



TENNESSEE VALLEY AUTHORITY

1933-2013



BOARD MEETING

Chattanooga, Tennessee

February 13, 2014



CHAIRMAN'S REPORT



BOARD MEETING

Chattanooga, Tennessee

February 13, 2014



PRESIDENT'S REPORT



BOARD MEETING

Chattanooga, Tennessee

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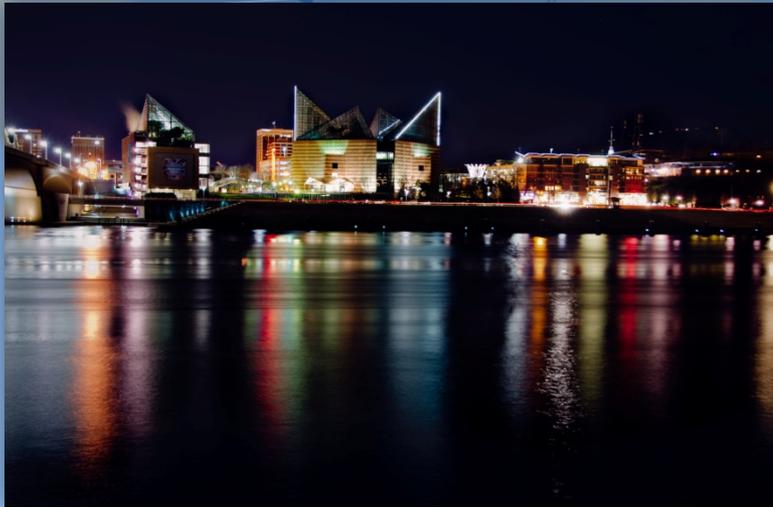
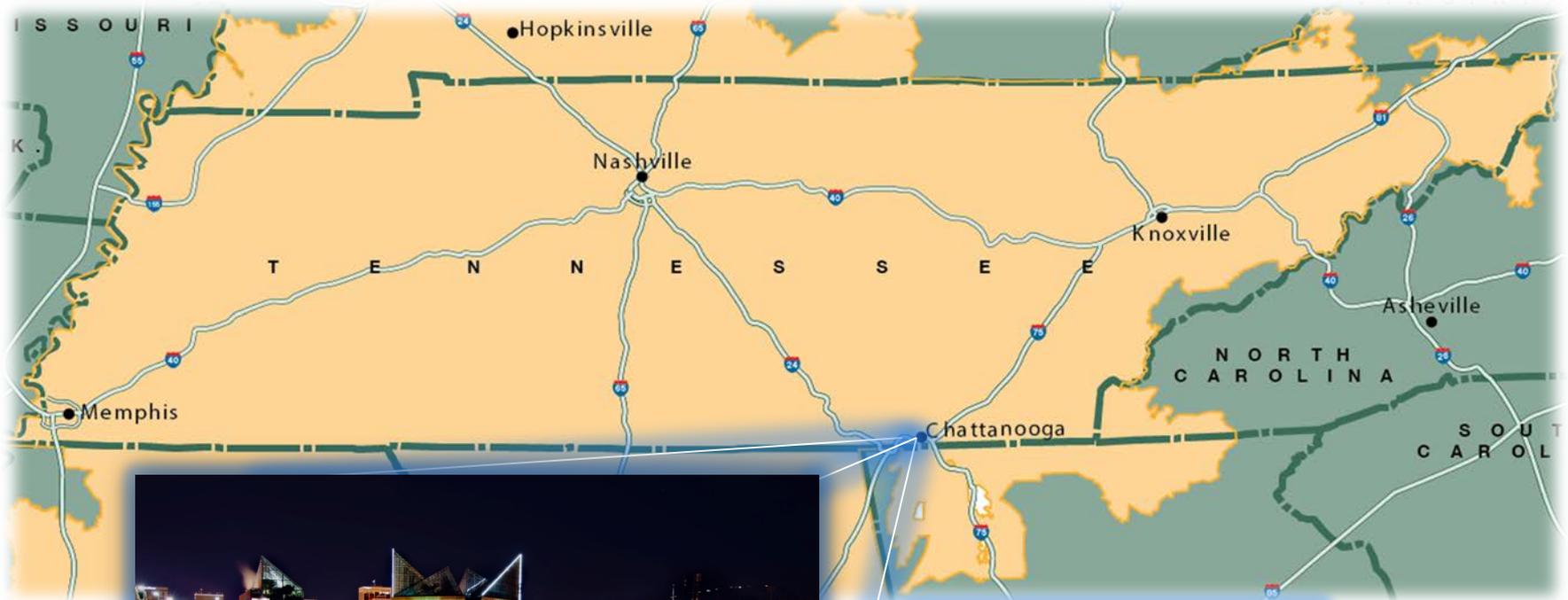
Bill Johnson

President & CEO

Energy | Environment | Economic Development



Welcome to Chattanooga



Platinum Status

Welcome to Chattanooga



Office Complex

Power System Operations



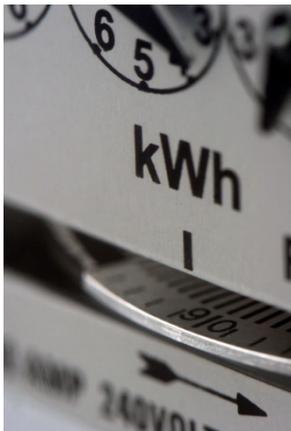
Energy | Environment | Economic Development



Extreme Cold



Tuesday, January 7, 2014 TN Valley homes and businesses set all-time record energy day for TVA



