Board Meeting

May 5, 2016

Buchanan, Tennessee

President's Report

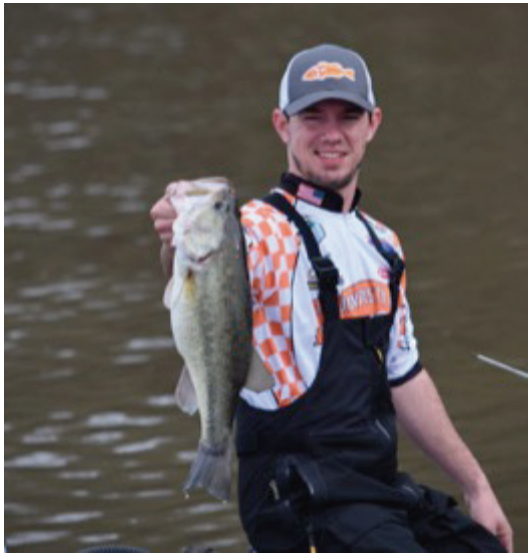
May 5, 2016

BILL JOHNSON
President and CEO

Paris Landing State Park

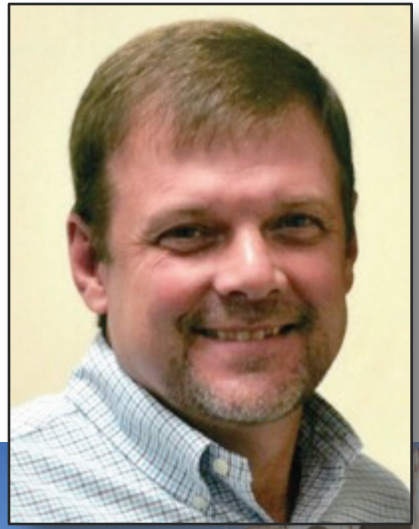
Paris, Tennessee

Paris Landing State Park

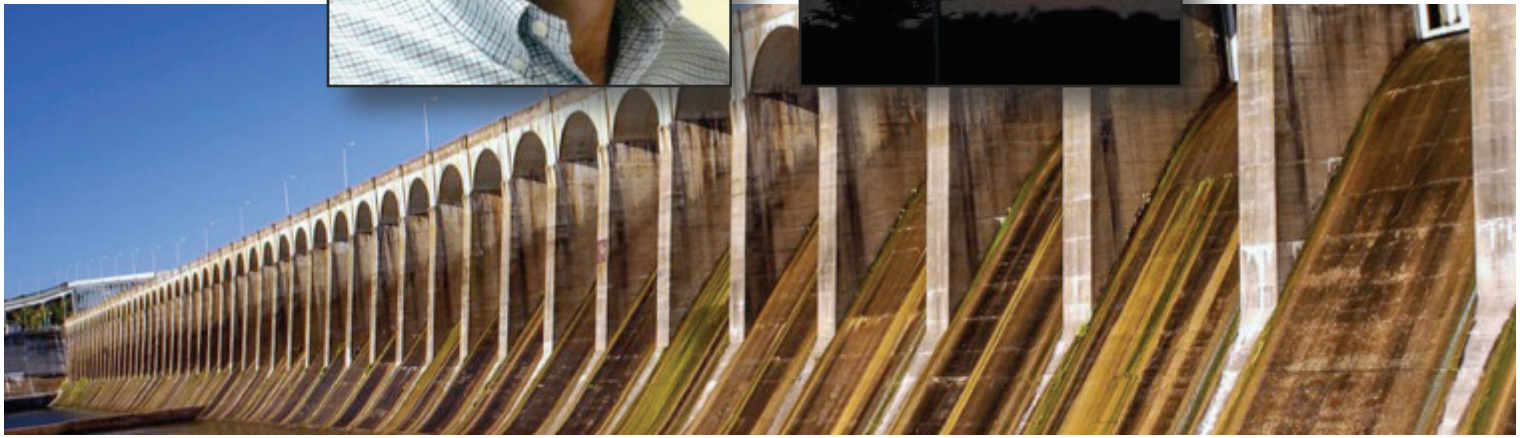


Kentucky Dam

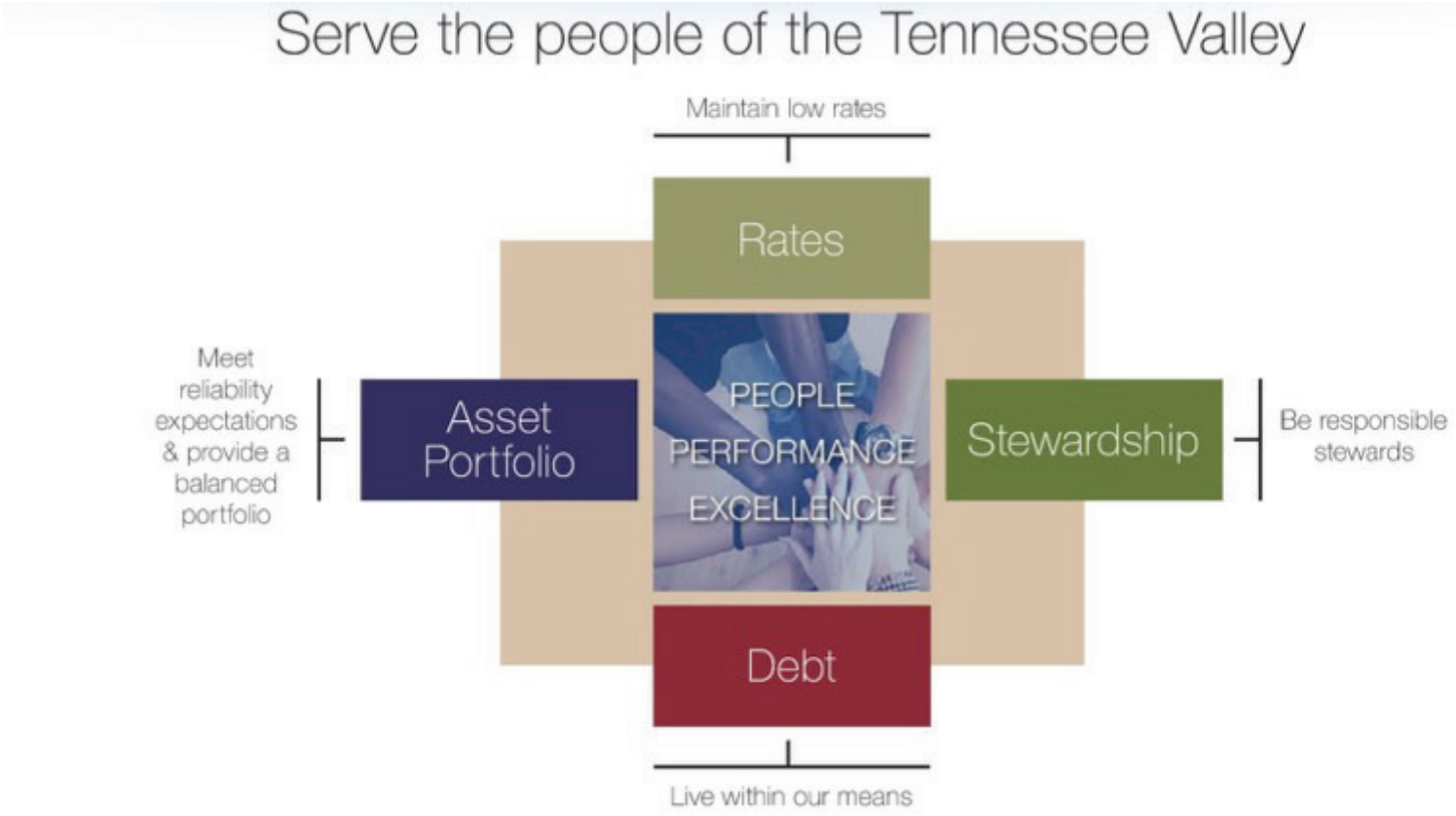
Safety



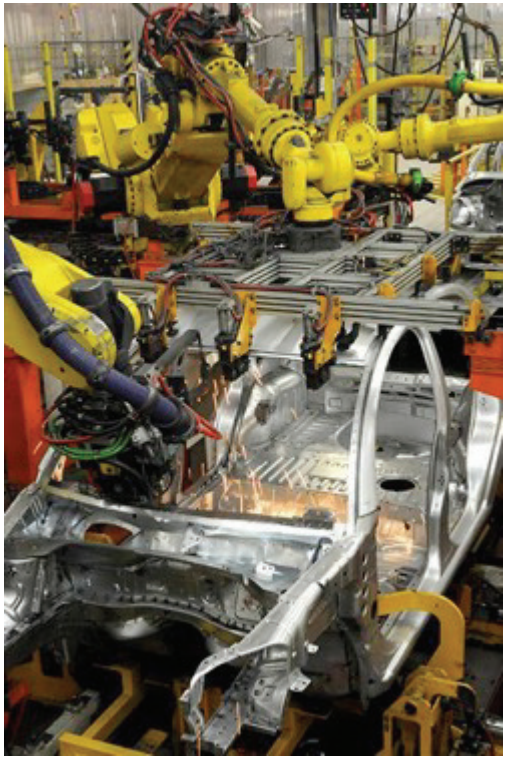
Wendell Smith



Operational Performance



