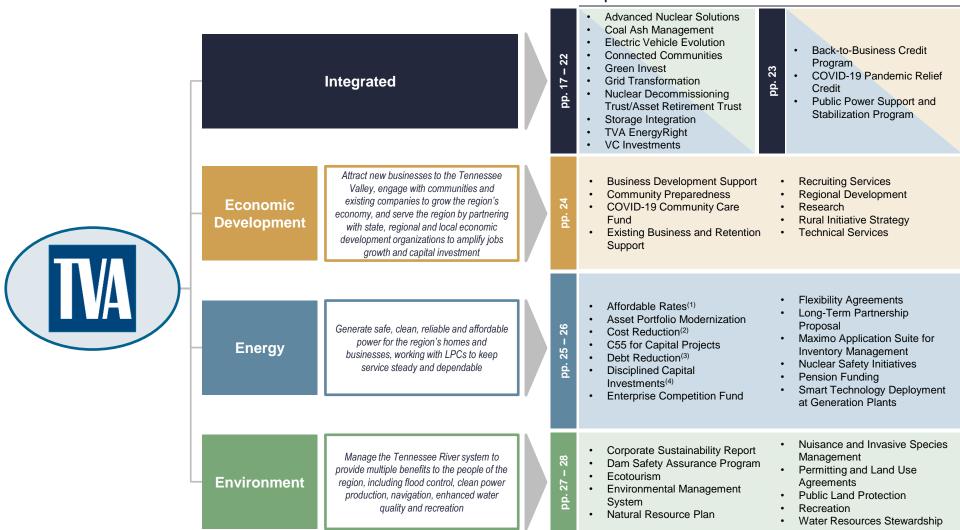
III TVA Mission-Related Initiatives under Professionalized Management

Overview of Selected TVA Management Initiatives

Management's initiatives and development plans appear to be well aligned with TVA's mission, which encompasses three major areas of focus: energy, environment and economic development. In fact, a number of initiatives are aligned with multiple mission areas

• The following pages discuss a subset of these representative initiatives and have legends across the top of the pages to illustrate how TVA's initiatives and progress map to TVA's mission

Representative Initiatives



LAZARD

TVA's Integrated Planning Process encompasses all three mission areas and is discussed in greater detail on the following page.

- Discussed in greater detail in Section II.B on p. 10.
- Discussed in greater detail in Section II.B on p. 11.
- (3) Discussed in greater detail in Section II.B on p. 12.
- (4) Discussed in greater detail in Section II.B on pp. 9 and 13.

Energy + Economic Development

Overview of TVA's Integrated Planning Process

TVA's integrated planning process is an enterprise-wide effort focused on developing a comprehensive business plan that supports achieving financial and operational goals aligned with TVA's mission, core values and strategic imperatives

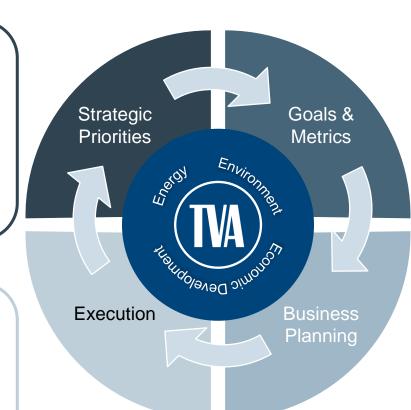
• The integrated planning process emphasizes mission-focused, cross-functional alignment between strategic business units ("SBUs"), culminating in an annual company-wide meeting in which plans are rolled out to all TVA employees to promote coordination and encourage individual employee contributions

Strategic Priorities

- Translate TVA's mission and values into long-term business objectives
- Develop both external and internal risk and opportunity profiles
- Establish corporate priorities and incentives

Execution

- Continually monitor and analyze metrics to record performance achievements and identify gaps
- Develop a one-year budget and multi-year business plan
- Prepare required and/or requested governmental reports



Goals & Metrics

- Develop individual SBU business plans that align with TVA's strategic priorities and long-term business objectives
- Balance both long- and short-range business plans
- Consider corporate resource and budget planning assumptions

Business Planning

- Consolidate final SBU business plans and key supporting plans into specific, tactical plans and initiatives required to achieve performance outcomes
- Produce resource, environmental, fuel & transmission and other key supporting plans that support the development and execution of strategic plans

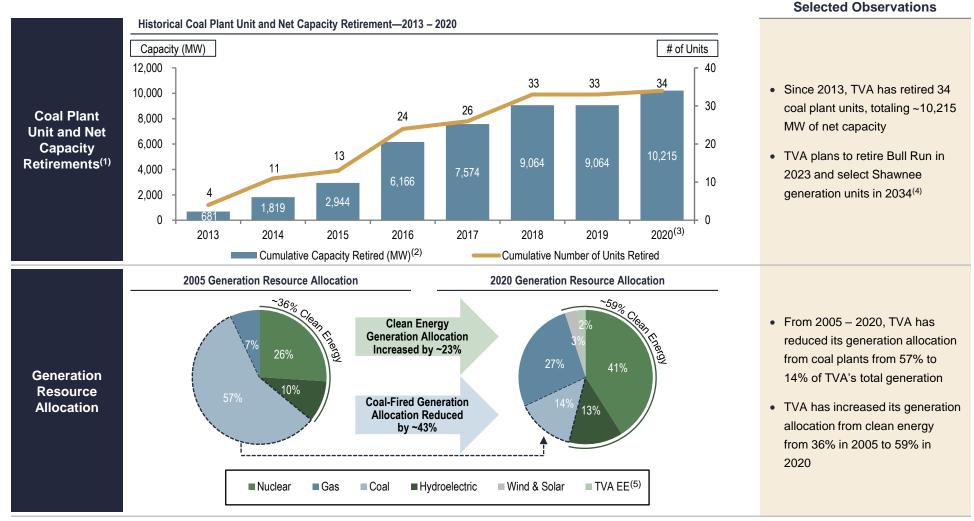
LAZARD

(5)

III TVA MISSION-RELATED INITIATIVES UNDER PROFESSIONALIZED MANAGEMENT

Overview of TVA's Asset Portfolio and Generation Resource Modernization

As TVA moves toward an even more modern and balanced power generation mix, TVA plans to evaluate existing coal plants (or individual units within existing coal plants) for retirement as well as add renewable energy sources to its asset portfolio in a cost-effective manner—TVA has meaningfully increased its clean energy percentage since 2013 by adding nuclear capacity and retiring several coal-fired plants



Source: TVA 2019 Integrated Resource Plan, TVA filings and SNL.

e: Annual figures are as of TVA's fiscal year-end of September 30 unless otherwise noted.

Cumulative capacity and number of units retired excludes units and their associated capacity that were idled but not retired in the respective fiscal year.

Capacity retired refers to the EIA unit nameplate capacity in MW.

- Figures include the retirement of Paradise Unit 3, which was taken offline in February 2020, effectively retiring the plant.
- 4) TVA plans to retire Shawnee Units 2, 3 and 5 9 in 2034. Shawnee Unit 10 was retired in 2014.
 - EE includes TVA Energy Efficiency Program impacts on a net cumulative realized at system basis.

III TVA MISSION-RELATED INITIATIVES UNDER PROFESSIONALIZED MANAGEMENT

Environment

Overview of Selected Renewable Energy Solutions and Initiatives

TVA continues to initiate and implement new renewable energy programs and offerings to supply affordable, reliable energy to end-use customers and to strengthen relationships with LPCs, businesses and industry customers—all while supporting renewable energy and sustainability needs and goals of LPCs, direct-served customers and TVA



Green Connect

Beginning January 2021, TVA and LPCs will offer customers access to quality home solar panel installation and associated educational resources

Dispersed Power Production

Through five-year agreements and PURPA regulated pricing, (1) TVA allows residential, business and industry customers to sell power from qualified renewable power facilities to TVA

Green Switch

For as little as \$2/month, (2) TVA provides customers with the option to purchase renewable energy to match their electricity usage, reducing the relevant customer's carbon footprint and supporting solar, wind and biomass renewable energy generation in the region

Green Flex

TVA offers businesses and industries within its service area a program to purchase out-of-Valley wind renewable energy certificates, enabling customers to make renewable energy claims and demonstrate their commitment to regional green initiatives

Green Invest

TVA partners with LPCs, businesses and industry customers within TVA's service area to build new, largescale renewable energy installations in the region through a competitive bid process, facilitating the achievement of TVA and its partners' sustainability goals

Flexibility Option

Through long-term partnership agreements, TVA offers LPCs the flexibility to meet up to 5% of their power needs through their own generating sources, allowing LPCs to serve their own customers' requests for renewable energy and encouraging partnerships with local businesses

2) \$2/month for a 200 kWh block through the Green-e Energy certification program.

III TVA MISSION-RELATED INITIATIVES UNDER PROFESSIONALIZED MANAGEMENT

Overview of Selected Innovation Plans and Initiatives

TVA is currently studying and working in concert with partners (e.g., Techstars Accelerator, Oak Ridge National Laboratories, DOE, EPRI, etc.) to implement new technologies and efficiencies that are expected to help deliver affordable, reliable and increasingly cleaner energy to customers and further economic development in TVA's service area



Storage Integration

- TVA has a long-term strategy to integrate energy storage into transmission and distribution systems
- TVA is conducting further research on battery storage management and is building a large-scale battery in Vonore, TN
 - TVA currently has a PPA in place for a battery coupled with solar in Mississippi

Electric Vehicle ("EV") Evolution

- TVA intends to accelerate the regional EV market, creating load growth, decarbonization within the transportation sector and economic benefits for the surrounding communities
- TVA plans to install "fast" charging stations every 50 miles within the Valley region in conjunction with state partners
- In November 2020, the Board approved a new commercial rate structure intended to support the expansion of EV charging infrastructure

Grid Transformation

 In partnership with LPCs, TVA plans to modernize the transmission and distribution systems into a more dynamic, flexible system to benefit end customers

Connected Communities

- In collaboration with local officials and LPC partners, TVA has ambitions to enable "smart" city technology, which will increase the effectiveness and management of safety, traffic, water, etc., ultimately promoting economic development and serving the local communities
- TVA is currently developing a smart lighting pilot in Nashville

Advanced Nuclear Solutions

 TVA is collaborating with universities, venture capitalists and others to promote nuclear research and advancement, to advance its nuclear fleet and to progress towards a low-carbon future

Low-Carbon Resources

- TVA is evaluating and advancing its low-carbon generation options through various technological advancements and internal initiatives
- In collaboration with LPCs and corporations via internal programs, such as the Green Invest Program, TVA is focused on increasing the availability of low-carbon resources and clean energy to customers
- TVA joined the EPRI/GTI Low-Carbon Resources Initiative to advance clean power and decarbonization efforts in 2030 – 2050 and is considering technologies such as carbon capture and hydrogen production and usage

III TVA MISSION-RELATED INITIATIVES UNDER PROFESSIONALIZED MANAGEMENT

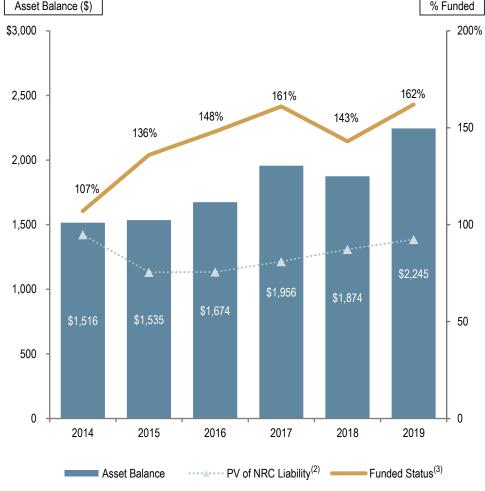
Overview of TVA's Nuclear Decommissioning Trust ("NDT")

(\$ in millions unless otherwise noted)

In compliance with federal regulations, TVA funds and manages the Nuclear Decommissioning Trust to set aside adequate funds for the ultimate decommissioning and retirement of its nuclear long-lived assets

Nuclear Decommissioning Trust Overview · Yes, the NDT is required by the U.S. Nuclear Regulatory Commission ("NRC")(1) Required? NRC requires nuclear licensees to report the status of their decommissioning funds at least once every two years, annually within five years of a planned shutdown and annually once operation ceases · Fully funded in accordance with NRC minimum **Funding Status** liability requirements Decommissioning of licensed nuclear power plants and associated obligations (e.g., the removal of **Future Costs Associated** radiological material from nuclear sites) with the Trust NDT funds are segregated and may only be used for purposes permitted by the NRC • The NDT is governed by an internal Investment Trust Board ("ITB") The ITB has various specialized committees and is Governance and responsible for overall governance and policy **Oversight** allocations of the NDT fund · TVA utilizes independent investment consultants for NDT investment advice and asset/liability analysis **Balance as of September** \$2.2 billion 30, 2020





LAZARD

(3)

Source: TVA disclosures and TVA filings.

Annual figures are as of calendar year-end unless otherwise noted.

The U.S. Nuclear Regulatory Commission requires funds to be collected and held for future decommissioning costs of licensed nuclear units pursuant to a minimum formula liability calculation.

⁽²⁾ TVA currently utilizes the site-specific cost estimates for asset and liability modeling purposes.

Funded status represents the NDT asset balance relative to the NRC minimum liability requirement for TVA's licensed nuclear units.

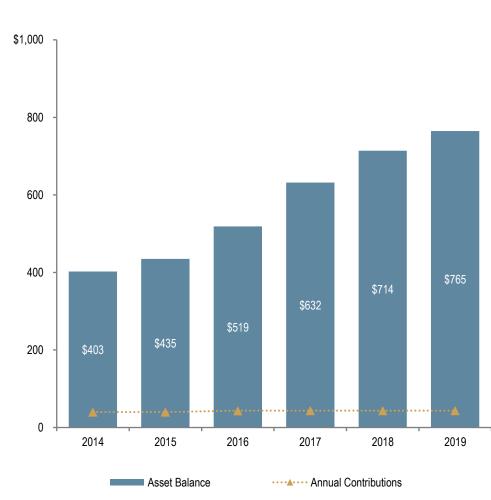
ART Asset Balance over Time: 2014 - 2019

Overview of TVA's Asset Retirement Trust ("ART")

(\$ in millions unless otherwise noted)

In furtherance of TVA's energy and environmental mission areas, TVA funds and manages the Asset Retirement Trust to set aside adequate funds for the ultimate decommissioning and retirement of its non-nuclear long-lived assets

Asset Retirement Trust Overview No, TVA voluntarily manages and contributes ~\$40 million per year to the trust Required? TVA stands apart from its investor-owned utility peers by having a designated ART or trust fund equivalent TVA determines trust contributions based on expected future non-nuclear retirement expenses TVA plans to continue making annual contributions **Funding Status** through 2040⁽¹⁾ and is on track to meet future obligations (currently there is an estimated ~\$7 billion in future legal obligations) Retirement of non-nuclear long-lived assets, other **Future Costs Associated** capital obligations (e.g., associated legal obligations with the Trust with respect to coal ash, asbestos and spent nuclear fuel) and capital projects The ART is governed by an internal Investment Trust Board ("ITB") • The ITB has various specialized committees and is **Governance and** responsible for overall governance and policy **Oversight** allocations of the ART fund TVA utilizes independent investment consultants for ART investment advice and asset/liability analysis **Balance as of September** \$866 million 30, 2020



LAZARD:

Source: TVA disclosures and TVA filings.

Natural forms and 1 VA mings.

ART begins to fund some of these costs starting in the early 2030s.