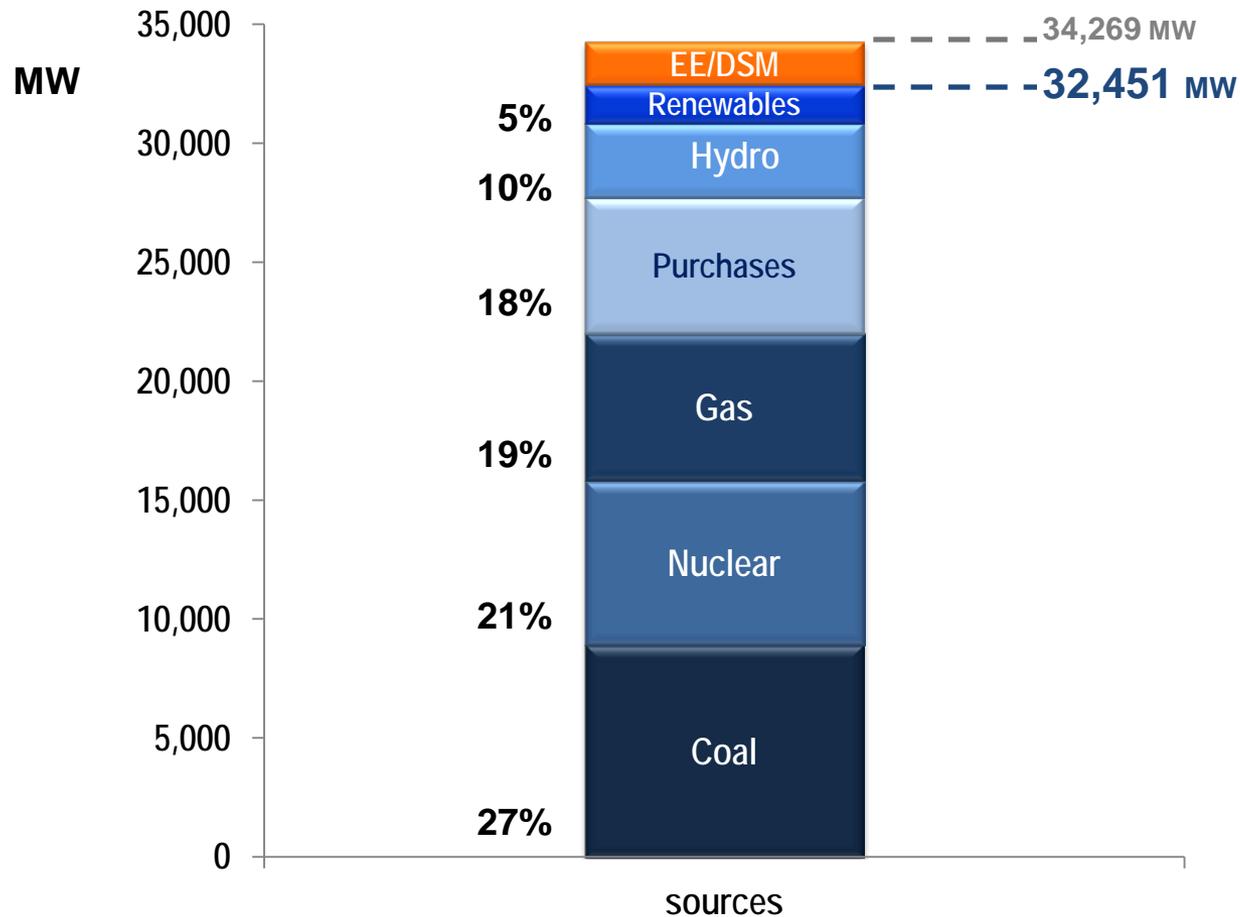
703,000,000
Kilowatt-hours

1,000,000 kilowatt-hours = 1 gigawatt-hour (GWh)

January 7, 2014	703 GWh
January 8, 2010	701 GWh
January 16, 2009	688 GWh
January 6, 2014	678 GWh
January 28, 2014	677 GWh

Two of TVA's top 5 energy days were back-to-back, with another top 5 day set just three weeks later

