

LAZARD REPORT TO THE TENNESSEE VALLEY AUTHORITY



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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

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:

- 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)
- 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
- 3 With respect to TVA’s performance, Contractor will specifically review and evaluate TVA’s performance:
 - A In meeting its long-term financial plan
 - B Enhancing governance
 - C Increasing the transparency of TVA’s decision-making on important agency actions”

Lazard’s Areas of Evaluation

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?

2 3 Under TVA’s existing model/business structure, has TVA’s professional management team pursued initiatives aligned with TVA’s broader mission?

	Energy	Environment	Economic Development	
Mission Areas	Generate safe, clean, reliable and affordable power for the region’s homes and businesses, working with LPCs to keep service steady and dependable	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 jobs growth and capital investment	

2 3 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	Asset Portfolio	Stewardship	Debt	People
Strategic Imperatives ⁽¹⁾	<ul style="list-style-type: none"> Maintain low rates and align O&M spending with revenues 	<ul style="list-style-type: none"> Pursue operational excellence Balance the portfolio to provide cleaner, efficient and affordable energy 	<ul style="list-style-type: none"> Protect and improve the natural resources and the use and enjoyment of public lands Stimulate economic development and investment in the Valley 	<ul style="list-style-type: none"> Effectively manage debt to ensure long-term financial health 	<ul style="list-style-type: none"> Work safely and effectively Focus on values, competencies and behaviors

2 3 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?

LAZARD Source: TVA disclosures. (1)

Reflects TVA’s strategic imperatives set forth in its FY 2018 – 2022 Strategic Plan. In 4Q 2020, TVA adopted new strategic priorities for strategic planning and performance measures in 2021 and beyond. TVA’s new strategic priorities are (i) powerful partnerships, (ii) people advantage, (iii) operational excellence, (iv) igniting innovation and (v) financial strength. Because Lazard’s benchmarking analysis reviews the historical performance of TVA and its investor-owned peers, TVA’s prior strategic imperatives are used as a frame of reference.

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	• II	• 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:		
A	In meeting its long-term financial plan	• II; III	• 5 – 29
B	Enhancing governance		
C	Increasing transparency of TVA's decision making on important agency actions ⁽¹⁾		



II Review of TVA’s Historical Performance



A The Professionalization of TVA over Time

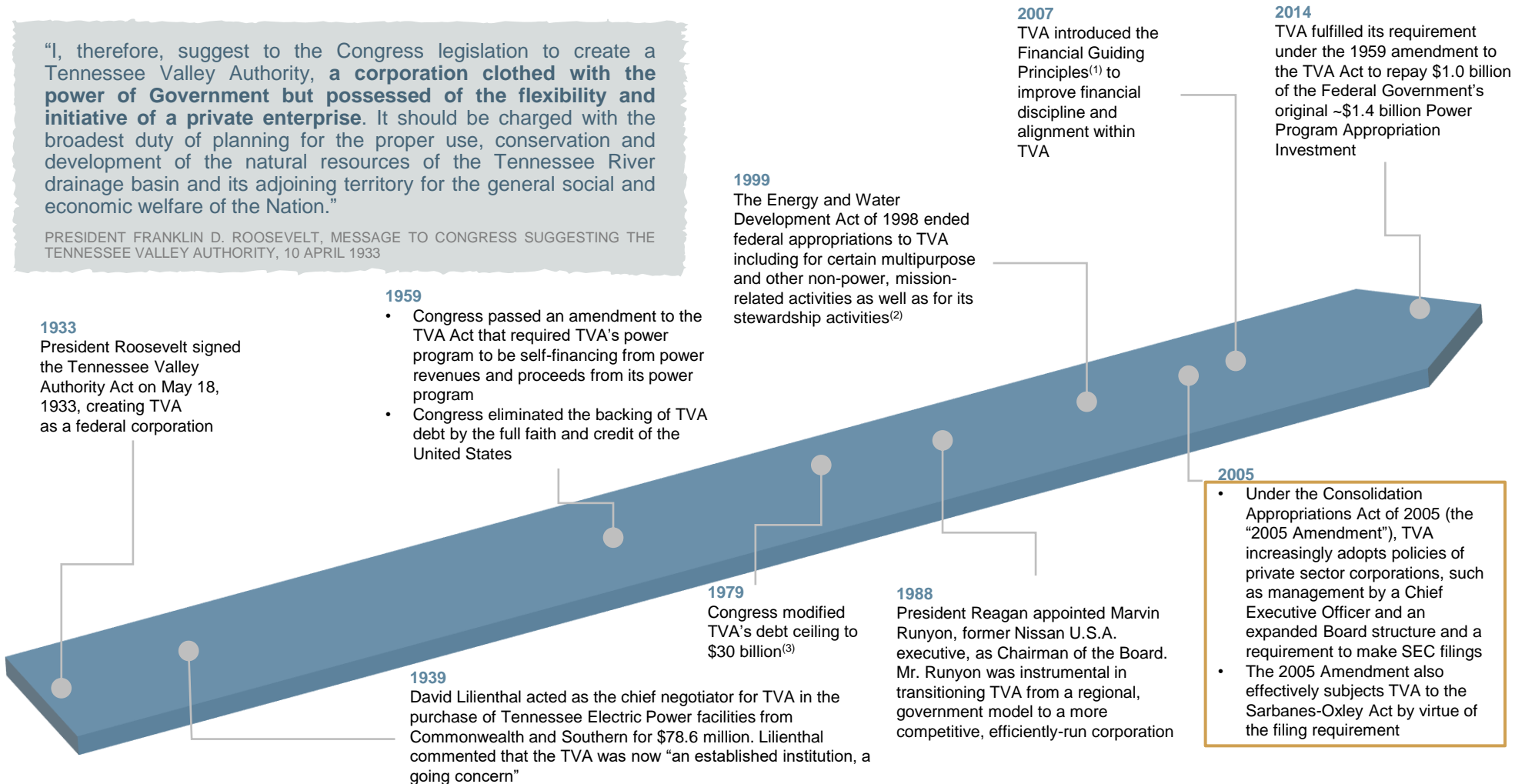
The “Professionalization” of TVA over Time

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

“I, therefore, suggest to the Congress legislation to create a Tennessee Valley Authority, a corporation clothed with the power of Government but possessed of the flexibility and initiative of a private enterprise. It should be charged with the broadest duty of planning for the proper use, conservation and development of the natural resources of the Tennessee River drainage basin and its adjoining territory for the general social and economic welfare of the Nation.”

PRESIDENT FRANKLIN D. ROOSEVELT, MESSAGE TO CONGRESS SUGGESTING THE TENNESSEE VALLEY AUTHORITY, 10 APRIL 1933



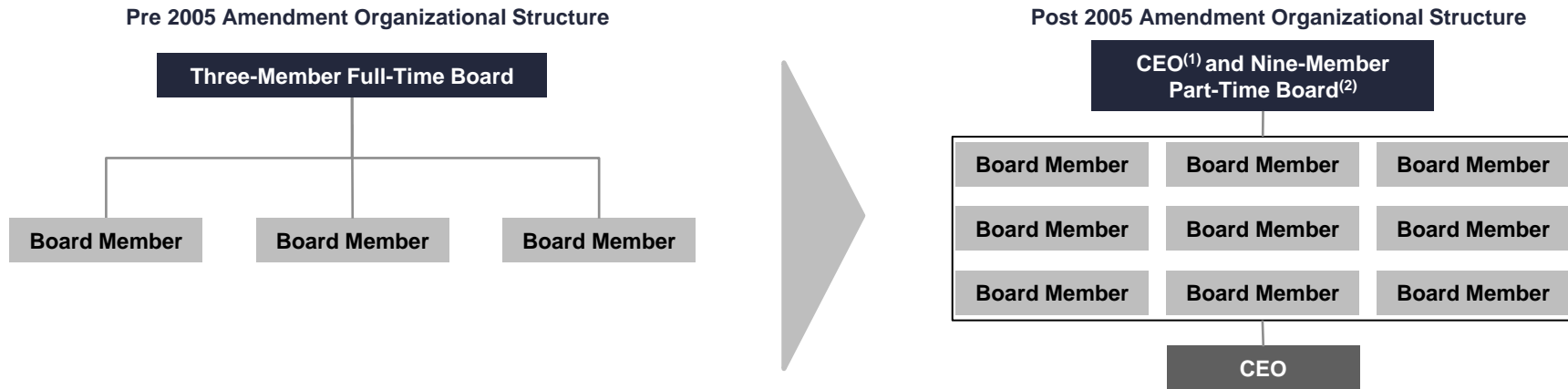
Discussed in greater detail on the following page

(1) The Financial Guiding Principles were later approved and memorialized by the TVA Board in 2010.
 (2) TVA is still required to perform the mission-related non-power activities even with federal appropriations ending.
 (3) 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



Overview of Other 2005 Amendment Impacts

A 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”)
 - 2 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:
 - 1 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)

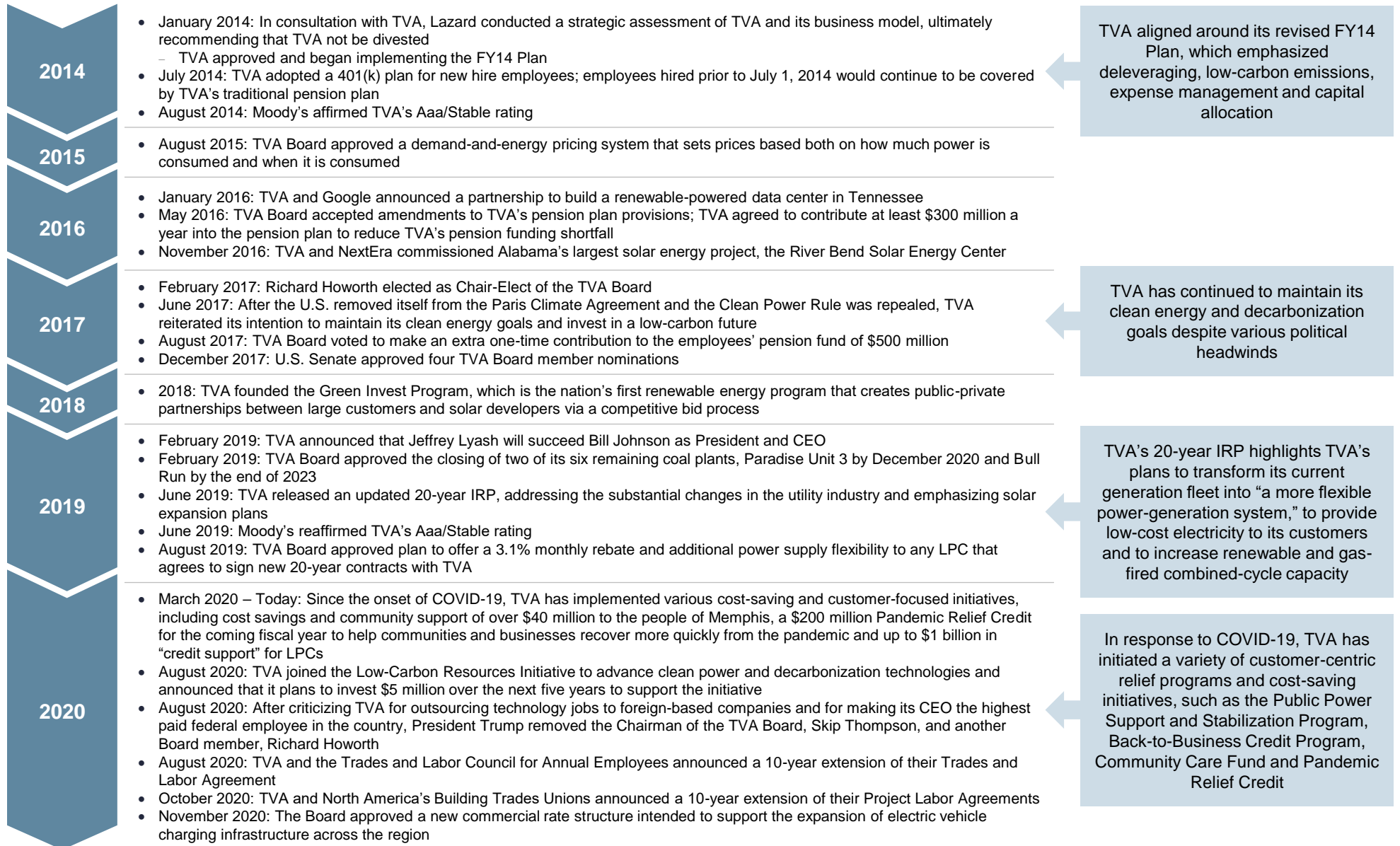
Source: Consolidated Appropriations Act of 2005, TVA filings and public information.

(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.



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

Selected TVA Developments Post 2014



TVA Actual Performance vs. FY14 Plan

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
Customer Rates	<ul style="list-style-type: none"> • Wholesale rates to increase by 1.08 ¢/kWh, reaching 7.78 ¢/kWh by 2020 • Retail rates⁽²⁾ to increase by 1.52 ¢/kWh, reaching 10.33 ¢/kWh by 2020 		<ul style="list-style-type: none"> ✓ Wholesale rates <i>decreased</i> by 0.29 ¢/kWh, reaching 6.69 ¢/kWh in 2020 ✓ Retail rates⁽²⁾ increased by 0.05 ¢/kWh, reaching 9.14 ¢/kWh in 2020
Electricity Sales and Operating Revenue	<ul style="list-style-type: none"> • Total electricity sales to grow at a 0.5% CAGR, reaching ~158 TWh in 2020 • Operating revenue to grow at a 2.9% CAGR or ~\$1.9 billion 		<ul style="list-style-type: none"> • Total electricity sales decreased by a 0.7% CAGR, reaching ~151 TWh in 2020 • Operating revenue decreased by a 1.4% CAGR or ~(\$900) million—this decrease can be partially attributed to TVA's ~\$1.4 billion fuel cost reduction over the period
Non-Fuel O&M Expenses	<ul style="list-style-type: none"> • Non-fuel O&M expenses to decrease by ~\$86 million or ~2.5%, reaching ~\$3.4 billion in 2020 • Non-fuel O&M expenses per MWh to decrease by \$1.16/MWh, reaching \$21.21/MWh in 2020 		<ul style="list-style-type: none"> ✓ Non-fuel O&M expenses decreased by ~\$620 million or ~19%, reaching ~\$2.7 billion in 2020 ✓ Non-fuel O&M expenses per MWh decreased by \$3.15/MWh, reaching \$17.98/MWh in 2020
Fuel & Purchased Power Expenses	<ul style="list-style-type: none"> • Fuel & purchased power expenses to increase by ~\$500 million or ~14%, reaching ~\$4.0 billion in 2020 • Fuel & purchased power expenses per MWh to increase by \$2.52/MWh, reaching \$25.29/MWh in 2020 		<ul style="list-style-type: none"> ✓ Fuel & purchased power expenses <i>decreased</i> by ~\$1.4 billion or ~36%, reaching ~\$2.5 billion in 2020 ✓ Fuel and purchased power expenses per MWh <i>decreased</i> by \$7.90/MWh, reaching \$16.29/MWh in 2020
Statutory Debt⁽³⁾ and Total Financing Obligations ("TFO")	<ul style="list-style-type: none"> • Statutory debt to decrease by ~\$2.2 billion, reaching ~\$23.7 billion in 2020 • TFO to decrease by ~\$3.2 billion, reaching ~\$25.1 billion in 2020 • At the beginning of fiscal year 2014, TVA's S&P and Moody's credit ratings/outlook were AA+/Stable and Aaa/Stable, respectively 		<ul style="list-style-type: none"> ✓ Statutory debt decreased by ~\$3.5 billion, reaching ~\$20.1 billion in 2020 ✓ TFO decreased by ~\$4.7 billion (or ~\$6.1 billion since FYE 2013), reaching ~\$21.4 billion in 2020 and achieving the 2023 strategic financial obligations goal of \$21.8 billion three years ahead of schedule ✓ TVA maintained its 2014 S&P and Moody's credit ratings and associated 'Stable' outlooks through 2020
Net Income and Interest Coverage Ratio⁽⁴⁾	<ul style="list-style-type: none"> • Total net income to reach ~\$1.0 billion in 2020 • Interest coverage ratio to increase by ~0.9x, reaching ~3.1x in 2020 		<ul style="list-style-type: none"> ✓ Total net income increased by an ~19% CAGR, reaching ~\$1.4 billion in 2020—higher net income provided TVA with additional cash for deleveraging and capital expenditures ✓ Interest coverage ratio increased by ~1.1x, reaching ~3.8x in 2020
Capital Expenditures⁽⁵⁾ and Net PP&E⁽⁶⁾	<ul style="list-style-type: none"> • Capital expenditures to total ~\$15.2 billion over 2014 – 2020 • Net PP&E to grow by a 0.3% CAGR, reaching ~\$31.0 billion in 2020 		<ul style="list-style-type: none"> ✓ Capital expenditures totaled ~\$15.8 billion over 2014 – 2020 ✓ Net PP&E grew by an ~2.5% CAGR, reaching ~\$33.6 billion in 2020 ✓ Rates were not adversely impacted, as highlighted above

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

Note: 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.

(1) Total financing obligations includes statutory debt plus debt from variable interest entities, lease/leaseback obligations, energy prepayment obligations and finance lease liabilities.

(2) 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.

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

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

(5) Capital expenditures exclude nuclear fuel expenditures.

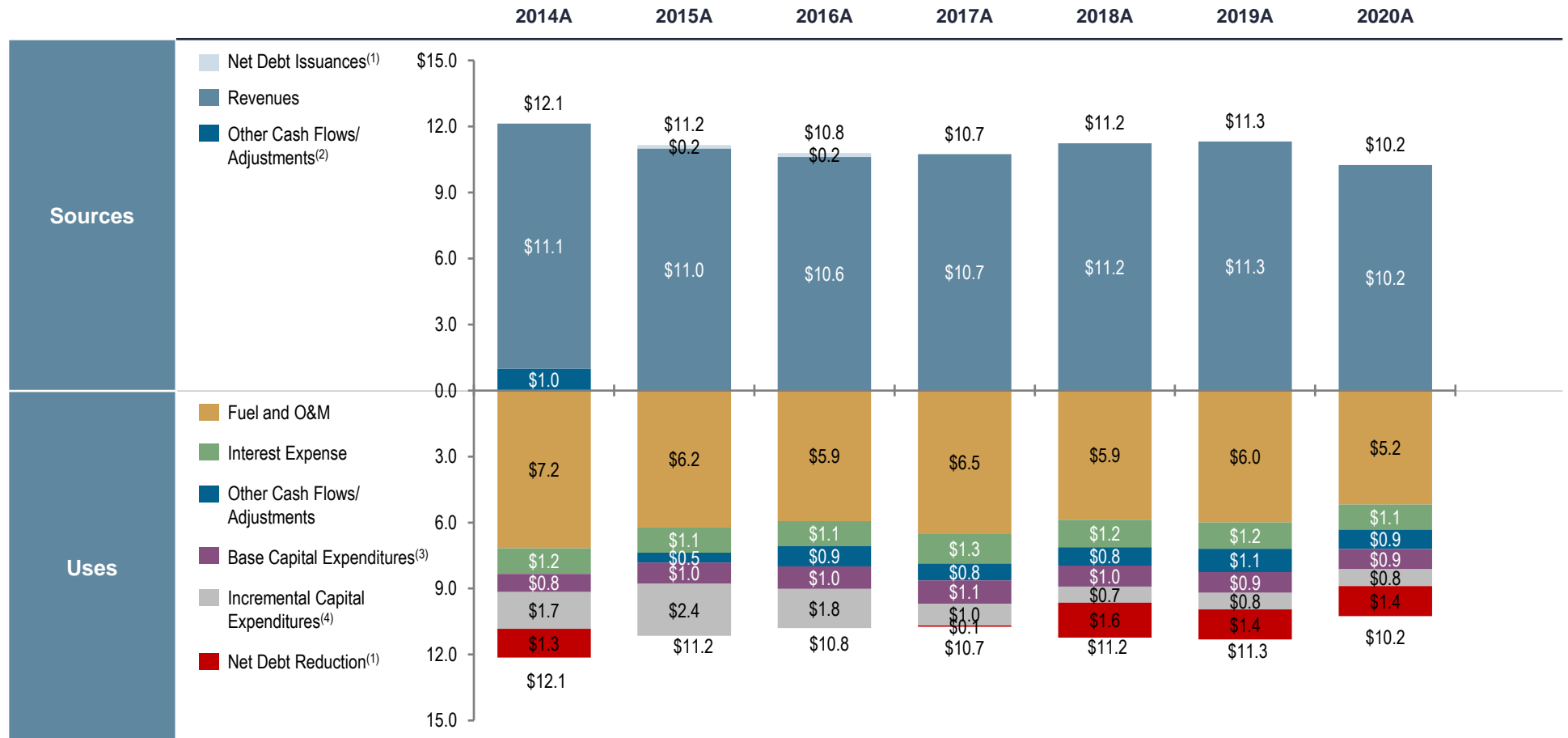
(6) Net Property, Plant & Equipment ("PP&E") excludes nuclear fuel and finance (formerly capital) leases.

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.

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

(2) 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.

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

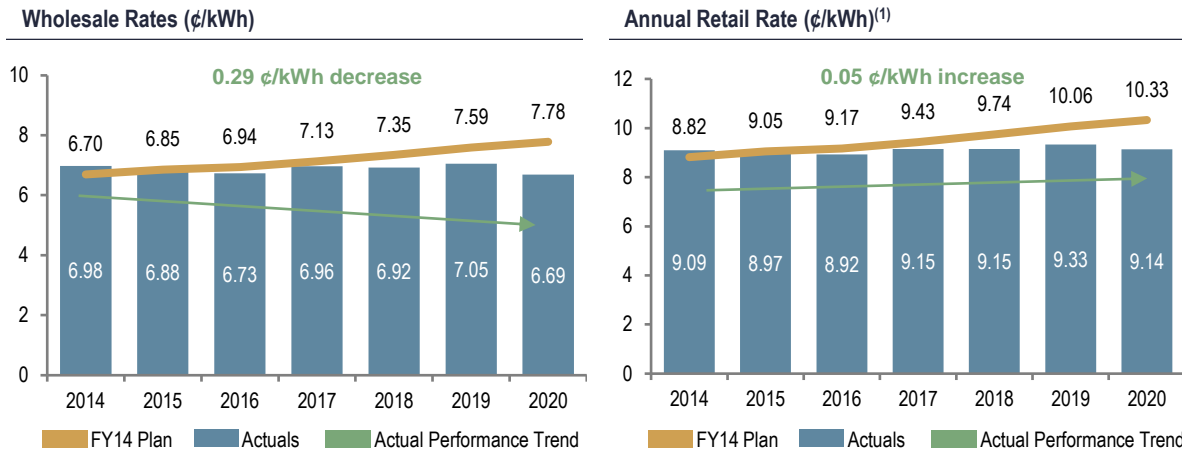
(4) Represents capital expenditures related to capacity expansion, environmental capital, etc.