III TVA MISSION-RELATED INITIATIVES UNDER PROFESSIONALIZED MANAGEMENT

Overview of TVA's Coal Ash Management

In response to the 2008 Kingston Plant coal ash spill, public scrutiny and evolving environmental regulations,⁽¹⁾ TVA has made progress in developing and implementing coal ash⁽²⁾ management initiatives and technologies to abide by local and federal environmental regulations and to protect the land and water resources of its service area

• TVA currently funds coal ash-related expenses through its budget but has also contributed funds to its ART to provide for the funding of certain future coal ash-related expenses

Coal Ash Management Initiatives



Continuous Monitoring

Advanced Technology

for Impoundment

Lazard

Groundwater Monitoring

Monitoring ("ATIM") TVA maintains a network System of upgradient and TVA's ATIM system, the downgradient country's first and only groundwater wells to one of its kind. monitor groundwater continuously monitors quality; TVA provides this coal ash storage sites data to the state and 24/7 to confirm the federal regulatory structural integrity of the agencies to support CCR units public safety and mitigation measures

Landfill Management

TVA utilizes compaction technology and state-ofthe-art 3D technology to map individual coal ash layers placed in TVA's dry storage landfills, improving safety and stability of their sites

Proactive Byproduct Management

Wet CCR Impoundment Closure⁽⁴⁾

In accordance with federal and state environmental requirements, TVA primarily uses the Closure-in-Place methodology to schedule and close wet CCR impoundments at coalfired plants

Dry Generation & Dewatering

TVA has converted CCR wet processes to dry generation or dewatering at Bull Run, Shawnee and Kingston and plans to complete conversions at Cumberland in 2021

Byproduct Recycling

TVA recycles ~39% of its produced coal ash, which reduces the amount of coal ash stored in landfills, lowers GHG emissions, lowers costs of coal ash disposal, improves sustainability of building products (such as cement and concrete) and helps create jobs in TVA's service area

Components of TVA's CCR Conversion Program⁽³⁾

Source: TVA Annual Performance Plan, company website and public information.



Coal ash refers to CCR, a byproduct of burning coal to generate electricity. Coal ash includes fly ash, bottom ash, boiler slag, gypsum and other power plant byproducts.

TVA has closed 48% of its CCR facilities—the remaining 52% are scheduled to close by 2040.

The CCR Conversion Program includes converting operational coal-fired plants to dry CCR storage and closing all wet storage facilities with the intent of eliminating wet storage CCRs within TVA's service area.

TVA MISSION-RELATED INITIATIVES UNDER PROFESSIONALIZED MANAGEMENT

Overview of Selected Recent Economic Development-Related Initiatives

TVA's economic development initiatives and local stewardship have improved the quality of life in its service area by attracting new companies to the region, resulting in more jobs and capital investment generated

TVA has also supported local businesses by purchasing \$2 billion in products and services

January 2018

June 2015 TVA announced Google's selection of Widows Creek, TVA's soon-tobe retired coal plant site in Alabama, to build its newest data center

January 2020

Nashville Electric Service. Vanderbilt University and TVA announced partnership to bring new, large-scale renewable energy to the region

August 2020

TVA Board approved \$200 million pandemic relief credit to support the community and extended the "Back to Business" credit program, which relaxes some of the monthly demand charges under TVA's industrial rate schedule

November 2020

In partnership with Origis Energy, TVA confirmed 100 MW solar facility will supply carbon-free energy to Google's data centers in Alabama and Tennessee

Mazda and

Toyota announced joint venture ("JV") on TVA-certified megasite in Huntsville, Alabama (projected to provide 4,000 new jobs and \$1.6 billion in investment)















August 2020

TVA and the

Trades and

Labor Council

for Annual

Employees

announced 10-

year extension

of their Trades

and Labor

Agreement





November 2016

TVA and NextEra commissioned Alabama's largest solar energy project the River Bend Solar Energy Center

November 2018

To support Facebook's data center in Huntsville, Alabama, TVA announced an agreement with solar developers(1) to build the largest solar installations in Tennessee and Alabama

March 2020

In response to COVID-19, TVA launched \$1 billion credit support initiative available to LPCs to respond to community and customer needs

August 2020

Mazda-Toyota JV planned \$830 million assembly plant expansion at Huntsville, Alabama campus-the Valley's automotive sector is the second-largest in the nation

October 2020

TVA and North America's **Building Trades** Unions announced 10year extension of their Project Labor Agreements

TVA, with the support of its stakeholders, created and retained over 475,000 jobs⁽²⁾ and attracted over \$61.5 billion of capital investment⁽³⁾ within TVA's service area between 2014 and 2020

Project utilized TVA's Green Invest program COVID-19 related program

Labor agreement extensions



Source: Company website and public information.

- First Solar is developing a 277 MW installation in Colbert County, AL, and NextEra Energy Resources is developing a 150 MW installation in Lincoln County, TN.
- Defined as the jobs created and retained in TVA's service area for which TVA played a role in the recruitment or retention of the economic development project.
- Defined as the amount of money companies commit to invest in TVA's service area as part of TVA's Economic Development Mission to recruit and retain industry.

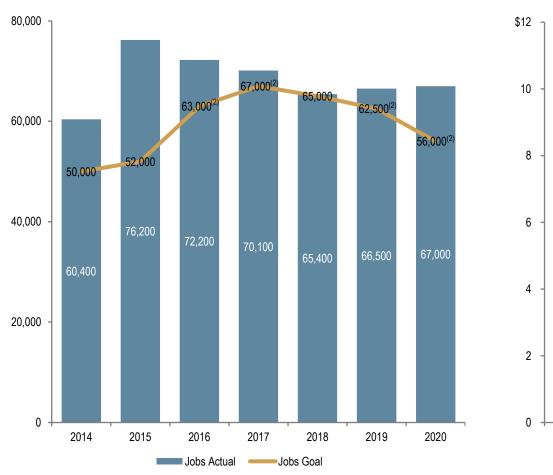
Overview of TVA's Economic Impact on TVA's Service Area

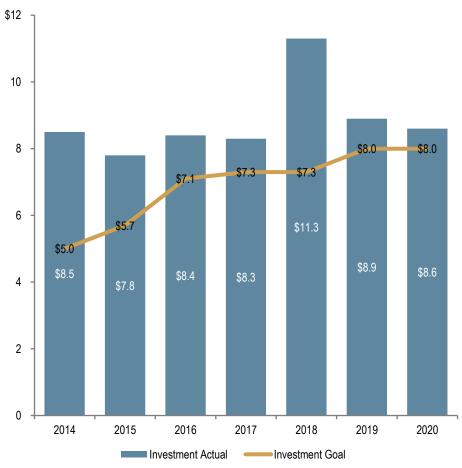
(\$ in billions unless otherwise noted)

TVA, with the support of its stakeholders, created and retained over 475,000 jobs and attracted over \$61.5 billion of capital investment within the TVA region between 2014 and 2020

Jobs Created and Retained⁽¹⁾: 2014 – 2020







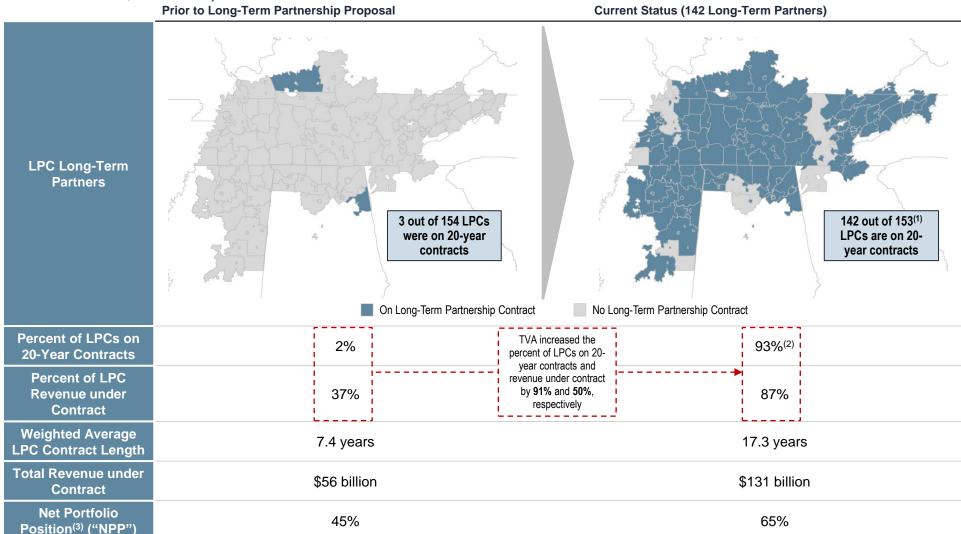


Source: TVA Benchmarking Notebook, TVA disclosures and TVA filings.

- (1) Defined as the jobs created and retained in TVA's service area for which TVA played a role in the recruitment or retention of the economic development project.
- Represents the midpoint of the target jobs created and retained.
- (3) Defined as the amount of money companies commit to invest in TVA's service area as part of TVA's Economic Development Mission to recruit and retain industry.

TVA—Long-Term Partnership Proposal

TVA's long-term partnership proposal has resulted in 142 out of 153 LPCs becoming long-term partners, a transformational development that strengthens the relationship between LPCs and TVA and creates value for multiple stakeholders. Signees on 20-year contracts receive a 3.1% "wholesale" credit, which is expected to contribute to an overall decline in FY21 retail rates in TVA's service area



Source: TVA disclosures.



Total LPCs decreased due to the 2020 merger of Middle Tennessee Electric Membership Cooperative and Murfreesboro Electric.

pension benefit obligations and cumulative unfunded future asset retirement obligations).

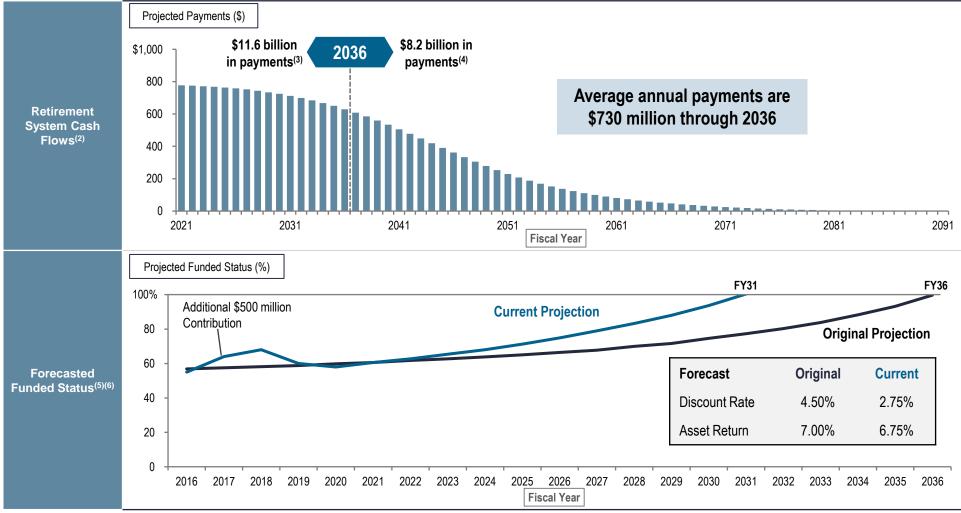
Having a higher percentage of LPCs under long-term contracts enhances TVA's revenue projections and facilitates TVA's ability to make long-term investments in its system. Conversely, a lower percentage of long-term contracts could lead to higher or more volatile rates with fixed costs spread over a smaller customer base should certain LPCs end their customer relationship with TVA.

NPP is the ratio of total revenue under contract compared to total obligations (e.g., non-fuel operation costs, existing debt, cumulative future interest expense on existing debt, cumulative unfunded

Overview of Pension-Related Initiatives

(\$ in millions unless overwise noted)

TVA has taken steps to improve its pension's funding status including moving new employees to a defined-contribution plan⁽¹⁾ in 2014, committing to contribute at least \$300 million a year into the pension plan in 2016 and making a discretionary \$500 million contribution to its pension plan in 2017; TVA expects to have a fully funded pension by at least 2036 under conservative assumptions



Source: TVA Retirement System Update.

LAZARD

Data as of September 30, 2020, unless otherwise noted.

98% of TVA employees contribute enough to their TVA-sponsored 401(k) to receive the full matching contribution benefit offered by TVA, reflecting high participation.

Represents projected payments from 2021 - 2036. Of the estimated \$20 billion in remaining payments, approximately 60% occur by fiscal year 2036.

Represents projected payments from 2037 - 2091.

(5) Despite recent volatility in the funded status, the system is forecasted to achieve full funding by the 2036 target date. (6)

Funded status based on 50th percentile results.

Overview of Selected Environmental Initiatives

In furtherance of TVA's environmental mission area, TVA implements a variety of safety and environmental programs designed to improve quality of life in the region and ensure community safety

Notably, TVA's flood control initiatives prevent ~\$307 million in flood damage annually and, since 1936, have cumulatively prevented over \$9.5 billion in flood losses across its service area, including an estimated \$8 billion in damage avoided in Chattanooga, the Valley's most flood-prone city



Selected Safety-Related Initiatives

Nuclear Safety

TVA's nuclear plants have multiple safety systems in place to keep its service area safe. Safety systems include physical barriers that protect against radiation release and diverse back-up power systems to keep reactors sufficiently cooled under extreme climate conditions

Dam Safety

TVA has established a multi-year Dam Safety Assurance Program to reduce the risk of an adverse event, improve safety and preservation of the dams and comply with TVA's Dam Safety standards, enabling TVA's dams to safely deliver flood control. power generation, water supply, recreation and water quality

Climate Resiliency

TVA is in the top quartile among its regional peers for clean energy generation and has executed on initiatives designed to support its sustainability strategy. TVA maintains a Climate Change Resiliency and Adaptation Plan to develop adaptation planning actions and manage climate risks

Air Emissions

TVA has one of the most aggressive clean air control programs in the country. From 1970 -2019, TVA spent ~\$6.8 billion on controls to reduce emissions from coal-fired power plants; additionally. TVA has reduced emissions by idling or retiring some coal-fired units and increasing its reliance on cleaner energy sources

River Management

Selected Environmental Strategy Initiatives

TVA uses a state-of-theart flood event model to estimate the impact flood events would have on TVA's infrastructure as well as infrastructure built near the river. TVA utilizes this data to make informed decisions on where and how to invest capital to further reduce flood risk and improve the region's flood resilience

Water Quality

Annually, TVA collects, stores and analyzes data about the ecological health of streams and tributaries from ~130 locations within the Valley. TVA also monitors aquatic life water quality around its dams and facilities to comply with appliable laws and regulations

Overview of Natural Resources Plan

TVA's Natural Resource Plan, developed with public input, guides the direction of its resource stewardship, creating a framework of focus areas and objectives in order to further support TVA's mission—notably, TVA's focus areas have increased over time to encompass public land protection, ecotourism, etc.