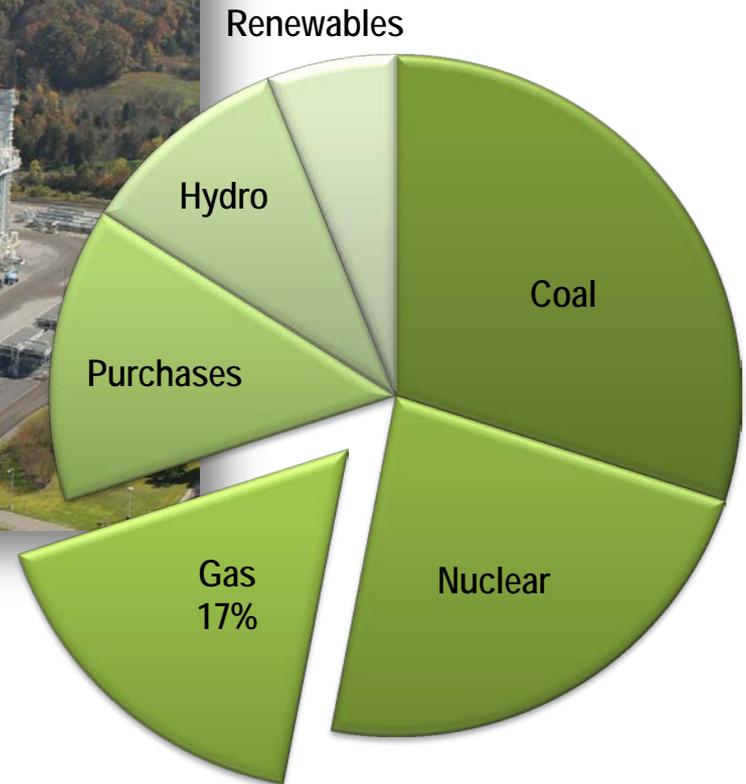
PEAK HOUR RESOURCES



January 7, 2014 at 7 am central

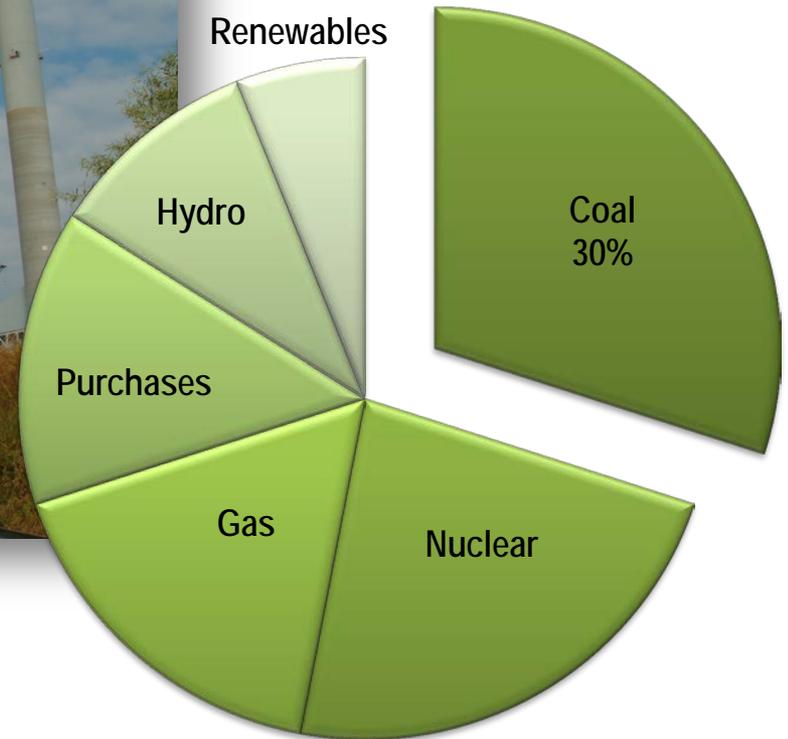


Gas
January 7, 2014



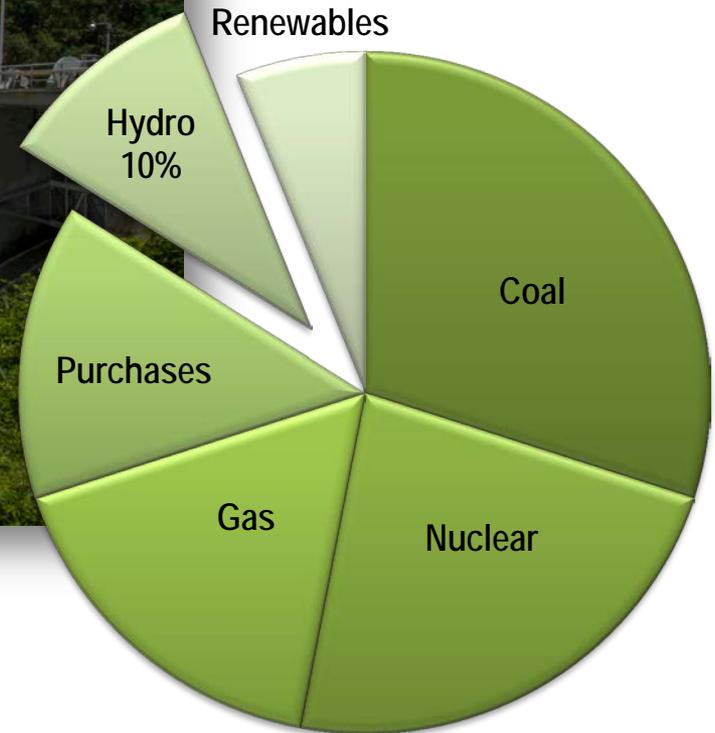


Coal
January 7, 2014



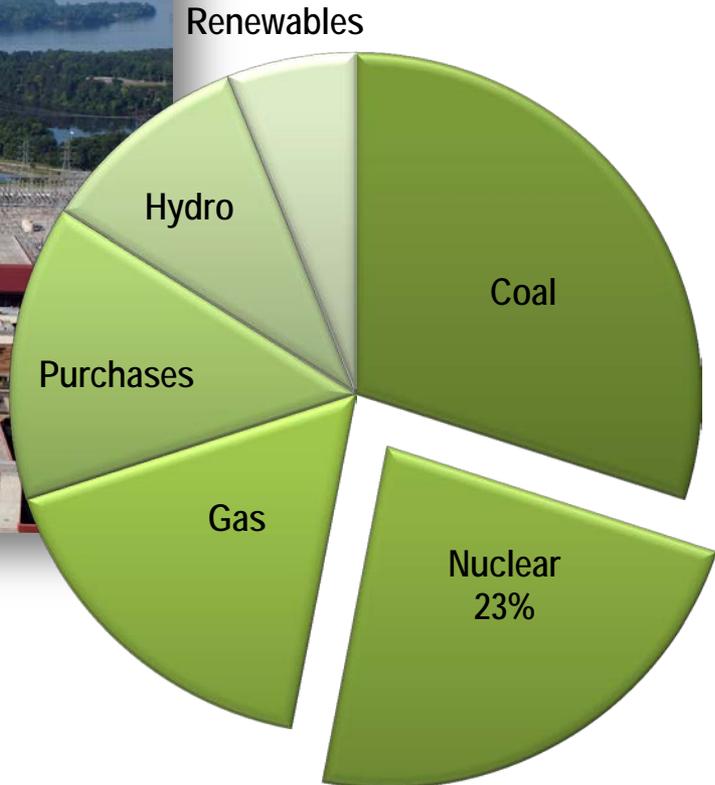


Hydro
January 7, 2014





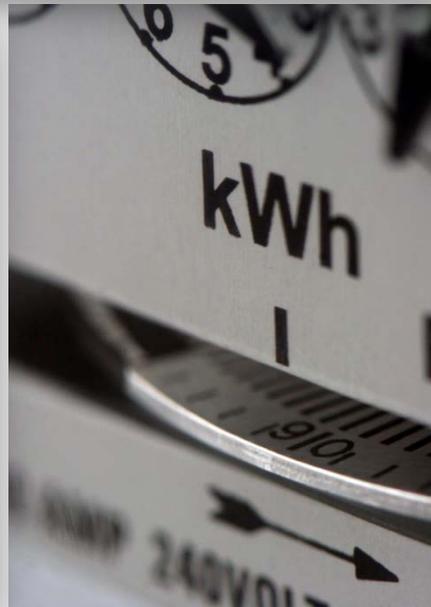
Nuclear
January 7, 2014



Energy | Environment | Economic Development

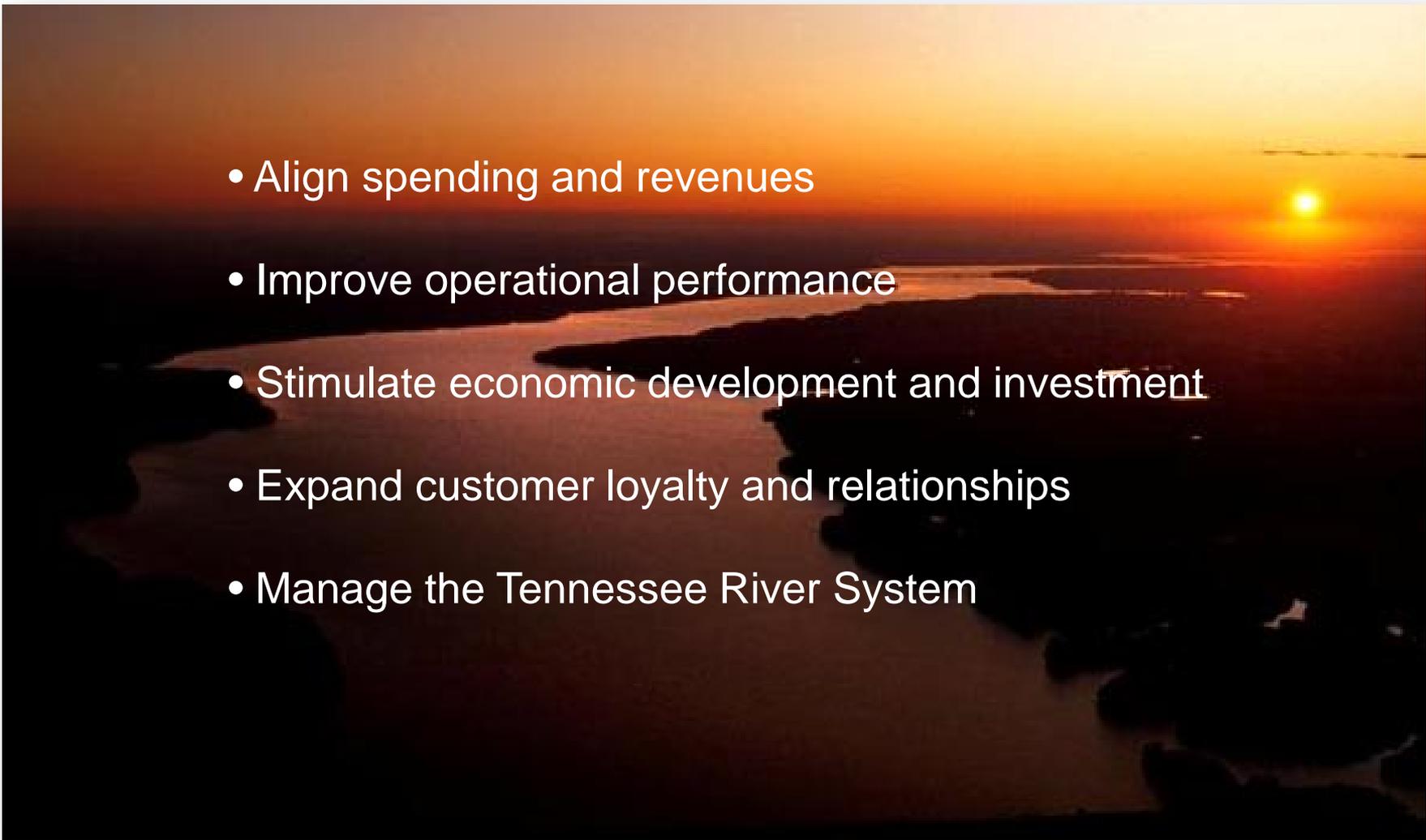


Affordable & Reliable



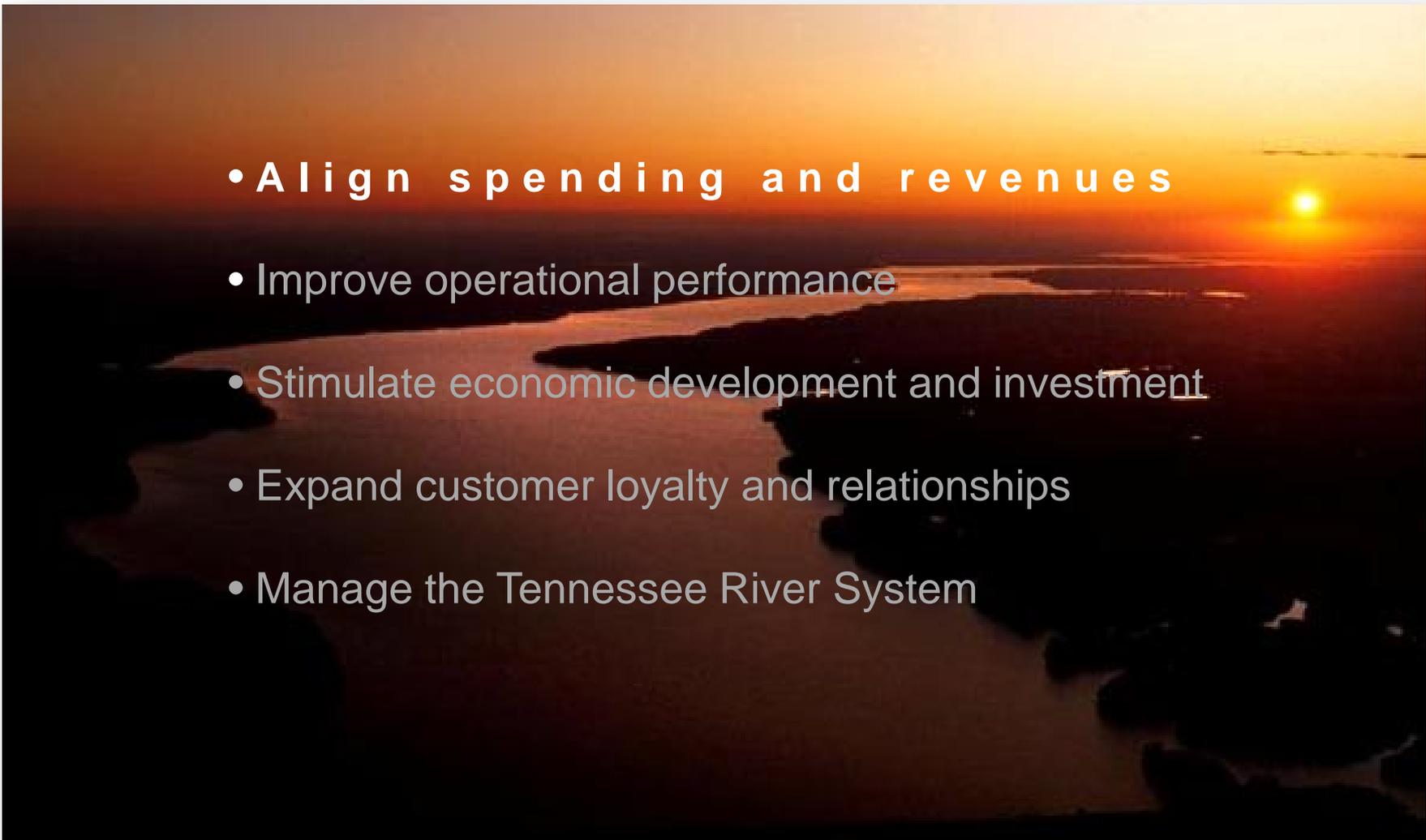
2014 Priorities



- 
- A wide-angle photograph of a river at sunset. The sun is a bright orange orb on the right side of the horizon, casting a long, shimmering path of light across the water. The sky transitions from a deep orange near the horizon to a lighter, hazy yellow