TVA welcomes public input and participation

- Board Listening Sessions
- TVABoard.gov
- board@tva.gov
- Regional Resource Stewardship Council (RRSC)
- Regional Energy Resource Council (RERC)
- Public Land Information Line (PLIC)
- Complaint Resolution Hotline
- Social Media
- TVA Ombudsman
- NEPA Process
Audit, Finance, Risk, and Cybersecurity Committee

A.D. Frazier, Chair
Financial Update

John Thomas, Executive Vice President
Chief Financial & Strategy Officer
November 10, 2021
Fiscal Year 2021

Base Revenue of $7.8B was $335M favorable to budget (preliminary)

O&M is $56M favorable to budget (preliminary)

Operating cash $549M favorable to budget (preliminary)

Total Financing Obligations (TFO)

- $706M favorable to budget
- $878M lower than prior year
- Lowest debt level in over 30 years
Total Degree Days Below Normal

FY17 4,128
FY16* 4,674
FY15 4,744
FY19 5,239
FY18 5,393
FY21 4,827
FY15 - 17 data has been adjusted in order to incorporate a change in TVA's current calculation of total degree days

*5,060 is normal for leap years
## Sales and Revenue

<table>
<thead>
<tr>
<th></th>
<th>FY21</th>
<th>FY20</th>
<th>Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Sales (GWh)</td>
<td>157,353</td>
<td>151,251</td>
<td>6,102</td>
<td>4.0%</td>
</tr>
<tr>
<td>Total Operating Revenues ($ M)</td>
<td>$10,503</td>
<td>$10,249</td>
<td>$254</td>
<td>2.5%</td>
</tr>
<tr>
<td>Base Revenue</td>
<td>7,752</td>
<td>7,790</td>
<td>(38)</td>
<td>(0.5)%</td>
</tr>
<tr>
<td>Fuel Cost Recovery</td>
<td>2,601</td>
<td>2,310</td>
<td>291</td>
<td>12.6%</td>
</tr>
<tr>
<td>Average Base Rate (¢/kWh)</td>
<td>4.9</td>
<td>5.2</td>
<td>(0.3)</td>
<td>(5.8)%</td>
</tr>
<tr>
<td>Average Fuel Rate</td>
<td>1.7</td>
<td>1.5</td>
<td>0.2</td>
<td>13.3%</td>
</tr>
<tr>
<td>Total Effective Rate*</td>
<td>6.6</td>
<td>6.7</td>
<td>(0.1)</td>
<td>(1.5)%</td>
</tr>
</tbody>
</table>

Calculations may be impacted by rounding
*Excludes other revenue and off-system sales impact; total effective rate numbers based on unrounded base and fuel rates

### FY21 Sales vs Prior Years

Recovering from COVID-19 impacts (% change)

<table>
<thead>
<tr>
<th></th>
<th>FY21 vs FY20</th>
<th>FY21 vs FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPC (91% of FY21 Revenue)</td>
<td>3.2%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Industrial (7% of FY21 Revenue)</td>
<td>8.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Total</td>
<td>-1.8%</td>
<td>-0.7%</td>
</tr>
</tbody>
</table>
## FY21 Summary Income Statement