Energy | Environment | Economic Development

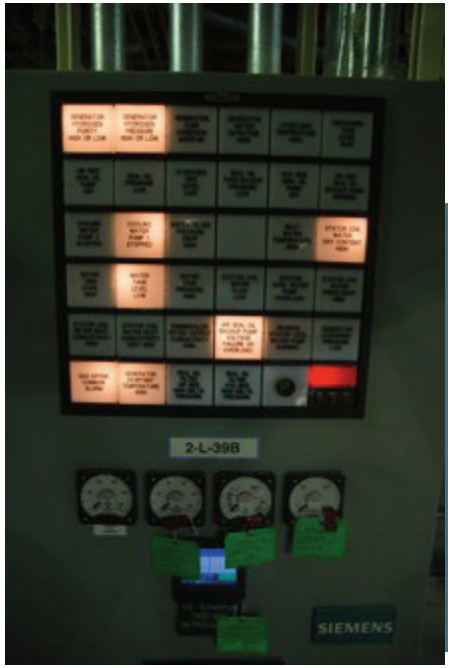


Energy

Nuclear – Watts Bar Unit 2

Energy

Nuclear – Watts Bar Unit 2



Energy

Renewables

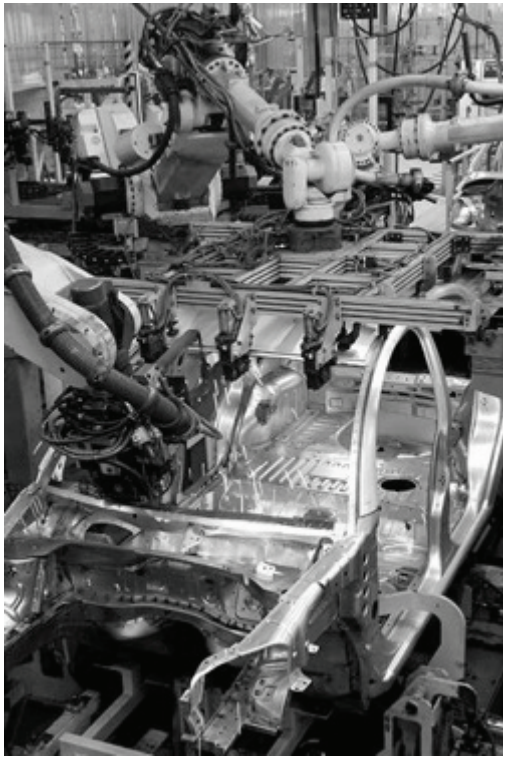
Energy

Renewables

Energy

Bellefonte

Stewards of the Environment



Since 2015, TVA employees have partnered with more than 460 groups to conduct activities on 41 reservoirs. These activities include . . .