at the top. The river's surface is dark, reflecting the colors of the sky and the sun. The banks are silhouetted against the bright light.
- Align spending and revenues
 - Improve operational performance
 - Stimulate economic development and investment
 - Expand customer loyalty and relationships
 - Manage the Tennessee River System

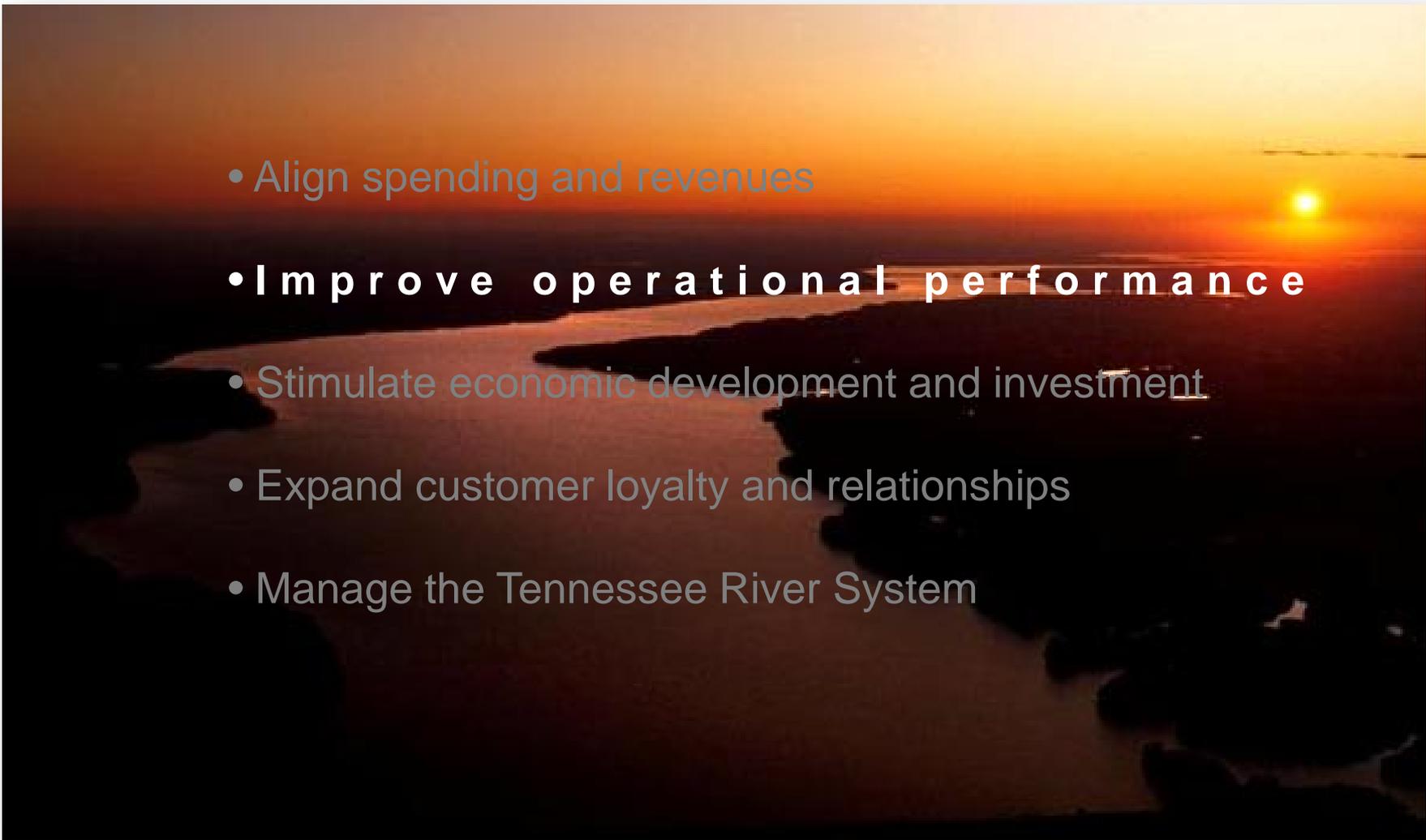
2014 Priorities



- 
- A wide-angle photograph of a river at sunset. The sun is a bright orange orb on the right side of the horizon, casting a long, shimmering reflection across the water. The sky is a gradient of orange and yellow, and the surrounding land is in silhouette.
- **A**lign spending and revenues
 - Improve operational performance
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2014 Priorities