 TVA has supported more than 600 environmental, education and engagement programs and more than 340 stewardship projects to enhance natural resources and recreation

TVA Natural Resource Plan Focus Areas and Objectives

Reservoir Lands Planning Balance shoreline development, (1) recreation, natural and cultural resource management
 Ensure opportunities for input from the public and local, state and federal entities on TVA land management decisions

Section 26a
Permitting and Land
Use Agreements

- Manage permission and develop rules and policies of shoreline and public land use consistent with the TVA Act, National Environmental Policy Act, Shoreline Management Policy and Land Policy
- Support unified development of the Tennessee River system and flood control objectives⁽²⁾

Public Land Protection

- Protect public land and land rights in TVA's control to preserve them for future generations
- (i) Consistently apply TVA's rules & regulations and (ii) assess and inventory TVA public lands and inform and engage the public for sustainable uses of TVA public land

Land and Habitat Stewardship Improve protection and monitoring of sensitive resources on TVA land with an emphasis on (i) enhancing biological diversity and wildlife habitat, (ii) improving forest health and associated ecological benefits and (iii) improving interagency relationships and partnership efforts

Nuisance and Invasive Species Management Sustain and expand efforts to address the threats of invasive and nuisance species by (i) ensuring sound management practices, (ii) implementing internal and external outreach efforts and (iii) establishing partnerships with universities and local, state and federal entities

Cultural Resource Management (i) Comply with all federal laws related to cultural resource management, (ii) protect and preserve archeological and historic resources, (iii) provide educational opportunities and (iv) partner with stakeholders whose ancestral lands fall within the Tennessee Valley

Water Resources Stewardship (i) Monitor and assess biological conditions in streams and tailwaters, (ii) partner to promote and implement
water quality and aquatic habitat improvement and (iii) develop and execute outreach activities to raise public
awareness

Recreation(3)

(i) Provide commercial and public recreational opportunities, (ii) partner with municipalities, non-governmental
organizations and local, state and federal agencies to provide recreation assets and (iii) protect natural and
cultural resources by developing and implementing sustainable recreation practices

Ecotourism

(i) Partner with local communities to maximize their ecotourism and recreation potential, (ii) gain knowledge
of use, trends and preferences, (iii) enhance TVA recreation facilities and (iv) promote recreation and tourism
opportunities

Public Outreach and Information⁽³⁾

(i) Create opportunities for public involvement in resource stewardship and recreation, (ii) engage communities on the value of cultural and natural resources and recreational opportunities and (iii) develop strategic relationships to enhance stewardship of recreational assets and cultural and natural resources

LAZARD

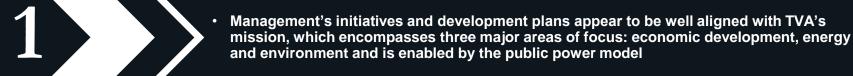
New focus areas in TVA's 2020 Natural Resource Plan

28

- Shoreline management adds an estimated \$1 billion in value to the TVA region annually from avoided cost of shoreline erosion.
- (2) Flood control adds an estimated \$307 million in value to the TVA region annually from averted flood damage. River navigation adds an estimated \$8 billion in value to the TVA region annually.
- (3) Recreational services and outreach add an estimated \$12.2 billion in value to the TVA region annually.

Discussion of Key Takeaways from Section III—TVA Mission-Related Initiatives

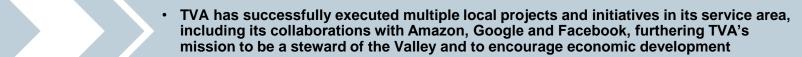












- TVA supports its mission to deliver reliable, affordable energy to customers through a variety of initiatives, such as entering into long-term partnerships with LPCs
- Through its Natural Resources and Sustainability Plans, TVA details its environmental stewardship initiatives, which focus on the resource management of the land, water and ecosystems of the region as well as the safety and quality of life in TVA's service area



IV Benchmarking Analysis



A Summary of Benchmarking Analysis

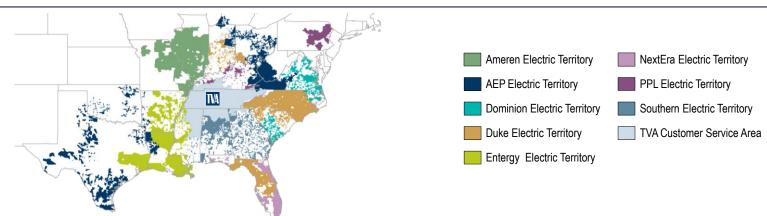
Overview of TVA vs. Selected Investor-Owned Utilities

(\$ in billions)

The scale of TVA's operations rivals that of large, investor-owned utility peers

Summary Comparison

	TVA	Ameren	AMERICAN ELECTRIC POWER	Dominion Energy*	DUKE ENERGY.	E ntergy	NEXT era ° ENERGY	ppl	Southern Company
Electric Retail Revenue	\$14.2	\$3.5	\$9.4	\$10.4	\$19.1	\$8.6	\$12.3	\$4.1	\$14.1
Electric Retail Sales (TWh) ⁽¹⁾	152 ⁽²⁾	40	104	107	199	116	123	41	148
Total Retail Customers (millions) ⁽³⁾	4.9	2.5	4.4	3.4	7.8	2.9	5.5	2.4	4.2
Total Assets	\$50 ⁽⁴⁾	\$29	\$79	\$104	\$164	\$52	\$118	\$46	\$119
Regulated Capacity (GW) ⁽⁵⁾	34	11	24	27	55	22	31	8	33
Regional Retail Rates (¢/kWh) ⁽⁶⁾	9.30	8.86	9.03	9.72	9.57	7.45	10.02	10.00	9.49
Credit Rating (S&P/Moody's)	AA+/Aaa ⁽⁷⁾	BBB+/Baa1	A-/Baa2	BBB+/Baa2	BBB+/Baa1	BBB+/Baa2	A-/Baa1	A-/Baa2	A-/Baa2
Regulated Generation Mix (MW) Coal Gas Nuclear Other	20% 23% 46%	19,6% 26% 68%	20% 60%	5%11% 50% 34%	3% 23% 39% 35%	10% 58% 31%	4% 5% 21% 70%	19%1 %	5% 27% 46% 22%
% Carbon Free Generation (MWh) ⁽⁸⁾	57.0%	32.0%	20.0%	39.0%	38.0%	31.0%	23.0%	1.0%	27.0%
Geographical Overview									
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(4)

Source: TVA Benchmarking Report, company filings and SNL.

Peer figures are as of December 31, 2019, unless otherwise noted. TVA figures are as of

September 30, 2019, unless otherwise noted.

 $LAZARD_{(2)}^{(1)}$ Sales are to the end consumer.

- Represents total sales less off-system sales and distribution losses.
- Peer retail customers include residential, commercial, industrial and other retail customers. TVA retail customers consist of direct-served industrials and customers served through LPCs.
- Total assets as of December 31, 2019.
- (5) Excludes purchased power.
- (6) Peer retail rates are for their fiscal year (January - December). TVA annual retail rates represent a combination of the LPCs' fiscal year (July – June) and direct-served industrials' 30 fiscal year (October - September) for both revenue and sales.
 - TVA's S&P rating refers to senior unsecured debt.
- (7) (8) Reflects proportion of MWh generated from nuclear, hydroelectric and renewable energy sources. Excludes purchased power.

Summary Benchmarking Analysis Results

TVA is a leader relative to its peers across multiple dimensions of performance, including rates, executive compensation, renewable capacity and net generation, CO₂ emissions reductions, economic development impacts, capitalization, external financing needs and safety

• TVA still has room to improve its cost structure⁽¹⁾ and operational performance metrics related to the availability of its generation plants. Despite underperforming its peers on these metrics, TVA has maintained top and second quartile customer rates among its national and regional peers as well as an overall 99.999% reliability rate in delivering energy to its customers

TVA

		117			1 473
	Change in Rates (2014 – 2019)			CO ₂ Emissions Intensity Reduction (2017 – 2019)	
	Rates (2019)			Total CO Emissions Reduction	
Rates	Cost Structure (2014 – 2019) ⁽¹⁾		Stewardship	Total CO ₂ Emissions Reduction (2005 – 2019)	
	Executive Compensation (2019) ⁽²⁾	TVA's CEO has the lowest compensation among its IOU peers, positioning TVA		Economic Development Impact (2019)	
		significantly below the median of its peer set (\$6 million vs. \$15 million)		Capitalization and Credit Rating (2020)	
	Transmission System Reliability (2015 – 2017) ⁽³⁾		Debt	Net External Financing Need (2014 – 2019) and Pension	
Asset Portfolio	Operational Performance (2017 – 2019)			Funding Status (2019)	
	Renewable Operating Capacity and Net Generation (2018)	Ŏ	People	Safety (2019)	
	= 1	Neakest Relative to Peers	= Strongest Relative to	Peers	



TVA

TVA's executive compensation data is as of fiscal year 2020.

TVA's 2019 Performance Improvement Opportunities

As part of TVA's continuous improvement efforts there have been initiatives to improve outcomes reflected in the 2019 data

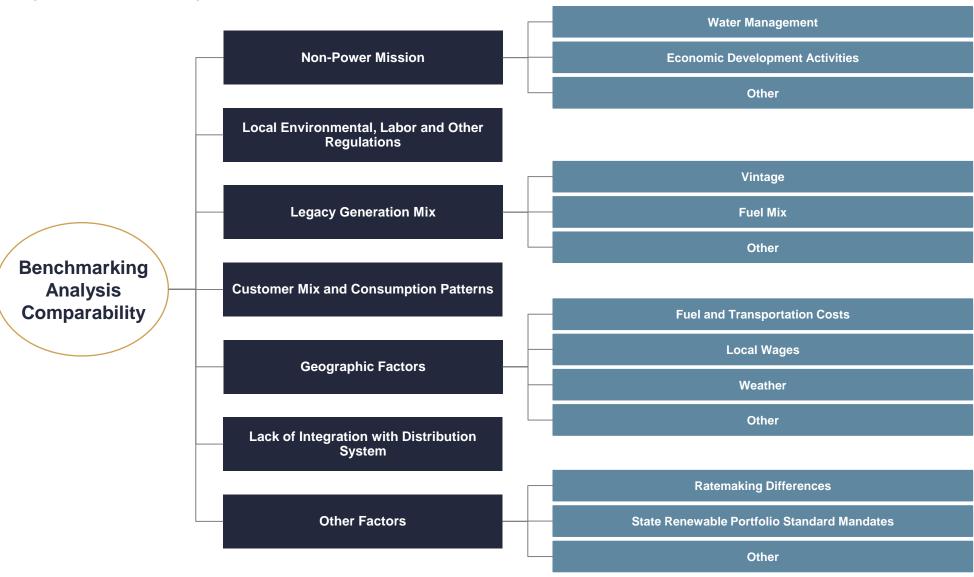
Selected Key Developments **Impact** TVA wholesale rates have declined (i.e., improved) by 5.1% between FY19 and FY20 to 6.69 ¢/kWh TVA wholesale rates are also expected to decline 7.2% between FY19 and FY21 Realization of a 3.1% wholesale credit driven Retail rates in TVA's service area have declined by 2.3% between November 2019 by more LPCs entering into long-term and November 2020 to 9.11 ¢/kWh, compared to a 1.0% increase in rates for top partnership agreements with TVA quartile peer holding company over the period Rates • TVA authorized a \$200 million Pandemic Residential rates in TVA's service area have declined by 0.9% between November Relief Credit, which funds a 2.5% base rate 2019 and November 2020 to 10.85 ¢/kWh, compared to a 2.3% decrease in rates for credit for all customers from October 2020 top quartile peer holding company over the period September 2021 Industrial rates in TVA's service area have declined by 7.5% between November 2019 and November 2020 to 4.79 ¢/kWh, compared to a 4.8% decrease in rates for top quartile peer holding company over the period Average nuclear unit capability factor improved from 88.9% to 90.0% between FY19 and FY20 **Average Nuclear Unit** Capability Factor⁽¹⁾ TVA's FY20 performance would still place TVA in the bottom quartile among its peers as measured against 2019 performance Average nuclear INPO index increased from 80.4 to 85.1, reflecting a ~6% year- TVA's FY19 performance was challenged by **Average Nuclear INPO** over-year increase between FY19 and FY20 Index⁽²⁾ unplanned derates, outages and equipment TVA's FY20 performance would still place TVA in the bottom quartile among its failures peers as measured against 2019 performance . In FY20, TVA's nuclear, coal and combinedcycle fleet experienced stronger performance underpinned by fewer unplanned outage Coal Equivalent Availability Coal equivalent availability factor improved from 65.2% to 79.4% between FY19 and events (with coal and combined-cycle sites Factor⁽³⁾ FY20 performing at or above plan for FY20) **Combined Cycle Equivalent** Combined cycle equivalent availability factor improved from 78.9% to 84.0% Availability Factor(3) between FY19 and FY20

LAZARD Source: TVA disclosures and TVA Benchmarking Notebook.

- (1) Represents the ratio of energy generated to the potential energy generation over a given time period.
- The nuclear INPO index is a weighted combination of several key safety and performance indicators in the nuclear industry.
- Equivalent availability factor reflects the percentage of available capacity within the defined period.

Factors Potentially Affecting Benchmarking Comparability

While Lazard believes that the benchmarking analysis is a reasonable basis for evaluation of TVA's performance, various factors do exist that may affect the comparability of TVA's performance relative to that of its peers



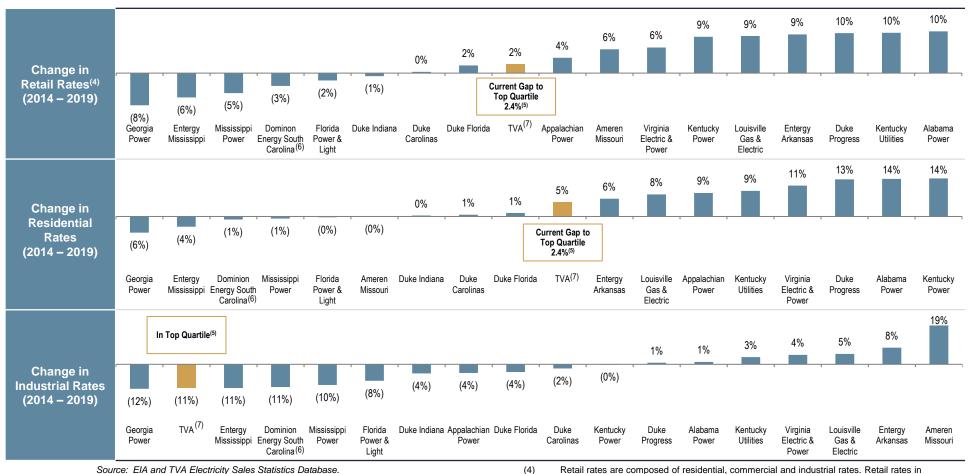


B Benchmarking Analysis—Rates

Benchmarking—2014 – 2019 Change in Rates⁽¹⁾

Over the last five years, retail and residential rates have increased by 2% and 5%, respectively, and industrial rates in TVA's service area have decreased by 11%. TVA expects retail rates to improve (decline) by ~3.3% from 2019 – 2021 due to the pandemic relief credit and long-term partnerships, and with TVA having achieved its debt reduction goal, rates are expected to remain stable or flat for the decade

While wholesale rates are a more transparent measure of TVA's performance⁽²⁾ due to the influence LPCs have on setting retail rates. the analysis below studies retail rates due to limitations around accurately comparing wholesale rates between peers⁽³⁾



(7)

Source: EIA and TVA Electricity Sales Statistics Database.

Peer set represents TVA's regional electric company peers (vs. holding company peers) to more closely reflect the rates paid by customers

- A direct comparison in change in rates between TVA and its peers is imperfect due to potential rate volatility driven by rate case timing for investor-owned utilities (e.g., a rate case, or lack thereof, in either 2014 and 2019 could potentially skew results).
- TVA's wholesale rate performance is discussed in greater detail on pp. 10 and 32. Challenges to benchmarking wholesale rates include limited peer disclosures, inconsistent benchmarking methodologies and TVA's LPC structure, which is not directly comparable to its investor-owned peers.
- Retail rates are composed of residential, commercial and industrial rates. Retail rates in TVA's service area represent LPCs' sales to retail customers and TVA sales to direct-served industrials
- (5) Reflects the percent difference between TVA's 2019 rates and top quartile 2019 rates among TVA's regional electric company peers. 2019 industrial rates in TVA's service area are already in the top quartile among its regional electric company peers. (6)
 - On January 2, 2019, Dominion completed its acquisition of SCANA. Dominion subsequently renamed South Carolina Electric & Gas to Dominion Energy South Carolina.
 - Reflects the change between TVA-observed 2014 and 2019 effective rates.