TVA Performance vs. FY14 Plan—Operating Metrics

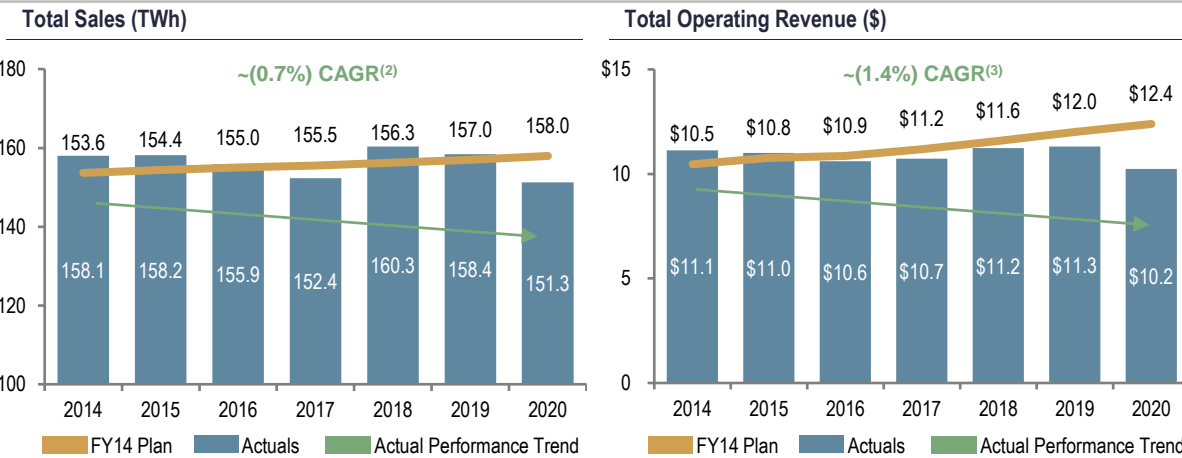
(\$ in billions unless otherwise noted)

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

Customer Rates



Total Sales and Operating Revenue



Selected Observations

- TVA's effective wholesale rates have decreased by 0.29 ¢/kWh vs. the FY14 Plan forecasted 1.08 ¢/kWh increase
- Retail rates in TVA's service area have been relatively flat since 2014, modestly increasing by 0.05 ¢/kWh vs. the FY14 Plan forecasted 1.52 ¢/kWh increase
 - 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
- TVA's total electricity sales decreased slightly across the period compared to the FY14 Plan forecasted 0.5% 2014 – 2020 CAGR
- TVA's total operating revenue decreased slightly across the period compared to the FY14 Plan forecasted 2.9% 2014 – 2020 CAGR
 - The decrease in revenue is in part attributable to TVA's ~\$1.4 billion reduction in fuel expense over the period, which also contributed to the beneficial rate impacts described above⁽⁴⁾

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

Note: Figures may not sum due to rounding.

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

(2) 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 in TVA's service area.

(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 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).

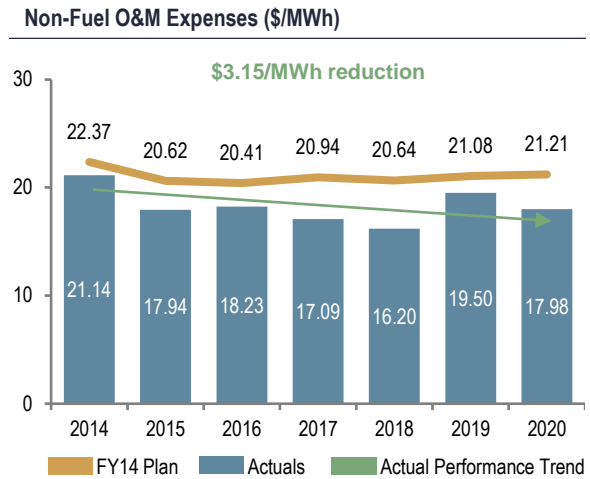
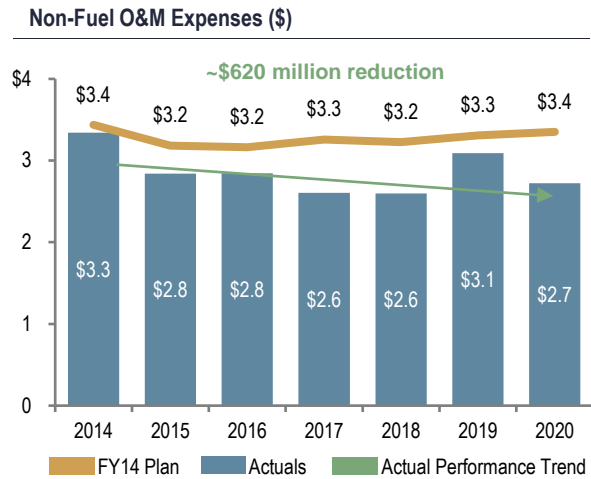
(4) Declining revenues can be a positive or negative outcome depending on the cause. For example, declining revenues underpinned by fuel cost savings or energy efficiency is a beneficial outcome. However, declining revenues due to fewer customers adversely impacts remaining customers, who must bear a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

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

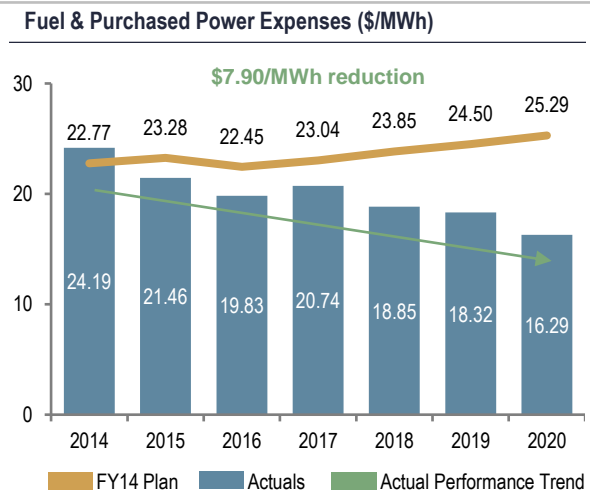
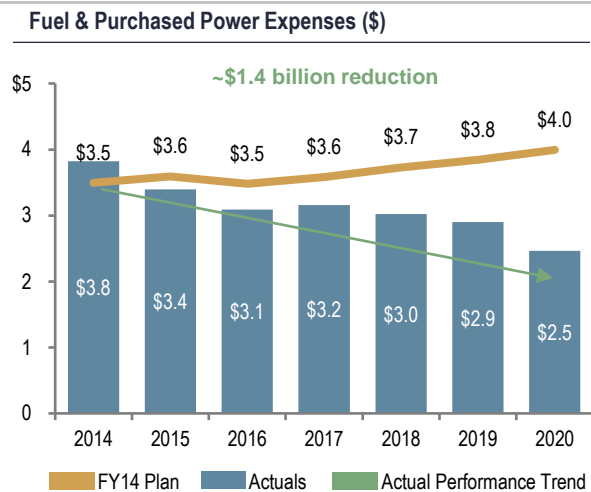
(\$ in billions unless otherwise noted)

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

Non-Fuel O&M Expenses



Fuel & Purchased Power Expenses



Selected Observations

- TVA's annual non-fuel O&M expense has decreased ~\$620 million since 2014 vs. the ~\$86 million FY14 Plan projected decrease
- On a dollars per MWh basis, TVA has reduced non-fuel O&M expense by \$3.15/MWh since 2014 vs. the ~\$1.16/MWh FY14 Plan projected reduction
- TVA's annual fuel & purchased power expense has *decreased* by ~\$1.4 billion since 2014 vs. the ~\$500 million FY14 Plan projected *increase*
- On a dollars per MWh basis, TVA has *reduced* fuel and purchase power expense by \$7.90/MWh since 2014 vs. the FY14 Plan forecasted \$2.52/MWh *increase*

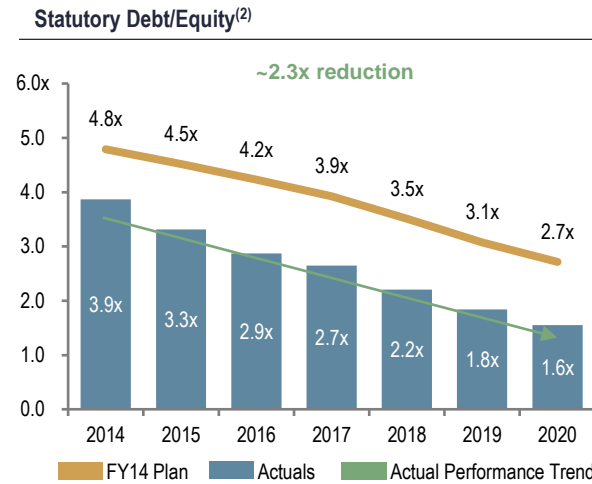
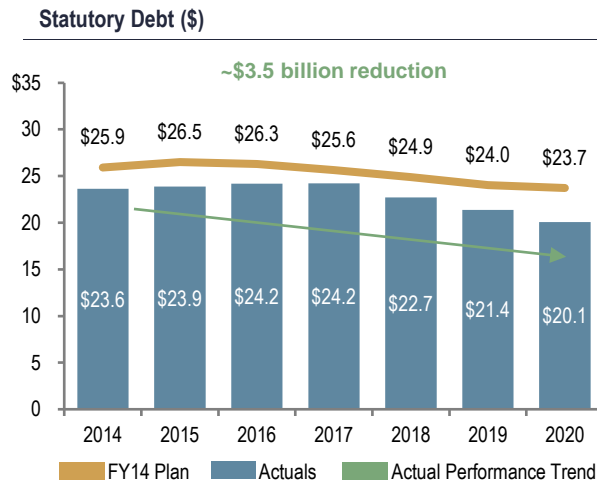
TVA Performance vs. FY14 Plan—Financial Metrics

(\$ 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

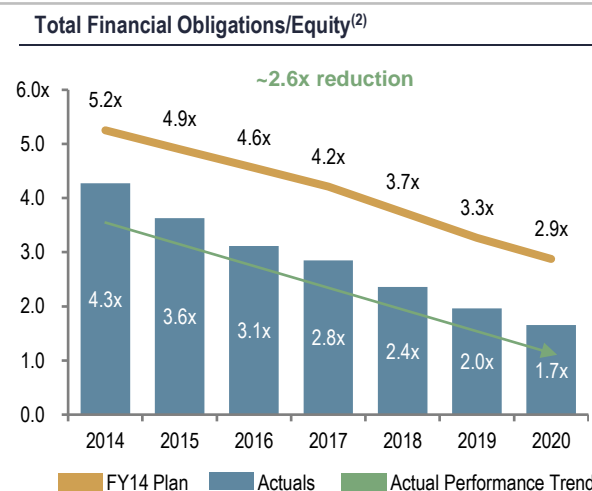
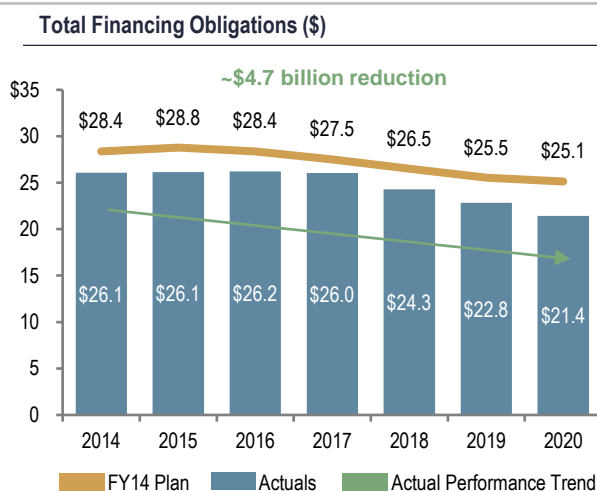
Selected Observations

Statutory Debt⁽¹⁾



- 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

Total Financing Obligations⁽³⁾



- 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

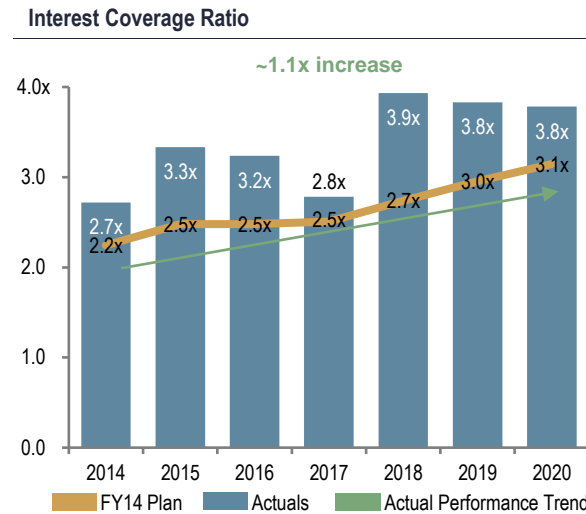
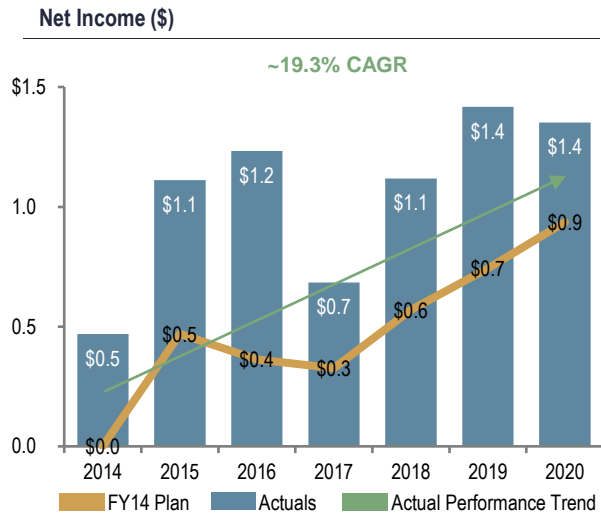
TVA Performance vs. FY14 Plan—Financial Metrics (cont'd)

(\$ 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

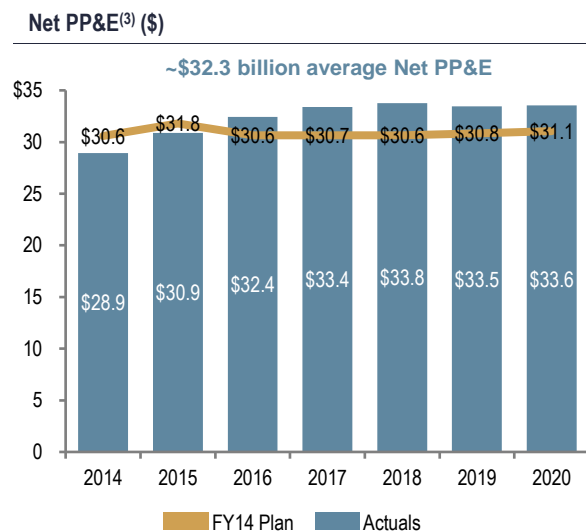
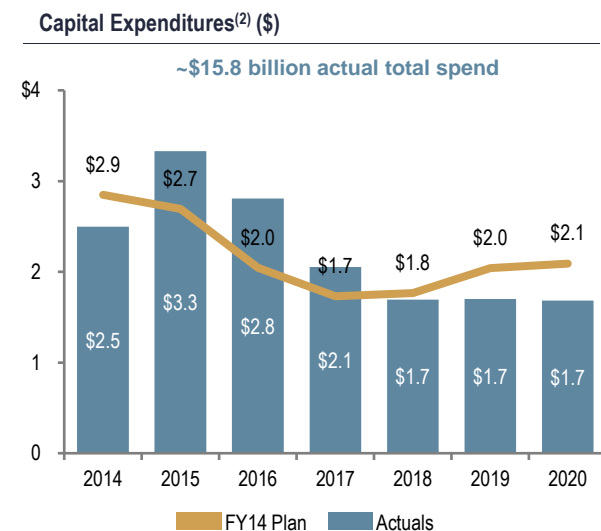
Selected Observations

Net Income and Interest Coverage Ratio⁽¹⁾



- 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

Capital Expenditures and Net PP&E



- 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

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

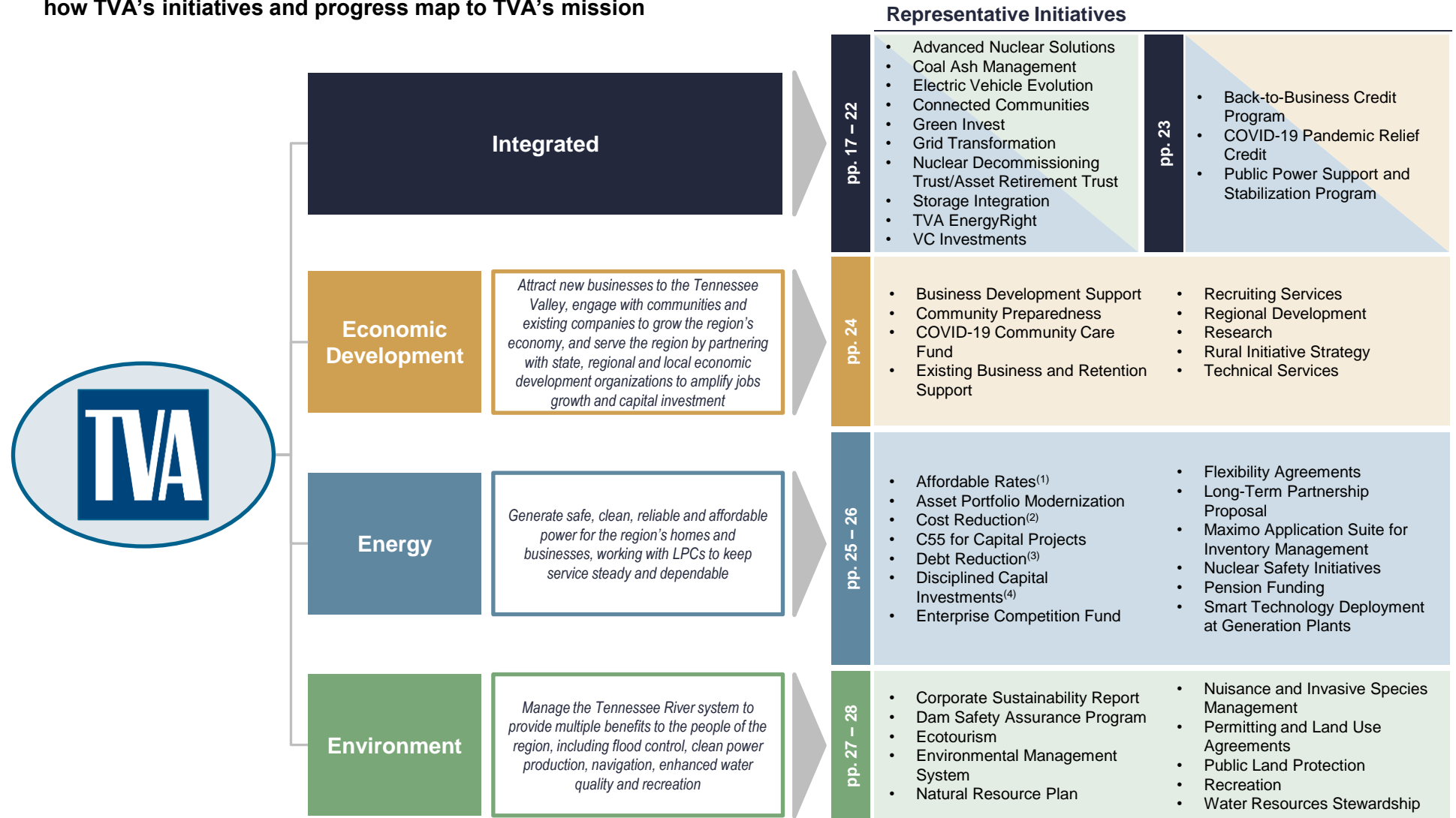


III TVA Mission-Related Initiatives under Professionalized Management

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

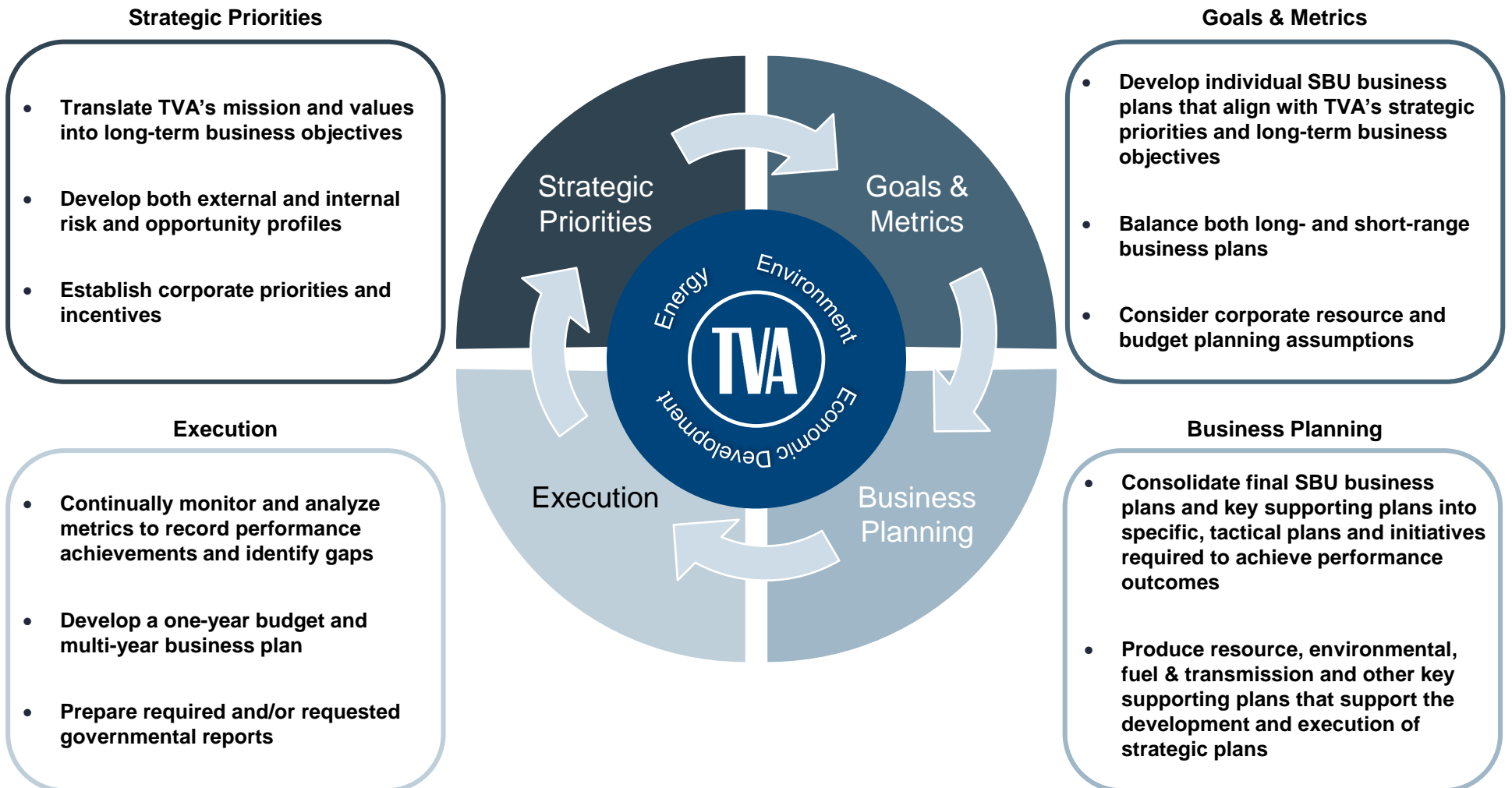


Note: TVA's Integrated Planning Process encompasses all three mission areas and is discussed in greater detail on the following page.
 (1) Discussed in greater detail in Section II.B on p. 10.
 (2) Discussed in greater detail in Section II.B on p. 11.
 (3) Discussed in greater detail in Section II.B on p. 12.
 (4) Discussed in greater detail in Section II.B on pp. 9 and 13.