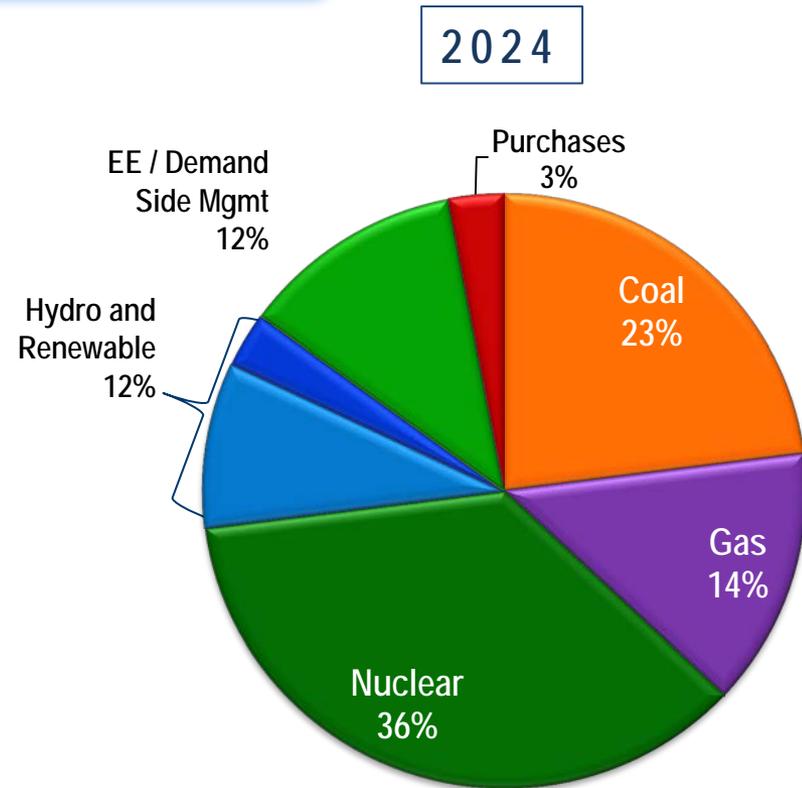
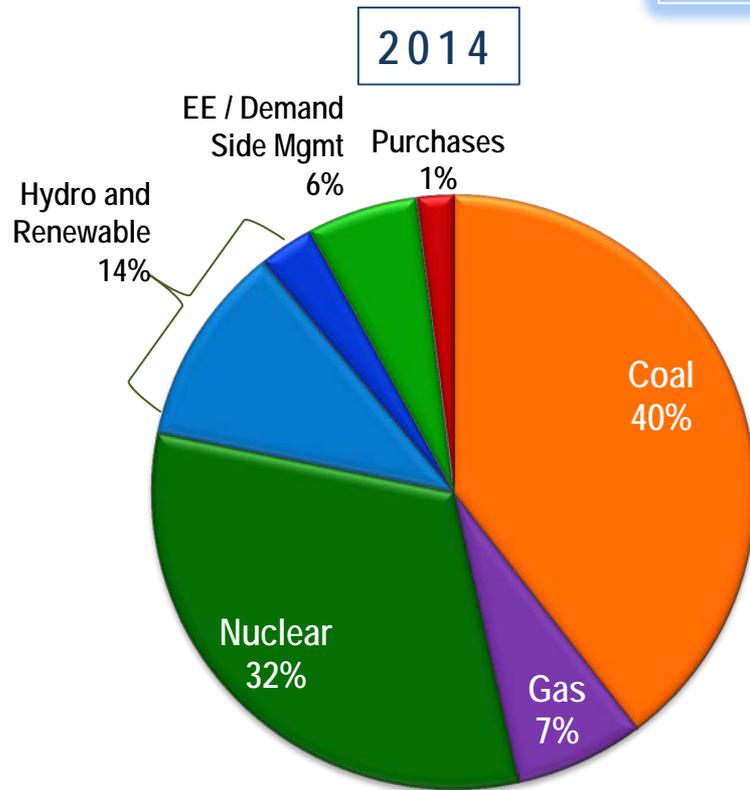


- 
- A scenic photograph of a river at sunset. The sun is low on the horizon, casting a warm orange and yellow glow across the sky and reflecting on the water. The river flows through a dark, silhouetted landscape.
- Align spending and revenues
 - **Improve operational performance**
 - Stimulate economic development and investment
 - Expand customer loyalty and relationships
 - Manage the Tennessee River System

WATTS BAR



Balanced Portfolio



BROWNS FERRY



COAL



PARADISE



2014 Priorities



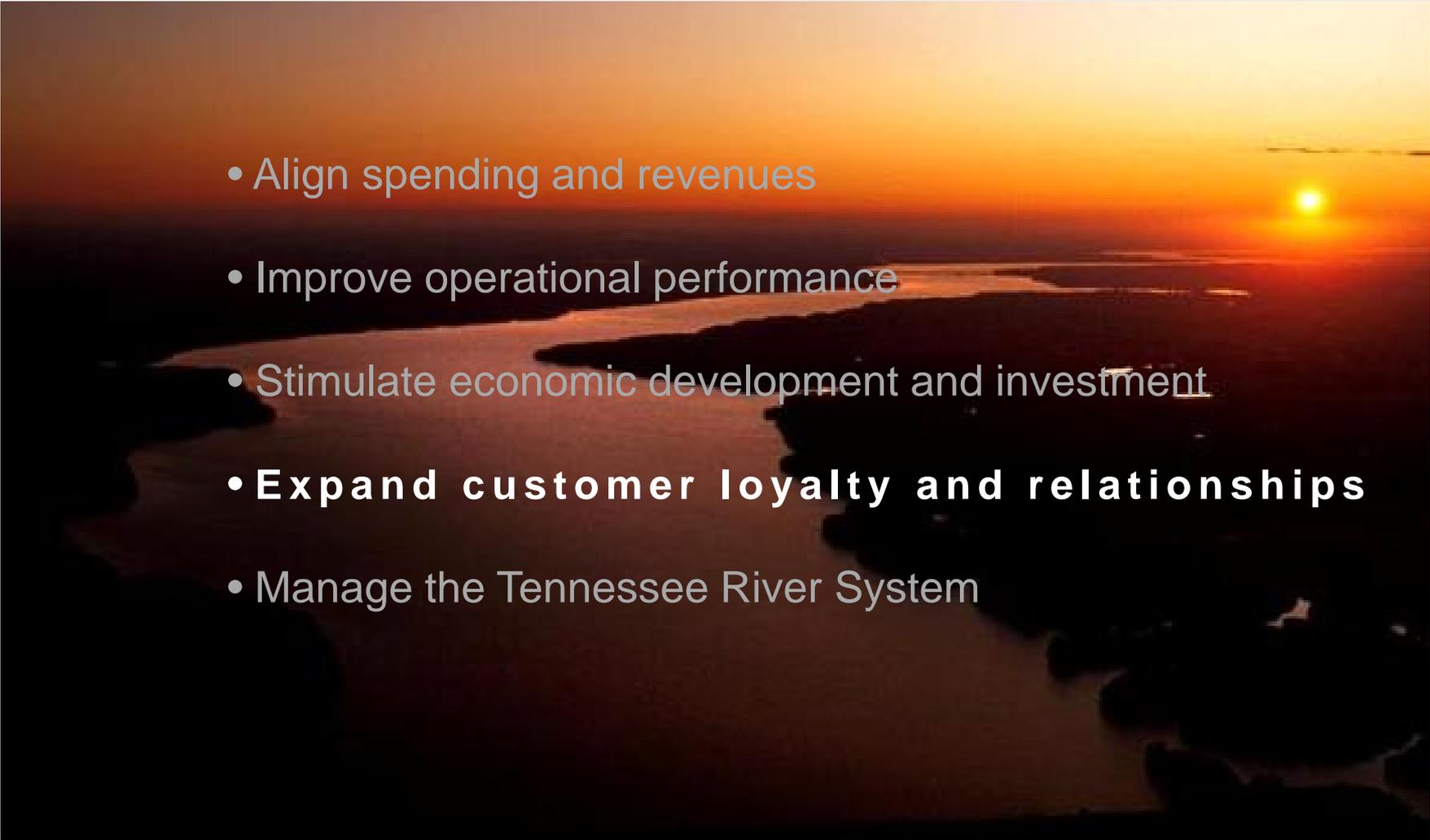
- 
- A wide-angle photograph of a river at sunset. The sun is a bright yellow-orange orb on the right side of the horizon, casting a long, shimmering reflection across the water. The sky transitions from a deep orange near the horizon to a lighter, hazy yellow at the top. The riverbanks are dark and silhouetted against the bright sky.
- Align spending and revenues
 - Improve operational performance
 - **Stimulate economic development and investment**
 - Expand customer loyalty and relationships
 - Manage the Tennessee River System