150 Educational Outreach Efforts
on the importance of protecting our natural resources

220 UPGRADES
to public recreation sites

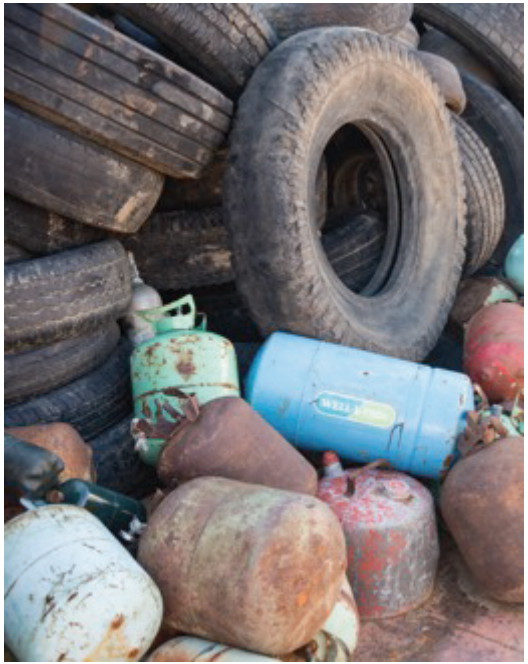
115 ACTIVITIES
to enhance habitat areas

125 ACTIVITIES
to support better water quality in TN River watershed

28 ACTIVITIES
to protect archaeological and historical sites

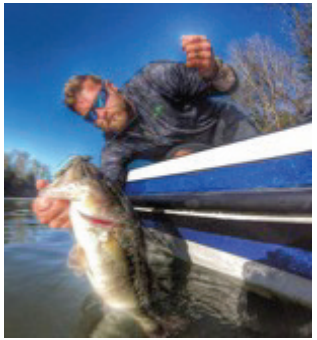
Stewards of the Environment

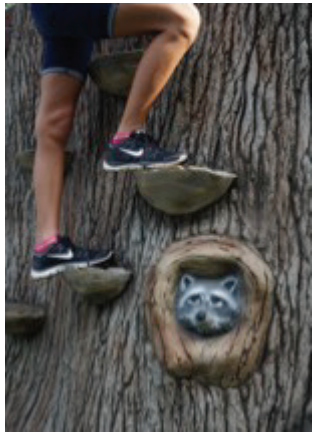
Clean Up

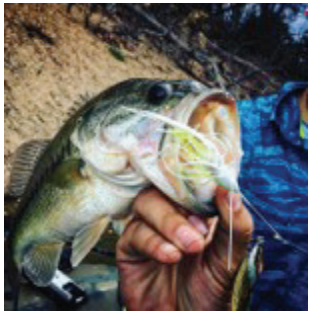


Stewards of the Environment

Recreation

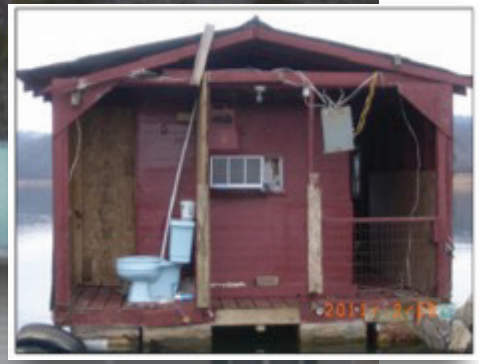






Floating Houses

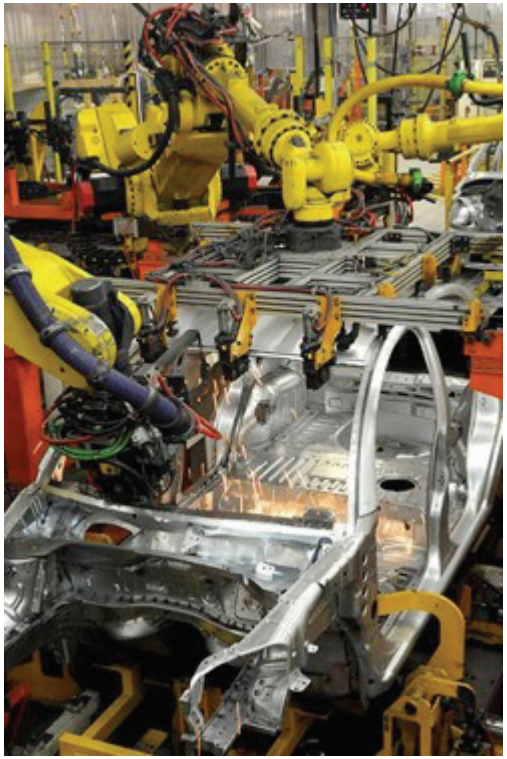
Floating Houses



Stewards of the Environment

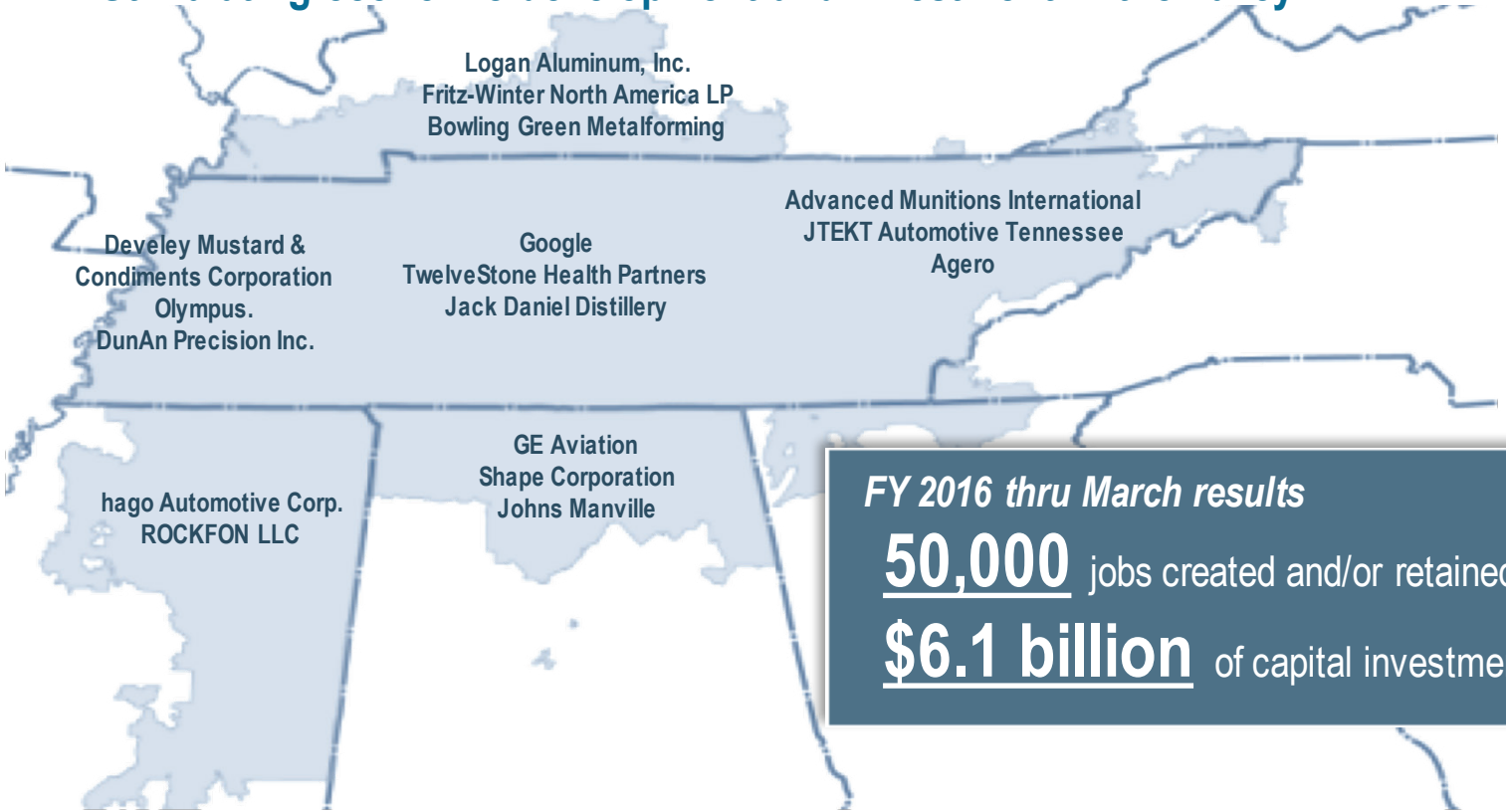
Public Meetings

Economic Development



Economic Development

Stimulating economic development and investment in the Valley

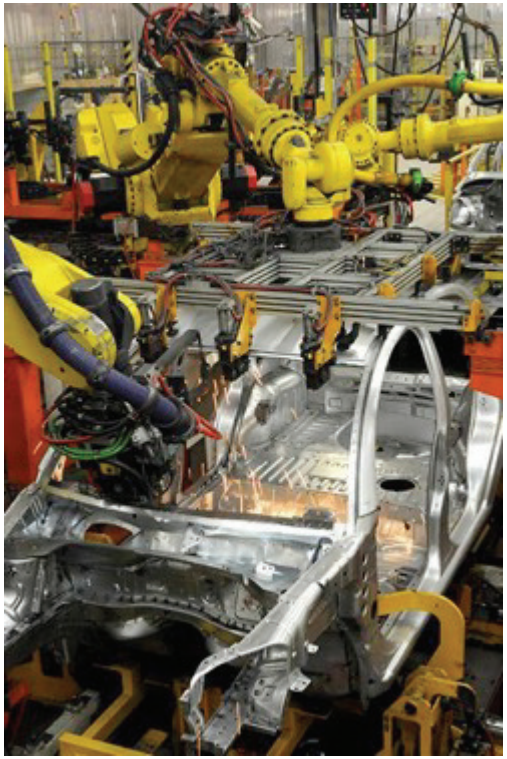


FY 2016 thru March results

50,000 jobs created and/or retained

$6.1 billion of capital investment

Energy | Environment | Economic Development



President's Report

May 5, 2016

BILL JOHNSON
President and CEO

TVA

Committee Rosters

Committee Rosters

Audit, Risk, and Regulation Committee
Lynn Evans, Chair
Richard Howorth
Gina Lodge
Joe Ritch