<table>
<thead>
<tr>
<th></th>
<th>Actual ($ million)</th>
<th>Budget ($ million)</th>
<th>Variance (Fav/(Unfav))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Revenue</strong></td>
<td>7,752</td>
<td>7,417</td>
<td>335</td>
</tr>
<tr>
<td><strong>Fuel Revenue</strong></td>
<td>2,605</td>
<td>2,401</td>
<td>204</td>
</tr>
<tr>
<td><strong>Other Revenue</strong></td>
<td>146</td>
<td>144</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Operating Revenue</strong></td>
<td><strong>10,503</strong></td>
<td><strong>9,962</strong></td>
<td><strong>541</strong></td>
</tr>
<tr>
<td><strong>Fuel &amp; Purchased Power</strong></td>
<td>2,721</td>
<td>2,557</td>
<td><strong>(164)</strong></td>
</tr>
<tr>
<td><strong>Total O&amp;M</strong></td>
<td>2,890</td>
<td>2,946</td>
<td>56</td>
</tr>
<tr>
<td><strong>Taxes, Depreciation, Other</strong></td>
<td>2,292</td>
<td>2,349</td>
<td>57</td>
</tr>
<tr>
<td><strong>Interest</strong></td>
<td>1,088</td>
<td>1,100</td>
<td>12</td>
</tr>
<tr>
<td><strong>Net Income (Loss)</strong></td>
<td><strong>1,512</strong></td>
<td><strong>1,010</strong></td>
<td><strong>502</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FY20 Actual ($ million)</th>
<th>‘21 v ‘20 Favorability ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Revenue</strong></td>
<td>7,790</td>
<td>(38)</td>
</tr>
<tr>
<td><strong>Fuel Revenue</strong></td>
<td>2,314</td>
<td>291</td>
</tr>
<tr>
<td><strong>Other Revenue</strong></td>
<td>145</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Operating Revenue</strong></td>
<td><strong>10,249</strong></td>
<td><strong>254</strong></td>
</tr>
<tr>
<td><strong>Fuel &amp; Purchased Power</strong></td>
<td>2,464</td>
<td>(257)</td>
</tr>
<tr>
<td><strong>Total O&amp;M</strong></td>
<td>2,720</td>
<td>(170)</td>
</tr>
<tr>
<td><strong>Taxes, Depreciation, Other</strong></td>
<td>2,571</td>
<td>279</td>
</tr>
<tr>
<td><strong>Interest</strong></td>
<td>1,142</td>
<td>54</td>
</tr>
<tr>
<td><strong>Net Income (Loss)</strong></td>
<td><strong>1,352</strong></td>
<td><strong>160</strong></td>
</tr>
</tbody>
</table>

* Includes off-system sales
# FY21 Summary Cash Flow Statement

<table>
<thead>
<tr>
<th></th>
<th>FY21 Actual</th>
<th>FY21 Budget</th>
<th>FY21 Variance</th>
<th>FY20 Actual</th>
<th>‘21 v ‘20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Activities</strong></td>
<td>$3,256</td>
<td>$2,707</td>
<td>$549</td>
<td>$3,636</td>
<td>$(380)</td>
</tr>
<tr>
<td><strong>Investing Activities</strong></td>
<td>$(2,338)</td>
<td>$(2,649)</td>
<td>311</td>
<td>$(2,015)</td>
<td>$(323)</td>
</tr>
<tr>
<td><strong>Financing Activities</strong></td>
<td>$(921)</td>
<td>$(258)</td>
<td>$(663)</td>
<td>$(1,422)</td>
<td>501</td>
</tr>
<tr>
<td><strong>Net Change in Cash</strong></td>
<td>$(3)</td>
<td>$(200)</td>
<td>$197</td>
<td>$(199)</td>
<td>$(202)</td>
</tr>
<tr>
<td><strong>Beginning Total Financing Obligations</strong></td>
<td>$21,421</td>
<td>$21,475</td>
<td>$54</td>
<td>$22,818</td>
<td>$1,397</td>
</tr>
<tr>
<td><strong>Change in Debt and Financing Obligations</strong></td>
<td>$(878)</td>
<td>$(226)</td>
<td>652</td>
<td>$(1,397)</td>
<td>$(519)</td>
</tr>
<tr>
<td><strong>Ending Total Financing Obligations</strong></td>
<td>$20,543</td>
<td>$21,249</td>
<td>$706</td>
<td>$21,421</td>
<td>$878</td>
</tr>
</tbody>
</table>
Recap of Financial Results
For twelve months ended September 30, 2021 - comparison to prior year

Recovering from COVID-19 impacts

$221M of Pandemic Relief Credit returned to customers

Lower effective wholesale rates

Continuing to benefit from lower debt

Best financial health in decades

~$220M of Pandemic Recovery Credit to customers in FY22 (2.5% base revenue)

~$133M of Pandemic Recovery Credit to customers in FY23 (1.5% base revenue)
Strong asset performance and TVA’s additional $500M contribution have the TVA Retirement System on track to achieve full funding by the target date of 2036 with higher confidence than the original plan.