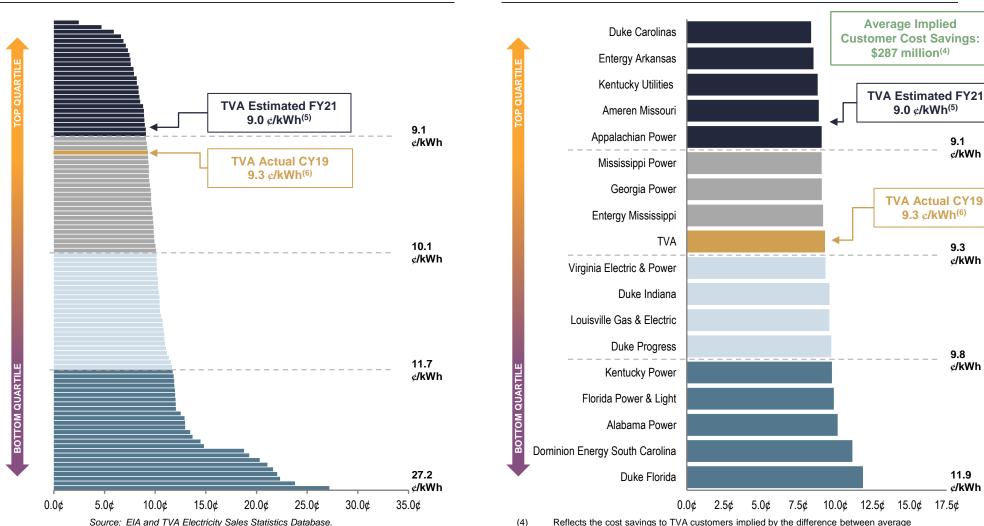


Benchmarking—Current Retail Rates⁽¹⁾

In 2019, retail rates in TVA's service area were in the second-best quartile both nationally and among its regional peers, in line with the second-best national quartile placement and an improvement from the third-best regional quartile placement observed in Lazard's 2014 Strategic Assessment

Top 100 U.S. Companies⁽²⁾ (12 months ending December 2019)

Regional Electric Companies⁽³⁾ (12 months ending December 2019)



(1) Retail rates are composed of residential, commercial and industrial rates. Retail rates in TVA's service area represent LPCs' sales to retail customers and TVA sales to direct-served

Selected based on total 2019 retail electricity sales.

Peer set represents TVA's regional electric company peers (vs. holding company peers) to more closely reflect rates paid by customers.

regional peer rates and retail rates in TVA's service area. Calculated as (average regional peer 2019 retail rate – TVA 2019 retail rate) × TVA 2019 retail sales.

TVA Estimated FY21 retail rates include the effects of the \$200 million pandemic relief credit

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combined with long-term partnership credits. Lazard does not anticipate rates for other entities listed in the chart to drastically change between 2019 and 2021.

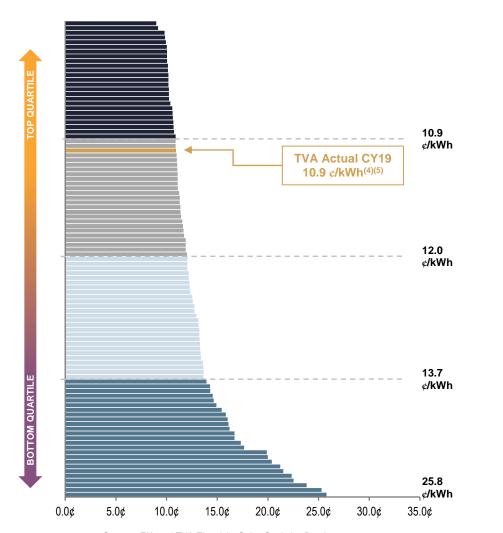
TVA-observed 2019 effective retail rate.

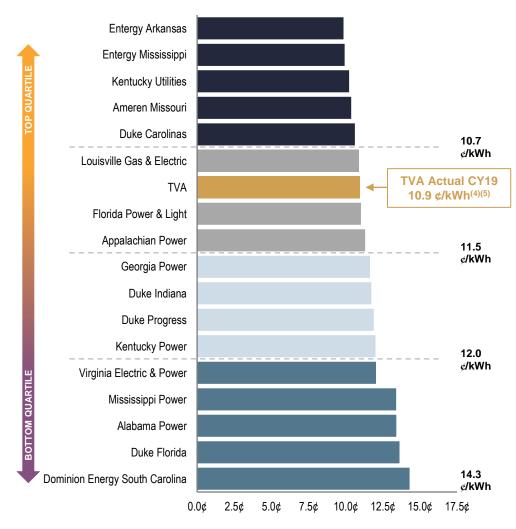
Benchmarking—Current Residential Rates

In 2019, effective residential rates in TVA's service area were in the second-best quartile both nationally and among its regional peers⁽¹⁾

Top 100 U.S. Companies⁽²⁾ (12 months ending December 2019)

Regional Electric Companies⁽³⁾ (12 months ending December 2019)





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Source: EIA and TVA Electricity Sales Statistics Database.

A comparison between TVA's current performance and its performance in Lazard's 2014 Strategic Assessment is unavailable because the prior assessment did not study residential rates in TVA's service area.

TVA-observed 2019 effective residential rate.

LAZARD

(5) FY21 residential rates in TVA's service area are not studied because TVA does not forecast rates by specific rate classes.

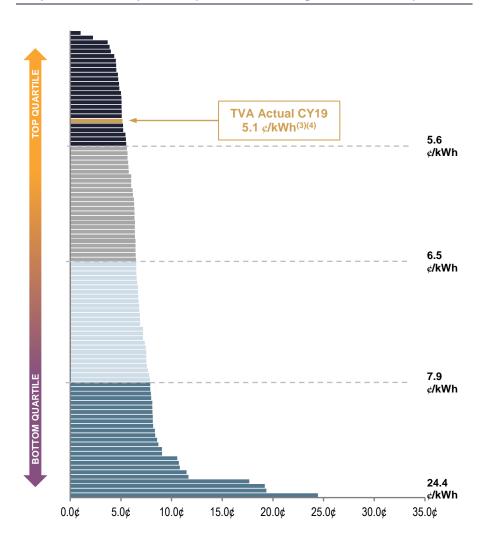
Selected based on total 2019 residential electricity sales. Peer set represents TVA's regional electric company peers (vs. holding company peers) to more closely reflect rates paid by customers.

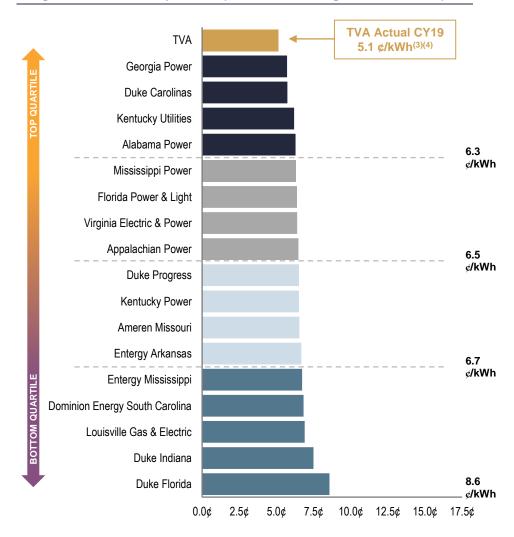
Benchmarking—Current Industrial Rates

In 2019, effective industrial rates in TVA's service area were in the best quartile both nationally and among its regional peers, an improvement from the second-best quartile placement observed in Lazard's 2014 Strategic Assessment

Top 100 U.S. Companies⁽¹⁾ (12 months ending December 2019)

Regional Electric Companies⁽²⁾ (12 months ending December 2019)





Source: EIA and TVA Electricity Sales Statistics Database. LAZARD

Selected based on total 2019 industrial electricity sales.

Peer set represents TVA's regional electric company peers (vs. holding company peers) to more closely reflect rates paid by customers.

TVA-observed 2019 effective industrial rate

FY21 industrial rates in TVA's service area are not studied because TVA does not forecast rates by specific rate classes.

STRATEGIC REVIEW B BENCHMARKING ANALYSIS—RATES

Benchmarking—Cost Structure⁽¹⁾

TVA continues to lag behind its peers in production non-fuel O&M and non-production non-fuel SG&A expenses, two of the largest areas of "controllable" costs that impact rates; this is partially offset by top quartile performance in fuel expenses

 However, TVA has meaningfully reduced average production non-fuel O&M and non-production non-fuel SG&A expenses since 2014, which are at levels lower than what was forecasted in 2014, with TVA's cost reductions exceeding many peers on a relative basis



Source: TVA Benchmarking Notebook.

Represents average figures over 2017 – 2019 period. Figures ranked on \$/MWh generated basis with the exception of non-production non-fuel SG&A, which is ranked on a \$/MWh sold basis.

Non-production non-fuel SG&A expense primarily reflects costs incurred to provide power to TVA's customers but also includes some expenses related to TVA's non-power mission.

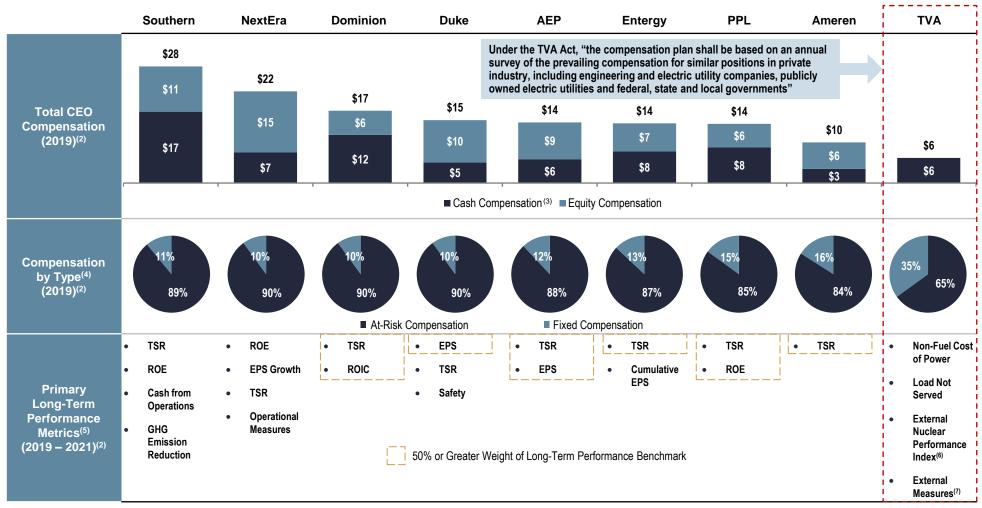
TVA's average non-production non-fuel SG&A expense is adjusted to exclude an average of ~\$850 million of one-time items including pension funding, the extinguishment of legacy regulatory assets and asset portfolio monetization expenses incurred over 2017 – 2019.

Peers reflect the top and bottom performers in production non-fuel O&M expense reduction from 2014 - 2019 across TVA's regional electric company peer set.

Benchmarking—Executive Compensation

(\$ in millions)

TVA's CEO has the lowest compensation⁽¹⁾ among its investor-owned utility peers, positioning TVA significantly below the median of its peer set (\$6 million vs. \$15 million)



Source: Company filings.

LAZARD

- TVA's CEO compensation is set in consultation with an independent consultant.
- Compensation data is as of fiscal year 2019 for all peers. Compensation data is as of fiscal year 2020 for TVA.
- Includes changes in net pension benefits, other deferred compensation, 401(k) saving contributions and other forms of non-equity compensation.
- 4) Reflects total annual compensation mix by type. At-risk compensation includes compensation that is conditional upon achieving either performance-based or service-based goals. Fixed compensation includes compensation that is not conditional upon achieving any goals.
- Reflects metrics used to evaluate CEO performance over three-year periods to determine the payout of at-risk compensation. Three-year evaluation periods cover calendar years 2019 2021 for peers and fiscal years 2020 2022 for TVA.
- (6) Reflects a weighted combination of key nuclear performance indicators based on standard nuclear industry definitions for station performance.
- (7) Reflects measures of external perception and reputational events including a stakeholder survey, a customer survey and a measure of the media's tone towards TVA.

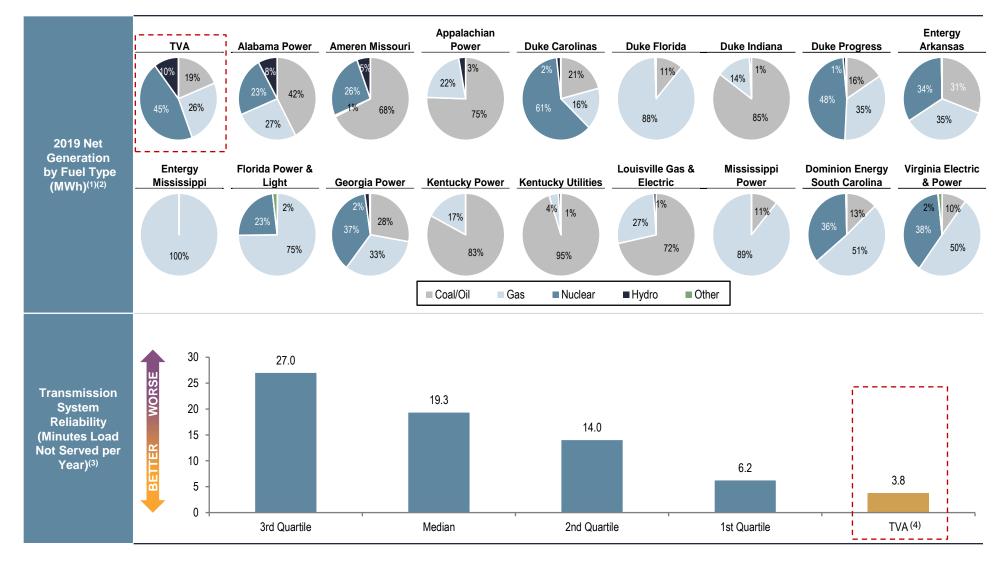


C Benchmarking Analysis—Asset Portfolio

Benchmarking—Operational Performance

TVA operates a relatively balanced generation mix and appears to deliver high transmission reliability as compared to peers

Notably, TVA has been able to maintain an overall 99.999% reliability rate in delivering energy to its customers since 2000



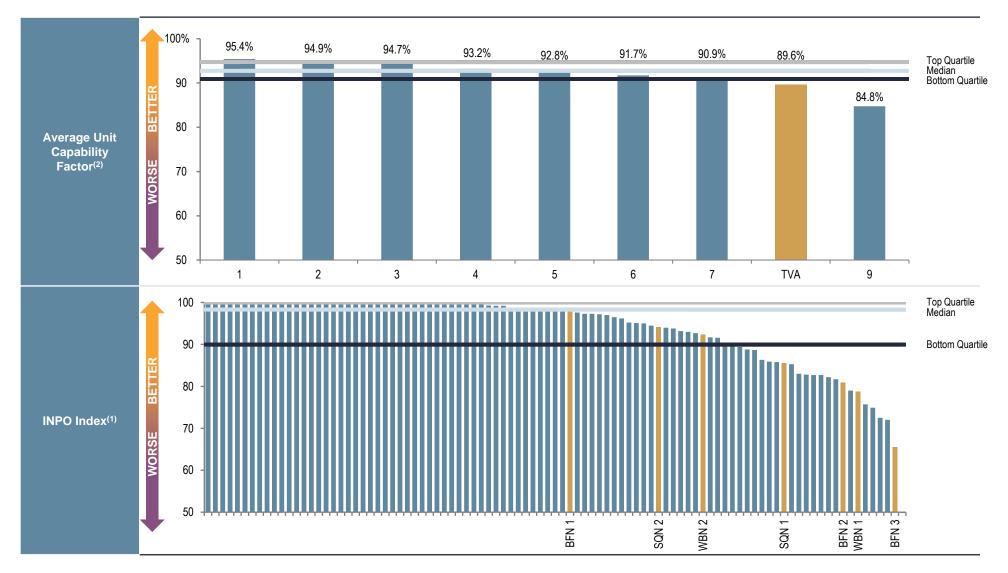
Source: EIA and TVA Benchmarking Notebook.