Located or Expanded

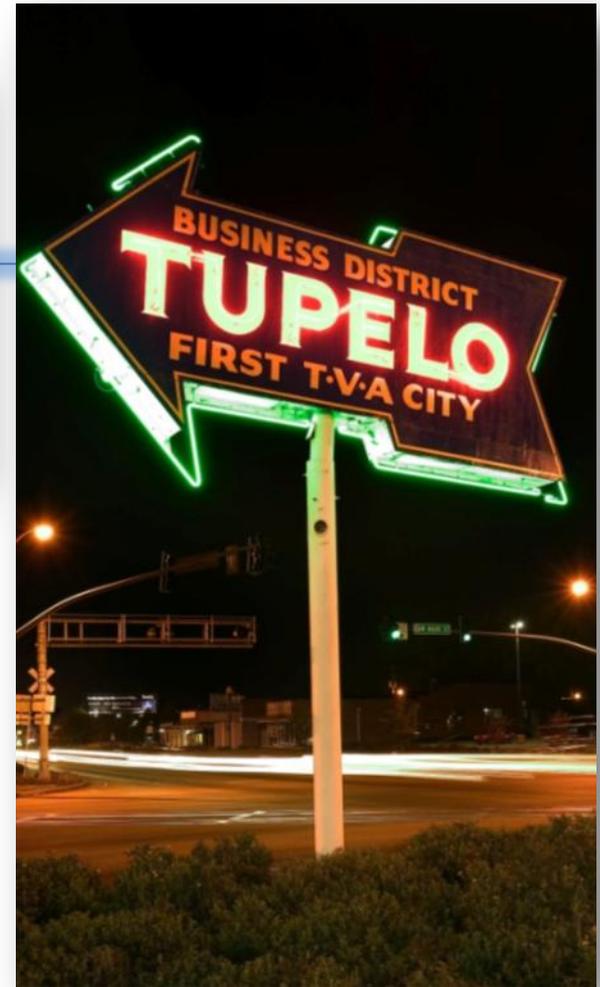


2014 Priorities



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- A wide-angle photograph of a river at sunset. The sun is a bright orange orb on the right side of the horizon, casting a long, shimmering path of light across the water. The sky is a gradient of orange and yellow, and the surrounding land is in silhouette.
- Align spending and revenues
 - Improve operational performance
 - Stimulate economic development and investment
 - **Expand customer loyalty and relationships**
 - Manage the Tennessee River System

Customer Loyalty



2014 Priorities



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- A wide-angle photograph of a river at sunset. The sun is a bright yellow-orange orb on the right side of the horizon, casting a long, shimmering path of light across the water. The sky is a gradient of orange and yellow, and the surrounding land is in silhouette.
- Align spending and revenues
 - Improve operational performance
 - Stimulate economic development and investment
 - Expand customer loyalty and relationships
 - **M a n a g e t h e T e n n e s s e e R i v e r S y s t e m**



Energy | Environment | Economic Development



Engineer of the Year Award



Casey Scoggins
Manager, Transmission Engineering



TENNESSEE VALLEY AUTHORITY

1933-2013



BOARD MEETING

Chattanooga, Tennessee

February 13, 2014



COMMITTEE
EXTERNAL
RELATIONS



BOARD MEETING

Chattanooga, Tennessee

February 13, 2014

EXTERNAL RELATIONS COMMITTEE

REGIONAL RESOURCE STEWARDSHIP COUNCIL

PROPOSED MEMBERS TO CONTINUE INTO 8TH TERM

Governor Appointees

Representative Mike Ball
(Alabama)

W.C. (Will) Nelson III
(Georgia)

Phil Hazle (Kentucky)

Jean Kellems Elmore
(Mississippi)

Gregory L. Cable
(North Carolina)

Brock Hill (Tennessee)

C. Adam Kinser, Esq.
(Virginia)

Direct Served and Industry Customers

Gary Joiner

Karl Dudley

George Kitchens

Jack Simmons

Mark Iverson

Stakeholder Representation

Mark Hommrich

Mitch Jones

Tom Littlepage

Russell Townsend
(Chairman)

Avis Kennedy

Gary Myers

Rhonda Rice

Brad Kreps



COMMITTEE
AUDIT, RISK,
AND REGULATION



BOARD MEETING

Chattanooga, Tennessee
February 13, 2014



COMMITTEE
PEOPLE
AND PERFORMANCE



BOARD MEETING

Chattanooga, Tennessee

February 13, 2014

PEOPLE AND PERFORMANCE COMMITTEE

CONFORMING AMENDMENT TO TVA BYLAWS

PEOPLE AND PERFORMANCE COMMITTEE

SELECTION OF BOARD CHAIRMAN



COMMITTEE
FINANCE, RATES,
AND PORTFOLIO



BOARD MEETING

Chattanooga, Tennessee

February 13, 2014

FINANCE, RATES, AND PORTFOLIO COMMITTEE

FINANCIAL PERFORMANCE UPDATE

SUMMARY

Net Income \$192M favorable to plan and \$178M favorable to Last Year

Base Revenues (+\$97M to plan)

- Colder weather resulting in 6% more degree days

Operating Expenses (+\$104M to plan)

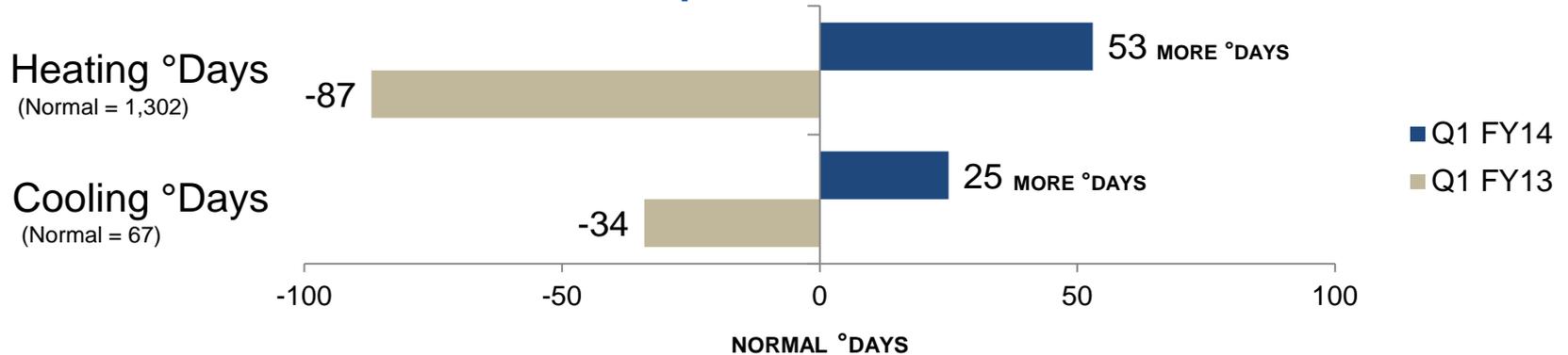
- Fuel expense favorable \$27M due to increased hydro generation
- Routine and projects spending favorable \$46M

Interest Expense (+\$14M to plan)