Change in FY21 funded status (% shown below) was driven by asset returns (in $ billions) of over 20%

- Assets
- Discount Rate Impact
- Liability
- Additional Contribution

Funded status projections show the TVA Retirement System remains on track to achieve full funding in FY36 with higher confidence than the original plan.
Continued Progress on Financial Health

- 2023 debt reduction commitment exceeded by three years and $400M in 2020
- Further debt reduction of $878M in 2021
- Debt and financing obligations of $20.5B are the lowest in over 30 years

* See Appendix – Regulation G Reconciliation

![Total Financing Obligations Graph]

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Financing Obligations (Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13</td>
<td>$28.0</td>
</tr>
<tr>
<td>FY14</td>
<td>$26.0</td>
</tr>
<tr>
<td>FY15</td>
<td>$26.0</td>
</tr>
<tr>
<td>FY16</td>
<td>$26.0</td>
</tr>
<tr>
<td>FY17</td>
<td>$26.0</td>
</tr>
<tr>
<td>FY18</td>
<td>$24.0</td>
</tr>
<tr>
<td>FY19</td>
<td>$22.0</td>
</tr>
<tr>
<td>FY20</td>
<td>$20.5</td>
</tr>
<tr>
<td>FY21</td>
<td>$20.5</td>
</tr>
</tbody>
</table>
Progress on Financial Health

TVA has invested over $17B in its asset base, while reducing debt by $7B, and reducing effective rates.
Financial Health Trends

Interest Coverage Ratio*

FY13  FY14  FY15  FY16  FY17  FY18  FY19  FY20  FY21
2.3   3.8

Debt to Assets Ratio*

FY13  FY14  FY15  FY16  FY17  FY18  FY19  FYFY  FY21
57%   39%

* See Appendix – Regulation G Reconciliation
Average Retail Rate (¢/kWh)  
Top 100 U.S. Utilities

- 11.82¢/kWh
- 10.24¢/kWh
- 9.23¢/kWh

TVA 21st, Top Quartile, 9.10¢/kWh

Average Industrial Rate (¢/kWh)  
Top 100 U.S. Utilities

- 7.99¢/kWh
- 6.96¢/kWh
- 5.97¢/kWh

TVA 5th, Top Quartile, 4.83¢/kWh

12-Month Rolling Average (¢/kWh); Sources: U.S. Energy Information Administration-861M and Electricity Sales Statistics: August 2020 – July 2021
Financial Health Highlights

Success to date:

- Best financial health in decades
- Lower effective wholesale rates
- $7B reduction in debt – lowest debt in over 30 years

Forward-looking:

- Maintain flat rates
- Stabilize debt
- Balance net portfolio position
- Drive efficiencies into the business
- Advance the public power model
Audit, Finance, Risk, and Cybersecurity Committee

A.D. Frazier, Chair
FY23 Pandemic Recovery Credit

Tom Rice, Vice President
Financial Operations & Performance
November 10, 2021
Purpose and Background

**Purpose:** Action Item. Seek Board approval of an extension of the Pandemic Recovery Credit.

**Background:** In August 2021, the Board of Directors approved a 2.5 percent monthly base rate Pandemic Recovery Credit for FY22, expected to approximate $220M. Based on continued strong performance in FY21, TVA is positioned to extend the Pandemic Recovery Credit into FY23. The proposed extension is estimated to be approximately $133M and will be applied as 1.5 percent base rate credit to local power companies (LPC) and directly-served (DS) customers beginning in October 2022 through the end of FY23.

The Audit, Finance, Risk, and Cybersecurity Committee recommends the above listed item to the full Board for approval.
Pandemic Recovery Credit

Public Power Benefit

- In FY21, TVA employees delivered positive results as the Valley continues to recover from the pandemic. This strong performance enables us to extend our support of the ongoing recovery and infrastructure needs in the Valley.

- The FY23 credit extension, expected to approximate $133M, is in addition to the FY22 Pandemic Recovery Credit, estimated at $220M, approved by the Board in August.

The FY23 Pandemic Recovery Credit will apply as follows:

- Wholesale non-fuel rate credit of 1.5 percent for all customers

- The credit will be applied beginning in October 2022 and will remain in effect through the end of FY23

LPCs will be encouraged to pass through the credit to consumers and TVA will support a convenient process to do so.
Recommendation

Recommend the Board approve the extension of the Pandemic Recovery Credit
Audit, Finance, Risk, and Cybersecurity Committee

A.D. Frazier, Chair
Recent Fuel Market Challenges & Rate Impacts

Brian Child, Vice President
Enterprise Planning
November 10, 2021
Agenda

- What caused industry-wide fuel impacts?
- What are we doing?
- What is the impact?
- How is TVA positioned?
- What are the talking points?
What caused industry-wide fuel impacts?