LAZARD

- Does not include purchased power.
- Peer set reflects TVA's regional electric company peers (vs. holding company peers) to provide additional context around generation mix at the utility level.
- Represents system minutes without power over a one-year period. Peer sets are confidential. Figures reflect the average over 2015 2017 unless otherwise noted. Benchmarking data is unavailable for 2018 and 2019.
- (4) Represents average over 2017 2019.

Benchmarking—Nuclear Generation Operational Performance

TVA appears to be relatively low performing among its peers in ensuring the availability of nuclear generation; additionally, many of TVA's individual nuclear units rank relatively low on the Institute of Nuclear Power Operations ("INPO") Index⁽¹⁾



LAZARD Source: TVA Benchmarking Notebook. Peer sets are confidential.

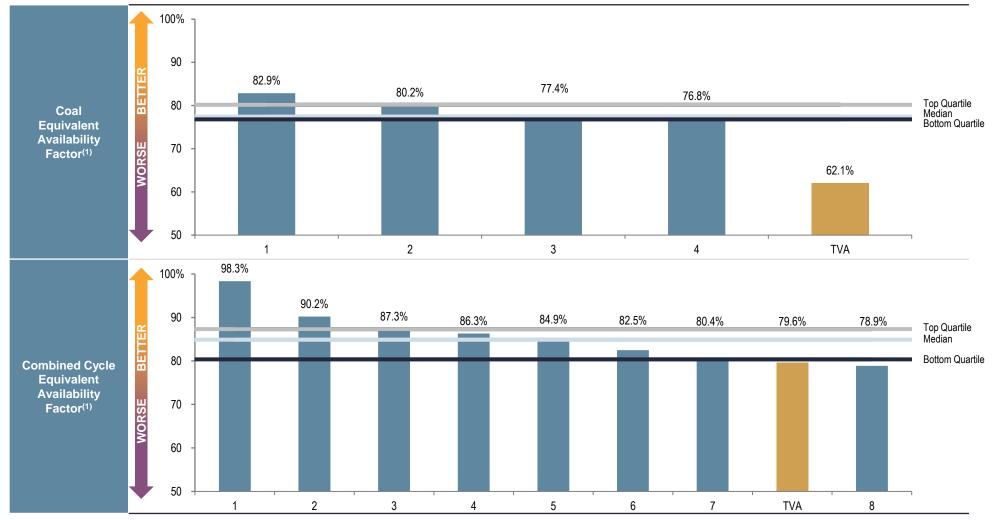
2) Represents the ratio of energy generated to the potential energy generation over a given time period. Figures reflect data as of 2Q 2020.

The INPO Index is a weighted combination of several key safety and performance indicators in the nuclear industry. Figures reflect data as of 2Q 2020.

Benchmarking—Non-Nuclear Generation Operational Performance

TVA's average coal and combined cycle equivalent availability factors were in the bottom quartile over the last three years, reflecting TVA's lower availability of non-nuclear generation capacity relative to peers

• TVA's coal fleet is the oldest in the nation—TVA has made changes in maintenance prioritization as well as recent investments in combined cycle units to address key drivers of unavailability; in FY20, performance improvement actions positively impacted both coal and combined cycle equivalent availability factor



Source: TVA Benchmarking Notebook.

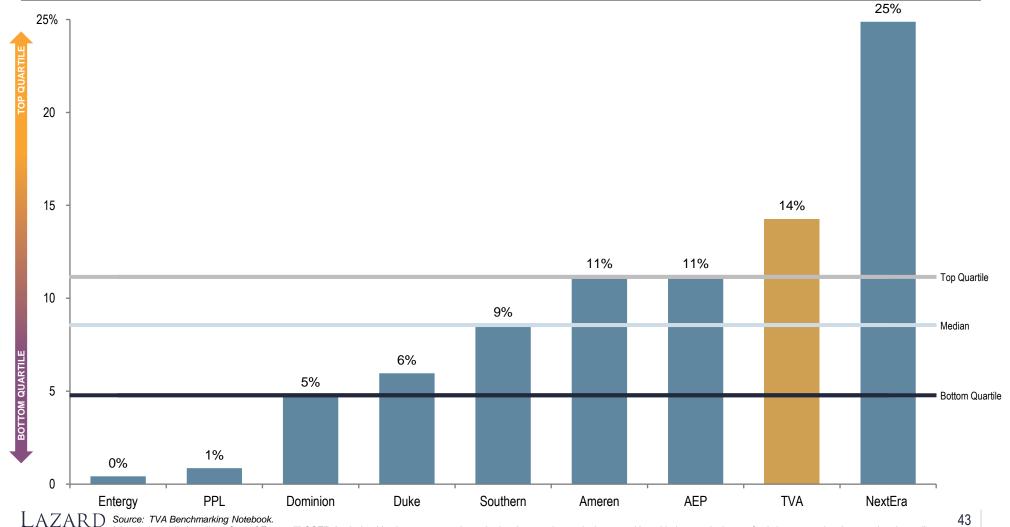
Peer sets are confidential. Figures represent the average over 2017 – 2019. Reflects the percentage of available capacity within the defined period.

Benchmarking—Renewable Net Generation

TVA is a leader among its peers in respect of renewable energy net generation

- However, if the peer set were expanded to include a broader mix of national and public power peers, TVA would rank near the median
 in respect of renewable net generation
- Under TVA's 2019 IRP, solar expansion⁽¹⁾ is expected to play a substantial role in all future scenarios considered

2018 Renewable Energy Net Generation (%)(2)



Lazard's Levelized Cost of Energy ("LCOE") Analysis—Version 14.0 notes that solar has become increasingly competitive with the marginal cost of existing conventional generation. Lazard's 2020 LCOE publication can be accessed at: https://www.lazard.com/media/451419/lazards-levelized-cost-of-energy-version-140.pdf.

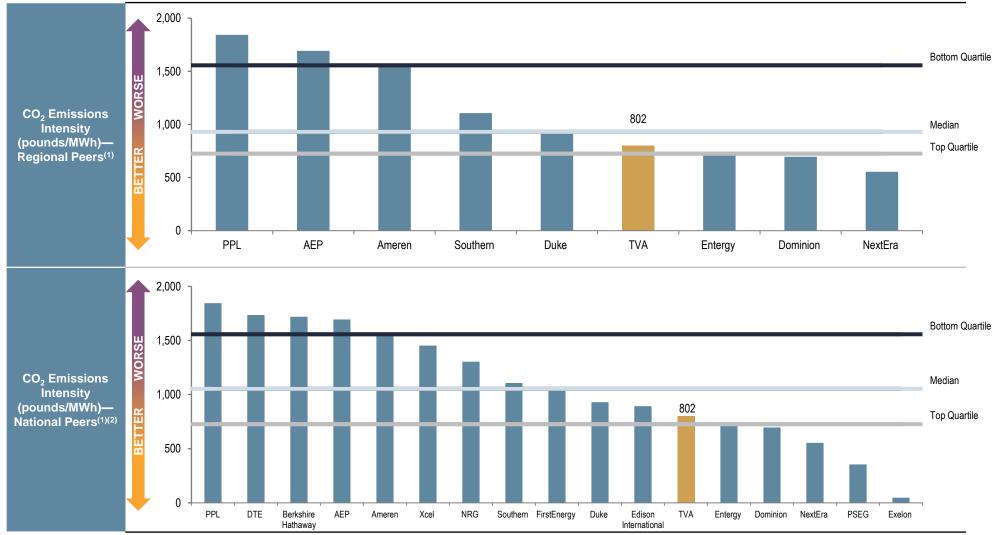
Includes purchased power and owned and contracted utility company power generated from renewable sources. Renewable energy includes utility-scale solar, wind, hydro and biomass.



D Benchmarking Analysis—Stewardship

Benchmarking—CO₂ Emissions

TVA's 2017 – 2019 average CO₂ emissions intensity was in the second-best quartile among both its regional and national peers, reflecting TVA's efforts to reduce its carbon footprint in its service area and modernize its generation fleet—TVA has retired several coal plants in recent years, and its remaining coal-fired plants are among the oldest in the nation still in operation and are likely near-term candidates for retirement

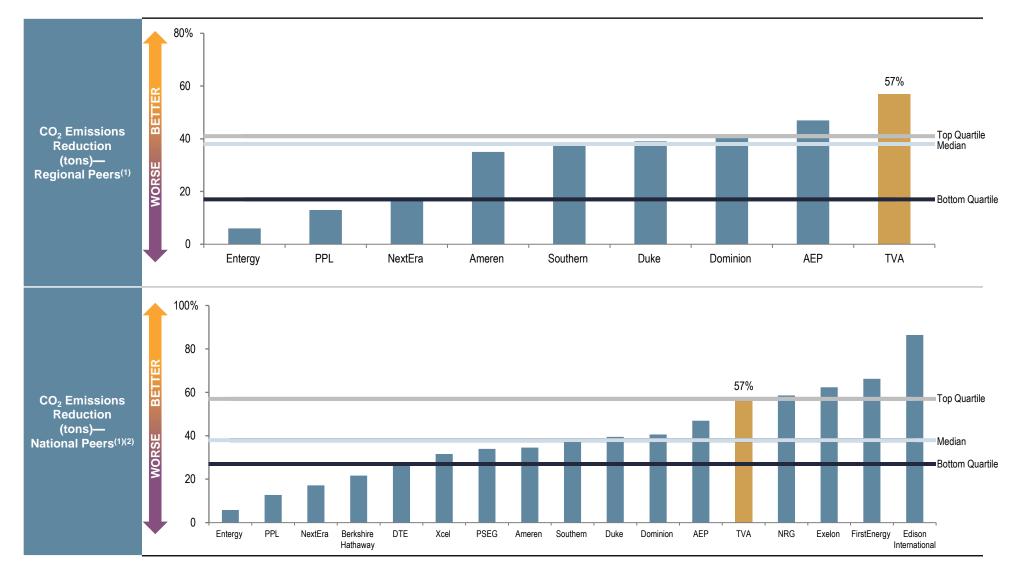


LAZARD Source: TVA Benchmarking Notebook, EIA and EPA.

CO₂ emissions intensity (pounds/MWh) reflect the three-year average over 2017 – 2019.

⁽²⁾ National peer set reflects a broader group of holding company peers to provide additional context for TVA's performance in its CO₂ emissions intensity.

 $Benchmarking - CO_2 \ Emissions \ {\rm (cont'd)} \\ \text{TVA's 2005 - 2019 CO}_2 \ emissions \ percentage \ reduction \ was in the best quartile among both its regional and national peers—TVA will likely the second of the percentage reduction of the percen$ continue to be a leader in emissions reductions if it achieves its stated goal of a 70% CO₂ emissions reduction by 2030



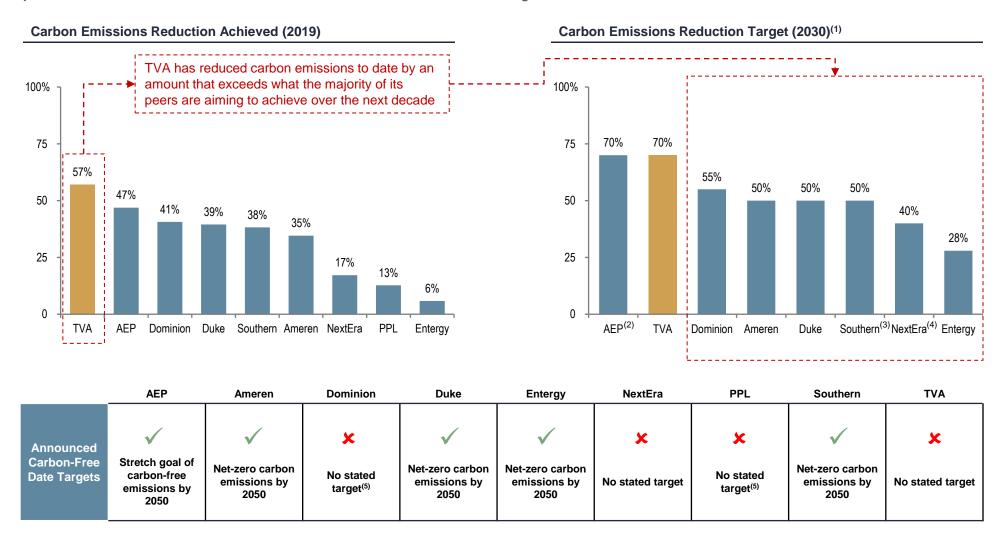
LAZARD Source: TVA Benchmarking Notebook, EIA and EPA.

CO₂ emissions (% reduction in tons) reflect the emissions reduction from 2005 – 2019.

National peer set reflects a broader group of holding company peers to provide additional context for TVA's performance in its total CO₂ emissions reductions.

Benchmarking—Emissions Reduction Performance and Goals

While many of TVA's peers have set ambitious net-zero carbon emissions targets, TVA is meaningfully ahead of its peers today and well positioned to be a leader in emissions reductions in both the near and long term



Source: TVA Benchmarking Notebook, company sustainability reports and company websites.

Note: Carbon emissions reduction reflects the change in annual tons of CO₂ emitted in 2019 relative to a 2005 benchmark unless otherwise noted.

PPL is excluded due to lack of 2030 target.

Reflects a 2000 benchmark year.

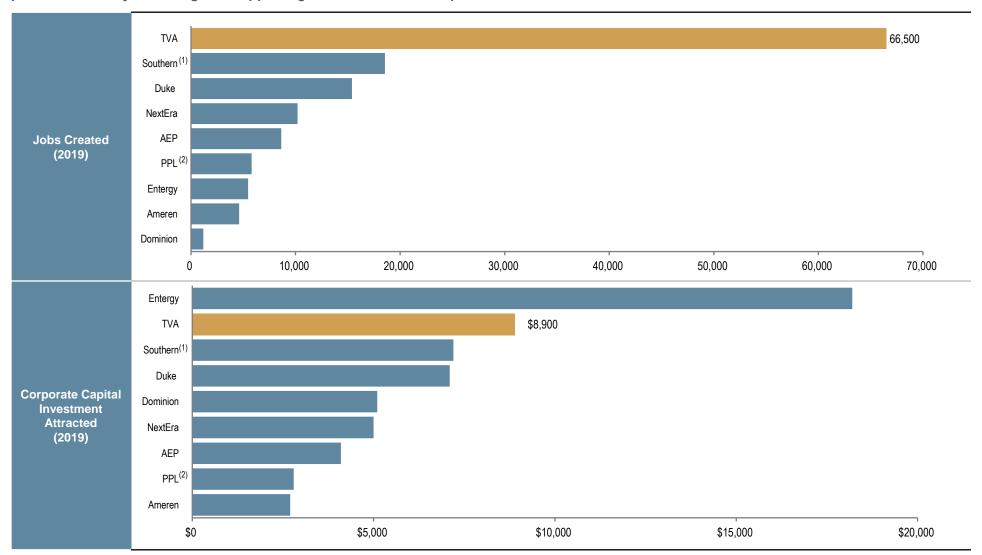
LAZARD

- Reflects a 2007 benchmark year.
- 4) Reflects NextEra's 2025 carbon emissions reduction target due to the lack of a publicly available 2030 carbon emissions reduction target.
 - Dominion and PPL have stated, however, that they intend to reduce carbon emissions by 80% by 2050.