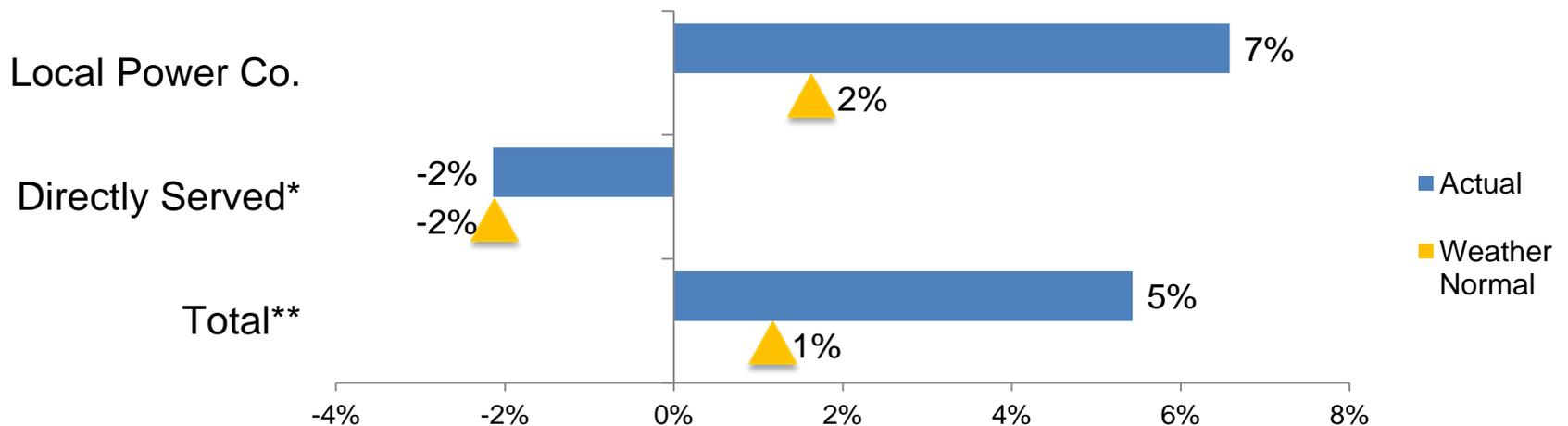
- Lower debt

WEATHER DRIVES ENERGY INCREASE

Q1 FY14 and Q1 FY13 vs. Normal Temperatures



Q1 FY14 vs. Q1 FY13 Energy Delivered

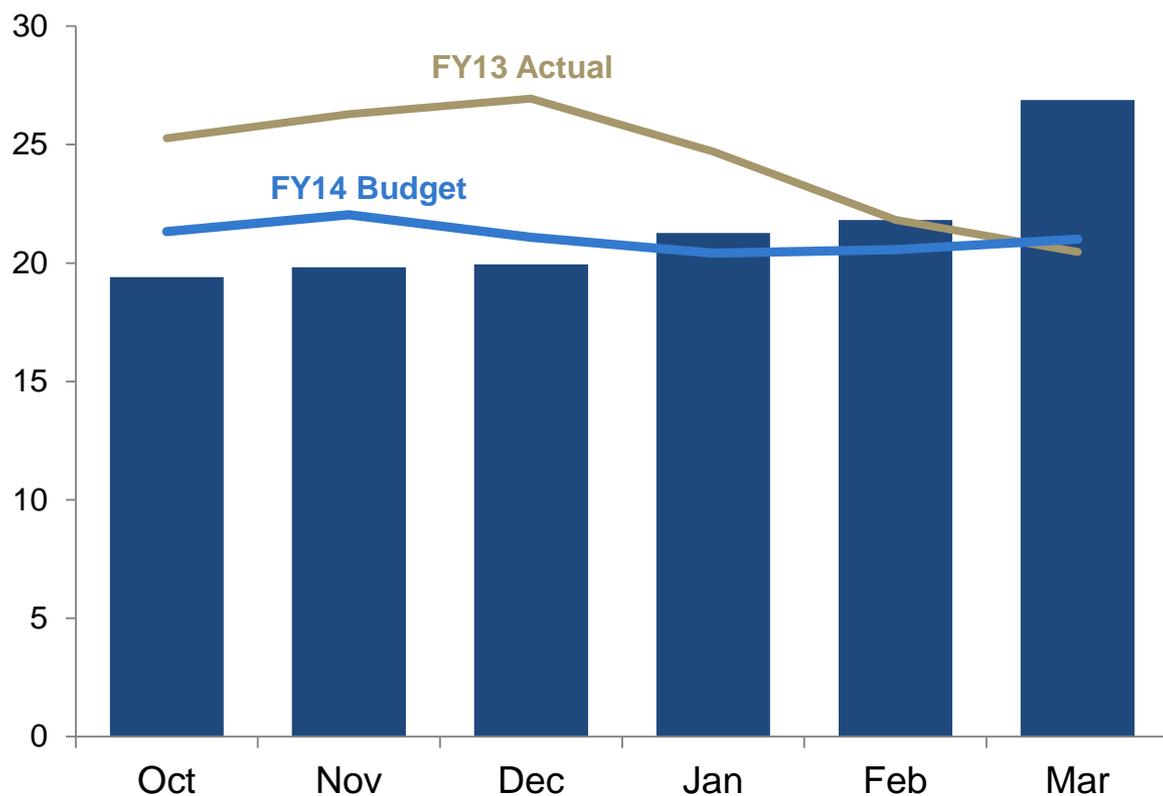


*Excludes USEC

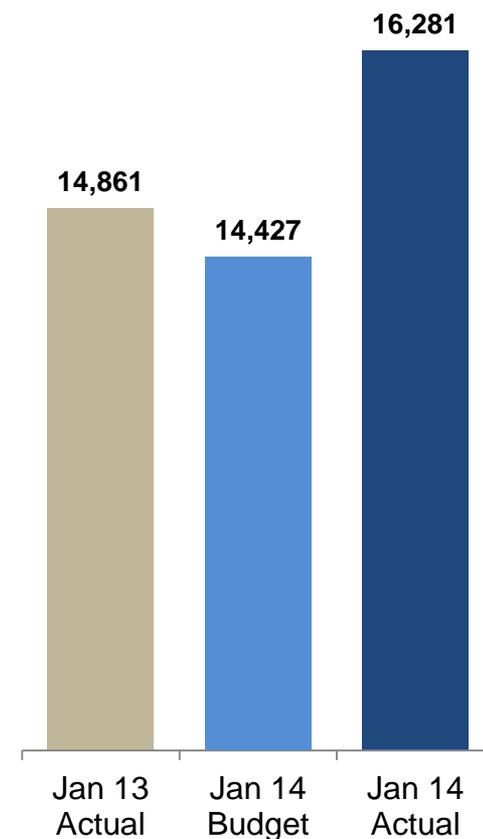
**Excludes USEC, Includes Federal Agencies and Other

FIRST QUARTER FUEL RATES LOWER

But January weather effects are pushing rates higher



January Sales
(GWh)



Q1 SUMMARY INCOME STATEMENT

Net Income favorability due to higher revenues and less routine spend

<i>(\$ millions)</i>	FY14 Q1 Budget	FY14 Q1 Actual	Variance Fav/(Unfav)	FY13 Q1 Actual	'14 v '13 Fav/(Unfav)
Operating Revenue	\$ 2,313	\$ 2,382	\$ 69	\$ 2,579	\$ (197)
Base Revenue	1,504	1,601	97	1,540	61
Fuel Revenue	779	749	(30)	1,009	(260)
Other Revenue	30	32	2	30	2
Operating Expenses	2,268	2,164	104	2,523	359
Fuel & Purchased Power	821	794	27	1,039	245
O&M Routine and Projects	598	552	46	597	45
O&M - Outage	99	85	14	147	62
Pension, Tax Equiv, Other O&M	308	292	16	312	20
Depreciation / Amortization	442	441	1	428	(13)
Operating Income	\$ 45	\$ 218	\$ 173	\$ 56	\$ 162
Other Income	9	14	5	15	(1)
Interest Expense	313	299	14	316	17
Net Income (Loss)	\$ (259)	\$ (67)	\$ 192	\$ (245)	\$ 178

Q1 SUMMARY CASH-FLOW STATEMENT

<i>\$ millions</i>	FYTD14		Var to Bud	FYTD13	'14 v '13
	Budget	Actual	Fav/(Unfav)	Actual	Fav/(Unfav)
Cash Flow from Operating Activities	\$ 375	\$ 508	\$ 133	\$ 257	\$ 251
Cash Flow used in Investing Activities	(835)	(800)	\$ 35	(652)	(148)
Cash Flow used in Financing Activities	360	(619)	\$ (979)	439	(1,058)
Net Change in Cash & Cash Equivalents	\$ (100)	\$ (911)	\$ (811)	\$ 44	\$ (955)

Cash

Beginning Cash & Short-Term Investments	\$ 1,287	\$ 1,602	\$ 315	\$ 868	\$ 734
Ending Cash & Short-Term Investments	\$ 1,187	\$ 691	\$ (496)	\$ 912	\$ (221)

Debt

FY Debt and Financing Obligations	\$27,820	\$26,833	\$(987)	\$27,363	\$530
Statutory Debt	\$25,187	\$24,207	\$(980)	\$24,585	\$378