Industry-wide fuel supply impacts
Coal and gas price appreciation
TVA’s current state: loads
Industry-wide Fuel Supply Impacts

2020: Demand loss led to record low gas prices resulting in coal industry disruption

2021: Demand spike led to pricing volatility and winter fuel supply concerns

Coal: Coal conservation efforts initiated to ensure winter readiness

Natural Gas: Geographic location, contracting strategies, and hedging reduce risk
### Coal and Gas Price Appreciation

Significant fuel price increases over past two months

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.00</td>
<td>$2.90</td>
<td>$2.47</td>
<td>$2.76</td>
<td>$2.85</td>
<td>$2.59</td>
<td>$2.93</td>
<td>$2.98</td>
<td>$3.62</td>
<td>$4.04</td>
<td>$4.37</td>
<td>$5.84</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ILB Coal ($/ton)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$31.88</td>
<td>$32.03</td>
<td>$32.73</td>
<td>$33.46</td>
<td>$33.89</td>
<td>$34.50</td>
<td>$34.93</td>
<td>$38.45</td>
<td>$47.47</td>
<td>$55.01</td>
<td>$62.76</td>
<td>$93.00</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRB Coal ($/ton)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$11.69</td>
<td>$11.85</td>
<td>$11.87</td>
<td>$11.90</td>
<td>$11.95</td>
<td>$11.99</td>
<td>$11.95</td>
<td>$12.22</td>
<td>$12.81</td>
<td>$13.59</td>
<td>$17.12</td>
<td>$34.50</td>
<td></td>
</tr>
</tbody>
</table>

Natural Gas amounts shown are monthly settle price. Coal amounts are monthly average. Oct 21 as of 10/13/2021.
TVA’s Current State: Loads

2021 had highest annual energy sales since 2008

~70K residential customers added June 2020-May 2021, ~75% above 2016-2020 average

Strong economic recovery driving higher commercial and industrial loads

Recent major economic development announcements driving near-term load growth
What are we doing?

System resiliency actions
System Resiliency Actions

Coordinating coal conservation efforts to ensure winter preparedness
• Curtailing coal generation to build coal inventories
• Monitoring actual performance against established targets

Proposing financial incentives to transportation providers to meet contracted coal needs

Adding firm transport for simple cycle CT supply

Actively exploring all viable coal supply options including non-traditional sources

Assessing feasibility of off-system energy and capacity purchase opportunities

Utilizing industry peer network to explore benchmarking and synergies

Leveraging longer-term natural gas products in lieu of daily if supply surety will benefit

Fuel oil inventory at gas plants
• Maintaining higher than seasonal normal levels of fuel oil at key sites
• Evaluating topping off tanks for ~three to five days of run at maximum storage capacity
What is the impact?

Illustrative impact of fuel volatility
Illustrative Impact of Fuel Volatility

Gas price ranges of $5-$7/MMBtu result in wholesale rates 7%-10% higher than FY22P.

<table>
<thead>
<tr>
<th>Wholesale Rate</th>
<th>Fuel Rate</th>
<th>Base Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY22P</td>
<td>$0.066</td>
<td>$0.0017</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$0.049</td>
</tr>
<tr>
<td>$5/MMBtu Gas Prices</td>
<td>$0.070</td>
<td>$0.021</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$0.049</td>
</tr>
<tr>
<td>$7/MMBtu Gas Prices</td>
<td>$0.072</td>
<td>$0.023</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$0.049</td>
</tr>
</tbody>
</table>

FY22P gas price is $2.69/MMBtu

10% above FY22P
7% above FY22P
How is TVA positioned?

- Generation mix and percent hedged
- Movement in fuel prices
- Natural gas generation and retail rates
TVA Well Positioned

TVA's Portfolio Diversity

• 80% hedged

Natural Gas Hedging

• 100% of anticipated burn for winter season is volumetrically contracted
• 35-40% of anticipated burn for winter season is at a fixed price sub $3/MMBtu

Natural Gas Price Forecast

• Backwardation and collapses toward budget levels in the 2024-2025 timeframe which will directly impact fuel rate
• Financial hedging can reduce volatility risk in out years

Natural Gas Physical Supply

• Six major pipelines, plus the East Tennessee Gas pipeline, pass near or through TVA's service territory providing access to some of the largest, most liquid markets in the United States
• Storage allows TVA to shift dispatch options in order to conserve coal supply heading into winter
# Generation Mix and Percent Hedged

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Generation Mix</th>
<th>Price Hedged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro</td>
<td>7%</td>
<td>100%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>40%</td>
<td>100%</td>
</tr>
<tr>
<td>Purchased Power</td>
<td>18%</td>
<td>89%</td>
</tr>
<tr>
<td>Coal</td>
<td>13%</td>
<td>89%</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>22%</td>
<td>24%</td>
</tr>
<tr>
<td>Total/Weighted Average</td>
<td>100%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Volatility highlighted by price increases in the short- and mid-term on both natural gas and coal.