Benchmarking—Economic Development Impact

(\$ in millions)

TVA ranks first and second among its peers in jobs created and corporate capital investment attracted, respectively, executing on its nonpower mission by attracting and supporting the economic development of its service area



LAZARD Source: TVA Benchmarking Notebook, company filings and Site Selection Magazine.

- Excludes Mississippi Power due to lack of publicly available data.
- Excludes PPL Electric and PPL U.K. due to lack of publicly available data.



E Benchmarking Analysis—Debt

Benchmarking—Capitalization and Credit Rating

(\$ in millions)

While TVA's capitalization is in line with its regional investor-owned utility peers, TVA is more conservatively capitalized than the majority of its public power peers; TVA possesses a strong credit rating relative to its regional and public power peers

Regional Investor-Owned Utility Peers

	TVA	Ameren	AEP	Southern	Dominion	Duke	Entergy	NextEra	PPL
Total Book Capitalization	\$34,346	\$19,432	\$52,396	\$84,646	\$70,461	\$113,400	\$32,868	\$90,523	\$37,822
Debt/Equity	1.7x	1.3x	1.6x	1.8x	1.5x	1.4x	2.0x	1.3x	1.8x
Debt/Capitalization	38% 62%	44% 56%	39% 61%	41% 59%	46% 54%	43% 57%	33% 67%	47% 53%	36% 64%
S&P Rating	AA+/Stable ⁽¹⁾	BBB+/Stable	A-/Stable	A-/Negative	BBB+/Positive	BBB+/Stable	BBB+/Stable	A-/Stable	A-/Stable
Moody's Rating	Aaa/Stable ⁽²⁾	Baa1/Stable	Baa2/Stable	Baa2/Stable	Baa2/Stable	Baa1/Negative	Baa2/Stable	Baa1/Stable	Baa2/Stable

Public Power Peers

	TVA	Associated Electric Cooperative (3)	Basin Electric	Bonneville Power Administration (3)	Lower Colorado River Authority ⁽³⁾	Nebraska Public Power District	New York Power Authority ⁽⁴⁾	Oglethorpe Power	Santee Cooper
Total Book Capitalization	\$34,346	\$2,595	\$6,636	\$19,437	\$5,710	\$3,340	\$7,072	\$11,800	\$9,473
Debt/Equity	1.7x	2.5x	3.2x	3.3x	2.4x	0.9x	0.5x	10.0x	3.5x
Debt/Capitalization	38% 62%	29%	76%	23%	29% 71%	53% 47%	67% 33%	9% 91%	78%
S&P Rating	AA+/Stable	AA/Stable	A/Stable	AA-/Stable	A/Stable	A+/Stable	AA/Stable	BBB+/Negative	A/Negative
Moody's Rating	Aaa/Stable	A1/Stable	A3/Stable	Aa2/Stable	A2/Stable	A1/Stable	Aa2/Stable	Baa2/Stable	A2/Stable

Source: Company filings, company financial reports and public information.

Note: Balance sheet figures as of September 30, 2020, unless otherwise noted.

 $\text{LAZARD}^{\text{(1)}}_{\text{(2)}}$ Represents TVA's Global Power long-term rating.

Represents TVA's senior unsecured rating. Balance sheet figures as of June 30, 2020.

Balance sheet figures as of December 31, 2019.

Includes preferred equity and non-controlling interests.

Equity/Other Capital⁽⁵⁾ Debt

STRATEGIC REVIEW BENCHMARKING ANALYSIS—DEBT

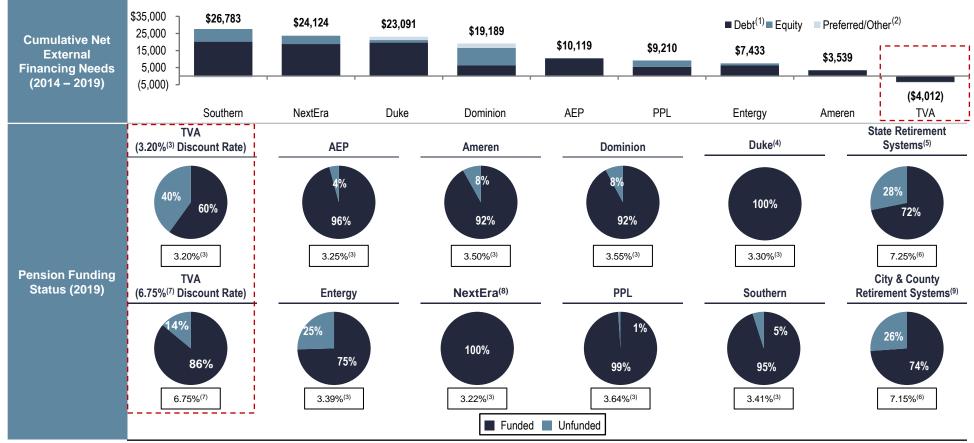
Benchmarking—External Financing Needs and Pension Funding Status

(\$ in millions)

Lazard

TVA has repaid ~\$3.5 billion of statutory debt over the last five years (in contrast to its peers, who have relied heavily on external debt and equity financing), but its pension remains ~40% unfunded; TVA closed its pension plan to new entrants in 2014 and, under conservative assumptions, expects to have a fully funded pension by at least 2036

TVA assumes a lower pension obligation discount rate than that of its investor-owned utility peers, which comparatively increases the fair value of its pension obligations; an illustrative 25bp decrease in discount rate would increase the fair value of TVA's pension obligation by \$399 million



(4)

Source: TVA Benchmarking Notebook, company filings, Wilshire 2020 Report on State Retirement Systems and Wilshire 2020 Report on City & County Retirement Systems.

Pension funding status reflects the fair value of pension assets net of pension liabilities as a proportion of the fair value of pension obligations. All figures as of fiscal year-end 2019 for comparability purposes.

- Includes redemption premiums paid for the early retirement of debt where applicable.
- (2)Includes hybrid securities and financing leases.
- (3) Reflects the discount rate applied to determine the fair value of pension obligations.

- Duke's pension is overfunded by 7%.
- (5) Reflects the aggregate funding status of over 100 U.S. state-sponsored retirement systems.

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- Reflects the median discount rate applied by the aggregated retirement systems.
- (6) Reflects the discount rate used in TVA's Retirement System 2019 Annual Report. (7)
- (8)NextEra's pension is overfunded by 43%.
- (9) Reflects the aggregate funding status of over 100 U.S. city- and county-sponsored retirement systems.

STRATEGIC REVIEW E BENCHMARKING ANALYSIS—DEBT

TVA—Selected Credit Rating Agency Commentary

TVA's strong credit ratings are underpinned by TVA's status as an independent and statutory rate-making authority and its competitive rate profile, scale and strong cash flow

Rating Agency	Rating/Outlook	Date	Selected Commentary
			 "The 'Stable' outlook on TVA's debt reflects our outlook on the U.S. and our view of the utility's unenhanced stand- alone credit profile ('SACP'). The 'Stable' outlook on the lease debt TVA supports reflects the broad revenue stream, debt reduction projections, lengthier customer contracts and decarbonization."
STANDARD &POOR'S	AA+/Stable ⁽¹⁾	May 6, 2020	 "The utility does not receive direct federal appropriations. Consequently, we do not consider its financial or operational performance to be vulnerable to the 'fiscal cliffs' associated with periodic budget debates. Additional factors supporting the SACP include our assessment of the TVA board's ability to set its own rates without regulatory approval, a demonstrated willingness to adjust wholesale rates, the distribution customers' obligations to set rates that meet financial obligations and TVA's plans to reduce debt."
			 "We believe that TVA's record of relying exclusively on operating revenues to support operations and government infusions limits risks of government intervention. Moreover, TVA plays an important role in meeting key economic, social and political objectives of the Federal Government and in the implementation of a key regional policy."
			• "The 'Stable' outlook reflects TVA's independent, statutory rate-making authority, the requirement that it set rates to cover operating expenses and debt service requirements, its protected status in its service territory, few challenges to this status to date and the low risk that any of its statutory protections will be materially altered in the near term."
Moody's	Aaa/Stable ⁽²⁾	June 19, 2020	"TVA's Baseline Credit Assessment considers the governing legislation that provides protection from competition and places significant restrictions on TVA's ability to expand outside its defined service territory, along with the Board's statutory authority to set TVA's electric rates and long-term contractual arrangements with creditworthy counterparties which, among other things, provide TVA with regulatory control over their retail rates and fund transfers. These attributes, combined with TVA's size, scale, steady deleveraging, strong cash flow, competitive rate profile and economic importance within the Tennessee Valley, translate into a more predictable and stable financial profile relative to all other public power and investor-owned utilities."
			• "The low dependence level reflects TVA's statutory rate-setting mechanisms and protected monopoly position that make it highly likely it will meet its debt obligations independent of the financial condition of the U.S. government. TVA finances its operations and cash flow needs from revenues generated by the sale of electricity and through various external financings and has demonstrated a very low dependence on its U.S. government owner. The high probability of government support reflects TVA's ownership structure and its economic importance to the Tennessee Valley since its formation in 1933. To that end, it has been estimated that TVA's presence supported \$8.9 billion in corporate investment and 66,500 jobs created or retained for the Tennessee Valley in fiscal year 2019. As such, we are of the opinion that the U.S. government would provide significant financial support to TVA should it be needed."

LAZARD Source: S&P and Moody's.
Represents TVA's G

⁽¹⁾ Represents TVA's Global Power long-term rating.

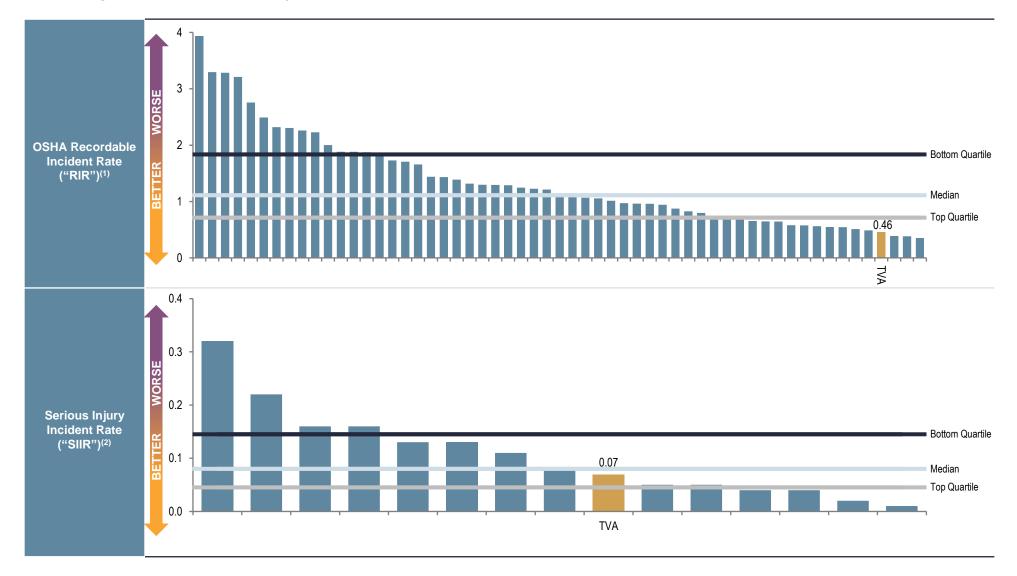
⁽²⁾ Represents TVA's senior unsecured rating.



F Benchmarking Analysis—People

Benchmarking—Safety

TVA ranks in the top and second-best quartile in its RIR and SIIR, respectively, reflecting TVA's emphasis on creating a safety-focused culture and working environment for its employees



LAZARD

Source: TVA Benchmarking Notebook.
Note: Peer sets are confidential. Data

e: Peer sets are confidential. Data is for calendar year 2019 for peers and fiscal year 2019 for TVA.

Reflects the number of recordable injuries and illnesses per 100 full-time workers. Excludes hearing losses as recordable incidents.

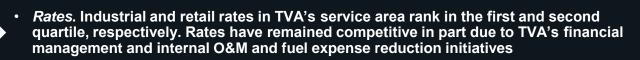
(2) Calculated as number of serious injury incident cases x 200,000 divided by number of hours worked during the time period.



G Benchmarking Analysis—Key Takeaways

Discussion of Key Takeaways from Section IV—Benchmarking Analysis









 Asset Portfolio. Although TVA lags its peers with respect to nuclear and non-nuclear generation operational performance, TVA operates a relatively balanced generation mix (ranked in top quartile in respect of renewable energy net generation) and has meaningfully higher transmission reliability as compared to that of its peers





 Stewardship. TVA furthers its stewardship strategic imperative by reducing carbon emissions, executing on aligned sustainability targets, implementing environmental initiatives and stimulating economic development in its service area by creating jobs and attracting local capital investment











V TVA's Current Strategic Positioning, FY21 Plan and Potential Business Models



A TVA's Current Strategic Positioning

TVA—"SWOT" Analysis

- The nation's largest public power provider with a diverse portfolio, integrated river system and reliable transmission system
- Financial strength, strong credit rating, self funding and low cost of capital
- Rate-setting authority, "anti-cherry picking," full requirements contracts and longterm partnerships (142 of 153 LPCs under long-term contracts)
- Closed six coal plants over the past ten years and is a regional leader in carbon emission reductions (~60% carbon-free generation in 2020)
- Sustained annual operating cost reductions of \$800 million since 2017
- Leader in economic development (created/retained over 340,000 jobs over the past five years with the support of its stakeholders)
- Retail and residential rates rank in the second-best quartile and industrial rates rank in the best quartile nationally and among its regional peers
- In response to the COVID-19 pandemic, initiated a variety of customer-centric relief programs including a Pandemic Relief Credit
- Funds set aside for asset retirement trust and fully funded nuclear decommissioning
- Mission-driven mandate, which extends beyond power, allows TVA to make longterm decisions that are in the best interest of the people in its service area
- TVA has maintained an overall 99,999% reliability in delivering energy to its customers
- Subject to political influence and competing objectives
- Lack of integration with distribution system
- Restricted from participating in businesses outside of service area or beyond
- Portions of cost structure appear to lag peers (e.g., production non-fuel O&M and non-production non-fuel SG&A)
- Nuclear fleet performance and coal and combined cycle equivalent availability in bottom quartile
- \$30 billion limit on statutory debt financing, albeit TVA has ~\$9 billion of headroom
- Aging assets and infrastructure (e.g., remaining coal-fired plants are among the oldest in the nation still in operation)
- Lack of enterprise brand recognition or value (e.g., impact to the TVA region)⁽¹⁾
- Historical organizational silos may impact TVA's ability to fully leverage enterprise strategies(1)
- Low (but increasing) level of innovation and low-risk tolerance⁽¹⁾
- Working environment could be more inclusive(1)
- Cultural challenges concerning digital transformation, increased telework and reskilling the workforce(1)