FIRST QUARTER SUMMARY

Higher Sales for Local Power Companies

- Colder weather with some growth

Lower Effective Rates

- More generation from hydro
- Productivity increases

Lower Debt

- Less interest expense

FINANCE, RATES, AND PORTFOLIO COMMITTEE

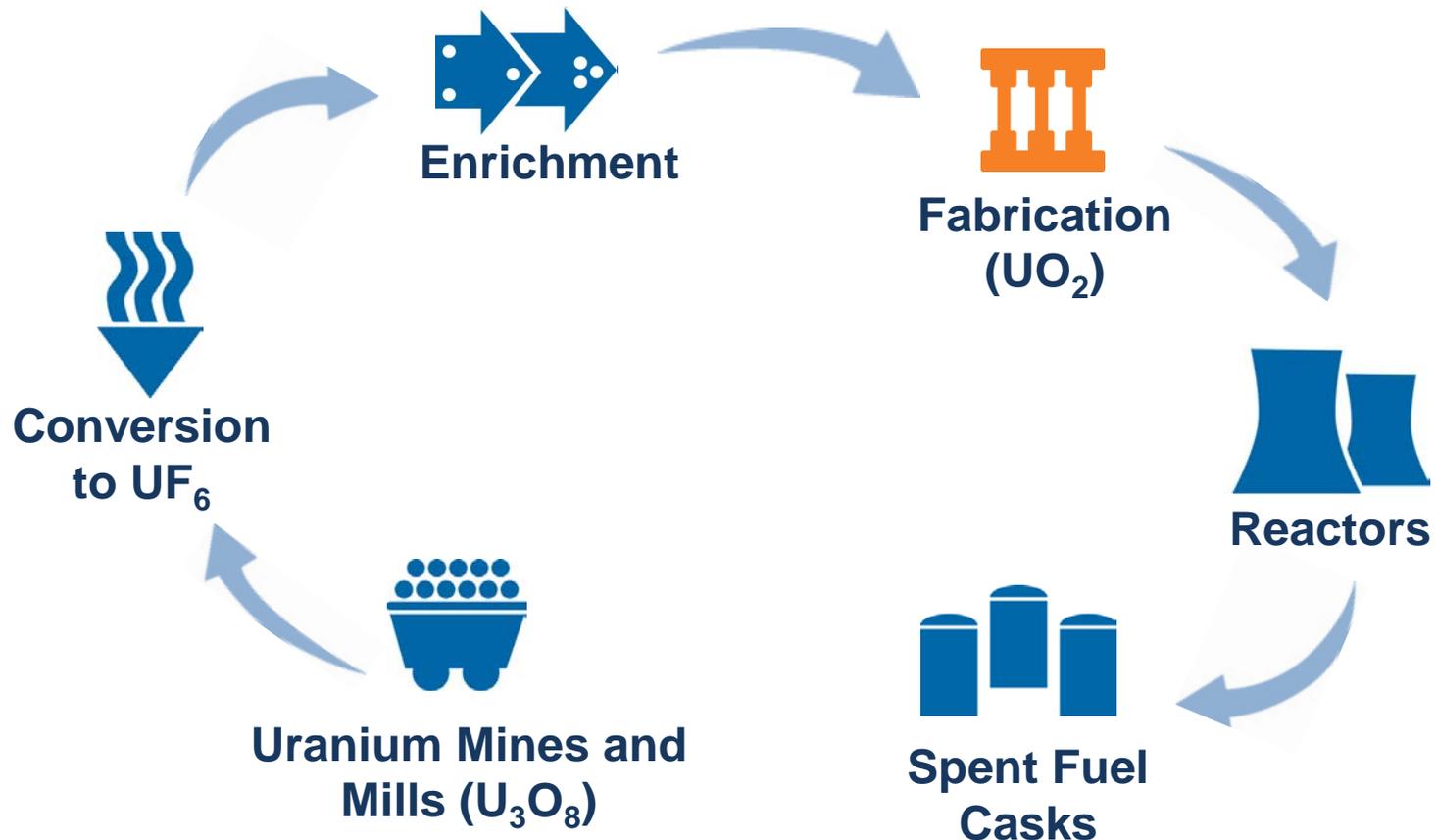
BROWNS FERRY NUCLEAR PLANT FUEL FABRICATION CONTRACT

FOR BOARD CONSIDERATION

Approve contract with AREVA to provide nuclear fuel fabrication services for TVA from 2014 through 2025 not to exceed \$250 million

BACKGROUND

- Uranium goes through several processing steps before becoming reactor fuel



BACKGROUND

- AREVA provides competitive offer for fabrication:
 - Contract would provide all of TVA's fabrication needs at Browns Ferry from 2017 to 2023
 - Pricing compares favorably with competitive offers
 - Utilizes proven technology and licensed product

RECOMMENDATION

Approve contract with AREVA to provide nuclear fuel fabrication services for TVA from 2014 through 2025 not to exceed \$250 million

FINANCE, RATES, AND PORTFOLIO COMMITTEE

WATTS BAR NUCLEAR PLANT UNIT 2 STEAM GENERATOR REPLACEMENT

FOR BOARD CONSIDERATION

Approve contract with Westinghouse for a total of up to \$160 million to provide replacement steam generators at Watts Bar facility

BACKGROUND

Model: 68AXP

- Standardized and superior design
- Manufactured using a more corrosion resistant alloy
- Identical steam generators supplied to Watts Bar Nuclear Plant Unit 1 in 2005 and very similar steam generators supplied to Sequoyah Unit 1 and Unit 2
- Minimal NRC licensing requirements



BACKGROUND

- Westinghouse provided an optimal offer for the design, manufacture, and supply of competitively priced steam generators
- Contract terminates upon delivery and final acceptance

RECOMMENDATION

Approve contract with Westinghouse for a total of up to \$160 million to provide replacement steam generators at Watts Bar facility



COMMITTEE
NUCLEAR
OVERSIGHT



BOARD MEETING

Chattanooga, Tennessee

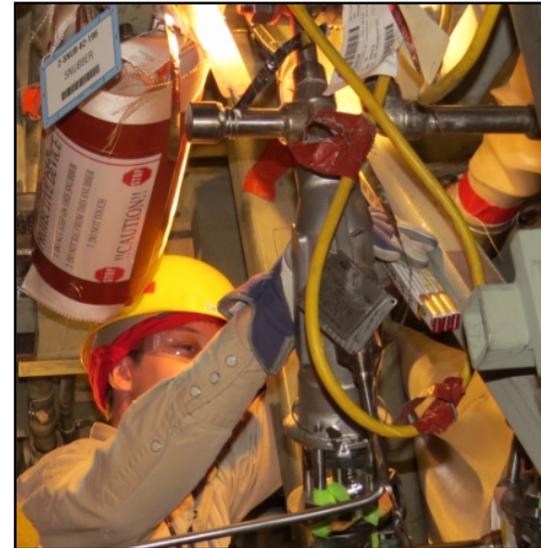
February 13, 2014

NUCLEAR OVERSIGHT COMMITTEE

WATTS BAR UNIT 2 UPDATE

WATTS BAR 2 STATUS

- Meeting safety, quality, budget, and schedule targets
- No new risks identified that currently compromise completion
- Construction activities shifted to completing commodities within specific systems
- Increased emphasis on startup testing



WATTS BAR 2 STARTUP AND TESTING

- Component-level testing on schedule
- Pre-operational testing on schedule
- Open Vessel Testing scheduled for spring
- Key systems needed for Open Vessel Testing released ahead of schedule



WATTS BAR DUAL-UNIT OPERATIONAL READINESS

- Site and corporate transition plans complete
- TVA internal assessment complete
- Pilot area and system turnovers in progress
- Power ascension program development on track



FUKUSHIMA RESPONSE

- Watts Bar 2 to be first to implement new regulatory measures before requesting operating license
- Designs for Fukushima modifications complete
- Construction underway on new auxiliary feedwater tank and on new FLEX Equipment Storage Building



WATTS BAR 2

ISSUES AND CHALLENGES

- Work complexity and documenting completion of work
- Unit 1/Unit 2 shared safety system testing
- Emergent work during testing
- Emergent licensing issues
- Dual-unit operational readiness

WATTS BAR 2 SUMMARY

- Meeting safety, quality, cost, and schedule targets
- Increasing focus on startup testing
- Tracking to begin Open Vessel Testing this spring
- Implementing Fukushima response actions
- Recognize challenges remain and are prepared to address those



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