Commodity curves in backwardation; stabilizing commodity costs and resulting fuel rates.

Note: FY22 plan prices as of 04/06/2021 and FY22 forecast prices as of 10/05/2021. Powder River Basin Coal Price Curve is similar trend to the ILB Curve.
Natural Gas Generation and Retail Rates

*12-month rolling average as of July 2021
Sources: FERC Form 1, ABB Hitachi Velocity Suite, EIA-861M, ESS
Talking Points

TVA and the utility industry are experiencing fuel-market challenges in the face of high natural gas and coal prices, winter fuel supply concerns, and an increase in electricity demand.

The combination of reductions in coal and gas production and increases in coal and gas demand and prices will result in TVA having a higher than budgeted total monthly fuel cost.

TVA has a resilient, diverse portfolio that provides numerous structural advantages in securing fuel supply and minimizing the impact of fuel price volatility.

TVA hedges a portion of its coal and natural gas needs to further insulate its customers from price volatility.

With its well-diversified portfolio and a fuel supply position that is among the most resilient in the industry, TVA currently has top quartile retail rates, and our rate competitiveness will remain strong as all utilities with natural gas or coal generation are dealing with similar challenges.
Audit, Finance, Risk, and Cybersecurity Committee

A.D. Frazier, Chair
Operations and Nuclear Oversight Committee

Jeff Smith, Chair
For Board Consideration

Approve the budget and delegate authority to the Chief Executive Officer to take specified actions, as appropriate, to support the potential future retirement of Cumberland Fossil Plant and Kingston Fossil Plant and the construction and operation of facilities necessary to replace part or all of any retired generation.
Background

Began conducting end-of-life evaluations of the coal fleet following the publication of TVA’s Integrated Resource Plan in 2019.

Started the National Environmental Policy Act Environmental Impact Statement process last spring in accordance with TVA’s 2021 Strategic Intent and Guiding Principles:

- Evaluating the no-action alternative and three potential action alternatives

Maintaining flexibility to evaluate reasonable alternatives.
Basis for the Request

Market conditions are driving high-levels of competition.

Major equipment manufacturing is expected to take approximately 18 months.

Supply chain conditions are volatile.
Project Development Actions

Actions need to be taken now to develop and preserve the replacement generation options identified during the Environmental Impact Statement process for each plant.

- Will allow TVA to meet the earliest possible retirement dates being considered

Project development actions may include conducting preliminary studies, project scoping, engineering, and long-lead procurement actions.

Any actions taken prior to the completion of the National Environmental Policy Act process will not irreversibly and irretreivably commit TVA to a particular course of action prior to a final decision.
Final Decision

TVA will need to make a final decision on an alternative following the completion of the National Environmental Policy Act process for each plant.

- Will address plant retirement and replacement generation
- Align with TVA’s Integrated Resource Plan
- Best support TVA’s mission of service

Final decision authority should include the authority to approve any capital projects, retirement and new construction schedules, and final decision actions.

- Will facilitate the timely selection and implementation of an alternative for each plant that meets these criteria

Decisions must support TVA’s mission of service and be based on a careful analysis of operational, financial, environmental, regulatory, and personnel considerations.
Recommendation

Approve the budget for each site and delegate to the Chief Executive Officer the authority to take project development actions, make final decisions, and take final decision actions.