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

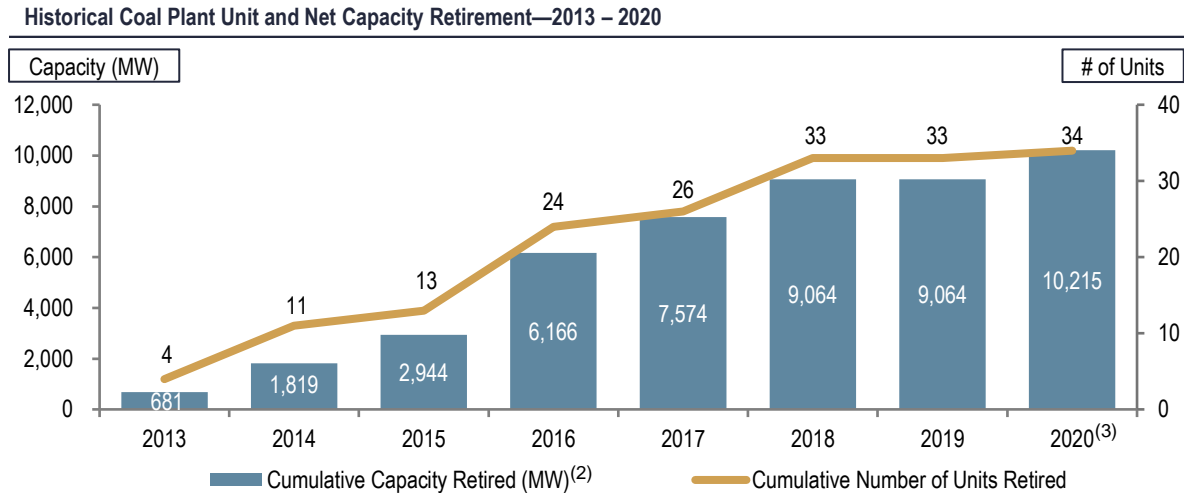
- The integrated planning process emphasizes mission-focused, cross-functional alignment between strategic business units ("SBUs"), culminating in an annual company-wide meeting in which plans are rolled out to all TVA employees to promote coordination and encourage individual employee contributions



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

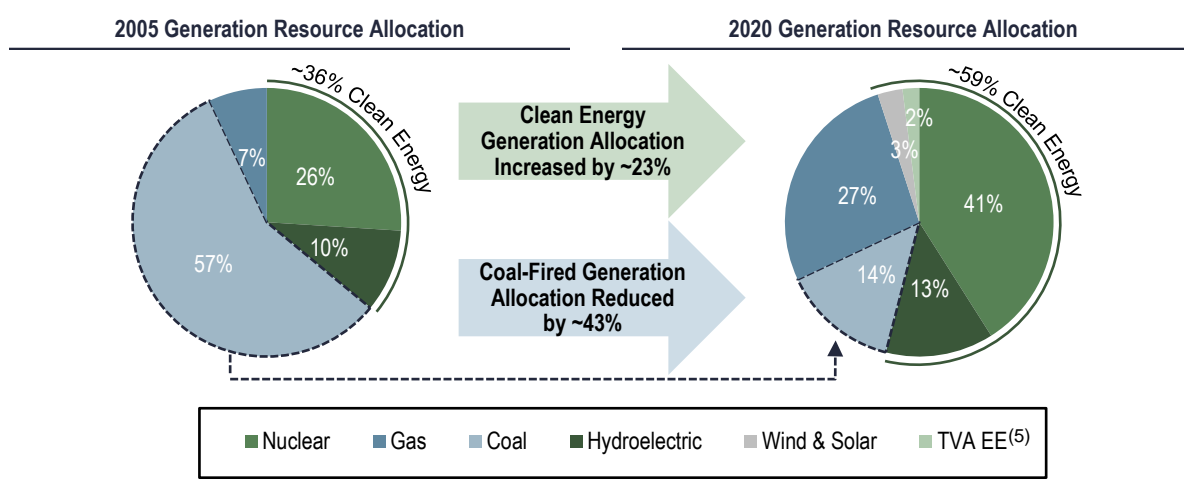
Coal Plant Unit and Net Capacity Retirements⁽¹⁾



Selected Observations

- Since 2013, TVA has retired 34 coal plant units, totaling ~10,215 MW of net capacity
- TVA plans to retire Bull Run in 2023 and select Shawnee generation units in 2034⁽⁴⁾

Generation Resource Allocation



- From 2005 – 2020, TVA has reduced its generation allocation from coal plants from 57% to 14% of TVA's total generation
- TVA has increased its generation allocation from clean energy from 36% in 2005 to 59% in 2020

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

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

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

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

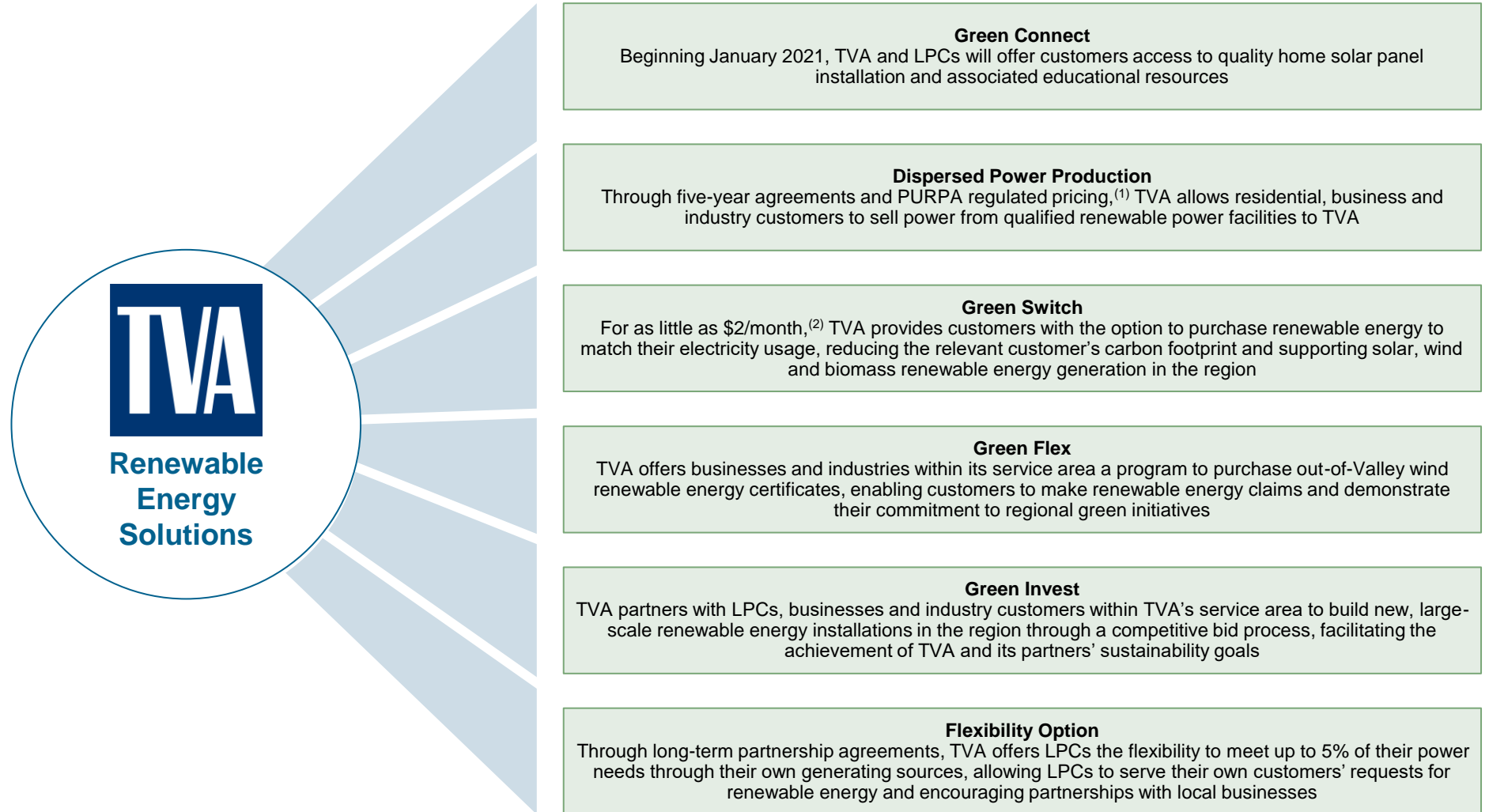
(3) Figures include the retirement of Paradise Unit 3, which was taken offline in February 2020, effectively retiring the plant.

(4) TVA plans to retire Shawnee Units 2, 3 and 5 – 9 in 2034. Shawnee Unit 10 was retired in 2014.

(5) EE includes TVA Energy Efficiency Program impacts on a net cumulative realized at system basis.

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



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



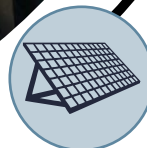
Connected Communities

- 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

Overview of TVA’s Nuclear Decommissioning Trust (“NDT”)

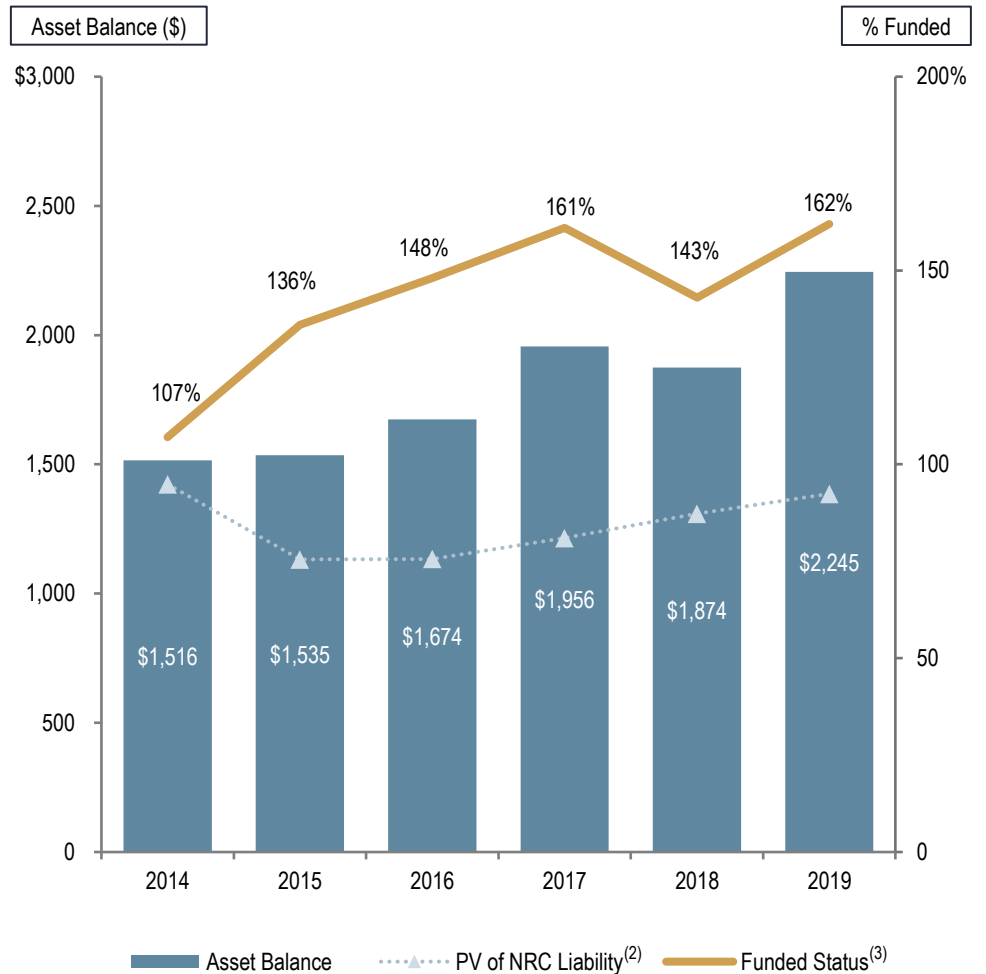
(\$ in millions unless otherwise noted)

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

Required?	<ul style="list-style-type: none"> Yes, the NDT is required by the U.S. Nuclear Regulatory Commission (“NRC”)⁽¹⁾ 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
Funding Status	<ul style="list-style-type: none"> Fully funded in accordance with NRC minimum liability requirements
Future Costs Associated with the Trust	<ul style="list-style-type: none"> Decommissioning of licensed nuclear power plants and associated obligations (e.g., the removal of radiological material from nuclear sites) NDT funds are segregated and may only be used for purposes permitted by the NRC
Governance and Oversight	<ul style="list-style-type: none"> The NDT is governed by an internal Investment Trust Board (“ITB”) The ITB has various specialized committees and is responsible for overall governance and policy allocations of the NDT fund TVA utilizes independent investment consultants for NDT investment advice and asset/liability analysis
Balance as of September 30, 2020	<ul style="list-style-type: none"> \$2.2 billion

NDT Asset Balance and Funding over Time: 2014 – 2019



Overview of TVA’s Asset Retirement Trust (“ART”)

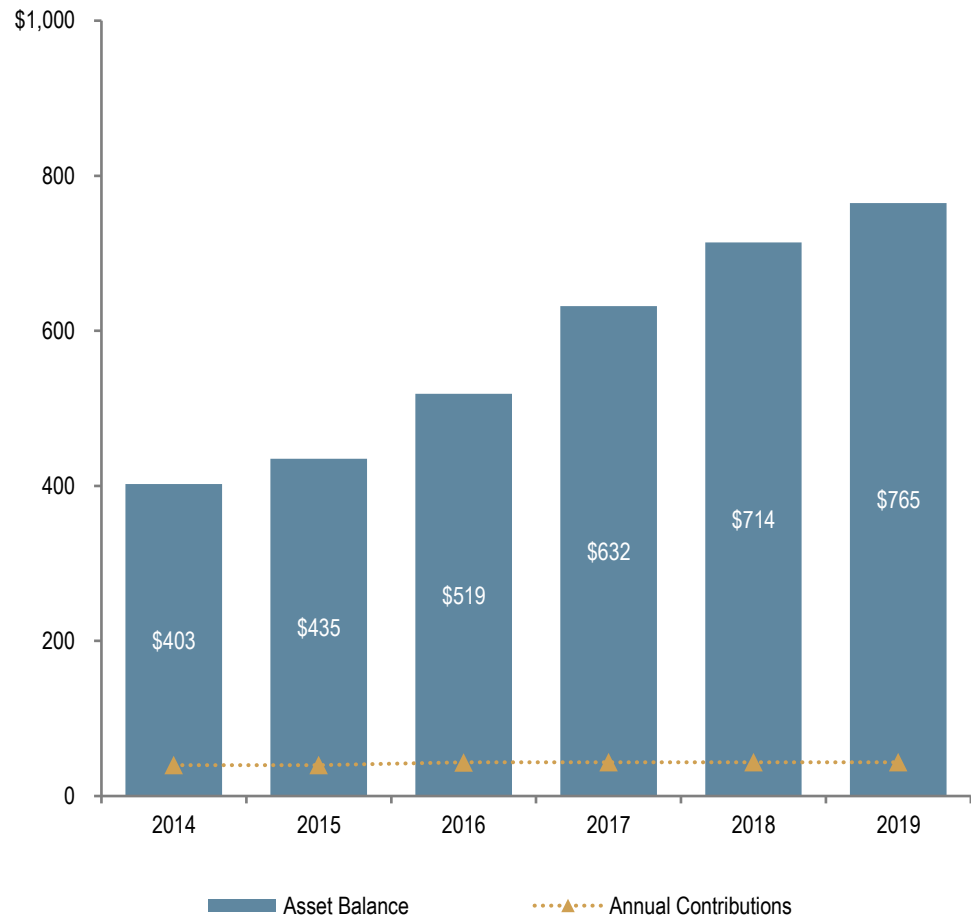
(\$ in millions unless otherwise noted)

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

Required?	<ul style="list-style-type: none"> No, TVA voluntarily manages and contributes ~\$40 million per year to the trust TVA stands apart from its investor-owned utility peers by having a designated ART or trust fund equivalent
Funding Status	<ul style="list-style-type: none"> TVA determines trust contributions based on expected future non-nuclear retirement expenses TVA plans to continue making annual contributions through 2040⁽¹⁾ and is on track to meet future obligations (currently there is an estimated ~\$7 billion in future legal obligations)
Future Costs Associated with the Trust	<ul style="list-style-type: none"> Retirement of non-nuclear long-lived assets, other capital obligations (e.g., associated legal obligations with respect to coal ash, asbestos and spent nuclear fuel) and capital projects
Governance and Oversight	<ul style="list-style-type: none"> The ART is governed by an internal Investment Trust Board (“ITB”) The ITB has various specialized committees and is responsible for overall governance and policy allocations of the ART fund TVA utilizes independent investment consultants for ART investment advice and asset/liability analysis
Balance as of September 30, 2020	<ul style="list-style-type: none"> \$866 million

ART Asset Balance over Time: 2014 – 2019



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

Proactive Byproduct Management

Advanced Technology for Impoundment Monitoring (“ATIM”) System

TVA’s ATIM system, the country’s first and only one of its kind, continuously monitors coal ash storage sites 24/7 to confirm the structural integrity of the CCR units

Groundwater Monitoring

TVA maintains a network of upgradient and downgradient groundwater wells to monitor groundwater quality; TVA provides this data to the state and federal regulatory agencies to support public safety and mitigation measures

Landfill Management

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

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 coal-fired 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⁾

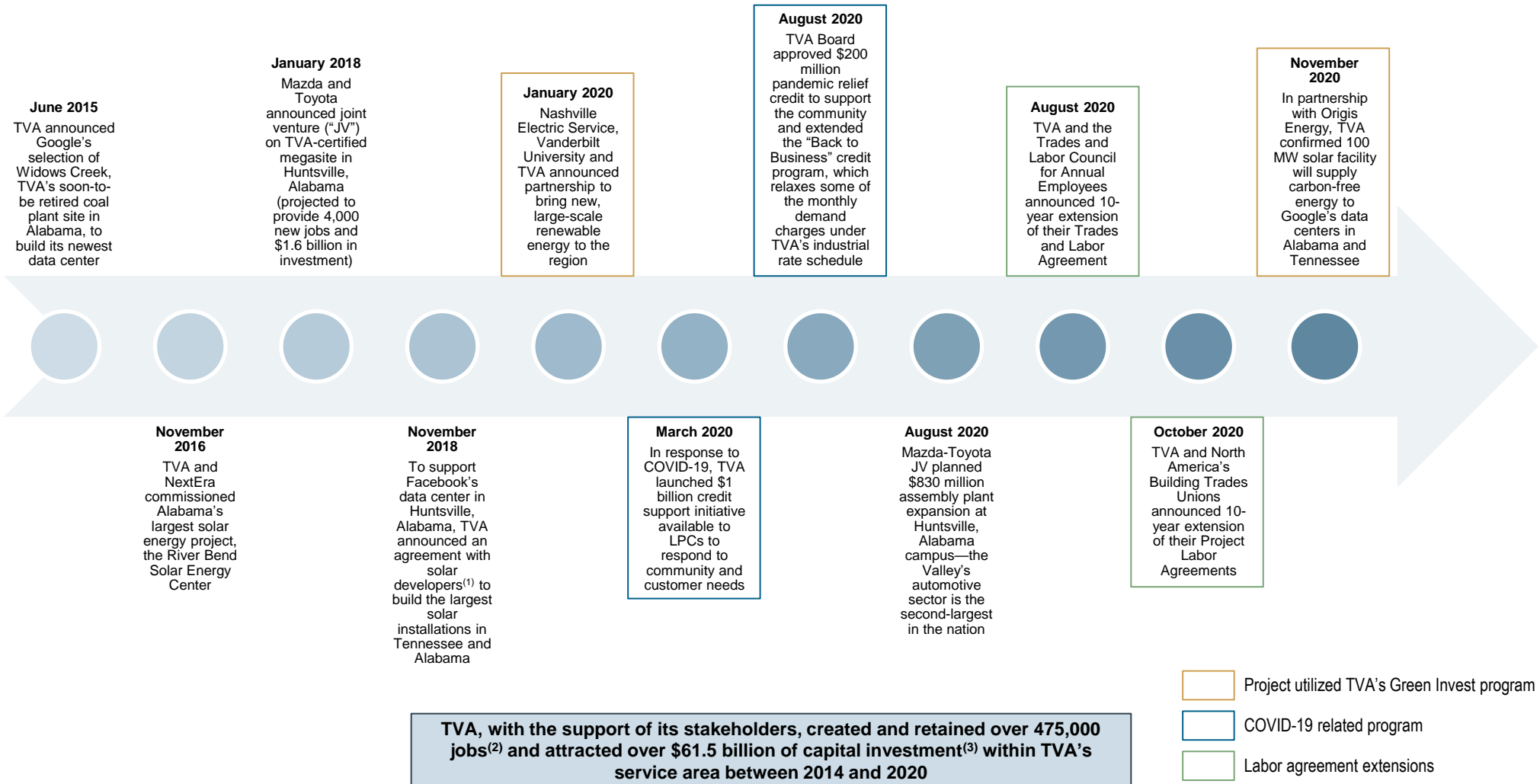
Source: TVA Annual Performance Plan, company website and public information.

(1) On April 17, 2015, the Environmental Protection Agency published the Coal Combustion Residuals (“CCR”) Rule, which established minimum CCR or coal ash disposal requirements in landfills and surface impoundments or “ash ponds.”
 (2) 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.
 (3) 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.
 (4) TVA has closed 48% of its CCR facilities—the remaining 52% are scheduled to close by 2040.

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



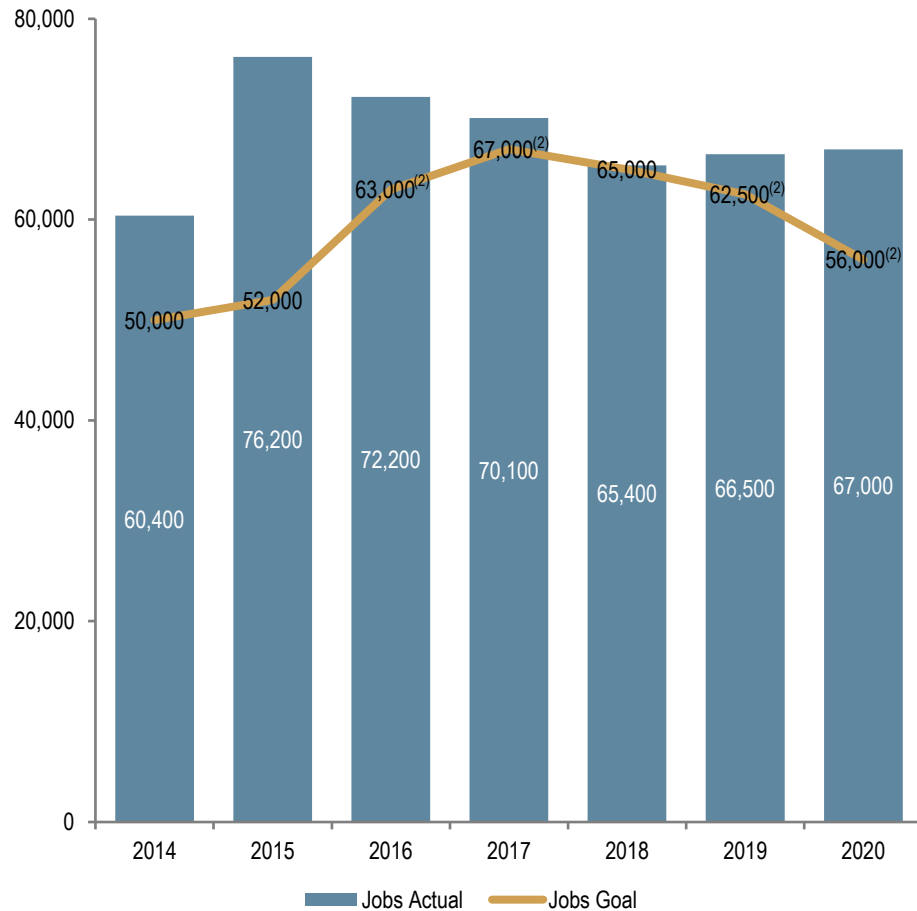
(1) First Solar is developing a 277 MW installation in Colbert County, AL, and NextEra Energy Resources is developing a 150 MW installation in Lincoln County, TN.
 (2) Defined as the jobs created and retained in TVA's service area for which TVA played a role in the recruitment or retention of the economic development project.
 (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.