External Relations Committee
Mike McWherter, Chair
Marilyn Brown
Lynn Evans
Eric Satz

Finance, Rates, and Portfolio Committee
Pete Mahurin, Chair
Mike McWherter
Eric Satz
Ron Walter

People and Performance Committee
Richard Howorth, Chair
Gina Lodge
Pete Mahurin
Ron Walter

Nuclear Oversight Committee
Marilyn Brown, Chair
Lynn Evans
Gina Lodge
Joe Ritch

Nuclear Oversight Committee

External Relations Committee

Sale of Bellefonte Site

SHERRY QUIRK
Executive Vice President
and General Counsel

Bellefonte Nuclear Plant Site

- The site is approximately 1,600 acres, located on Guntersville Reservoir
  - On-site infrastructure includes
    - > Two partially-constructed B&W pressurized light water reactors
    - > 500-kV and 161-kV switchyards
    - > Office buildings, warehouses, cooling towers, water pumping stations, roads, railroad spurs
    - > Transmission line training center
- TVA acquired site in 1974; ceased construction of nuclear units in 1988
- TVA has considered converting infrastructure to natural gas combined cycle (1997) and restarting construction of BLN Unit 1 (2010)
- TVA also has been asked to lease or sell the site so others can complete the units
- 2015 Integrated Resource Plan concluded TVA would not need additional large baseload generation, like BLN, for 20 more years

Public Processes

- TVA asked the public whether it should sell the BLN site
  - 79 persons/entities responded: General public, customers, elected officials, environmental advocacy groups, etc.
  - All elected officials recommended selling the site to someone that would complete the plant
  - A majority favored selling the site
- Updates to environmental reviews also likely would involve additional opportunity for public comment

Sale Process

- If the Board declares the site surplus,
  - TVA would offer the site to qualified bidders at a public auction under Section 31
  - Bidder qualifications would be established and publicly announced
    - > Minimum price must be paid
    - > Financial worthiness
    - > Site development plan, including investment and estimated employment
  - A reasonable period would be allowed for bidders to qualify
  - On-site auction would be held
  - Transfer of title would be deferred until and conditioned on satisfactory update of environmental reviews

Recommendation

- Declare site surplus and authorize sale
  - Authorize CEO to complete transfer if updated environmental reviews satisfactorily address potential impacts
  - Authorize CEO to sell site in whole or in part depending on market conditions
  - Withhold transmission line training center area from sale acreage if it cannot be moved
  - Recognize certain BLN costs as a regulatory asset

Floating House Policy

REBECCA TOLENE
Vice President of Natural Resources
and Deputy General Counsel

Purpose

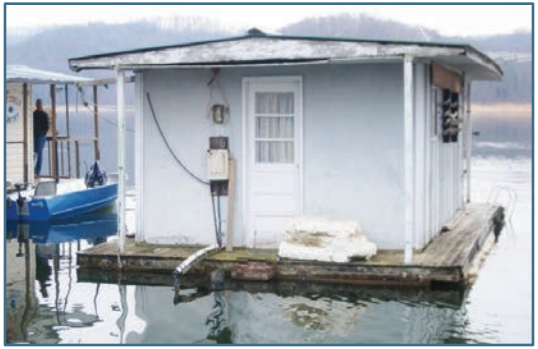
Request that the TVA Board approve a policy governing floating houses on the TVA reservoir system

Background

Nonnavigable houseboat

Floating houses

Concerns Expressed in Public Comments



Wastewater Discharge

Need for Stronger Regulations

Private Use of a Public Resource

Electrical Safety

Mooring Safety

Recommendation

- Approve a TVA policy to govern floating houses on the TVA reservoir system that:
  - Prohibits new floating houses
  - Requires all floating houses to acquire permits from TVA
  - Requires existing floating houses to meet TVA standards
  - Directs staff to develop standards and a cost recovery program for floating house structures and issue draft regulations implementing those
  - Requires removal of all floating houses by the end of a 30-year sunset period
- Authorize the Vice President, Natural Resources to approve amendments to TVA's Section 26a regulations and its administrative cost recovery regulations
- Direct staff to review reasonable restraints on transferability and report to the board in 6 months

Proposed Standards

- Ground fault circuit interrupter protection and visible markers for underwater cables
- Wastewater treated in accordance with applicable federal, state, and local laws and regulations
- No expansion of structures
- Liability insurance
- Structures transferred only with prior written TVA approval

Recommendation

- Approve a TVA policy to govern floating houses on the TVA reservoir system that:
  - Prohibits new floating houses
  - Requires all floating houses to acquire permits from TVA
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TVA Economic Development