The Chief Executive Officer will periodically report to the Board on actions taken in accordance with the delegations granted and will inform the Board prior to making any final decisions.
Operations and Nuclear Oversight Committee

Jeff Smith, Chair
External Stakeholders and Regulation Committee

Beth Harwell, Chair
Acknowledgement of Alcorn County Electric Power Association

Jeannette Mills, Executive Vice President & Chief External Relations Officer
November 10, 2021
Background

Purpose: Acknowledge Alcorn County Electric Power Association, the first rural electric cooperative in the nation, putting into practice a unique public power model that would serve its members well and inspire the growth of public power across the Nation.
Nation's First Rural Electric Power Cooperative
A Resolution Honoring Alcorn County Electric Power Association

WHEREAS Alcorn County Electric Power Association (EPA) was the first rural electric cooperative in the nation, putting into practice a unique public power model that would serve as a model well and inspire the growth of public power across the Nation; and

WHEREAS in 1954, Alcorn County EPA became the first cooperative in the Tennessee Valley to purchase reliable, low-cost power from the newly created Tennessee Valley Authority (TVA); and

WHEREAS in the nearly six decades since, Alcorn County EPA and TVA have worked closely together to deliver the Tennessee Valley-wide power model to the people of the Valley; and

WHEREAS this model has proven to be one of independence, not only for local electric cooperatives across the Valley and beyond, but for the community as a whole as they operate, established by providing reliable power at the lowest reasonable cost, and governed by boards of directors elected from their communities; and

WHEREAS Alcorn County EPA played a fundamental role in the creation of this model; and

WHEREAS Alcorn County EPA is an essential part of this model through its long-term partnership with TVA that provides lower rates, greater reliability, and effective planning to address future challenges and opportunities; and

WHEREAS this partnership has recently helped attract more than 175 jobs and more than $100 million in investment to Alcorn County and provided more than $900,000 in Pellissippi Technical College scholarships to customers throughout Alcorn County EPA’s service area; and

WHEREAS Alcorn County EPA is blazing new trails with its investments, through upgrades that include providing high-speed broadband internet service to every single customer; and

BE IT RESOLVED, That the Board members and employees of Alcorn County Electric Power Association by its outstanding service to its members and its leadership and long-standing dedication to public power; and

RESOLVED Further, The Board congratulates Alcorn County EPA on its decades of service to its members and extends to Alcorn County EPA and the communities it serves best wishes for the decades of future success through public power.

William R. Kilgore, Board Chair
        Jeff Lyon, President & CEO

Signed on November 10, 2021
Recommendation

- Approval of the resolution honoring the Nation’s first rural electric cooperative
- Resolution to be presented to Board and leadership of Alcorn County Electric Power Association by West region staff
Economic Development
FY21 Performance

Jeannette Mills, Executive Vice President & Chief External Relations Officer
November 10, 2021
Purpose: Provide an annual update of Economic Development performance

Background: Economic Development is fundamental to TVA’s mission of service to provide low-cost, reliable, clean energy; environmental stewardship; and economic development to improve the quality of life for the people of the Valley. Economic Development has met and exceeded its jobs and investment goals in FY21 and continues to attract new jobs and investment to the Valley, engage with existing industries, and serve with its partners to help foster economic growth.
Economic Development: Jobs & Investments
FY21

80,900 jobs
created & retained
record year for job creation

$8.8 billion
capital investment
third largest year for capital investment

- 3 projects exceeding $1 billion announced in FY21: GM, Ultium Cells, Oracle
- TVA named a Top Utility in Economic Development for the 16th consecutive year by Site Selection magazine
- 270 projects won – 43% increase from last year
- Actively working 26 EV projects
- 73 Training and Development services provided
- 324 Technical Services offerings provided
- 463 Research requests fulfilled

80,900 jobs created & retained
record year for job creation

$8.8 billion capital investment
third largest year for capital investment
Economic Development: Impactful Announcements
FY21

**Hydro-Gear**
Carroll Co., TN
375 jobs
$10M capital investment
manufacturer of power drive systems

**Barrette Outdoor Living**
Hawkins Co., TN
162 jobs
$33M capital investment
fencing and exterior products manufacturer

**Kairos Power**
Roane Co., TN
55 jobs
$100 million capital investment
advanced nuclear engineering company

**New Way Trucks**
Prentiss Co., MS
120 jobs
$4 million capital investment

**Martinrea Hopkinsville, LLC**
Christian Co., KY
33 jobs
$31 million capital investment
automotive supplier
Economic Development: EV Announcements

Electric Vehicle manufacturer
Spring Hill, TN
4,200 retained jobs
$1.7B capital investment

General Motors and LG Chem Solution
joint venture EV battery manufacturer
Spring Hill, TN
1,300 jobs
$2.3B capital investment