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

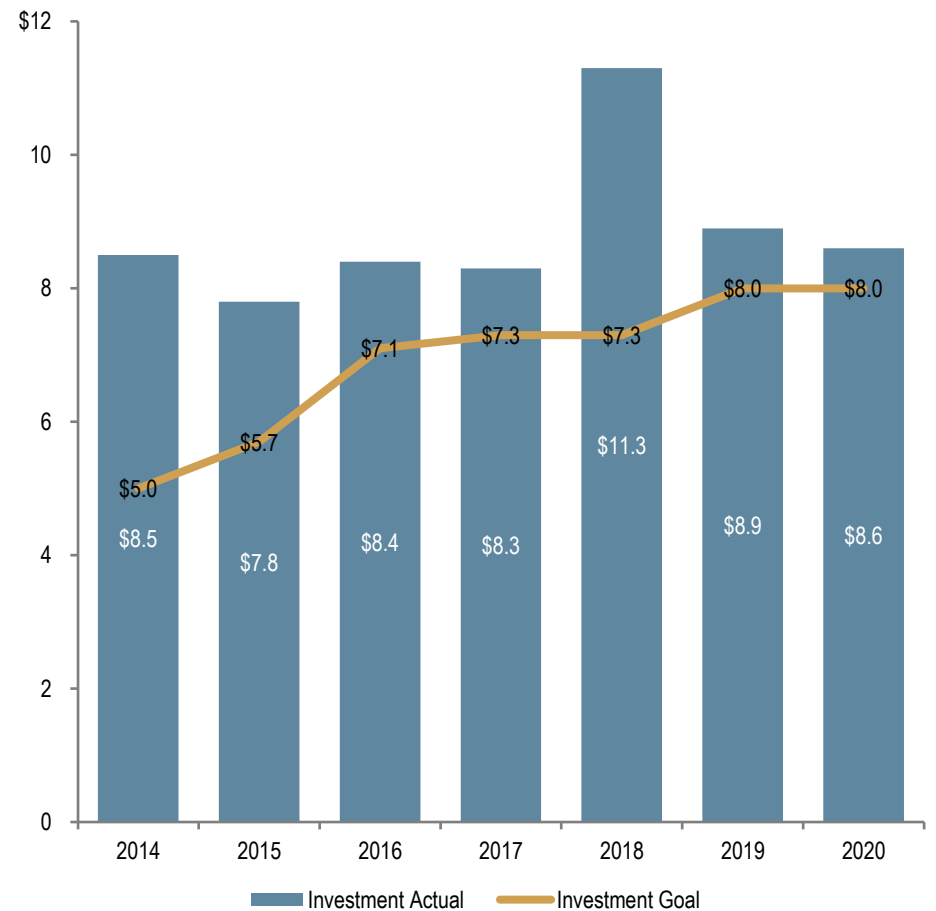
(\$ in billions unless otherwise noted)

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



Capital Investment Attracted⁽³⁾: 2014 – 2020

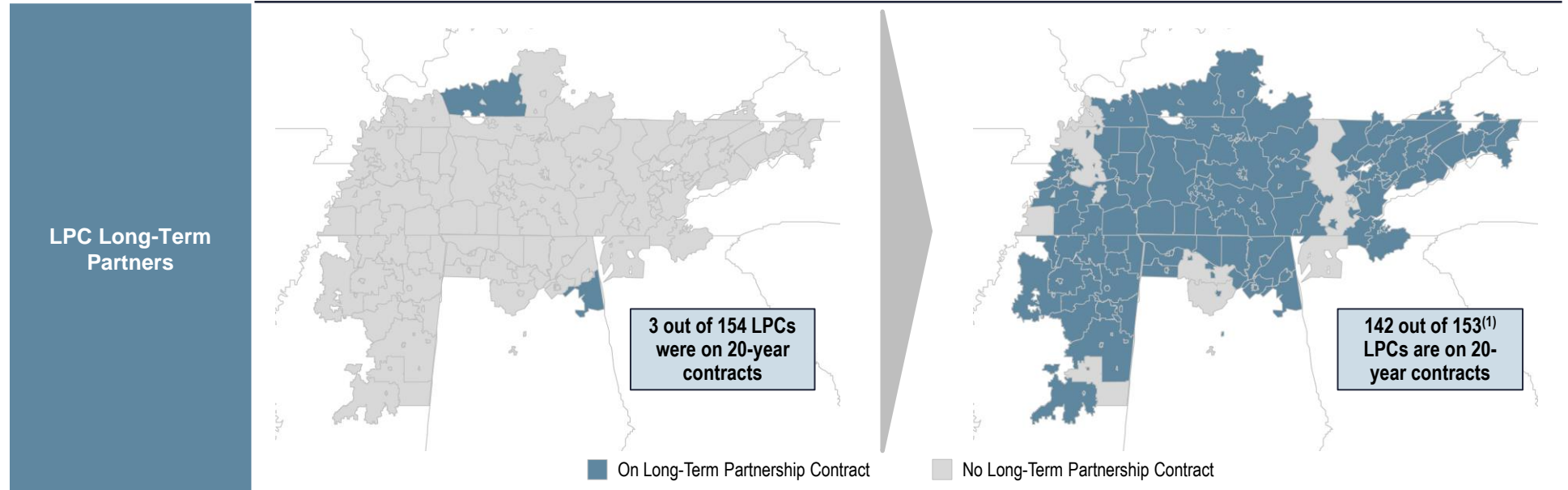


TVA—Long-Term Partnership Proposal

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

Prior to Long-Term Partnership Proposal

Current Status (142 Long-Term Partners)



LPC Long-Term Partners			
Percent of LPCs on 20-Year Contracts	2%	TVA increased the percent of LPCs on 20-year contracts and revenue under contract by 91% and 50%, respectively	93% ⁽²⁾
Percent of LPC Revenue under Contract	37%		87%
Weighted Average LPC Contract Length	7.4 years		17.3 years
Total Revenue under Contract	\$56 billion		\$131 billion
Net Portfolio Position ⁽³⁾ (“NPP”)	45%		65%

Source: TVA disclosures.

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

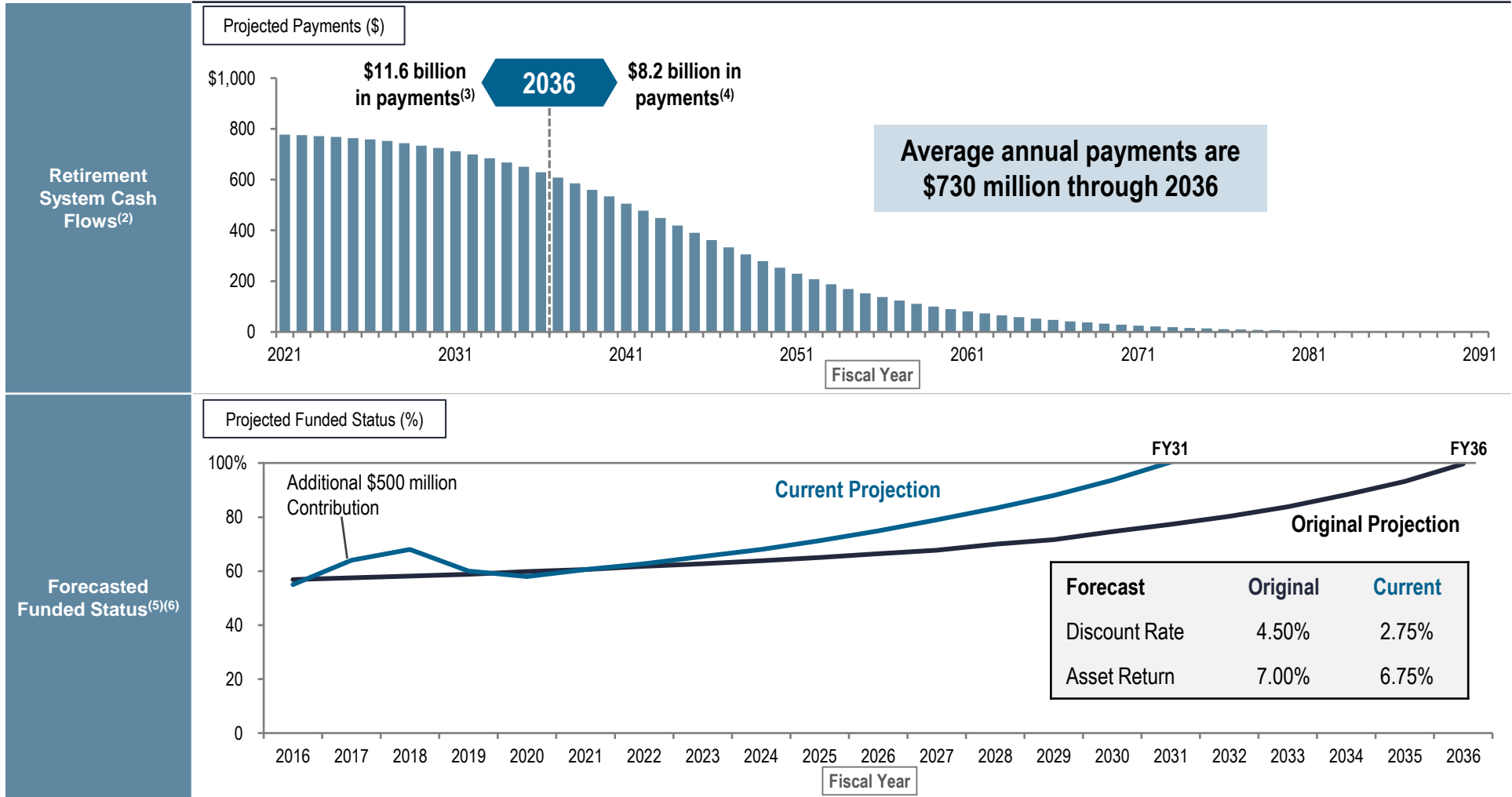
(2) Having a higher percentage of LPCs under long-term contracts enhances TVA’s revenue projections and facilitates TVA’s ability to make long-term investments in its system. Conversely, a lower percentage of long-term contracts could lead to higher or more volatile rates with fixed costs spread over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

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

Overview of Pension-Related Initiatives

(\$ in millions unless otherwise 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.

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

(1) 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.

(2) Data as of September 30, 2019.

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

(4) 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

Selected Environmental Strategy Initiatives

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

TVA uses a state-of-the-art 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 applicable 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • (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	<ul style="list-style-type: none"> • (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⁾	<ul style="list-style-type: none"> • (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	<ul style="list-style-type: none"> • (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⁾	<ul style="list-style-type: none"> • (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

New focus areas in TVA's 2020 Natural Resource Plan

(1) 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 under Professionalized Management

- 1** • Management’s initiatives and development plans appear to be well aligned with TVA’s mission, which encompasses three major areas of focus: economic development, energy and environment and is enabled by the public power model
- 2** • TVA has reduced coal’s contribution to its generation mix in recent years and employed a variety of initiatives to integrate renewable energy into its portfolio and to connect its end-use customers and LPCs to cleaner power
- 3** • To support the continued development and improvement of life in its service area, TVA has initiated or has plans to initiate several innovation programs, including storage integration, electric vehicle evolution and grid modernization
- 4** • TVA has made progress in developing and implementing industry-leading coal ash management initiatives and technologies to abide by local and federal environmental regulations and to protect the land and water resources of the region, though coal ash will remain an important topic that needs to be addressed on an ongoing basis
- 5** • TVA has successfully executed multiple local projects and initiatives in its service area, including its collaborations with Amazon, Google and Facebook, furthering TVA’s mission to be a steward of the Valley and to encourage economic development
- 6** • 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
- 7** • 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












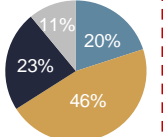
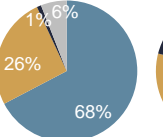
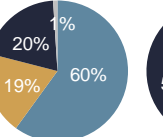
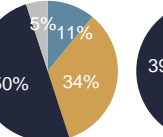
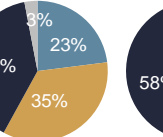
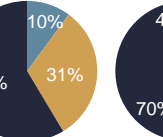
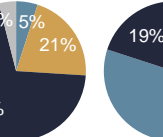
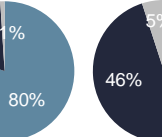
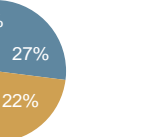
A Summary of Benchmarking Analysis

Overview of TVA vs. Selected Investor-Owned Utilities

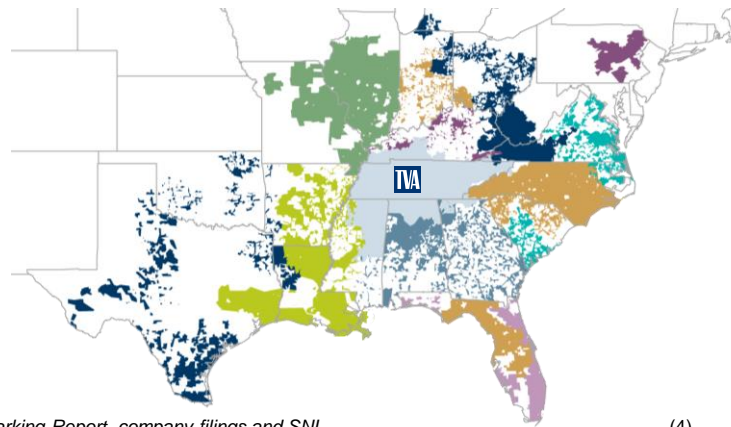
(\$ in billions)










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

Summary Comparison

									
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)									
% 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



-  Ameren Electric Territory
-  AEP Electric Territory
-  Dominion Electric Territory
-  Duke Electric Territory
-  Entergy Electric Territory
-  NextEra Electric Territory
-  PPL Electric Territory
-  Southern Electric Territory
-  TVA Customer Service Area

Source: TVA Benchmarking Report, company filings and SNL.

Note: Peer figures are as of December 31, 2019, unless otherwise noted. TVA figures are as of September 30, 2019, unless otherwise noted.

- (1) Sales are to the end consumer.
- (2) Represents total sales less off-system sales and distribution losses.
- (3) Peer retail customers include residential, commercial, industrial and other retail customers. TVA retail customers consist of direct-served industrials and customers served through LPCs.

(4) 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' fiscal year (October – September) for both revenue and sales.

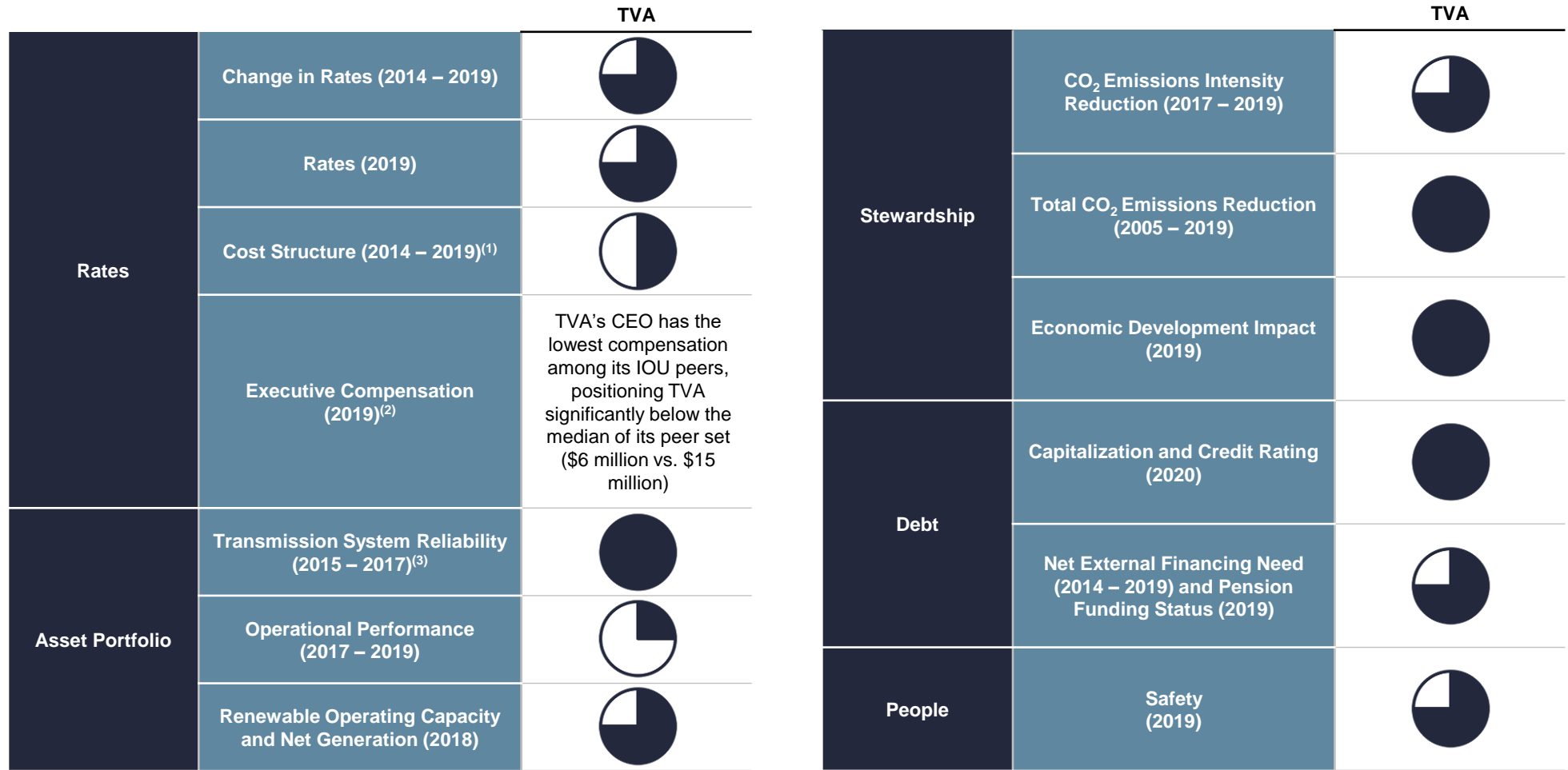
(7) TVA's S&P rating refers to senior unsecured debt.

(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



(1) Cost structure benchmarking analysis compares TVA's fuel, production non-fuel O&M and non-production non-fuel SG&A expenses relative to its peers. 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.
 (2) TVA's executive compensation data is as of fiscal year 2020.
 (3) TVA figures represent an average over 2017 – 2019.

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

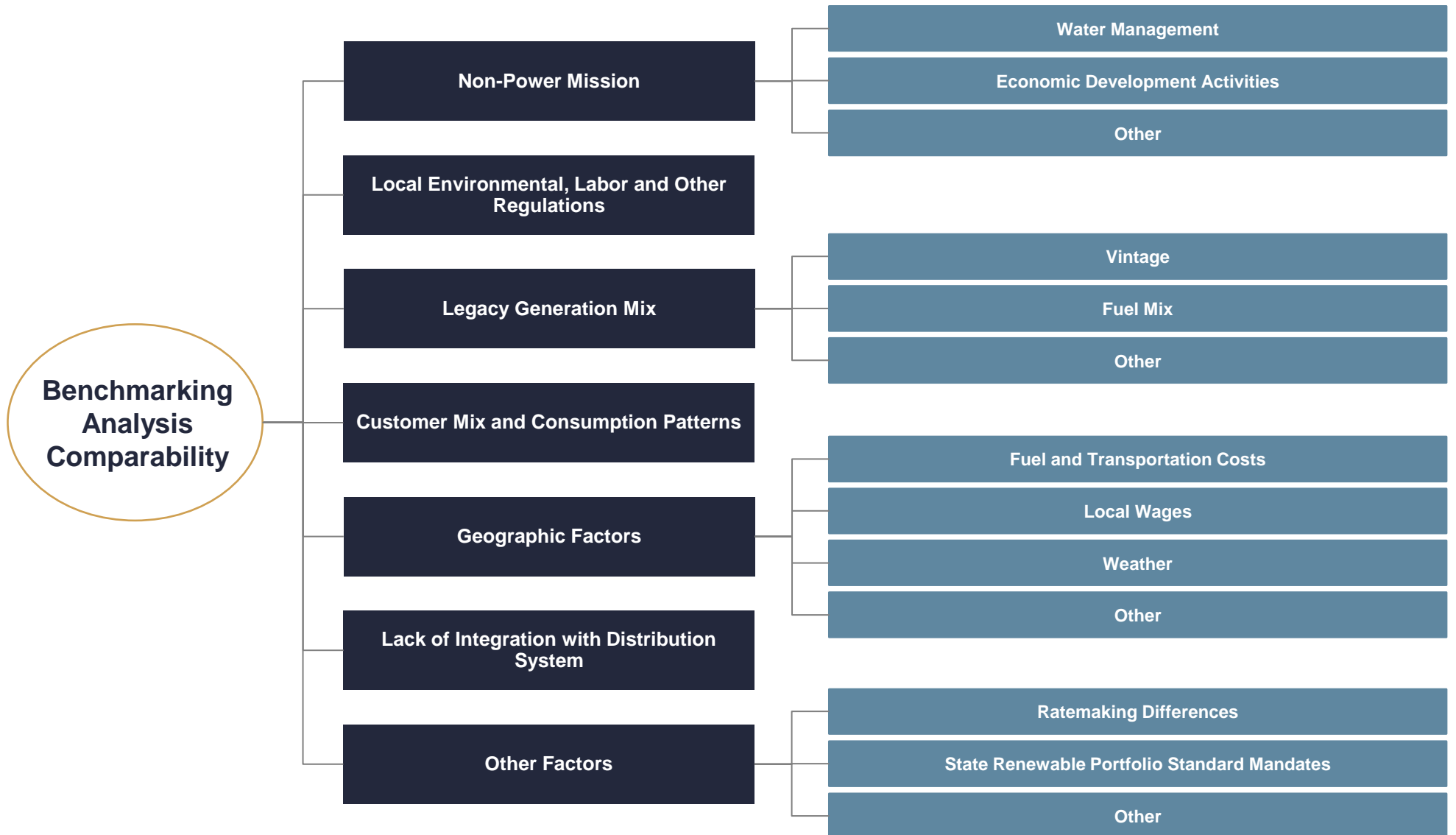
	Selected Key Developments	Impact
Rates	<ul style="list-style-type: none"> Realization of a 3.1% wholesale credit driven by more LPCs entering into long-term partnership agreements with TVA TVA authorized a \$200 million Pandemic Relief Credit, which funds a 2.5% base rate credit for all customers from October 2020 – September 2021 	<ul style="list-style-type: none"> ✓ 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 ✓ Retail rates in TVA's service area have declined by 2.3% between November 2019 and November 2020 to 9.11 ¢/kWh, compared to a 1.0% increase in rates for top quartile peer holding company over the period • Residential rates in TVA's service area have declined by 0.9% between November 2019 and November 2020 to 10.85 ¢/kWh, compared to a 2.3% decrease in rates for top quartile peer holding company over the period ✓ 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 ⁽¹⁾		<ul style="list-style-type: none"> ✓ Average nuclear unit capability factor improved from 88.9% to 90.0% between FY19 and FY20 ✗ TVA's FY20 performance would still place TVA in the bottom quartile among its peers as measured against 2019 performance
Average Nuclear INPO Index ⁽²⁾	<ul style="list-style-type: none"> TVA's FY19 performance was challenged by unplanned derates, outages and equipment failures 	<ul style="list-style-type: none"> ✓ Average nuclear INPO index increased from 80.4 to 85.1, reflecting a ~6% year-over-year increase between FY19 and FY20 ✗ TVA's FY20 performance would still place TVA in the bottom quartile among its peers as measured against 2019 performance
Coal Equivalent Availability Factor ⁽³⁾	<ul style="list-style-type: none"> In FY20, TVA's nuclear, coal and combined-cycle fleet experienced stronger performance underpinned by fewer unplanned outage events (with coal and combined-cycle sites performing at or above plan for FY20) 	<ul style="list-style-type: none"> ✓ Coal equivalent availability factor improved from 65.2% to 79.4% between FY19 and FY20
Combined Cycle Equivalent Availability Factor ⁽³⁾		<ul style="list-style-type: none"> ✓ Combined cycle equivalent availability factor improved from 78.9% to 84.0% 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.
 (2) The nuclear INPO index is a weighted combination of several key safety and performance indicators in the nuclear industry.
 (3) 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