JOHN BRADLEY
Senior Vice President,
Economic Development

TVA's Mission is Timeless

Energy

Environment

Economic Development

The TVA Act defines our business model of public power

ATTRACT
NEW COMPANIES & INVESTMENTS

Recruit Companies and Investments

Product Development

Marketing and Communications

ENGAGE
COMMUNITIES & INDUSTRIES

Economic Development Organizations

Local Power Companies & Directly Served Customers

Regional, State & Federal Partners

SERVE
COMMUNITIES PREPARING FOR ECONOMIC GROWTH

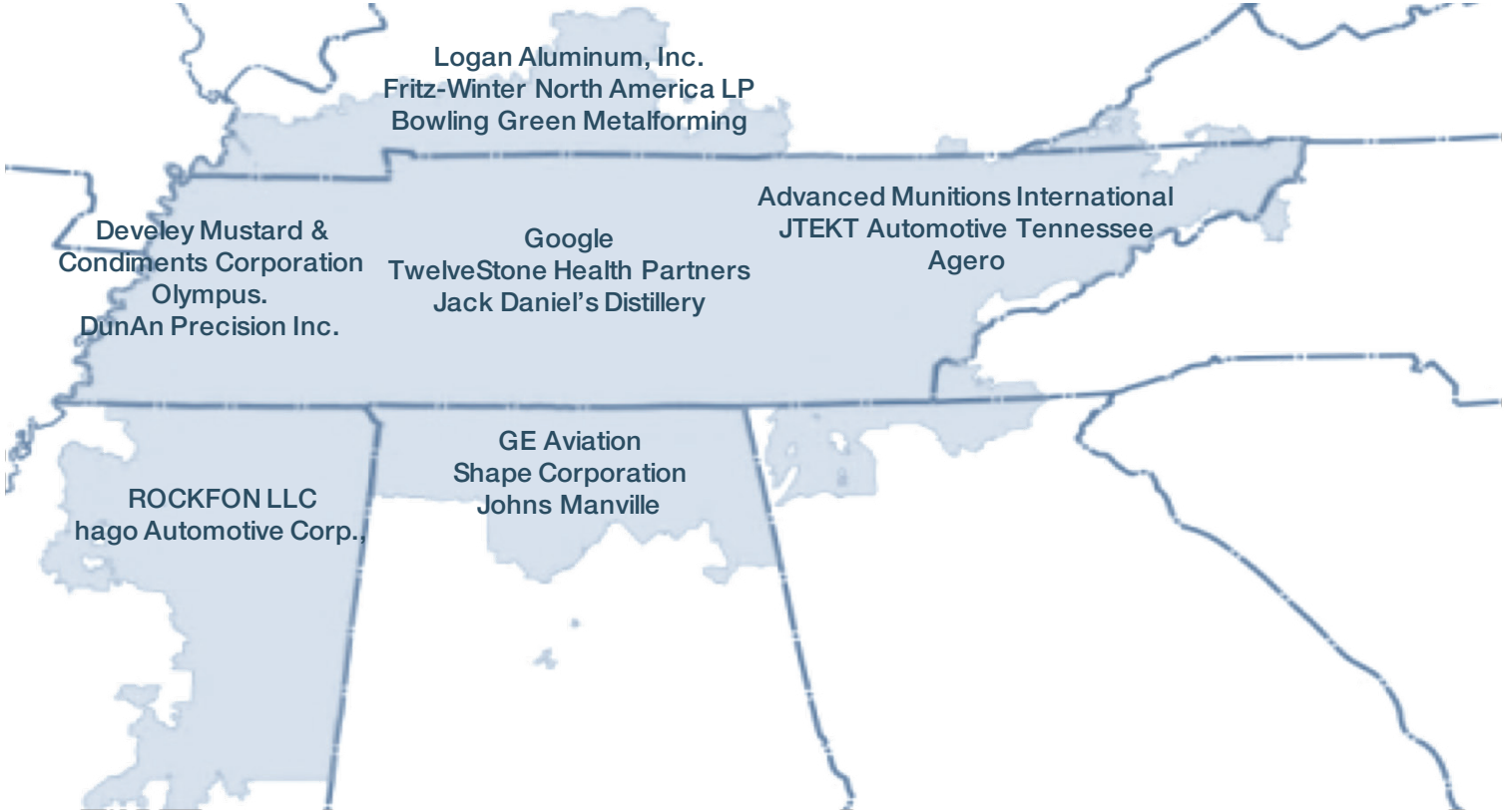
Rural Development

Community Development

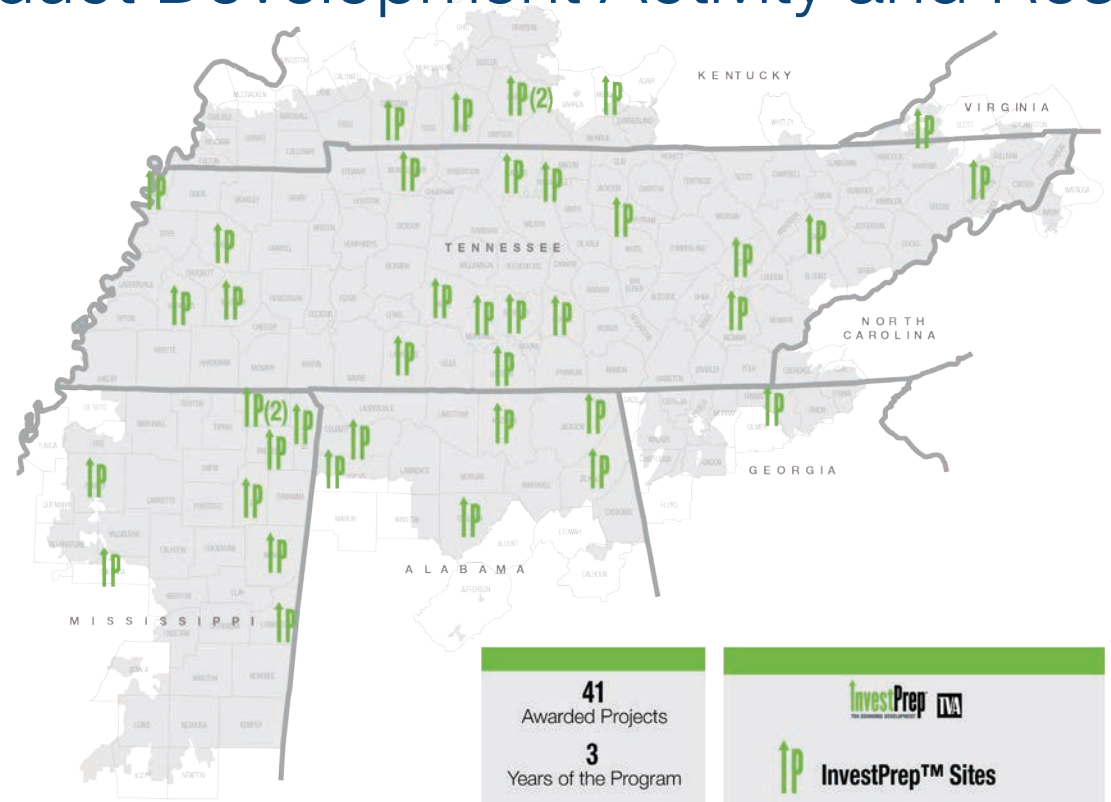
Research

TVA

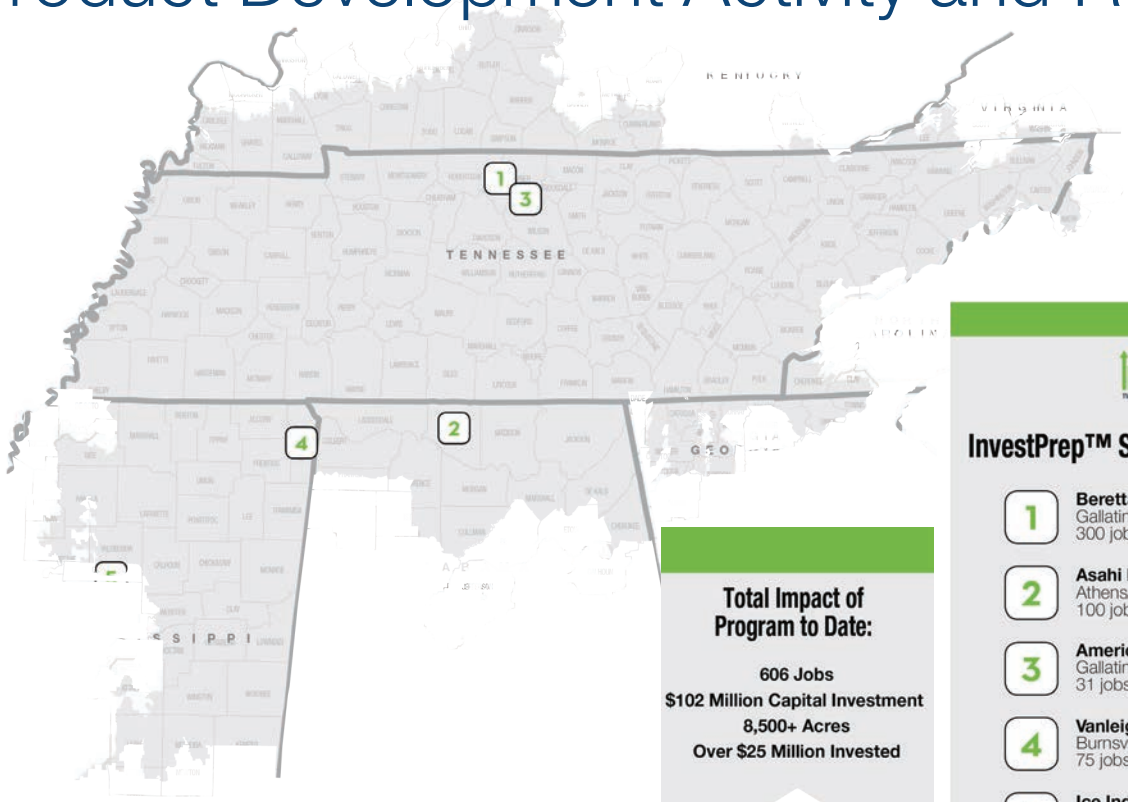
ATTRACT
Recent Company Announcements



ATTRACT
Product Development Activity and Results



ATTRACT
Product Development Activity and Results



Total Impact of Program to Date:

606 Jobs
$102 Million Capital Investment
8,500+ Acres
Over $25 Million Invested

InvestPrep TVA

InvestPrep™ Sites with Announcements

1. **Beretta USA**
   Gallatin/Sumner County, Tennessee
   300 jobs | $45 million capital investment
2. **Asahi Kasei Plastics North America**
   Athens/Limestone County, Alabama
   100 jobs | $30 million capital investment
3. **American Colors Inc.**
   Gallatin/Sumner County, Tennessee
   31 jobs | $3.7 million capital investment
4. **Vanleigh RV**
   Burnsville/Tishomingo County, MS
   75 jobs
5. **Ice Industries**
   Grenada/Grenada County, Mississippi

ENGAGE
Our Partners

154
Local Power Companies

58
Directly Served Customers

200+
Economic Development Organizations

35
Federal, Regional & State Partners

SERVE
Community Programs

65 Community Development trainings and facilitations

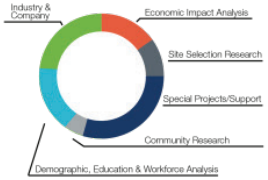
160 Communities directly assisted in Retail Development

28
Valley Sustainable Communities

10 Regional Young Talent Roundtables

95 Graduates of the Tennessee Valley Rural Leadership Institute

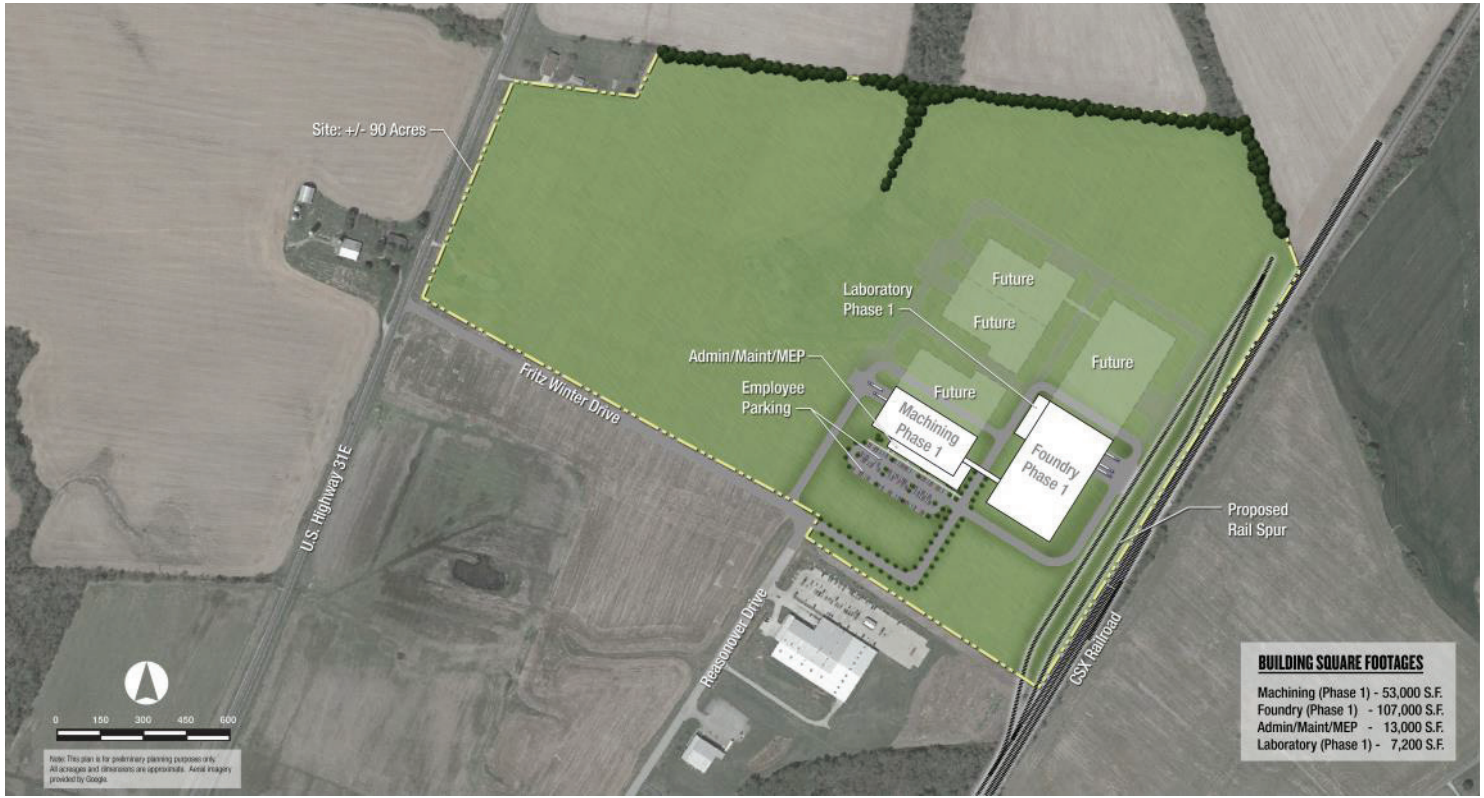
2,000 Buildings and Sites listed in TVAsites.com