OPPORTUNITIES

- Efficiency initiatives may continue to improve TVA cost structure and further address energy burden on its customers
- Continued improvement in environmental profile based on TVA's 70% carbon emission reduction target by 2030
- Further optimization of the system (e.g., grid transformation initiatives, integrating distributed energy resources, etc.) enabled by long-term partnerships with LPCs
- Leverage opportunities in clean technology (e.g., encouraging development of EV infrastructure) and exploit emerging technologies (e.g., small modular reactors) to improve performance and produce cleaner energy
- Recruitment of additional businesses to relocate to or add operations in the region
- Additional engagement with stakeholders and regulatory and policy makers to promote mission and strategic initiatives
- Secure long-term contracts with remaining LPCs not under existing long-term contracts
- Strengthen community relations by promoting reliability and sustainability achievements
- Enable rural broadband access to improve growth and quality of life
- Continue to refine pricing to align with economics and other goals (e.g., new commercial rate structure aimed at supporting expansion of EV charging infrastructure approved in November 2020)
- Future political pressure, regulations or litigation negatively impact TVA's progress, operations, ability to attract and compensate talent, etc.
- Elimination of the "anti-cherry picking" amendment while TVA service area restrictions exist
- Environmental (e.g., coal ash) and nuclear event risk
- Inability to fulfill demand for carbon reductions or renewable commitments creates pressure on rates, reliability, etc.
- Underfunded pension obligations, albeit in 2017 TVA made a one-time \$500 million extra contribution, and pension obligations are expected to be fully funded by at least 2036
- Significant loss of load (from departure of large LPCs such as MLG&W, higher allowed power supply flexibility or otherwise) impairs ability to maintain competitive rates and financial health
- Threats to the public power model (e.g., privatization attempts)
- Cyber threats⁽²⁾ (TVA's top internal rated risk)
- Physical, environmental or supply chain threats to critical infrastructure⁽²⁾
- Higher-than-forecasted capital intensity may increase financing requirements⁽²⁾
- Commodity price risk(2)
- Accelerating pace of technological and marketplace changes, including increased substitution(2)

WFAKNESSES



Overview of TVA's Selected Areas for Improvement

Further operational efficiencies with respect to non-nuclear and nuclear generation metrics (e.g., coal equivalent availability factor)

Increase the availability of low-carbon resources and clean energy to customers to advance clean power and decarbonization efforts

Incremental cost management to bring production non-fuel O&M and non-production non-fuel SG&A in line with that of its peers

Continue making progress around coal ash handling and stakeholder management

Continue to modernize asset portfolio (remaining coal-fired plants are among the oldest in the nation still in operation)

Reduce the pension funding gap to meet the 2036 fully funded goal

Address public concerns around the incentives and price breaks TVA provides to corporations to encourage economic development in its service area

Improve and foster a diverse and inclusive work environment

54

TVA—New Strategic Priorities

Since its inception in 1933, TVA has aligned around the TVA Mission to serve and improve the quality of life in its service area. TVA has improved flood control, provided low-cost power and navigation for commercial shipping, remediated depleted lands and increased the region's standard of living. To continue fulfilling its mission of service and adapt to today's evolving business and economic environment, TVA has adopted five new strategic priorities for gauging its performance going forward: Powerful Partnerships, People Advantage, Operational Excellence, Igniting Innovation and Financial Strength













TVA prioritizes
cultivating powerful
partnerships that
promote
development and
improvement through
the shared success
of TVA's customers
and stakeholders

TVA prioritizes
creating and
nurturing a company
culture that
emphasizes safety,
diversity and
inclusion in order to
strengthen energy,
passion and
creativity within each
employee

TVA prioritizes
establishing a bestin-class reputation
for providing
customers with
dependable service
and competitively
priced power

TVA prioritizes
pursuing innovative
solutions and
technological
advancements to
further develop its
abilities to serve the
customers and
communities of the
TVA region

TVA prioritizes continuing to invest in the future while maintaining low energy costs and appropriate debt levels



B Summary Review of TVA's FY21 Plan

TVA—FY21 Long Range Financial Plan ("FY21 Plan") Summary Financials

(\$ in millions)

Gross revenue is projected to grow at a modestly lower rate than sales over the forecast period (0.4% vs. 0.6% CAGR, respectively), reflecting lower

effective rates for customers

EBITDA and Net Income are projected to decline at a 1.5% and 5.0% CAGR, respectively, partially driven by fuel and nonfuel O&M costs growing at a faster rate than revenue

TVA is expected to issue relatively little incremental debt and instead primarily finance its operations with internally generated free cash flow across the forecast period, resulting in relatively flat interest expense

Total financing obligations largely remains stable from 2020 – 2027 and increases ~\$2.2 billion from 2028 – 2030, primarily driven by growth in incremental capital expenditures in the outer years of the forecast

'20A - '30E

		For the Fiscal Year Ended September 30,										10-Year
	2020A	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	CAGR
GWh Sales	151,251	150,179	152,890	156,830	159,237	159,017	159,329	159,485	160,296	160,001	160,331	0.6%
% Growth	_	(0.7%)	1.8%	2.6%	1.5%	(0.1%)	0.2%	0.1%	0.5%	(0.2%)	0.2%	
Gross Revenue	\$10,249	\$9,962	\$10,325	\$10,490	\$10,506	\$10,433	\$10,414	\$10,464	\$10,524	\$10,611	\$10,707	0.4%
% Growth		(2.8%)	3.6%	1.6%	0.2%	(0.7%)	(0.2%)	0.5%	0.6%	0.8%	0.9%	
Less: Fuel Cost	(2,463)	(2,557)	(2,615)	(2,635)	(2,571)	(2,560)	(2,555)	(2,594)	(2,645)	(2,735)	(2,800)	
Net Revenues	\$7,786	\$7,405	\$7,710	\$7,855	\$7,935	\$7,872	\$7,858	\$7,870	\$7,879	\$7,876	\$7,907	0.2%
% Growth	-	(4.9%)	4.1%	1.9%	1.0%	(0.8%)	(0.2%)	0.1%	0.1%	(0.0%)	0.4%	
Less: Non-Fuel O&M	(\$2,720)	(\$2,946)	(\$2,981)	(\$3,037)	(\$3,084)	(\$3,220)	(\$3,236)	(\$3,303)	(\$3,369)	(\$3,418)	(\$3,457)	
Less: Payments in Lieu of Taxes ⁽¹⁾	(528)	(504)	(491)	(505)	(509)	(512)	(509)	(511)	(514)	(519)	(522)	
Plus: Other Income	36	19	18	18	20	21	21	22	23	24	25	
EBITDA	\$4,574	\$3,974	\$4,256	\$4,332	\$4,362	\$4,162	\$4,135	\$4,078	\$4,019	\$3,963	\$3,952	(1.5%)
% Growth	_	(13.1%)	7.1%	1.8%	0.7%	(4.6%)	(0.6%)	(1.4%)	(1.5%)	(1.4%)	(0.3%)	
Less: Depreciation & Amortization	(1,826)	(1,600)	(1,999)	(2,076)	(2,023)	(2,123)	(2,084)	(2,120)	(2,204)	(2,177)	(2,097)	
EBIT	\$2,748	\$2,374	\$2,256	\$2,256	\$2,339	\$2,039	\$2,051	\$1,958	\$1,814	\$1,786	\$1,855	(3.9%)
Less: Net Interest Expense	(1,142)	(1,100)	(1,068)	(1,076)	(1,079)	(1,091)	(1,076)	(1,068)	(1,072)	(1,091)	(1,097)]
Less: Other Net Periodic Benefit Cost	(253)	(264)	(270)	(190)	(105)	(59)	(15)	(3)	(32)	9	51	
Net Income	\$1,353	\$1,010	\$918	\$990	\$1,154	\$889	\$960	\$887	\$710	\$705	\$809	(5.0%)
% Growth	-	(25.4%)	(9.1%)	7.8%	16.6%	(23.0%)	8.1%	(7.7%)	(19.9%)	(0.7%)	14.8%	
	A											_
Total Financing Obligations (2)	\$21,421	\$21,249	\$21,601	\$21,739	\$21,608	\$21,878	\$21,765	\$21,580	\$22,132	\$22,751	\$23,810]
Total Proprietary Capital (3)	12,933	13,770	14,680	15,662	16,809	17,690	18,642	19,521	20,223	20,920	21,721	=
Total Capitalization	\$34,354	\$35,019	\$36,281	\$37,402	\$38,417	\$39,567	\$40,408	\$41,101	\$42,355	\$43,672	\$45,531	
Cash Flow from Operations	\$3,633	\$2,707	\$2,856	\$2,850	\$2,815	\$2,550	\$2,848	\$2,951	\$2,856	\$2,783	\$2,801	'21 – '30
Capital Expenditures & Other	(\$2,015)	(\$2,649)	(\$3,175)	(\$2,956)	(\$2,651)	(\$2,786)	(\$2,701)	(\$2,730)	(\$3,370)	(\$3,362)	(\$3,813)	Total
Cash Flow from Operations Less Capex & O	(3)	\$58	(\$320)	(\$106)	\$164	(\$236)	\$147	\$221	(\$514)	(\$579)	(\$1,012)	(2,177)
Net PP&E	\$35,579	\$35,745	\$36,571	\$37,051	\$37,297	\$37,652	\$37,998	\$38,377	\$39,280	\$40,154	\$41,508	-

LAZARD Source: TVA FY21 Plan and TVA filings.
The total amount of these paym

(3)

⁽¹⁾ The total amount of these payments is 5% of gross revenues from the sale of power during the preceding year excluding sales or deliveries to other federal agencies and off-system sales with other utilities, with a provision for minimum payments under certain circumstances.

Reflects total financing obligations as defined by TVA.

Proprietary capital includes the remaining portion of the U.S. Treasury's Power Program Appropriation Investment (~\$258 million) and retained earnings.

TVA—FY21 Plan Cash Flow and Credit Profile

(\$ in millions)

Robust capital investment is projected over the forecast period, totaling over \$26.5 billion, with ~55% of investment directed towards expanding the TVA system and ~45% directed towards maintaining existing operations; TVA's projected capital investment program is designed to support system reliability and enable fleet modernization and expansion

While free cash flow is projected to fluctuate over the forecast period, TVA is expected to produce a cumulative ~\$2.2 billion free cash flow deficit, a relatively modest amount relative to the size of the enterprise

TVA's capitalization is expected to further stabilize as it primarily finances its operations with internally generated cash flow, with its total financing obligations/capitalization expected to fall from ~62% to 52% over the forecast period

	For the Fiscal Year Ended September 30,											'21E – '30E	
CASH FLOW PROFILE	2020A	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	Total	
Net Income	\$1,353	\$1,010	\$918	\$990	\$1,154	\$889	\$960	\$887	\$710	\$705	\$809	\$9,031	
Depreciation & Amortization ⁽¹⁾	2,237	2,022	2,413	2,478	2,403	2,441	2,393	2,399	2,517	2,542	2,515	24,122	
Working Capital & Other	43	(324)	(476)	(618)	(742)	(780)	(505)	(335)	(371)	(464)	(523)	(5,137)	
Cash Flow from Operations	\$3,633	\$2,707	\$2,856	\$2,850	\$2,815	\$2,550	\$2,848	\$2,951	\$2,856	\$2,783	\$2,801	\$28,016	
Base Capital Expenditures ⁽²⁾	(926)	(1,108)	(1,073)	(1,089)	(1,034)	(1,222)	(1,231)	(1,261)	(1,296)	(1,295)	(1,316)	(\$11,924)	
Incremental Capital Expenditures ⁽³⁾	(757)	(1,062)	(1,730)	(1,539)	(1,275)	(1,294)	(1,251)	(1,280)	(1,586)	(1,678)	(1,902)	(\$14,596)	
Nuclear Fuel & Other	(332)	(480)	(373)	(329)	(341)	(271)	(219)	(189)	(487)	(389)	(595)	(3,672)	
Free Cash Flow	\$1,618	\$58	(\$320)	(\$106)	\$164	(\$236)	\$147	\$221	(\$514)	(\$579)	(\$1,012)	(\$2,177)	
Payments to Treasury ⁽⁴⁾	(6)	(7)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(77)	
Net External Financing Requirements	(\$1,611)	(\$51)	\$327	\$114	(\$156)	\$244	(\$139)	(\$213)	\$522	\$587	\$1,020	\$2,254	
Long-Term Debt Maturities	1,092	1,798	1,000	1	1,002	1,031	1,350	1,001	575	32	1,064	8,853	
Gross External Financing Requirements	(\$519)	\$1,747	\$1,327	\$115	\$846	\$1,275	\$1,211	\$788	\$1,097	\$618	\$2,083	\$11,106	
Credit Profile													
Cash & Cash Equivalents	\$500	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300		
Total Statutory Debt ⁽⁵⁾	20,075	20,144	20,568	20,747	20,652	20,960	20,887	20,744	21,339	22,004	23,111		
Total Financing Obligations ⁽⁶⁾	21,421	21,249	21,601	21,739	21,608	21,878	21,765	21,580	22,132	22,751	23,810		
Total Proprietary Capital ⁽⁷⁾	12,933	13,770	14,680	15,662	16,809	17,690	18,642	19,521	20,223	20,920	21,721		
Total Capitalization	\$34,354	\$35,019	\$36,281	\$37,402	\$38,417	\$39,567	\$40,408	\$41,101	\$42,355	\$43,672	\$45,531		
												Credit Ratio	na/Outle
FFO/Interest	4.0x	3.5x	3.7x	3.7x	3.7x	3.4x	3.8x	3.8x	3.8x	3.7x	3.7x	S&P ⁽⁸⁾	AA+/S
FFO/Total Financing Obligations	16.0%	13.2%	13.4%	13.4%	13.4%	11.7%	13.6%	13.7%	13.3%	12.9%	12.6%	Moody's ⁽⁹⁾	Aaa/S
Total Financing Obligations/EBITDA	4.7x	5.3x	5.1x	5.0x	5.0x	5.3x	5.3x	5.3x	5.5x	5.7x	6.0x		,,,,,,
Total Financing Obligations/Total Capitalization	62.4%	60.7%	59.5%	58.1%	56.2%	55.3%	53.9%	52.5%	52.3%	52.1%	52.3%		
Total Financing Obligations/Total Capitalization	32.170	33 70	00.070	3370	33.270	00.070	00.070	02.070	32.070	32	32.570		

(5)

(9)

Source: TVA FY21 Plan.

- Includes amortization of debt issuance costs and premium/discounts and amortization of nuclear fuel cost.
 - Represents rate-funded capital expenditures generally used to maintain existing productive assets.
- (3) Represents capital expenditures related to capacity expansion, environmental capital, etc.
- (4) Repayment of and return on U.S. Treasury's Power Program Appropriation Investment (-\$258 million). Return rate is based on the investment balance at the beginning of the applicable year and the computed average interest rate payable by the U.S. Treasury on its

total marketable public obligations on the same date.

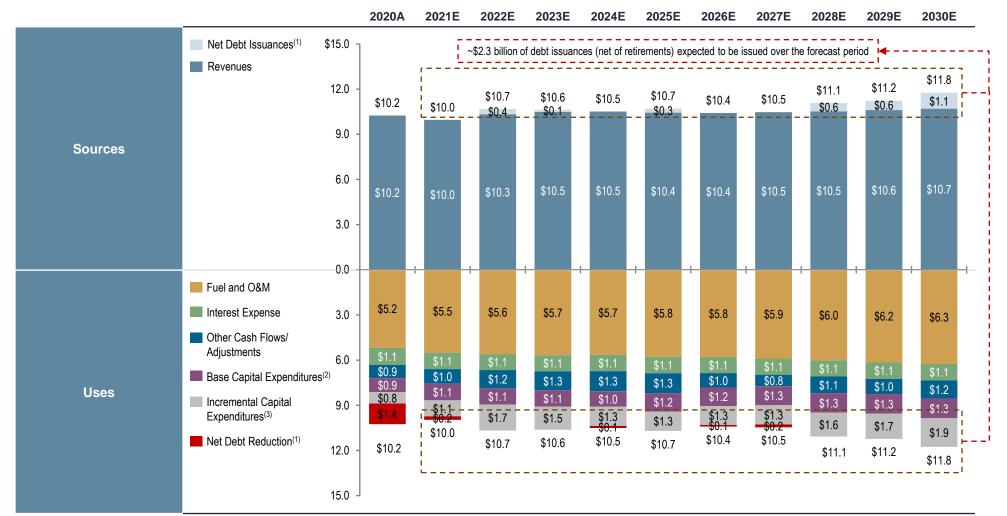
- Reflects Statutory Debt as defined by TVA; excludes debt associated with VIEs.
- (6) Reflects total financing obligations as defined by TVA.
- (7) Proprietary capital includes the remaining portion of the U.S. Treasury's Power Program Appropriation Investment (~\$258 million) and retained earnings.
 - Represents TVA's Global Power long-term rating.
 - Represents TVA's senior unsecured rating.