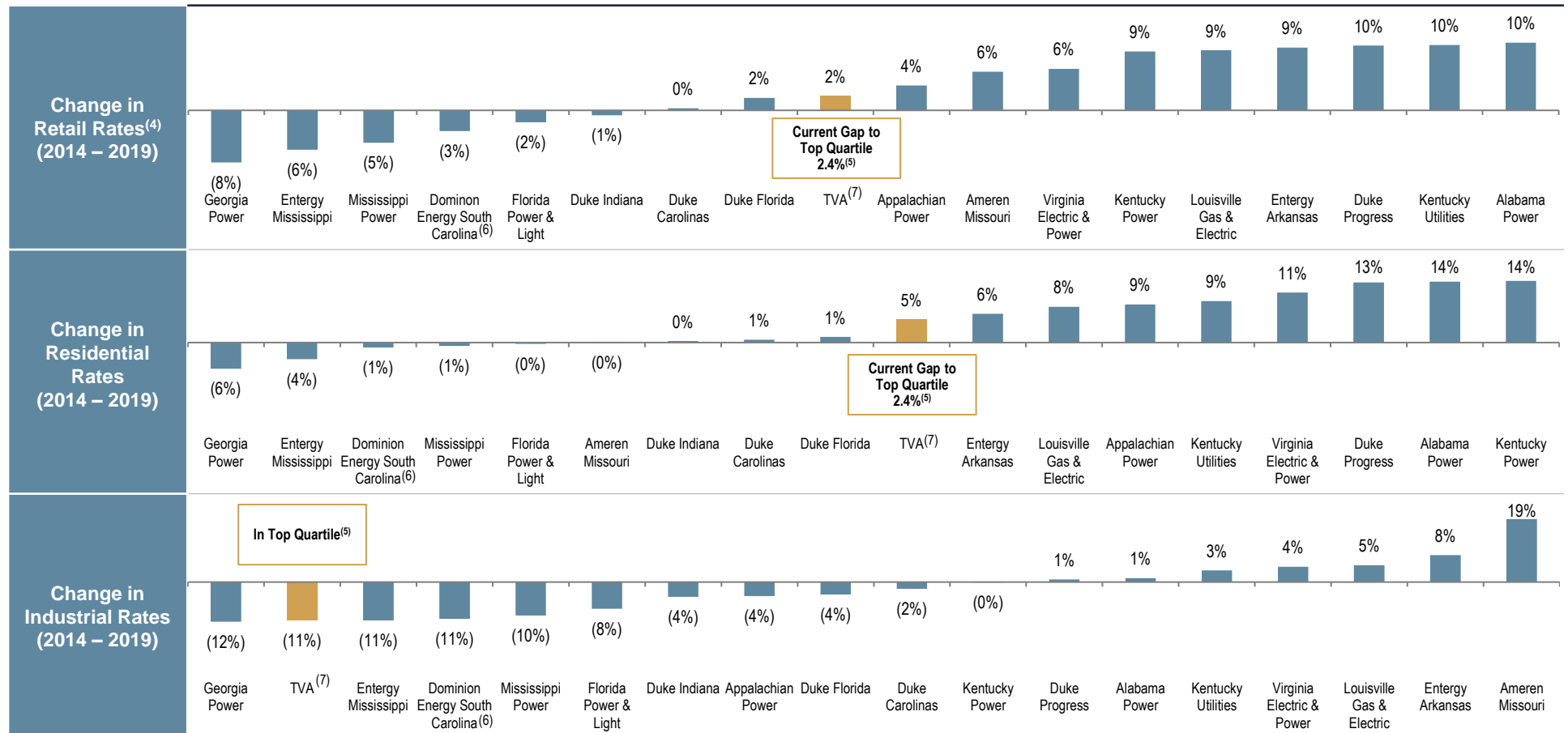


B Benchmarking Analysis—Rates

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⁾



Source: EIA and TVA Electricity Sales Statistics Database.

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

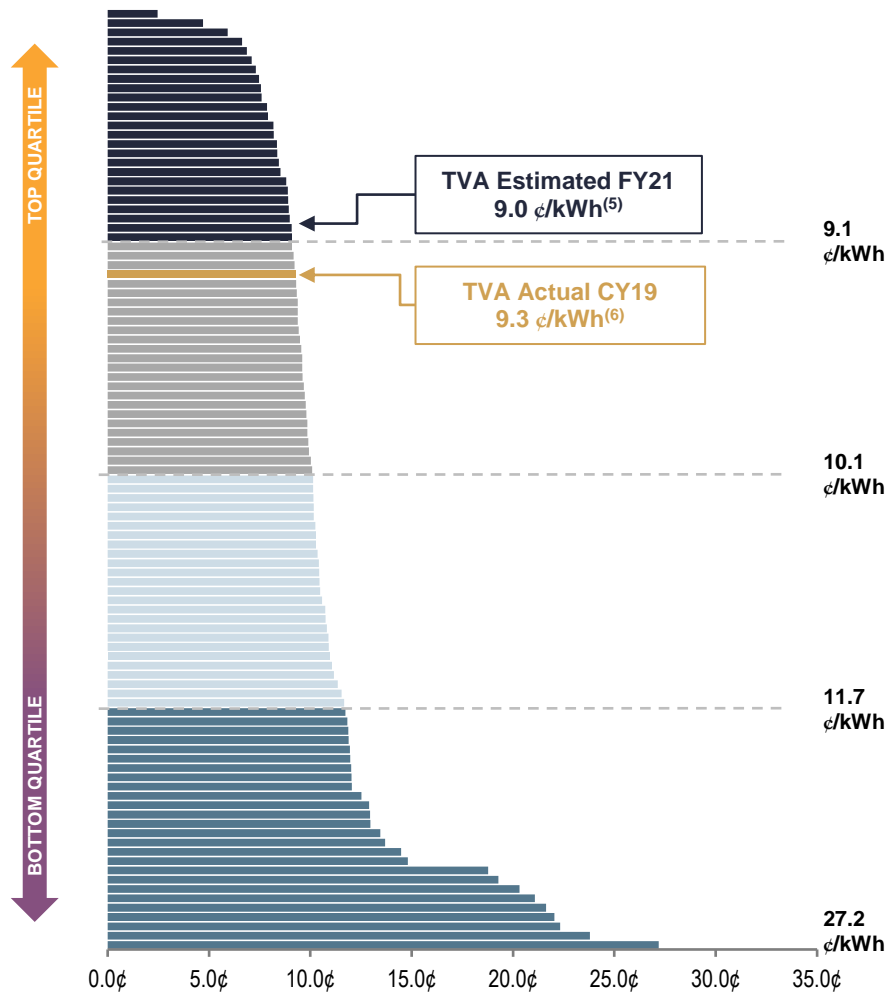
- (1) A direct comparison in change in rates between TVA and its peers is imperfect due to potential rate volatility driven by rate case timing for investor-owned utilities (e.g., a rate case, or lack thereof, in either 2014 and 2019 could potentially skew results).
- (2) TVA’s wholesale rate performance is discussed in greater detail on pp. 10 and 32.
- (3) 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.

- (4) 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.
- (7) Reflects the change between TVA-observed 2014 and 2019 effective rates.

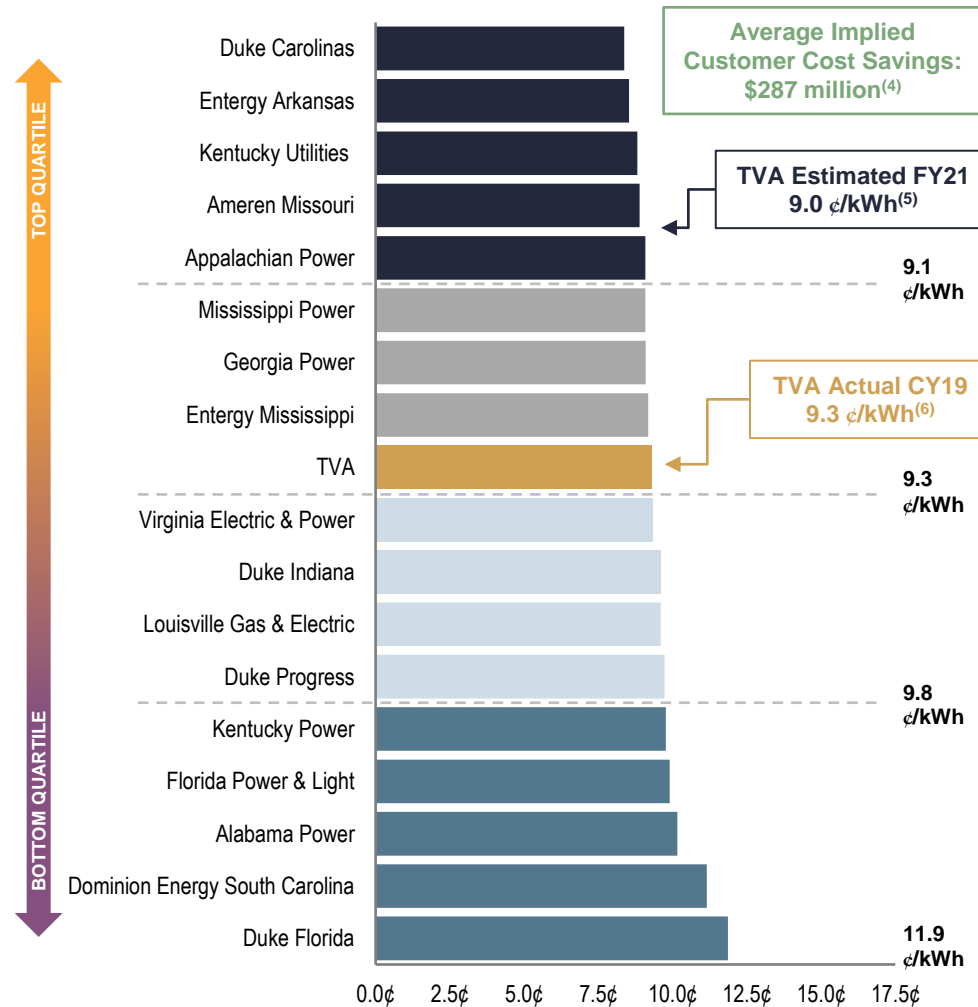
Benchmarking—Current Retail Rates⁽¹⁾

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)



Source: EIA and TVA Electricity Sales Statistics Database.

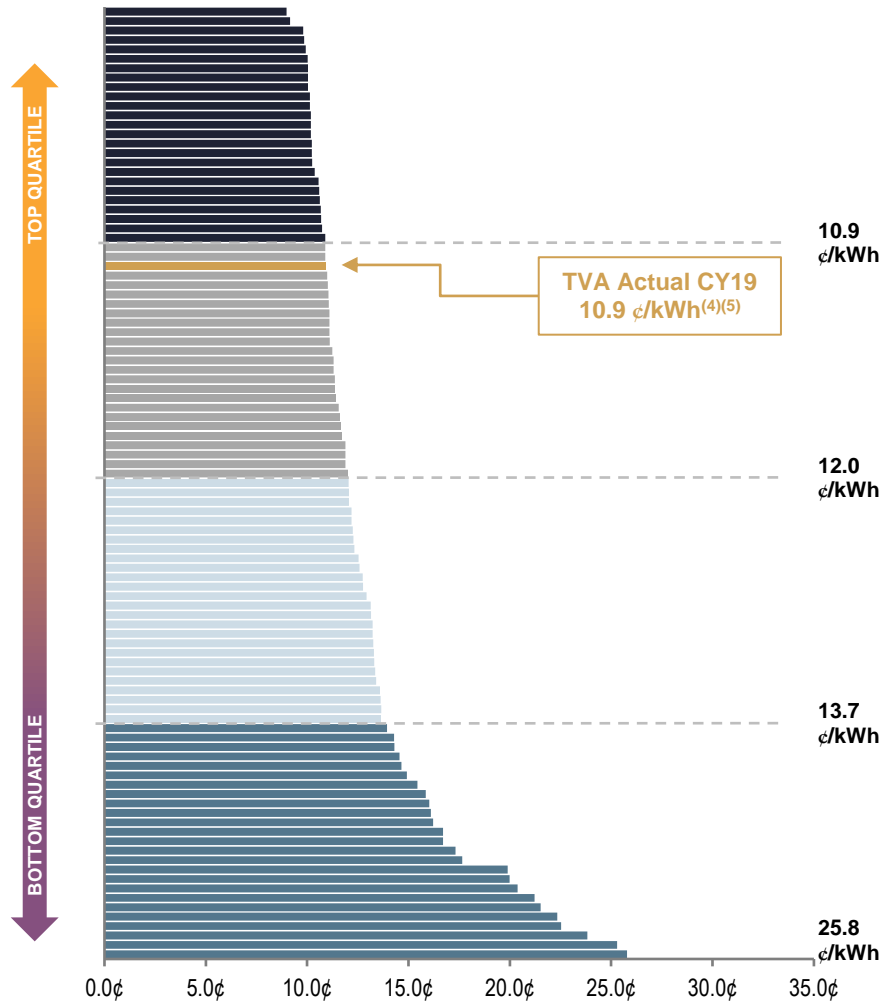
- (1) Retail rates are composed of residential, commercial and industrial rates. Retail rates in TVA's service area represent LPCs' sales to retail customers and TVA sales to direct-served industrials.
- (2) Selected based on total 2019 retail electricity sales.
- (3) Peer set represents TVA's regional electric company peers (vs. holding company peers) to more closely reflect rates paid by customers.

- (4) Reflects the cost savings to TVA customers implied by the difference between average 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.
- (5) TVA Estimated FY21 retail rates include the effects of the \$200 million pandemic relief credit 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.
- (6) TVA-observed 2019 effective retail rate.

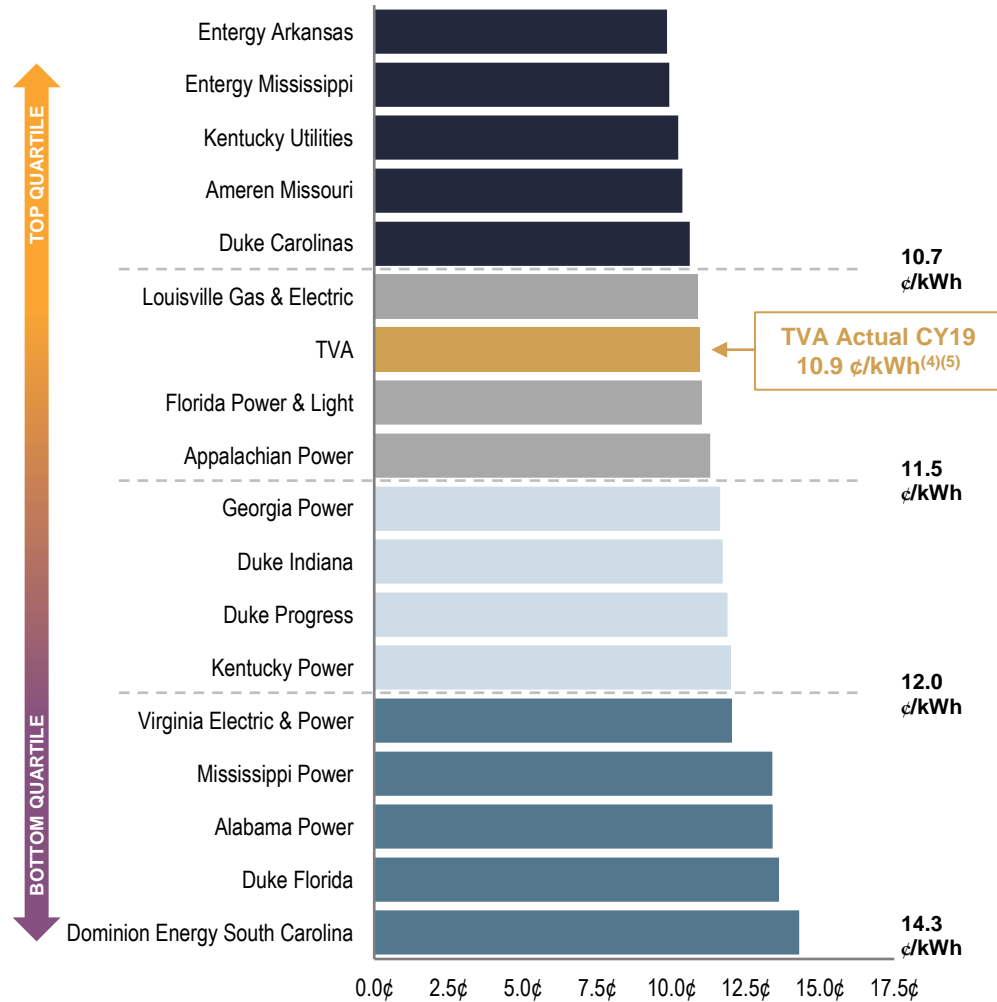
Benchmarking—Current Residential Rates

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)



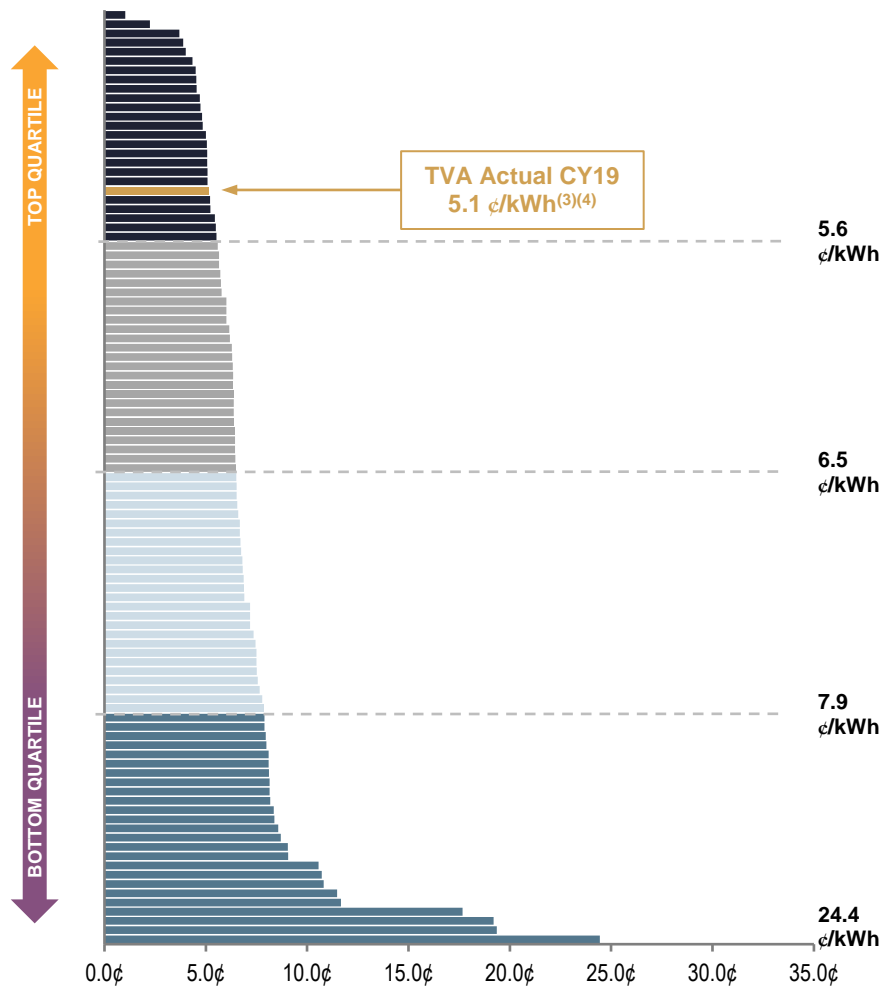
Source: EIA and TVA Electricity Sales Statistics Database.

- (1) 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.
- (2) Selected based on total 2019 residential electricity sales.
- (3) Peer set represents TVA's regional electric company peers (vs. holding company peers) to more closely reflect rates paid by customers.
- (4) TVA-observed 2019 effective residential rate.
- (5) FY21 residential rates in TVA's service area are not studied because TVA does not forecast rates by specific rate classes.

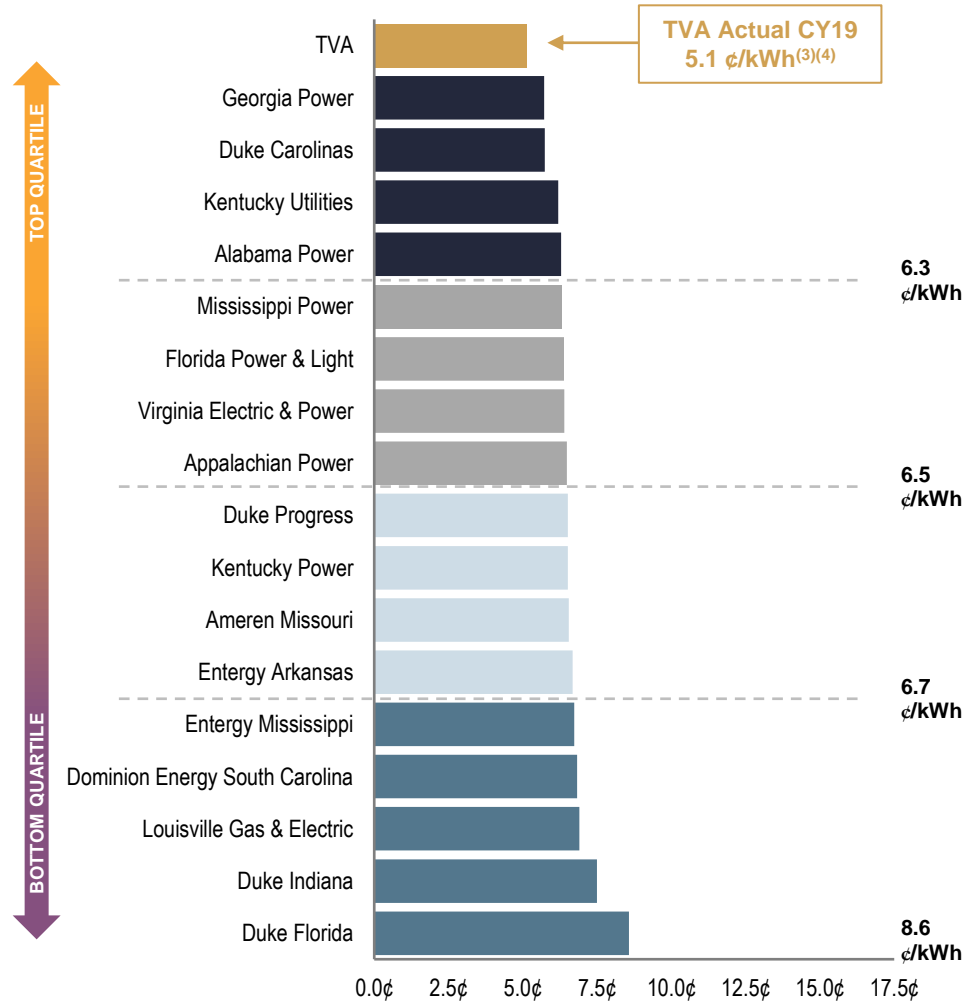
Benchmarking—Current Industrial Rates

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.

(1) Selected based on total 2019 industrial electricity sales.

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

(3) TVA-observed 2019 effective industrial rate

(4) FY21 industrial rates in TVA’s service area are not studied because TVA does not forecast rates by specific rate classes.