420 Total Research Projects

Assisted **352** Valley Communities and Companies with Conceptual Renderings

SERVE: Technical Services



Conceptual Site Plan

SERVE: Technical Services

3D Rendering

Economic Development
Recent Accomplishments

Best Places to Work

3

Years in a Row

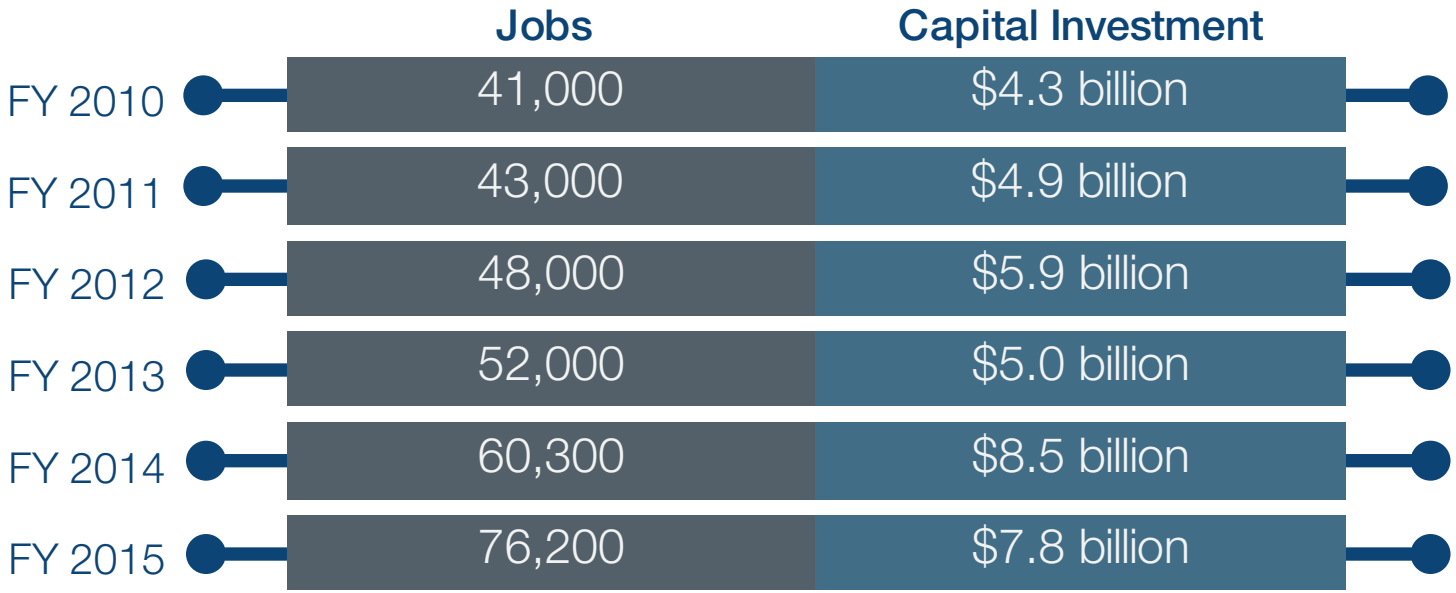
Top Utilities in Economic Development

10

Years in a Row

Powered by People You Know

TVA Region
Performance Highlights



Year to date (thru March) we have 50,000 jobs and $6.1 billion in capital investment

Finance, Rates, and Portfolio Committee

Financial Performance Update

JOHN THOMAS

Executive Vice President
and Chief Financial Officer

Q2 Fiscal Year 2016

Net Income: $281 million

- $129M more than budget and $296M below last year

Operating Revenues ($276M below budget)

- Warmer weather resulting in 20% fewer degree days

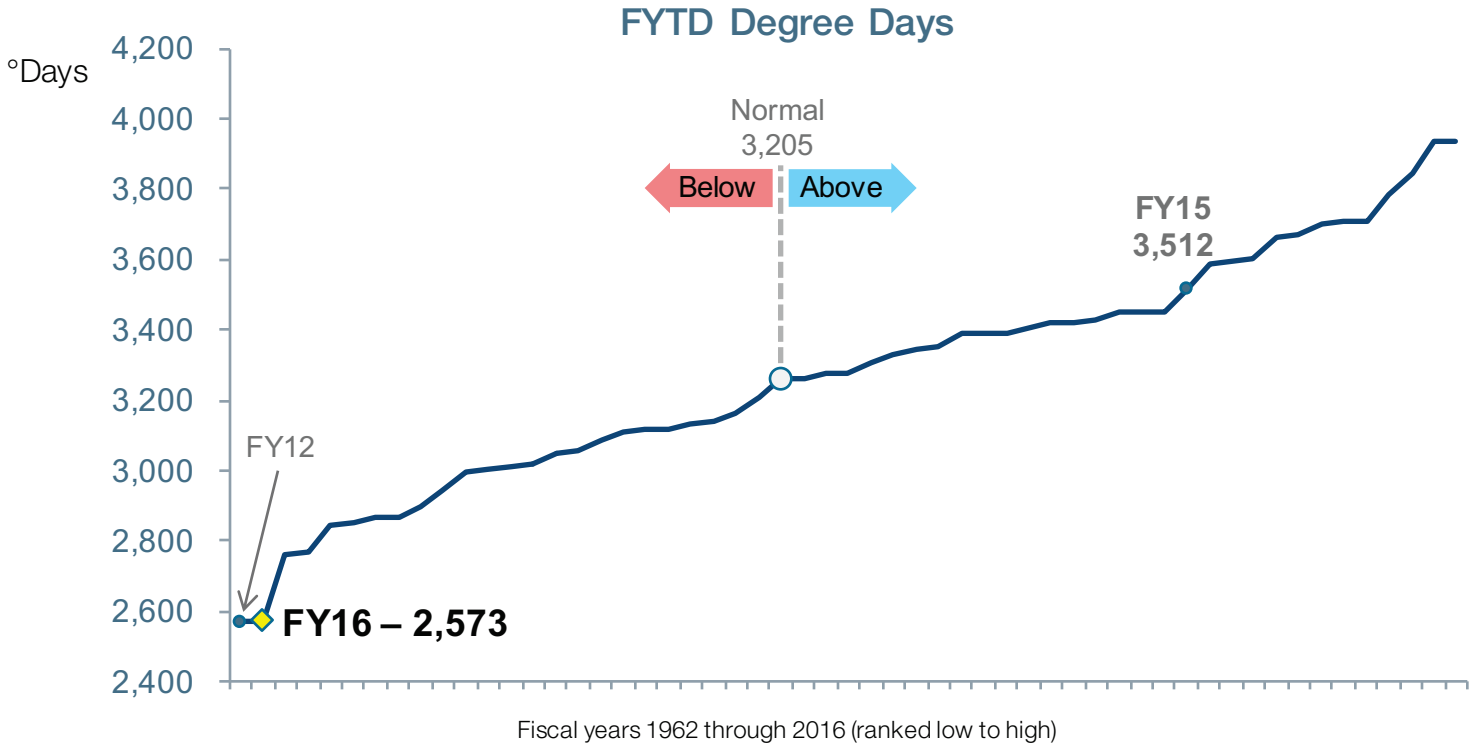
Operating & Maintenance Expenses ($41M favorable to budget)

- Routine and outage favorability

Interest Expense ($94M favorable to budget)

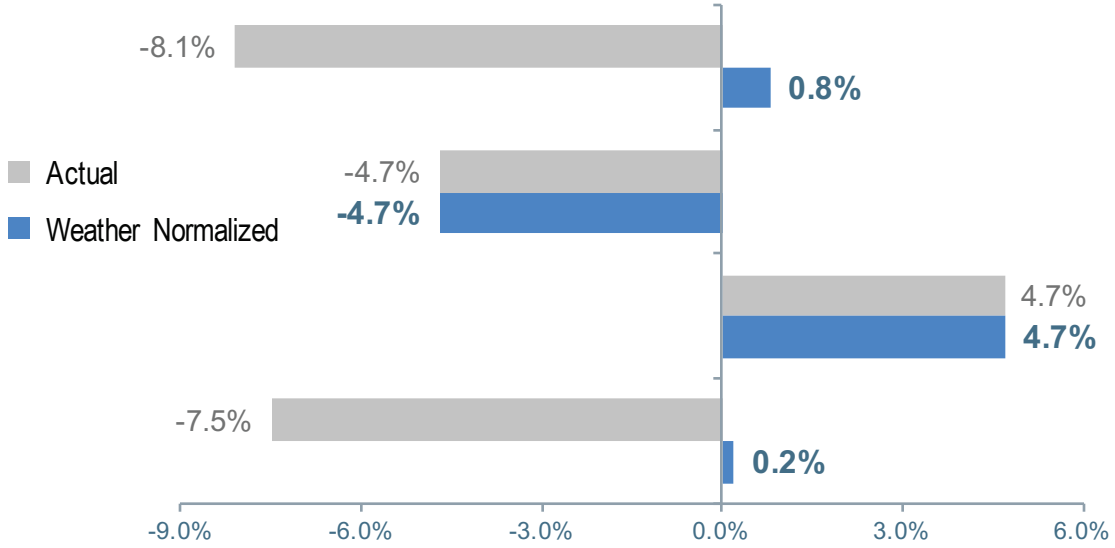
- Additional AFUDC recognition and lower debt rates
- Total Financing Obligations: $464M less than budget