EV battery manufacturer
Clarksville, TN
300 new jobs
$220M capital investment

Electric Vehicle manufacturer
Memphis, TN
430 new jobs
$360M capital investment

Automotive supplier to
Volkswagen Electric Vehicle
Chattanooga, TN
240 new jobs
$42M capital investment

Automotive supplier for combustion engine, hybrid and battery
Electric Vehicles
Hopkinsville, KY
97 new jobs
# Memphis Regional Megasite: Project Aurora

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>Site Identified</td>
<td>TVA spotted site in TVA helicopter while looking for large-scale sites to target automotive assembly</td>
</tr>
<tr>
<td>2004</td>
<td>Megasite program was developed</td>
<td>Site certification started Site and environmental due diligence; solutions for deficiencies</td>
</tr>
<tr>
<td>2006</td>
<td>Site Certified TVA Megasite McCallum Sweeney consulting firm</td>
<td>Continued prospect interest MRM remained focused on positioning itself for the right original equipment manufacturer (OEM), like Ford</td>
</tr>
<tr>
<td>2009</td>
<td>State of TN purchased 4,000 acre site</td>
<td>State invested $170M for interchange improvements, roadways and water infrastructure to develop site for major auto assembly The transformation of auto industry and electrification further solidified TVA’s partnership for the development of this site</td>
</tr>
<tr>
<td>2021</td>
<td>Project Aurora</td>
<td>Started early 2021 March-Sept. 21 - worked closely with State of TN on recruitment aspects of project Worked closely with Ford to deliver solutions to meet project needs TVA’s carbon strategy goals align with Aurora</td>
</tr>
</tbody>
</table>
Largest Capital Investment in TVA and TN History

5,800 jobs | $5.6 billion capital investment
External Stakeholders and Regulation Committee

Beth Harwell, Chair
TVA’s Biodiversity Policy

Rebecca Tolene, Chief Sustainability Officer

November 10, 2021
For Board Consideration

Approve the TVA Biodiversity Policy

Authorize the TVA Environment organization to lead implementation of this Policy in alignment with the TVA Environmental Policy and Sustainability Program
What Is Sustainability at TVA?

**Environment**
- Climate Change and Resilience
- Air Quality
- Water Quality and Availability
- Waste Management
- Habitat and Biodiversity Protection
- Cultural Resource Management

**Economic Impact**
- Energy Affordability
- Reliability and Resiliency
- Jobs Created and Retained
- Flood and Drought Management
- Energy Innovations
- Investor Relations
- Supplier Partners

**Governance**
- Transparency
- Board and Executive Diversity
- Systemic Risk Management
- Ethics
- Cyber and Physical Security

**Employees**
- Safety
- Diversity and Inclusion
- Labor Relations
- Recruitment, Development, and Retention
- Skilled Workforce Availability

**Social**
- Public Health and Safety
- Environmental Justice
- Community Vitality and Engagement
- Reservoir and Stewardship Benefits
- Local Power Company Partnerships

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- Public Health and Safety
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- Reservoir and Stewardship Benefits
- Local Power Company Partnerships
What Is Biodiversity?

The variety of all life (plants, animals, microorganisms)
Includes how these species interact and survive, and where/how they live
Integral to ecosystem services that contribute to human well-being
The TVA operating footprint, combined with the biodiversity of the region, positions TVA as a potential regional leader in biodiversity conservation.
TVA Contributions to Biodiversity

- Habitat Improvement
- Air Emissions Reduction
- Endangered Species Protection
- 1 Million Trees
- Stream Restoration
- Water Quality Improvements
- Natural Areas
- Right-of-way Vegetation Management
TVA Biodiversity Policy Statement

“TVA continues to recognize the importance of biodiversity to the quality of life of the region’s residents and we work to proactively protect biodiversity through stewardship of public lands, management of the Tennessee River system, local and regional partnerships, and integration of species and habitat conservation in project planning.”
Regional Resource Stewardship Council Advice

The Regional Resource Stewardship Council appreciates that this policy proactively supports the mission of TVA and recommends that TVA should be a leader in this effort nationally, as well as regionally.

TVA’s clear expertise already in this area should be used to build local, state, regional, and national partnerships that should be highlighted and shared with companies being recruited to the region.

The Regional Resource Stewardship Council has reviewed the proposed Biodiversity Policy and is in support of the adoption and implementation of the Policy.