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



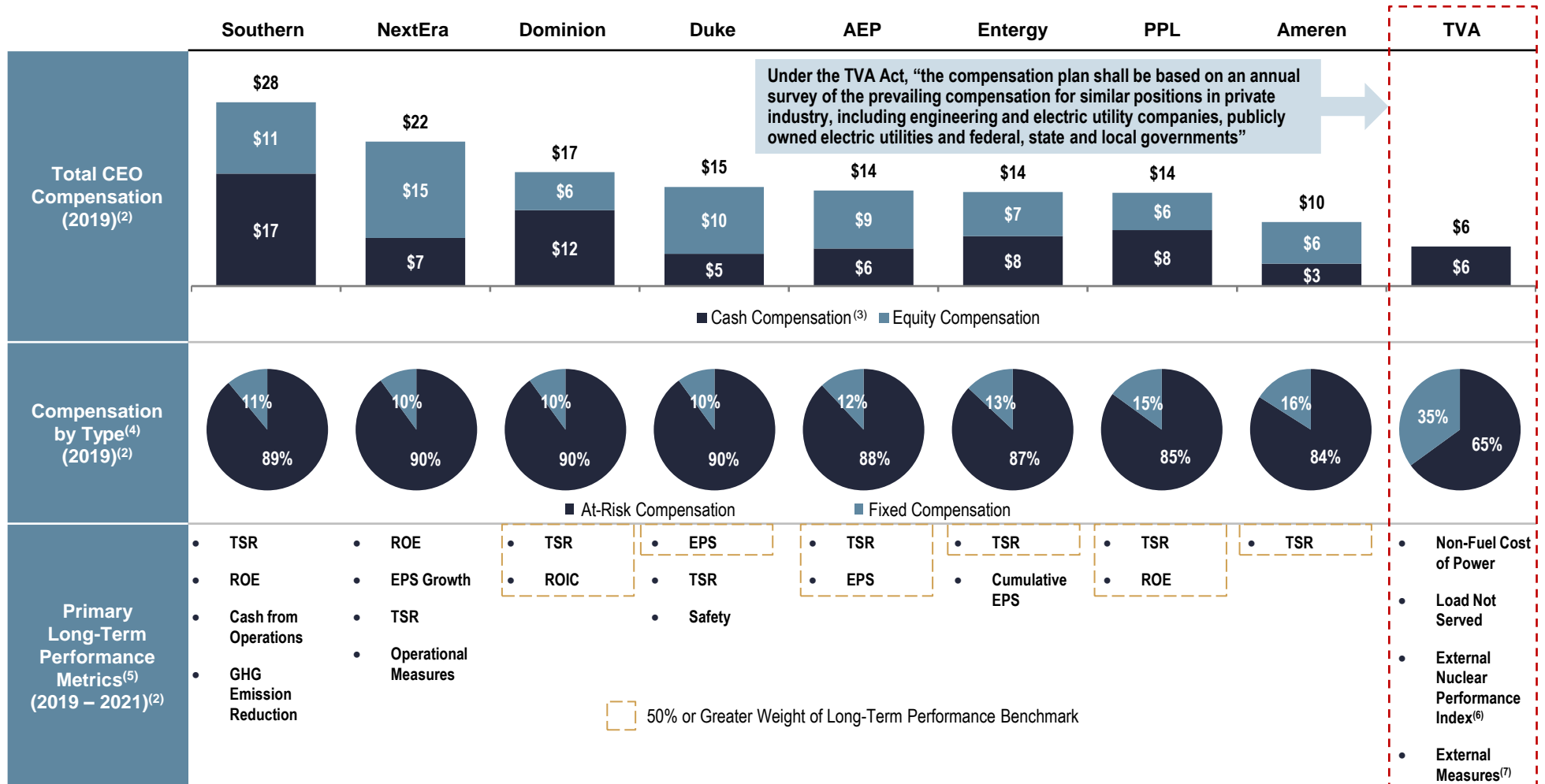
Source: TVA Benchmarking Notebook.

(1) 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.
 (2) 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.
 (3) 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.
 (4) 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.

(1) TVA's CEO compensation is set in consultation with an independent consultant.

(2) Compensation data is as of fiscal year 2019 for all peers. Compensation data is as of fiscal year 2020 for TVA.

(3) 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.

(5) 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.

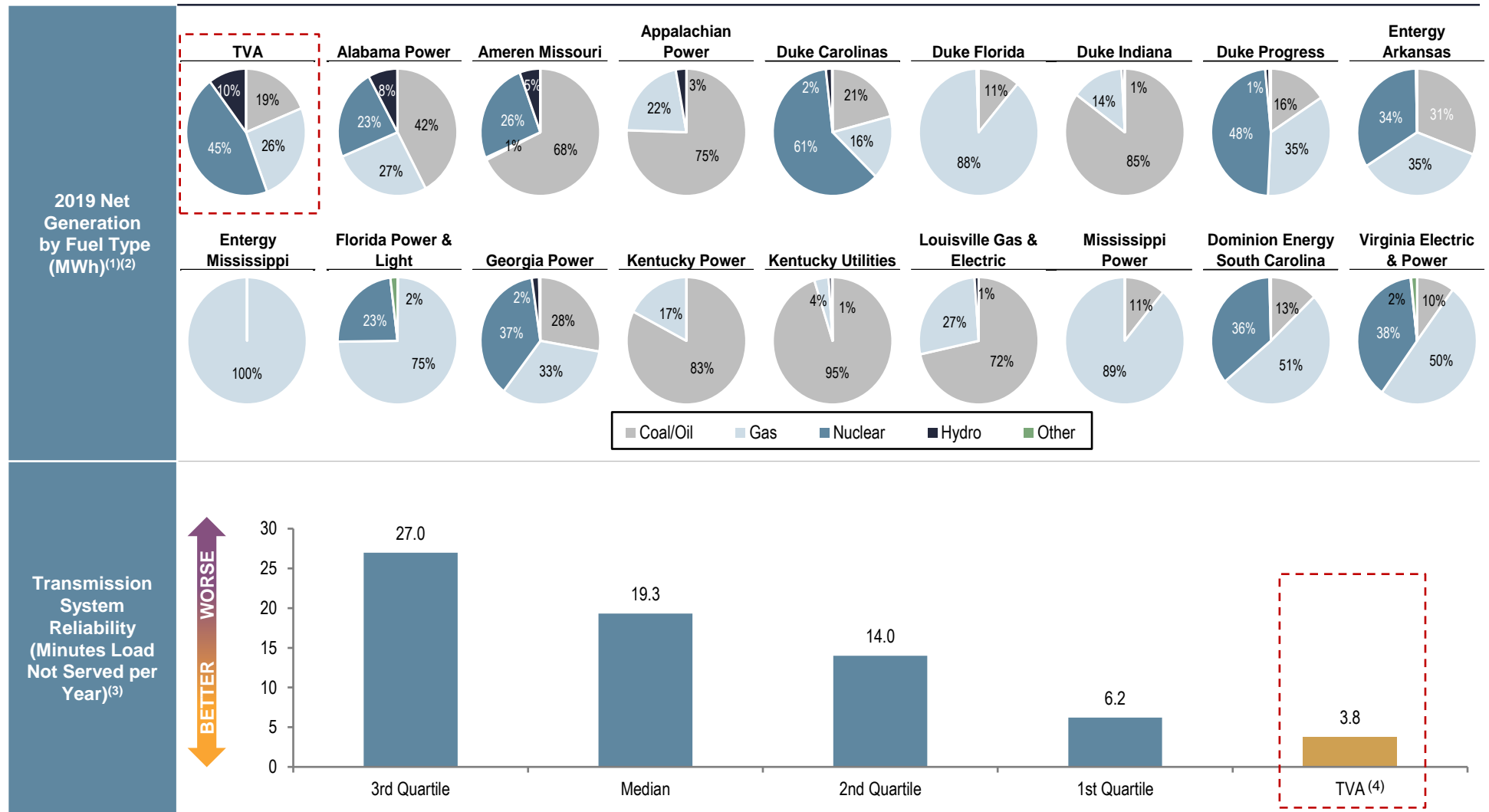


C Benchmarking Analysis—Asset Portfolio

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.

(1) Does not include purchased power.

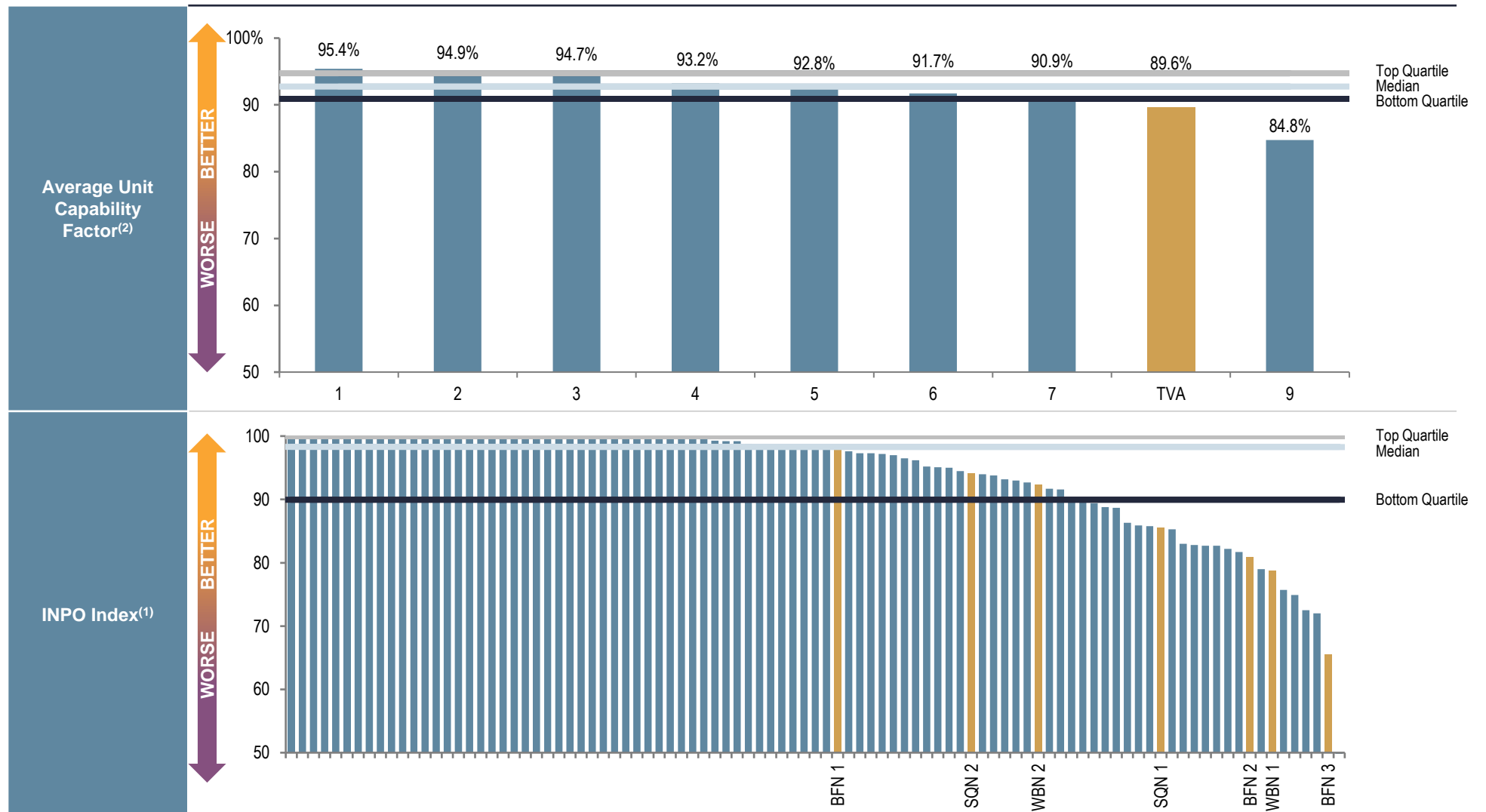
(2) Peer set reflects TVA's regional electric company peers (vs. holding company peers) to provide additional context around generation mix at the utility level.

(3) 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

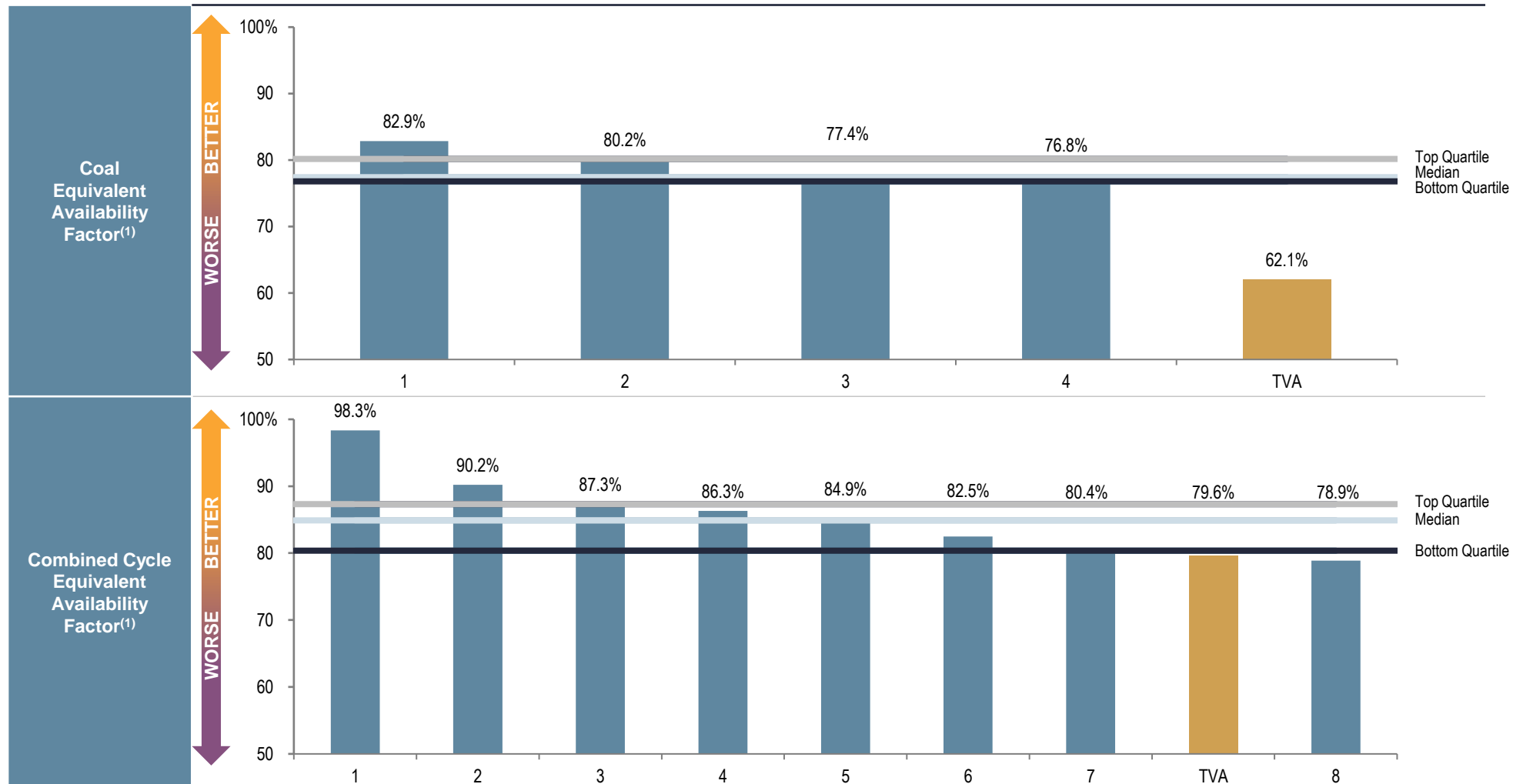
TVA appears to be relatively low performing among its peers in ensuring the availability of nuclear generation; additionally, many of TVA's individual nuclear units rank relatively low on the Institute of Nuclear Power Operations (“INPO”) Index⁽¹⁾



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**

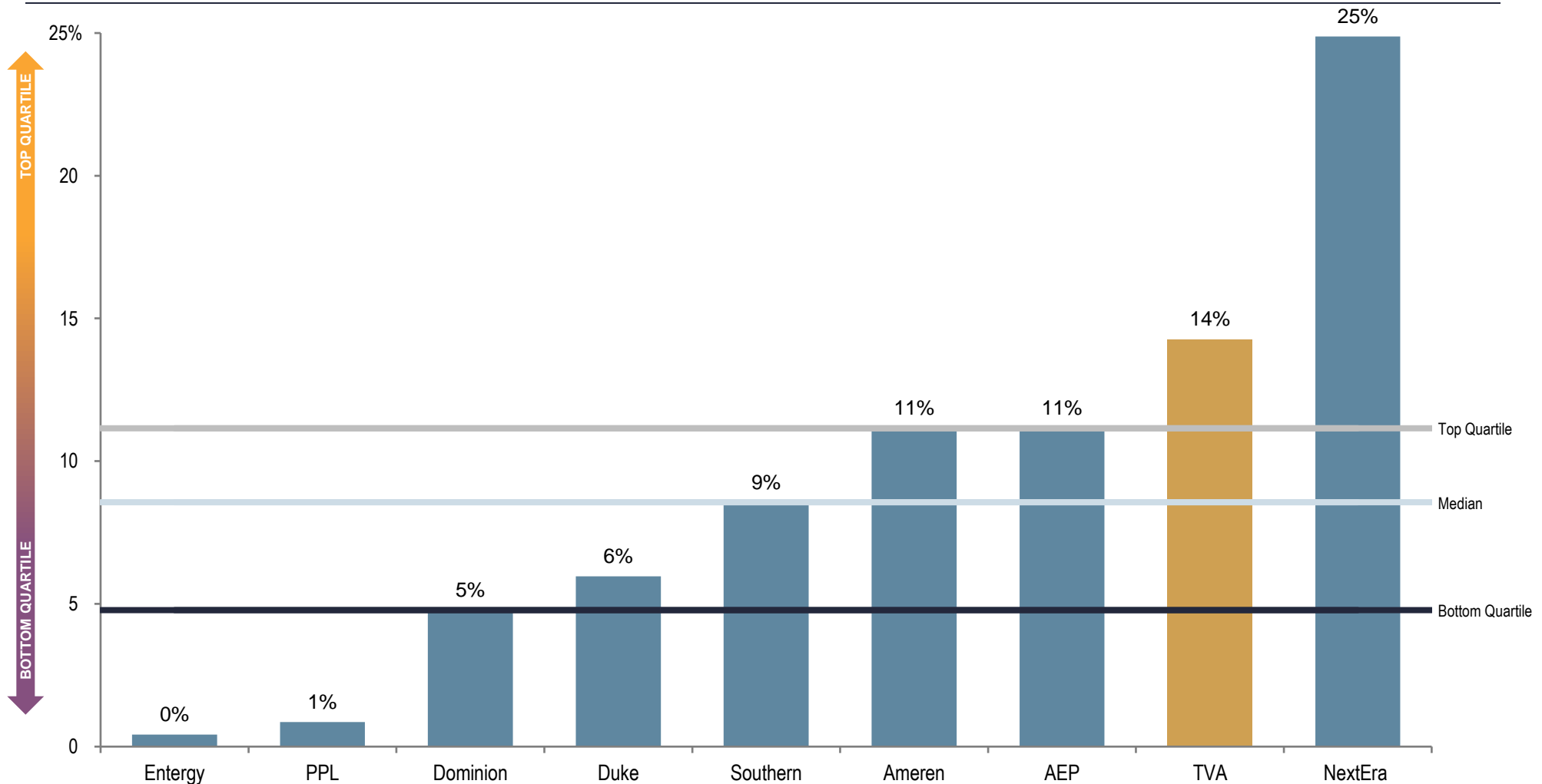


Benchmarking—Renewable Net Generation

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⁾



(1) 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>.

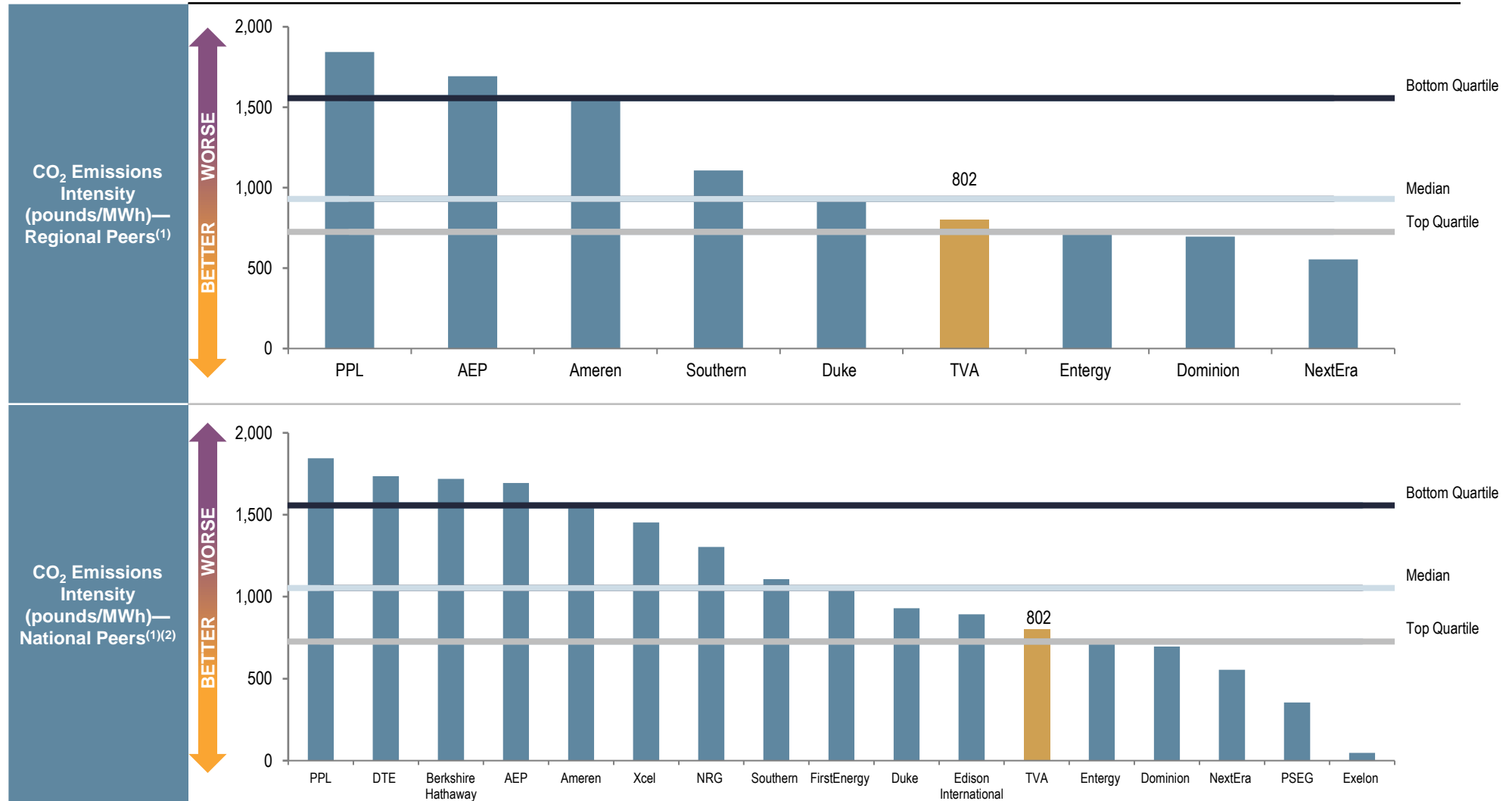
(2) Includes purchased power and owned and contracted utility company power generated from renewable sources. Renewable energy includes utility-scale solar, wind, hydro and biomass.