TVA—FY21 Plan Sources and Uses of Capital

(\$ in billions)

TVA's plan reflects a rate structure that will support the self-financing of its capital needs over the period; TVA expects to issue just \$2.3 billion of debt (net of retirements) over the forecast period (largely in the latter part of the decade), a modest amount relative to the projected \$26.5 billion of capital investments and \$58.3 billion of fuel and O&M expenses over the same period

• Notably, TVA's rate structure supports its capital needs with a planning assumption of no non-fuel rate increases through 2030



LAZARD Source: TVA FY21 Plan and TVA filings.

⁽¹⁾ Net Debt Issuances/Reduction is equal to the net change in short-term debt, long-term debt and finance leases.

Represents rate-funded capital expenditures generally used to maintain existing productive assets.

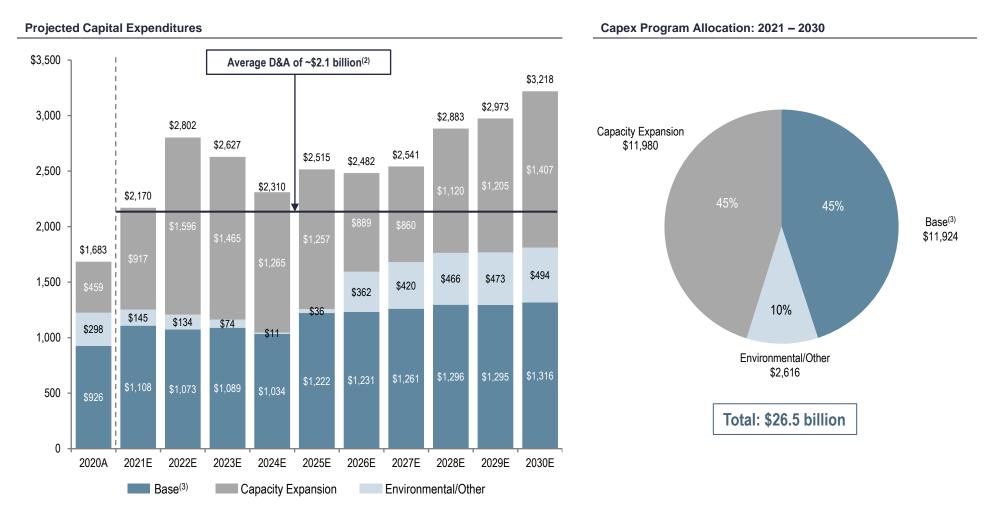
Represents capital expenditures related to capacity expansion, environmental capital, etc.

TVA—FY21 Plan Capital Expenditure Program

(\$ in millions)

TVA expects to maintain a capital investment program⁽¹⁾ of approximately \$26.5 billion over the 2021 – 2030 period, including ~\$12.0 billion of generation capacity additions

 Roughly 55% of projected capital investment is allocated towards growing and improving upon the TVA system, and ~45% is allocated towards maintaining TVA's existing operations



LAZARD Source: TVA FY21 Plan and TVA filings.

- (1) Nearly all capital investments support power and power-related projects.
- 2) Excludes amortization of nuclear fuel cost. Includes amortization of debt issuance costs and premium/discounts.
- Represents rate-funded capital expenditures generally used to maintain existing productive assets.

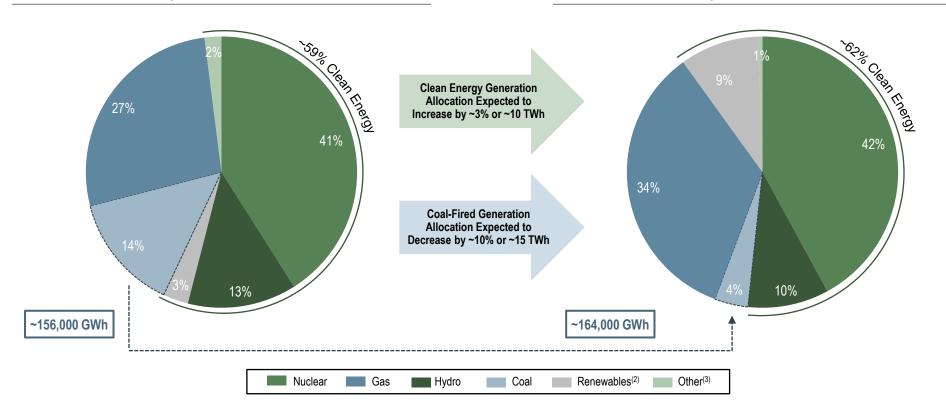
TVA—Resource Plan

TVA plans to retire, idle or convert additional coal capacity over the next decade and replace capacity previously served by coal with renewables and natural gas

- TVA's decreased reliance on coal is consistent with industry-wide trends as a result of, among other things, increased cost competitiveness of other fuel sources,⁽¹⁾ environmental rules and regulations and public sentiment
- TVA's clean energy generation is expected to increase by ~10 TWh or by an ~1% CAGR over the forecast period
- TVA's gas generation mix is expected to increase from 27% in 2020 to 34% in 2030, increasing TVA's gas dependency over the forecast period



2030E Generation Mix by Production⁽⁴⁾



Source: TVA disclosures and company website.



- Lazard's LCOE Analysis analyzes the relative levelized energy costs of various conventional and renewable energy generation technologies including onshore wind and utility-scale solar.

 Lazard observes that selected renewable energy generation technologies are cost-competitive with conventional generation technologies under certain circumstances and will likely become increasingly prevalent in the future. Lazard's 2020 LCOE publication can be accessed at: https://www.lazard.com/media/451419/lazards-levelized-cost-of-energy-version-140.pdf.
- Renewable energy fuel sources include wind and solar.
- (3) Includes energy efficiency, demand response, interruptibles and storage.
- (4) Generation mix from storage is net negative in 2030 and excluded from the chart.

Discussion of Key Takeaways—TVA's FY21 Plan

1



2



Cash Flow and Credit Profile. While TVA's cash flow is expected to fluctuate over the forecast period, TVA plans to maintain a robust capital investment program and further stabilize its debt-to-capitalization ratio

3

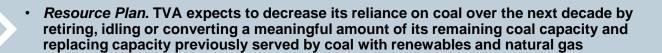


• Sources and Uses of Capital. TVA's plan reflects a rate structure that will support the self-financing of its capital needs over the period and expects to issue a relatively modest amount of debt

4



5

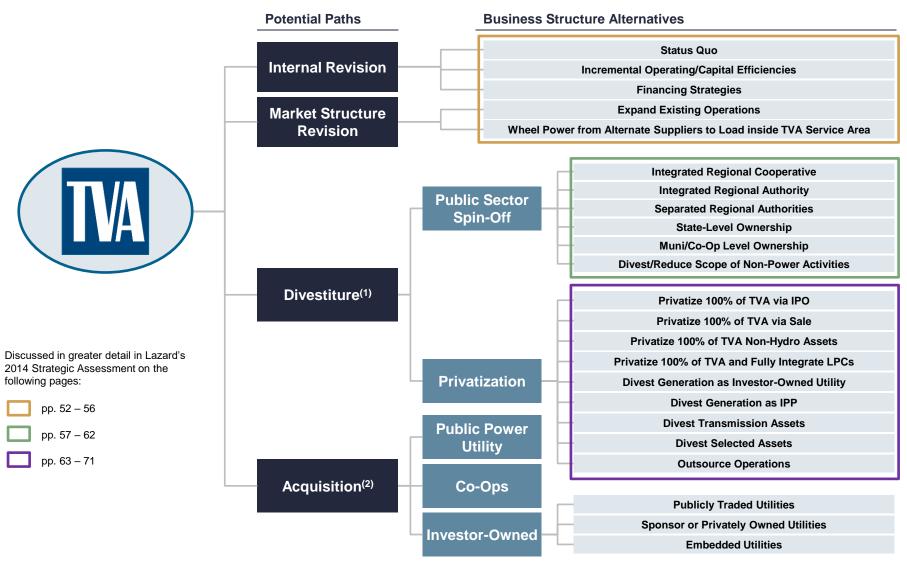




C Summary Review of Potential Business Structures

TVA—Business Structures

Lazard believes that its previous conclusions in the 2014 Strategic Assessment with respect to the benefits and considerations of alternative business models vs. the public power model are still valid today



Public Power Model Provides Significant and Differentiated Value to TVA Stakeholders

Lazard believes that its previous conclusions in the 2014 Strategic Assessment with respect to the benefits and considerations of alternative business models vs. the public power model are still valid today

Under the investor-owned utility model, TVA would likely charge higher rates as equity investors would require a return on investment. It would also be unclear how TVA's non-power mission and activities would logically fit within such a structure⁽¹⁾—any reductions in the scope of the non-power mission and activities could have a negative impact on TVA's service area



Federal Ownership Supports Affordable Rates without Taxpayer Appropriations

Albeit self-funded, TVA is a federal entity and therefore exempt from federal, state and local taxation;⁽²⁾ TVA's tax status supports its ability to provide affordable customer rates, lowers its relative cost of capital and strengthens its credit rating

Mission-Driven Mandate Allows TVA to Focus on the Best Interests of Its Stakeholders

TVA's mission as defined by the TVA Act extends beyond power, allowing TVA to make long-term decisions that are in the best interest of the people of the region, including expansive economic stewardship activities, flood protection programs and recreational initiatives

Anti-Cherry Picking Provision Protects TVA's Ability to Serve Customers

TVA is exempt from the Federal Power Act and Federal Energy Regulatory Commission ("FERC") authority to order utilities to provide transmission service; this exemption limits both TVA's exposure to competition and loss of customers in TVA's service area, which in turn facilitates TVA's ability to spread out fixed costs over a wider customer base

Favorable Rate-Setting Mechanisms Allow Recovery of Costs in Real Time

TVA acts as an independent, statutory rate-setting authority; TVA's rates are not subject to state or FERC regulation and are approved by the TVA Board, which affords TVA the ability to flexibly adjust to changing or unforeseen circumstances in a manner that best serves TVA's stakeholders

Integrated Power and Non-Power Activities Enable TVA to Serve as a Steward of the Region

TVA's integrated power and non-power mission enables TVA to serve as a multifaceted steward of the region through programs such as the Pandemic Relief Credit and Green Invest and other clean energy solutions, which drive both economic development and energy advancement

I AZARD Source: Company filings and public information.

TVA funds its non-power mission and a

TVA funds its non-power mission and activities primarily from the sale of electricity and power system financings.

Pursuant to the TVA Act, TVA makes tax equivalent payments to states and counties in which TVA conducts power operations or which TVA has acquired properties previously subject to state and location taxation.



D Discussion of Key Takeaways from Section V— Current Strategic Positioning, FY21 Plan and Potential Business Models

Discussion of Key Takeaways—Current Strategic Positioning, FY21 Plan and Potential Business Models



 TVA has a wide array of strengths that reflect and have helped drive the significant progress TVA has made in advancing its mission since 2014



 TVA has a broad set of opportunities and is positioned for the future through its five new strategic priorities for gauging its performance going forward: Powerful Partnerships, People Advantage, Operational Excellence, Igniting Innovation and Financial Strength



TVA's FY21 Plan contemplates low effective customer rates going forward and a robust
 ~\$26.5 billion capital investment program that will be financed primarily through rates
 and a relatively modest amount of debt



 TVA expects to decrease its reliance on coal over the next decade by retiring, idling or converting a meaningful amount of its remaining coal capacity and replacing capacity previously served by coal with renewables and natural gas



 Lazard believes that its previous conclusions in the 2014 Strategic Assessment with respect to the benefits and considerations of alternative business models vs. the public power model are still valid today



VI Conclusions

STRATEGIC REVIEW VI CONCLUSIONS

Summary Conclusions

Lazard's Areas of Evaluation

Response—TVA's Current Strategic Positioning

1

Has TVA, now led by a full-time CEO as a result of the 2005 Amendment, succeeded in meeting the objectives set forth in TVA's FY14 Plan? TVA has met or outperformed the key financial and operating objectives established in the FY14 Plan

- Importantly, TVA has decreased wholesale rates over the period—TVA has also outperformed its customer rate forecasts resulting in more affordable rates than expected (i.e., customers pay a lower rate for electricity than TVA projected)
- TVA has surpassed both non-fuel O&M and fuel & purchased power expense forecasts, decreasing both types of expenses over the period
- TVA has achieved its 2023 strategic financial obligations goal of reducing debt to \$21.8 billion three years ahead of schedule

Under TVA's existing
model/business structure, has
TVA's professional
management team pursued
initiatives aligned with TVA's

broader mission?

TVA's professional management team has pursued a variety of initiatives, including ongoing cost reductions, enhanced long-term partnership agreements with the vast majority of its LPCs, renewable energy solutions and innovation plans to advance its energy, environmental and economic development missions; TVA has also made significant progress in mitigating past areas of weakness such as coal ash safety

As TVA has increasingly adopted policies of a private sector corporation, how does it stack up against peer investorowned utilities as measured by TVA's own strategic

imperatives?

TVA generally compares well against peer (i.e., large customer base) investor-owned utilities:

- Rates. In 2019, retail rates in TVA's service area were in the second-best quartile both nationally and among regional peers; additionally, TVA expects FY21 retail rates to decline further as a result of the \$200 million pandemic relief credit and long-term partnership credits and has seen progress in line with this expectation over the first two months of FY21. TVA continues to lag its peers in production non-fuel O&M and non-production non-fuel SG&A expenses (absolute dollar basis), but it should be noted that TVA has significantly reduced its non-fuel O&M expense since 2014, with TVA's cost reductions exceeding those of many of its peers (who do not have the same non-power mission-related obligation as TVA has) on a relative basis
- Asset portfolio. TVA operates a relatively balanced generation mix with top quartile reliability but lags its peers in certain operational nuclear, coal and combined cycle metrics
- · Stewardship. TVA is both a leader in carbon emission reductions and local economic development
- Debt. TVA's effective management of its debt balance and overall financial health is evident in its industry-leading deleveraging efforts, conservative capitalization and strong credit rating; TVA has taken steps to improve its pension's funding status and expects to have a fully funded pension by at least 2036 under conservative assumptions
- People. TVA ranks in the first and second quartile of employee incident safety metrics

What is TVA's current public positioning, how is TVA positioned for the future and is the public power model and TVA's existing business structure a reasonable approach to support TVA's mission?

TVA has been able to carry out its broader mission with respect to energy, environment and economic development under the public power model, including as measured by TVA's performance vs. its forecast set forth in the FY14 Plan. TVA's rate-setting authority and statutory protections that balance service area restrictions are key features of the model. TVA's structural advantages (e.g., tax-advantaged debt, lack of a required equity return, etc.) allow TVA to charge lower rates than it would as an investor-owned utility. Additionally, TVA is positioned to serve and protect the communities and natural resources of the Tennessee Valley in ways that private enterprises may not be equipped or incentivized to do (e.g., TVA's expansive economic stewardship activities, flood protection programs and recreational initiatives). TVA's performance in recent years and current positioning suggest that the public power model is a reasonable approach to support TVA's mission. Lazard believes that its previous conclusions in the 2014 Strategic Assessment with respect to the benefits and considerations of alternative business models vs. the public power model are still valid today