Meeting held September 22, 2021, www.tva.com/rrsc
Recommendation

Adopt and approve the TVA Biodiversity Policy and authorize TVA’s Environment Group to lead the implementation of this Policy
External Stakeholders and Regulation Committee

Beth Harwell, Chair
Green Bond

Tammy Wilson, Vice President, Treasurer, and Chief Risk Officer

November 10, 2021
Purpose and Background

Purpose: Provide an update on TVA's recent Green Bond offering.

Background: TVA's inaugural green bond highlights TVA's Environmental, Social, Governance (ESG) progress and goals. TVA issued $500M of 10-year maturity Green Global Power Bonds in September 2021. The bonds carry a coupon interest rate of 1.50%, which set a new low record for TVA 10-year financing. The bonds were issued in accordance with TVA's new Sustainable Financing Framework. Proceeds are aligned with TVA strategic capital projects.
Green Bond Highlights

- TVA’s first-ever Green Bond offering
- Highlights TVA’s investments in cleaner energy
- Strong demand: $2.2B in total orders, 4.4 times over-subscribed
- Large, high-quality order book from a diverse investor base
- More than 40% to green or ESG-oriented investor accounts
- Consistent with TVA’s Sustainable Financing Framework
- Favorable timing and strong demand helped set TVA record low interest rate
- Locks in over $15M in annual interest savings
- TVA has the highest credit ratings - AAA/Aaa/AA+
New Green Bond Fits Well in TVA’s Portfolio

10-year maturity fits well, locks in historical low rates, reduces average interest rate on debt

Post-Issuance Long-term Bond Portfolio:
- Average Rate: 4.51%
- Average Maturity: 15.7 years

As of September 30, 2021
External Stakeholders and Regulation Committee

Beth Harwell, Chair
People and Governance Committee

Kenny Allen, Chair
President’s Report

Jeff Lyash
President and CEO

November 10, 2021
Performance Highlights
Power Demand

Thursday, July 29, 2021

30,340

Megawatts

Highest summer peak since 2012

Four days this summer with peak demand above 30,000 MW
Economic Development FY2021

In partnership with local power companies, and state, regional and local development agencies, TVA’s Economic Development team helped create or retain nearly 81,000 jobs, bringing capital investment of $8.8 billion across TVA’s seven-state service territory.

Created or retained nearly 81,000 Jobs and attracted over $8.8 Billion in capital investment.
Carbon Reduction Leadership

TVA is a national leader in carbon reduction

63% Accomplished

70% Plan by 2030

~80% Path by 2035

Net-Zero Aspiration by 2050
Solar Generation Expansion

Targeting 10,000 MW by 2035
Integrated River Management

Prevents about $300 million in flood damages every year

Totaling about $10 billion since TVA's earliest days
Performance Highlights
Employer Awards

Forbes America’s
Best Large Employers
#2 in Utility Industry Top 25% Overall

Best-In-State Employers
3rd consecutive year Top 5 in Tennessee

Newsweek
Top 100
Most Loved
Workplaces®

Leading Disability Employer

Diversity Impact Award Winner
Employer Awards

Military Friendly Company
Military Friendly Employer
Military Spouse-Friendly Employer
Top Military Friendly Diversity Supplier Program
Public Power Model

Public power exists to serve and benefit the public good at the local levels – families, communities, businesses and industries.
Economic Development
Economic Development

Over Last 5 Years

Attracted or retained
350,000 Jobs
and almost
$46 Billion
in capital investment
Economic Development Wins in the Valley

Highlights of recent companies locating in the Tennessee Valley, thanks to partnership with local power companies and state, regional and local development agencies

Boeing
Volkswagen
Amazon
Bridgestone
Facebook
Google
Mazda-Toyota
Nissan
Phillips Healthcare
U.S. Space Command
Nearly 6,000 Jobs

$5.6 Billion Capital Investment
Long-Term Partners

145 LPCs
Nearly 95% of LPCs

Multiple Benefits Including
3.1% Bill Credit & Self Generation

Long-Term Alignment

Direct Engagement
in TVA Business planning process and decision making
Community Support

$9 Million

Community Care Fund

Benefited more than 600 local charitable groups
President’s Report

Jeff Lyash
President and CEO

November 10, 2021
“. . . the work of TVA will never be done. There will always be new places for us to go. For in minds of men the world over, the initials TVA stand for progress . . .”

John F. Kennedy
Board Meeting

November 10, 2021
Knoxville, Tennessee