D Benchmarking Analysis—Stewardship

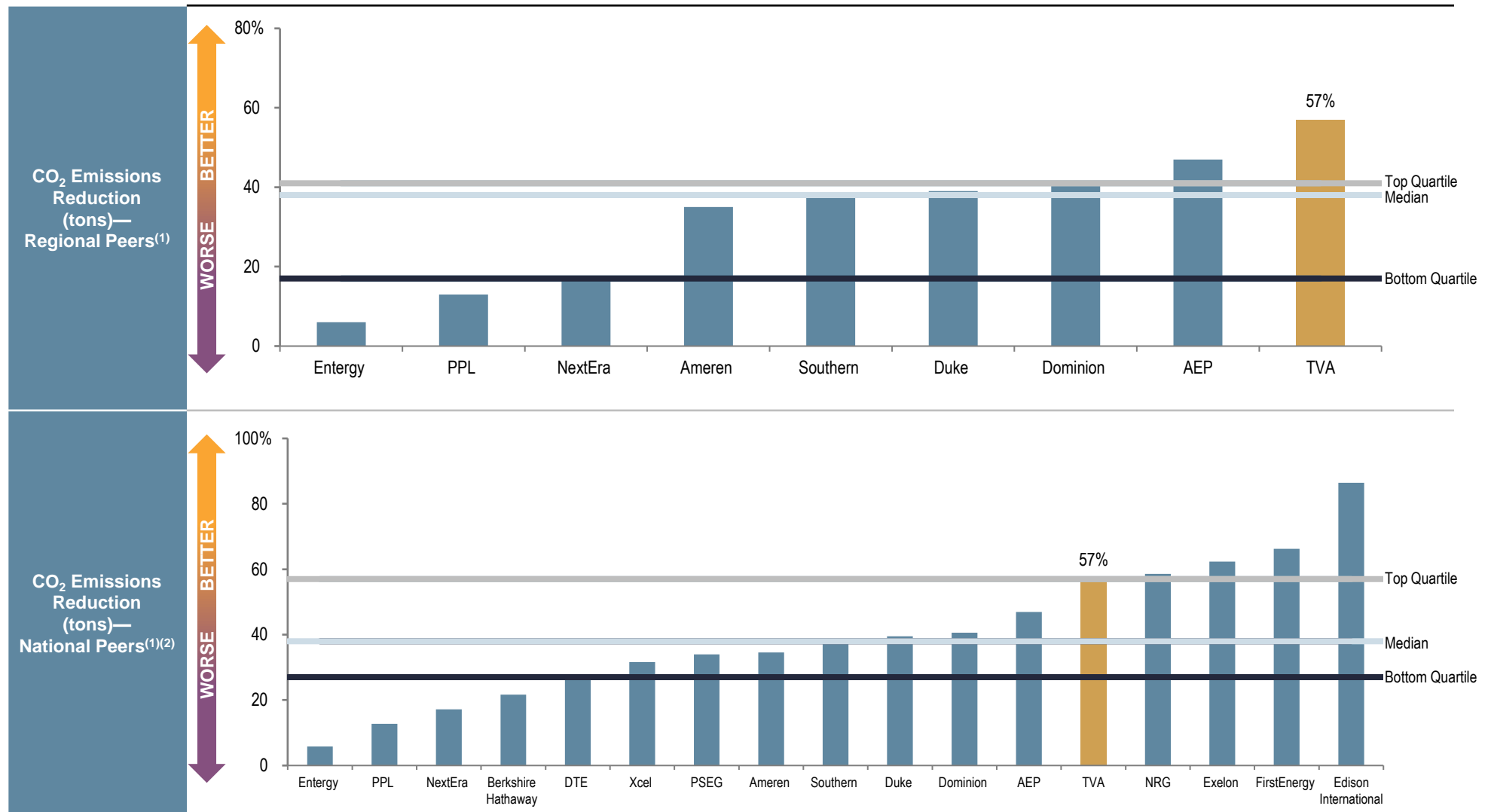
Benchmarking—CO₂ Emissions

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



Benchmarking—CO₂ Emissions (cont'd)

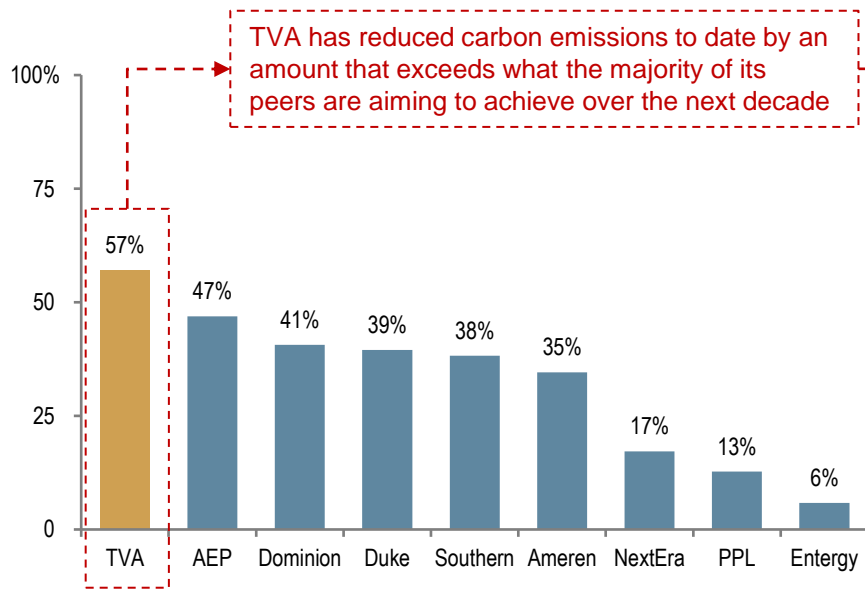
TVA's 2005 – 2019 CO₂ emissions percentage reduction was in the best quartile among both its regional and national peers—TVA will likely continue to be a leader in emissions reductions if it achieves its stated goal of a 70% CO₂ emissions reduction by 2030



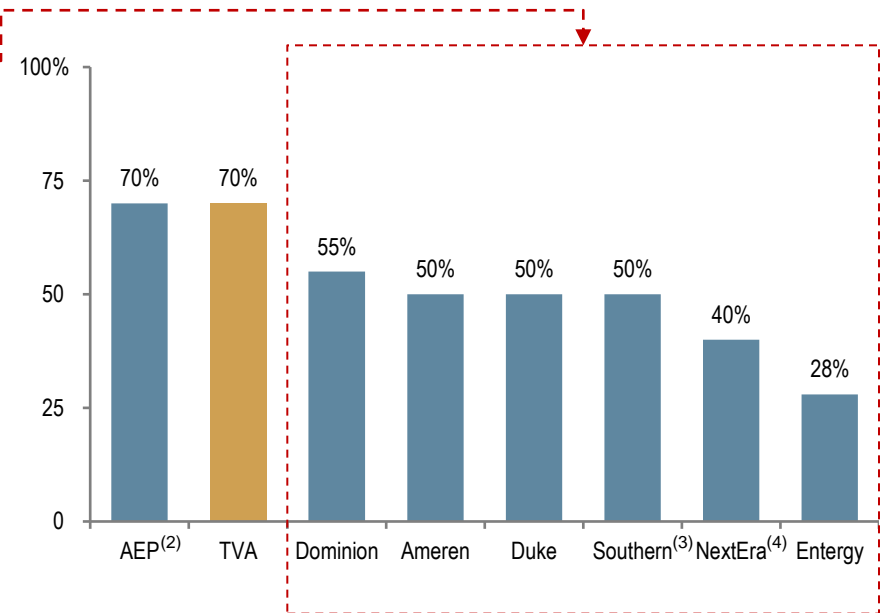
Benchmarking—Emissions Reduction Performance and Goals

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

Carbon Emissions Reduction Achieved (2019)



Carbon Emissions Reduction Target (2030)⁽¹⁾



	AEP	Ameren	Dominion	Duke	Entergy	NextEra	PPL	Southern	TVA
Announced Carbon-Free Date Targets	✓ Stretch goal of carbon-free emissions by 2050	✓ Net-zero carbon emissions by 2050	✗ No stated target ⁽⁵⁾	✓ Net-zero carbon emissions by 2050	✓ Net-zero carbon emissions by 2050	✗ No stated target	✗ No stated target ⁽⁵⁾	✓ Net-zero carbon emissions by 2050	✗ No stated target

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.

(1) PPL is excluded due to lack of 2030 target.

(2) Reflects a 2000 benchmark year.

(3) Reflects a 2007 benchmark year.

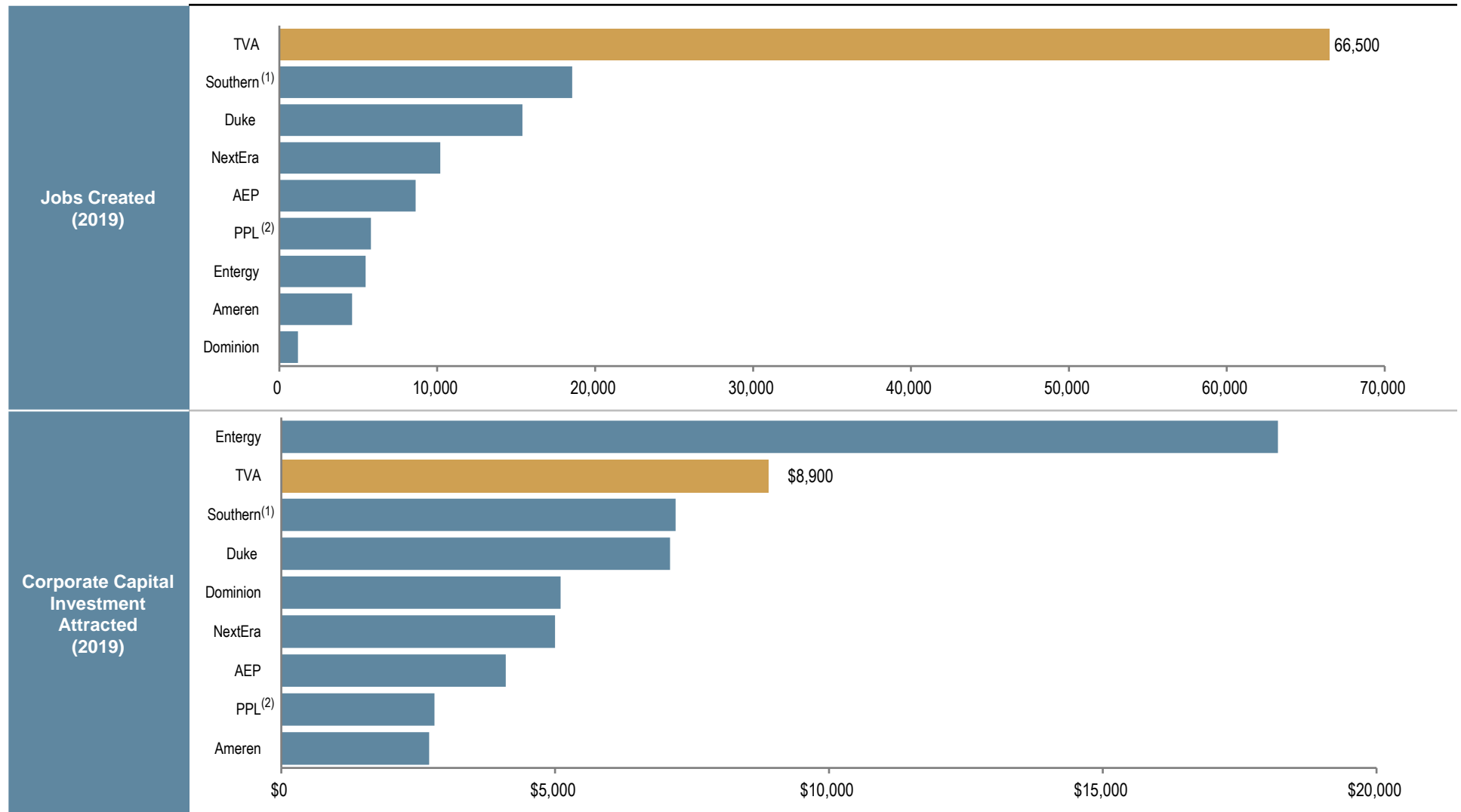
(4) Reflects NextEra's 2025 carbon emissions reduction target due to the lack of a publicly available 2030 carbon emissions reduction target.

(5) 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 non-power mission by attracting and supporting the economic development of its service area



LAZARD Source: TVA Benchmarking Notebook, company filings and Site Selection Magazine.
 (1) Excludes Mississippi Power due to lack of publicly available data.
 (2) 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									
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									
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



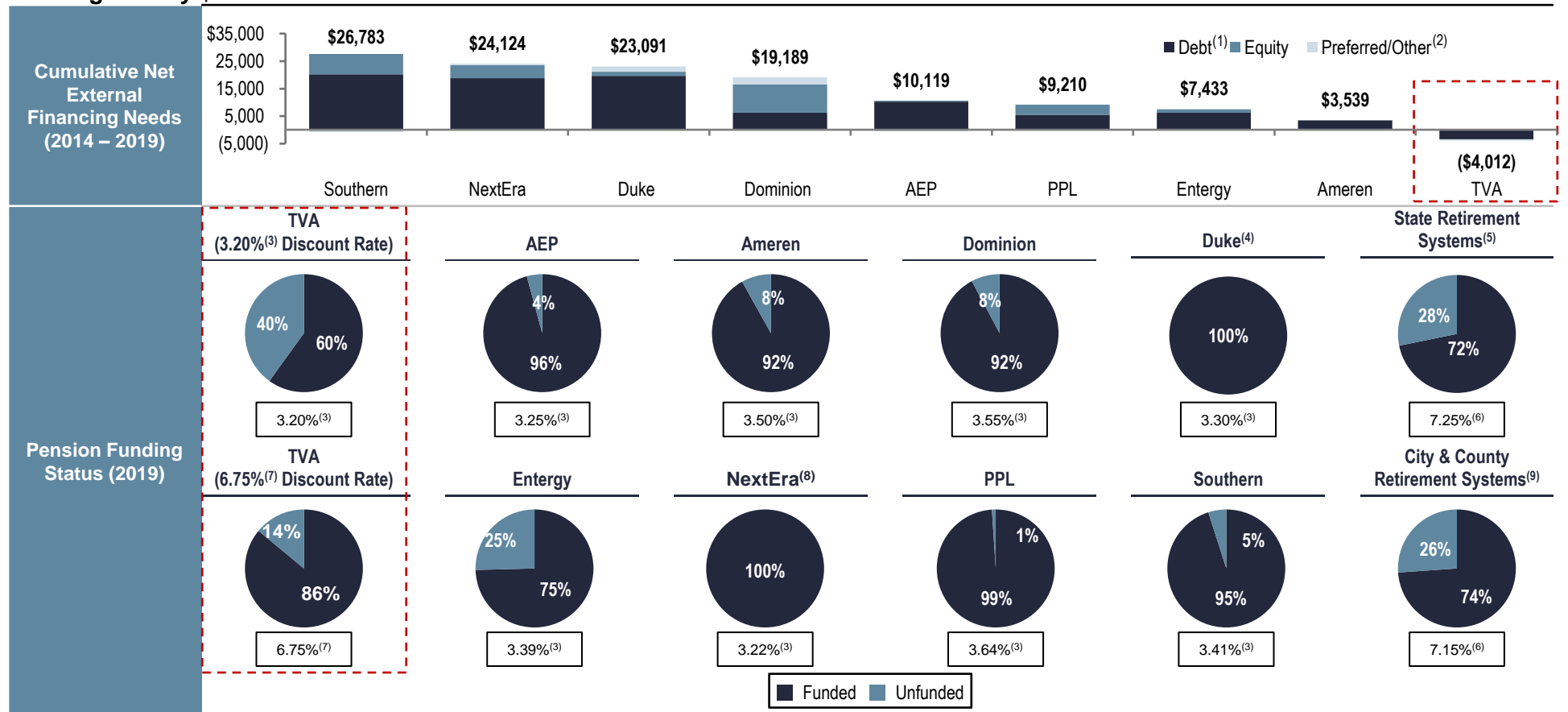
Source: Company filings, company financial reports and public information.
 Note: Balance sheet figures as of September 30, 2020, unless otherwise noted.
 (1) Represents TVA's Global Power long-term rating.
 (2) Represents TVA's senior unsecured rating.
 (3) Balance sheet figures as of June 30, 2020.
 (4) Balance sheet figures as of December 31, 2019.
 (5) Includes preferred equity and non-controlling interests.

Benchmarking—External Financing Needs and Pension Funding Status

(\$ in millions)

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



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



Note: 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.

- (1) 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.

- (4) Duke's pension is overfunded by 7%.
- (5) Reflects the aggregate funding status of over 100 U.S. state-sponsored retirement systems.
- (6) Reflects the median discount rate applied by the aggregated retirement systems.
- (7) Reflects the discount rate used in TVA's Retirement System 2019 Annual Report.
- (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.

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

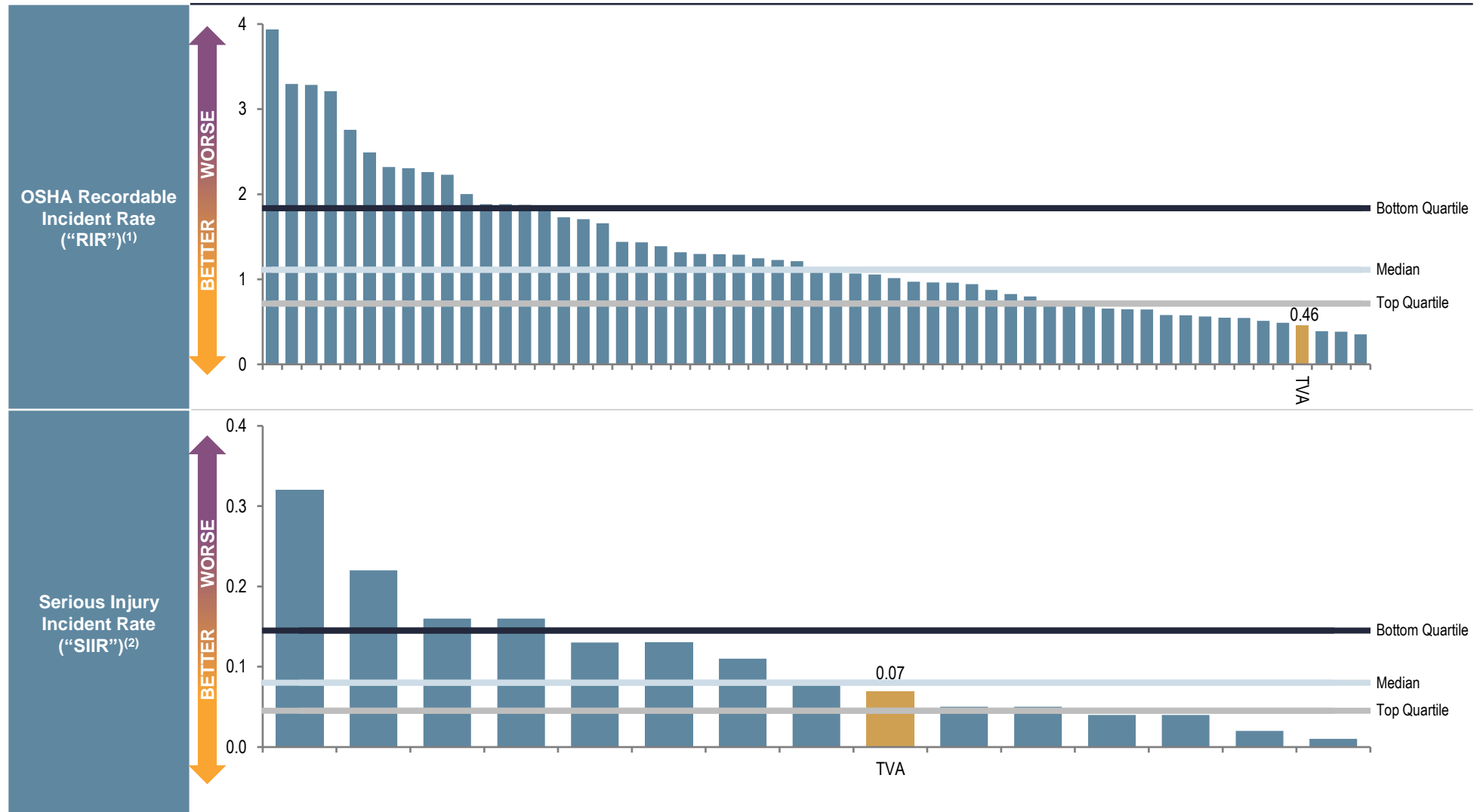
Rating Agency	Rating/Outlook	Date	Selected Commentary
	AA+/Stable ⁽¹⁾	May 6, 2020	<ul style="list-style-type: none"> • “The ‘Stable’ outlook on TVA’s debt reflects our outlook on the U.S. and our view of the utility’s unenhanced stand-alone credit profile (‘SACP’). The ‘Stable’ outlook on the lease debt TVA supports reflects the broad revenue stream, debt reduction projections, lengthier customer contracts and decarbonization.” • “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.”
	Aaa/Stable ⁽²⁾	June 19, 2020	<ul style="list-style-type: none"> • “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.” • “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.”



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





G Benchmarking Analysis—Key Takeaways

Discussion of Key Takeaways from Section IV—Benchmarking Analysis

- 1** **Rates.** Industrial and retail rates in TVA's service area rank in the first and second quartile, respectively. Rates have remained competitive in part due to TVA's financial management and internal O&M and fuel expense reduction initiatives
- 2** **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
- 3** **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
- 4** **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
- 5** **People.** TVA's emphasis on creating a safety-focused culture and working environment for its employees can be observed in part through TVA's first and second quartile ranking in its RIR and SIIR, respectively



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



A TVA's Current Strategic Positioning

TVA—“SWOT” Analysis

STRENGTHS

- 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 long-term 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 trust
- Mission-driven mandate, which extends beyond power, allows TVA to make long-term 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 mission
- 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⁾

WEAKNESSES

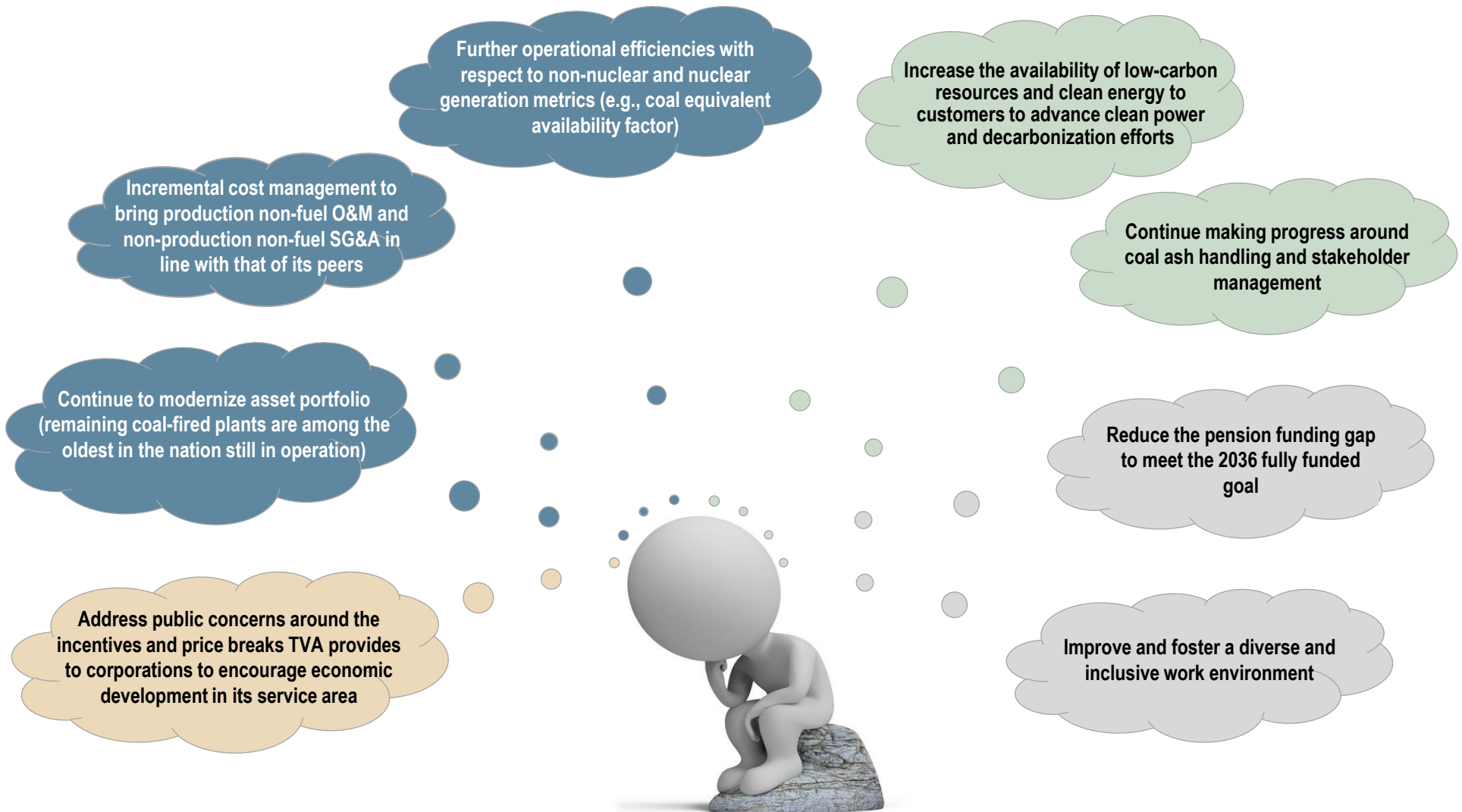
OPPORTUNITIES

- 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⁾

THREATS

Overview of TVA's Selected Areas for Improvement



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



POWERFUL PARTNERSHIPS

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



PEOPLE ADVANTAGE

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



OPERATIONAL EXCELLENCE

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



IGNITING INNOVATION

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



FINANCIAL STRENGTH

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)

<p>1 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</p>	<p>2 EBITDA and Net Income are projected to decline at a 1.5% and 5.0% CAGR, respectively, partially driven by fuel and non-fuel O&M costs growing at a faster rate than revenue</p>	<p>3 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</p>	<p>4 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</p>
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	For the Fiscal Year Ended September 30,											'20A – '30E 10-Year CAGR
	2020A	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	
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%	
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 Total
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)	
Cash Flow from Operations Less Capex & Other	\$1,618	\$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.