Weather Patterns



Weather Impact

Energy delivered FYTD 2016 vs. 2015



	% of Total Sales
Local Power Companies	87%
Industries Directly Served	11%
Federal Agencies and Other	2%
Total	

Q2 Summary Income Statement

Net Income favorable to budget due to lower expenses despite unfavorable weather impacts on Base Revenue

	FYTD 2016			FYTD 2015	
$ million	Actual	Budget	Variance Fav/(Unfav)	Actual	'16 v '15 Fav/(Unfav)
Operating Revenue	$ 4,851	$ 5,127	$ (276)	$ 5,274	$ (423)
Fuel & Purchased Power	1,448	1,656	208	1,628	180
Total Operation & Maintenance	1,409	1,450	41	1,345	(64)
Taxes, Depreciation, Other	1,157	1,219	62	1,144	(13)
Interest	556	650	94	580	24
Net Income (Loss)	$ 281	$ 152	$ 129	$ 577	$ (296)

Q2 Summary Cash Flow Statement

$ million	FYTD 2016 Actual	FYTD 2016 Budget	FYTD 2016 Variance	FYTD 2015 Actual	'16 v '15
Cash Flow from Operating Activities	$ 1,330	$ 1,280	$ 50	$ 1,412	$ (82)
Cash Flow used in Investing Activities	(1,613)	(1,639)	26	(1,644)	31
Cash Flow from Financing Activities	284	359	(75)	234	50
Net Change in Cash & Cash Equivalents	**1**	**-**	**1**	**2**	**(1)**
Ending Cash & Short-Term Investments	**301**	**300**	1	**502**	**(201)**
Ending Debt and Financing Obligations	**$ 26,363**	**$ 26,827**	**$ (464)**	**$ 26,247**	**$ 116**
Statutory Debt	24,246	24,710	(464)	23,917	329

Second Quarter Summary (Results v. Plan)

Lower Electricity Sales – continued trend of mild weather

Lower Fuel Cost – lower sales volume and reduced gas prices

Lower Expenses – interest, depreciation, and operating and maintenance

Lower Debt Balance

Non-Nuclear Modifications and Supplemental Maintenance Contract

BOB DEACY
Senior Vice President,
General Construction, Projects & Services

For Board Consideration

Approval to authorize TVA to enter into a contract with G•UB•MK Constructors for $950 million with a term of five years and an option to extend an additional five years for non-nuclear modifications and supplemental maintenance

Background

- TVA currently has an alliance contract with G•UB•MK to perform maintenance and modification work at TVA's non-nuclear facilities that received approval for a three-year extension in February 2015
- This contract strategy allows TVA to support a diverse asset portfolio, improve operational reliability, implement a consistent approach to safety, and maintain low rates
- TVA developed and executed a re-compete strategy that supports the strategic priorities

Risks and Benefits Considered

Having evaluated the suppliers, G•UB•MK Constructors, provided best value to TVA with respect to:

- Safety - solid, sustainable safety performance and program effectiveness
- Cost Effectiveness - use of least-cost planning principles
- Portfolio Diversity - experience to support all non-nuclear assets
- Flexibility - responsiveness to emergent work and changes to asset portfolio
- Quality - work executed per technical requirements

Recommendation

Approval to authorize TVA to enter into a contract with G•UB•MK Constructors for $950 million with a term of five years and an option to extend an additional five years for non-nuclear modifications and supplemental maintenance

Execution of Large Generator Interconnection Agreements

JACINDA WOODWARD
Senior Vice President,
Transmission & Power Supply

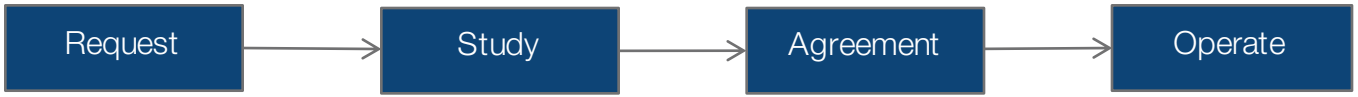
Purpose

Seek TVA Board Approval of Execution of Large Generator Interconnection Agreements:

- Delegation to CEO to negotiate, execute, administer, and amend large generator interconnection agreements consistent with approved Board policies

Generator Interconnection Background

- Any entity (TVA or an independent power producer (IPP)) can request to interconnect a generator or increase output of an existing generator on the TVA Transmission System
- The Board-approved TVA Interconnection Procedures allow the safe and reliable interconnection of generation without undue burden to rate payers.
  - Closely aligns to FERC's defined interconnection processes



- The Board approved execution of individual generator interconnection agreements in the past due to concerns and uncertainty about impacts of IPP interconnections
- TVA has procedures for large (>20 MWs) and small (≤20 MWs) generators
- TVA Board delegated authority to TVA management to execute small generator interconnection agreements in 2008

Recommendation

Recommend Board Approval of Execution of Large Generator Interconnection Agreements:

- Delegation to CEO to negotiate, execute, administer, and amend large generator interconnection agreements consistent with approved Board policies

People and Performance Committee

Long-Term Service Agreements for Caledonia, Magnolia, and Southaven Combined Cycle Plants

BOB DALRYMPLE
Senior Vice President,
Power Operations

For Board Consideration

Approval to execute three Long-Term Service Agreement (LTSA) contracts between TVA and General Electric International, Inc., the original equipment manufacturer, for TVA's Caledonia, Magnolia and Southaven Combined Cycle sites

Term

The expected term, based on TVA's generation plan is 19 years. Should TVA operate the facilities sufficiently less than the current generation plan, the agreements will reach end of term at 24 years.

TVA has the right to terminate in whole or part at specified times during the agreement

Background

- Long-Term Service Agreements (LTSA) are industry standard practice
- Current Southaven Combined Cycle and Caledonia Combined Cycle LTSA contracts are expiring
- Magnolia Combined Cycle has had no LTSA since TVA's acquisition in 2011
- Low gas prices are driving a significant increase in combined cycle fleet generation and major maintenance
- Several options were evaluated in reaching recommendation

Recommendation

Approval to execute three LTSA contracts between TVA and General Electric International, Inc., the original equipment manufacturer, for TVA's Caledonia, Magnolia and Southaven Combined Cycle sites

Audit, Risk, and Regulation Committee

Board Meeting

May 5, 2016

Buchanan, Tennessee

TVA