- (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.
- (2) Reflects total financing obligations as defined by TVA.
- (3) 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)

1 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

2 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

3 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	\$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 Rating/Outlook												
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+/Stable
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/Stable
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%	

Source: TVA FY21 Plan.

- (1) Includes amortization of debt issuance costs and premium/discounts and amortization of nuclear fuel cost.
- (2) 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

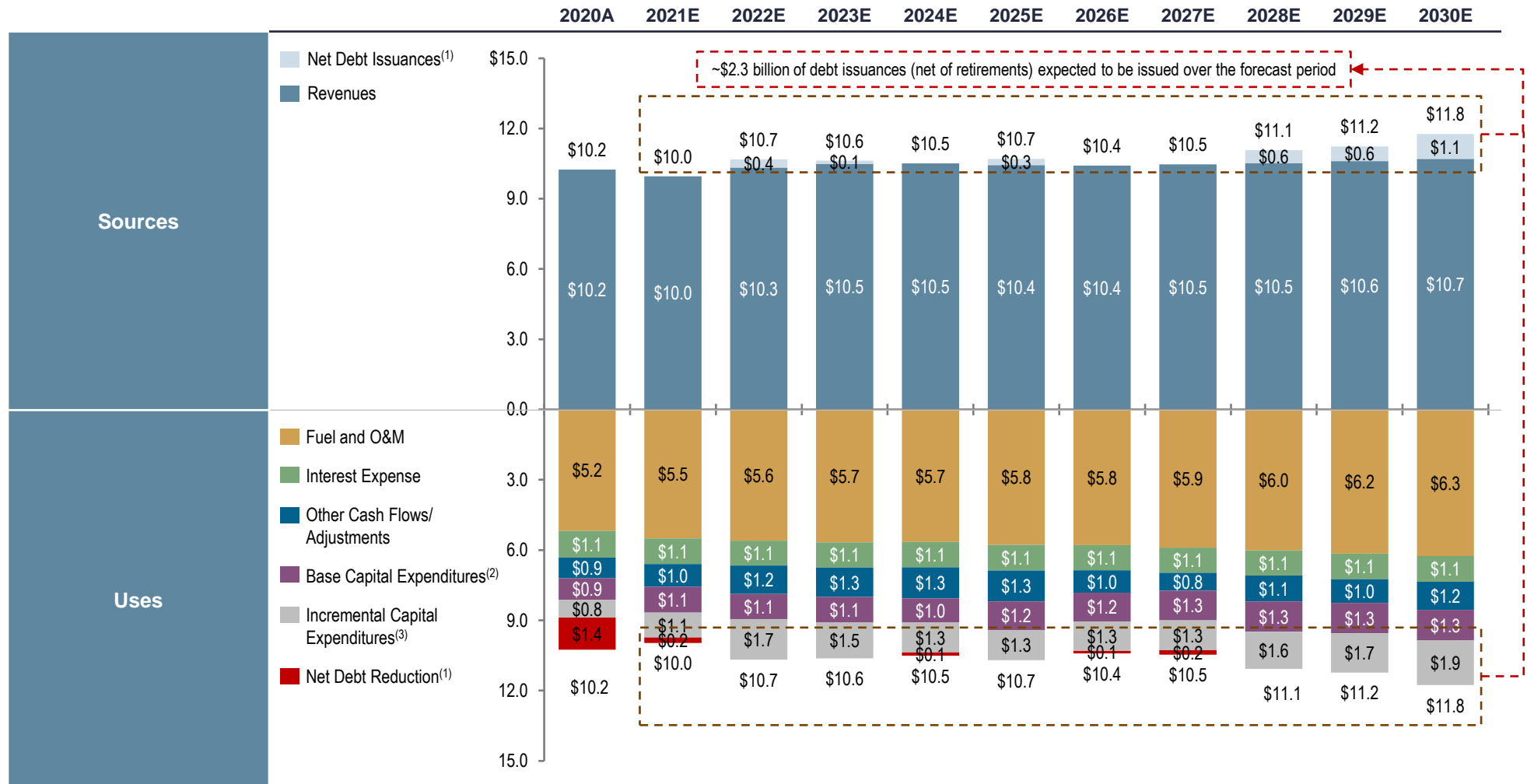
- (5) total marketable public obligations on the same date.
- (6) Reflects Statutory Debt as defined by TVA; excludes debt associated with VIEs.
- (7) Reflects total financing obligations as defined by TVA.
- (8) Proprietary capital includes the remaining portion of the U.S. Treasury's Power Program Appropriation Investment (~\$258 million) and retained earnings.
- (9) Represents TVA's Global Power long-term rating.
- (9) 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



(1) Net Debt Issuances/Reduction is equal to the net change in short-term debt, long-term debt and finance leases.
 (2) Represents rate-funded capital expenditures generally used to maintain existing productive assets.
 (3) Represents capital expenditures related to capacity expansion, environmental capital, etc.

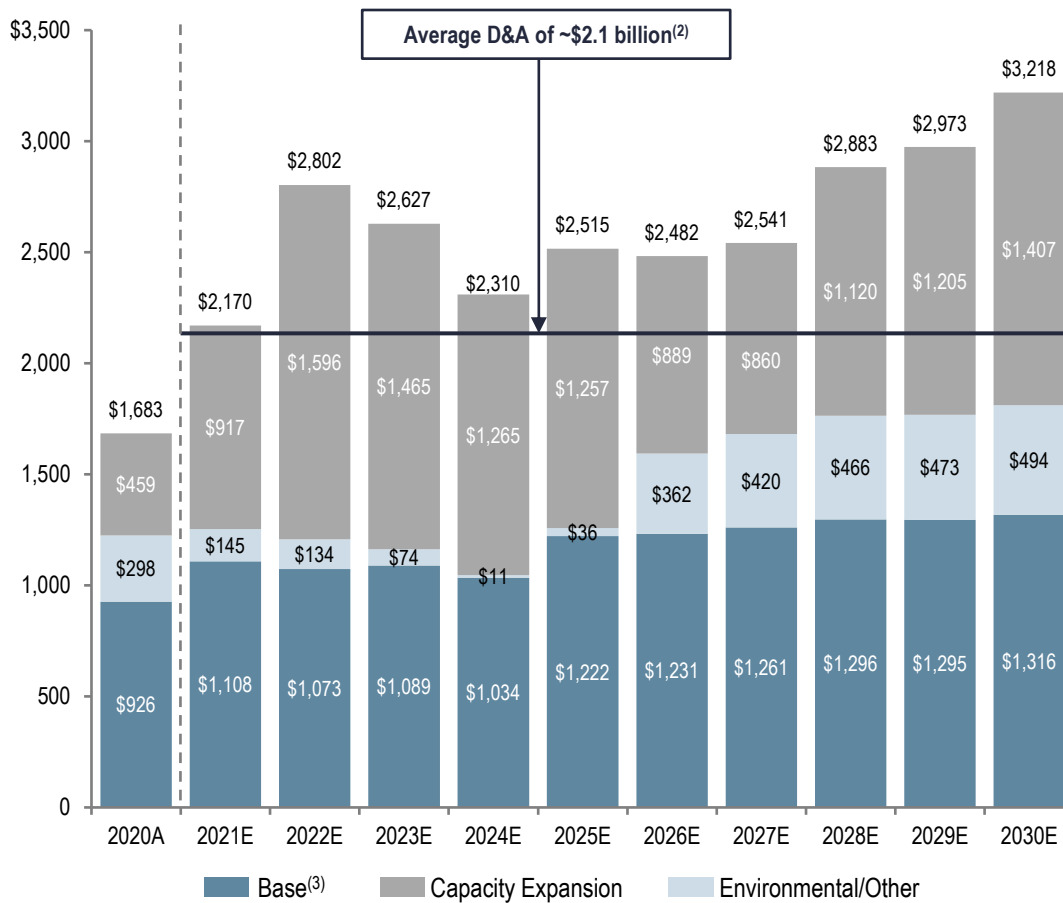
TVA—FY21 Plan Capital Expenditure Program

(\$ in millions)

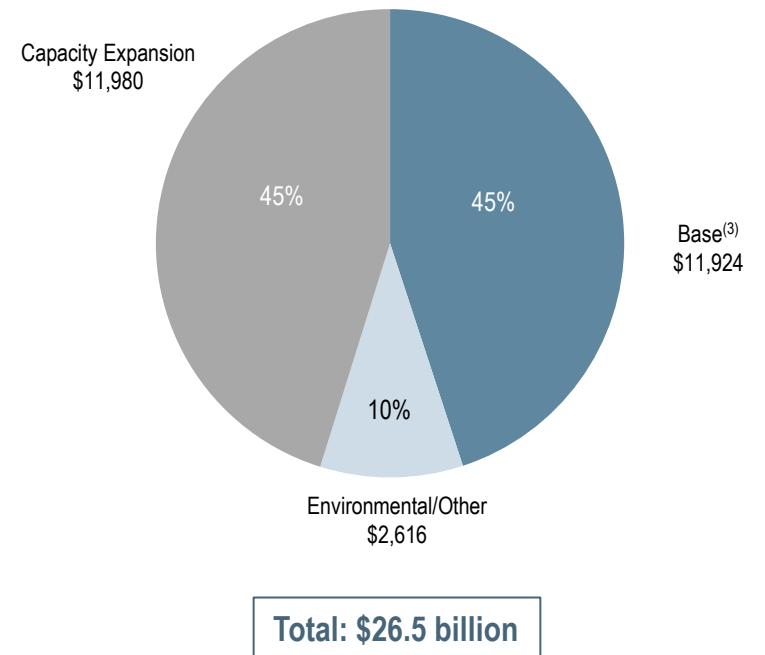
TVA expects to maintain a capital investment program⁽¹⁾ of approximately \$26.5 billion over the 2021 – 2030 period, including ~\$12.0 billion of generation capacity additions

- 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

Projected Capital Expenditures



Capex Program Allocation: 2021 – 2030



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

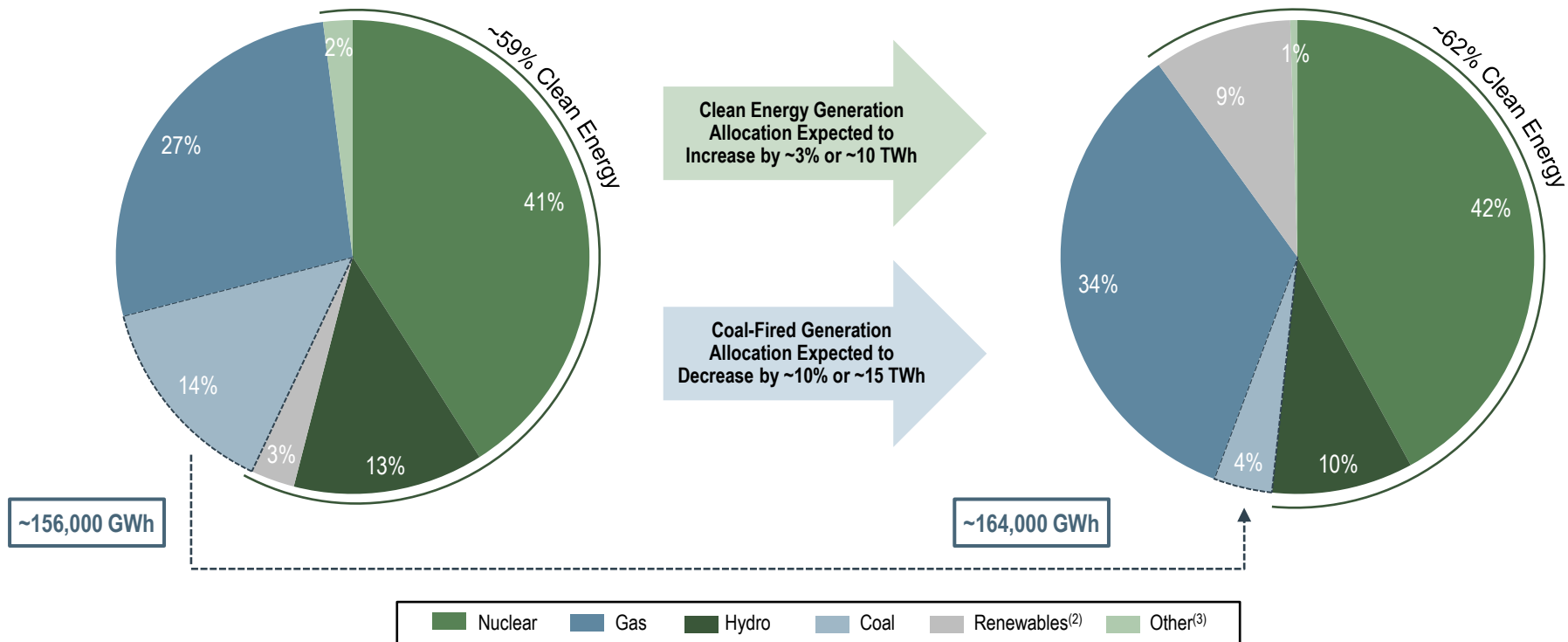
TVA—Resource Plan

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

2020A Generation Mix by Production

2030E Generation Mix by Production⁽⁴⁾



Source: TVA disclosures and company website.

(1) 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>.

(2) 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

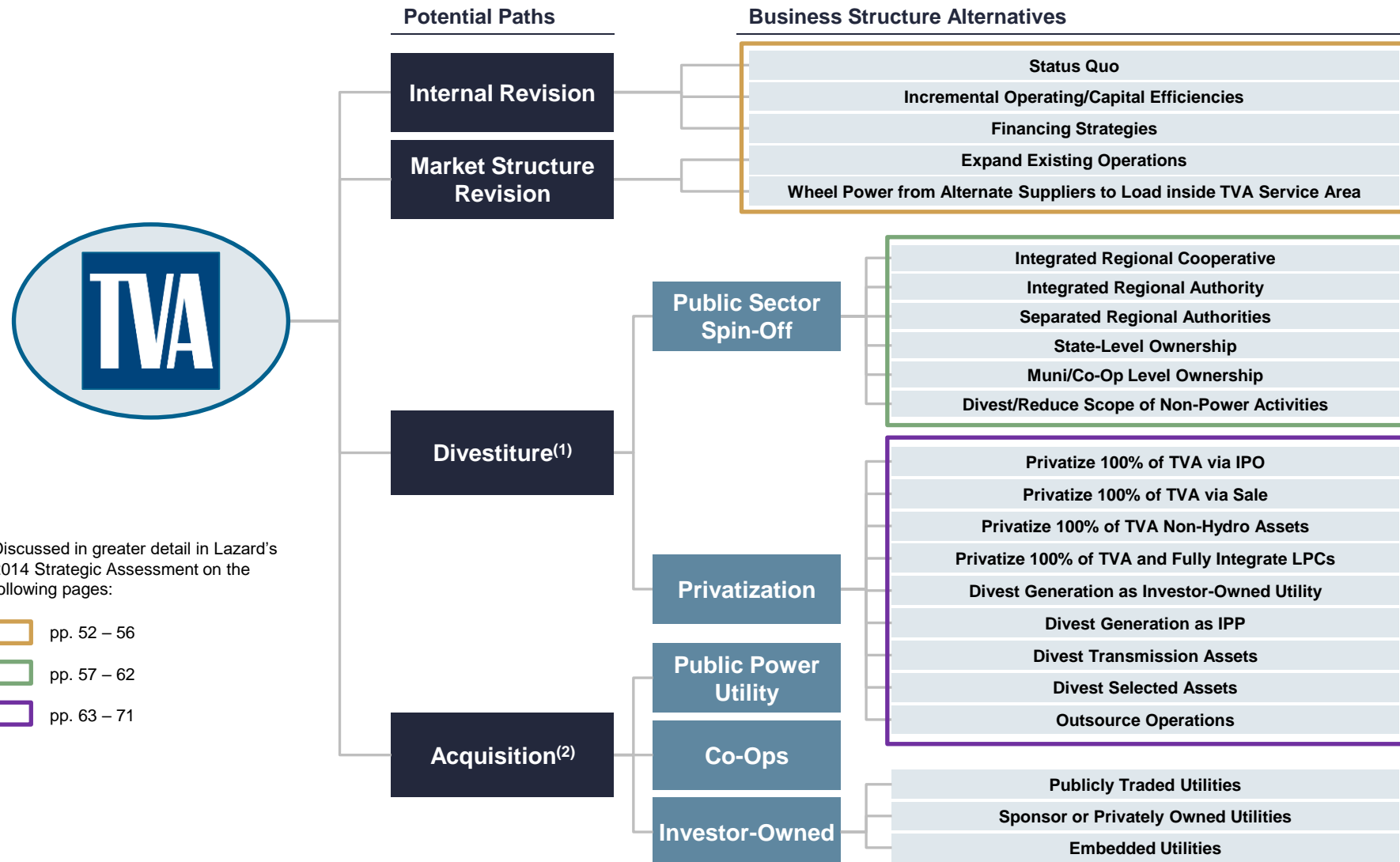
- 1** • *Summary Financials.* TVA expects effective customer rates to remain relatively flat, resulting in modest revenue growth and slight EBITDA and net income decline over the forecast period
- 2** • *Cash Flow and Credit Profile.* While TVA's cash flow is expected to fluctuate over the forecast period, 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** • *Capital Expenditures.* TVA expects to maintain an ~\$26.5 billion capital investment program over the next decade to support plant improvements and maintenance, capacity additions and environmental projects
- 5** • *Resource Plan.* 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



C Summary Review of Potential Business Structures

TVA—Business Structures

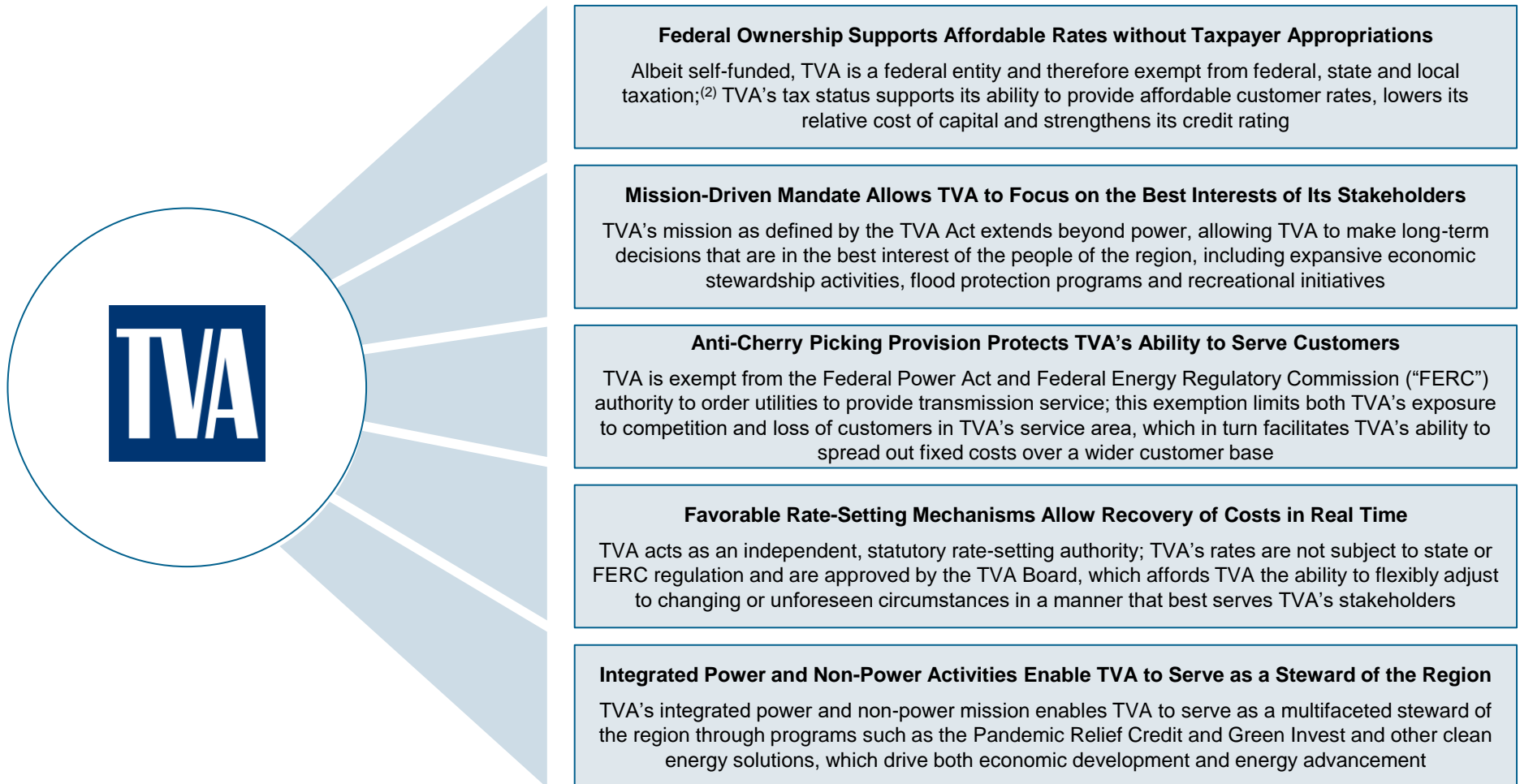
Lazard believes that its previous conclusions in the 2014 Strategic Assessment with respect to the benefits and considerations of alternative business models vs. the public power model are still valid today



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





**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

- 1** • 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
- 2** • 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
- 3** • 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
- 4** • 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
- 5** • 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

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

2

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

3

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?

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

4

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