Tennessee Valley Authority
Presentation to the Southern States Energy Board

Dr. Joe Hoagland
Vice President
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Mission

- Provide low-cost power
- Improve navigation and provide for flood control
- Provide for reforestation and the proper use of marginal lands
- Provide for agricultural and industrial development
- Provide for the national defense
- Technological innovation
- Environmental stewardship

1933 – Franklin D. Roosevelt signs the TVA Act
TVA Business Imperatives

Serve the Citizens of the Tennessee Valley

RATES:
we must maintain low rates

ASSET PORTFOLIO:
we must optimize the value

DEBT:
we must live within our means

STEWARDSHIP:
we must be responsible stewards
2011 Integrated Resource Plan Provides the Highway

TVA’s Integrated Resource Plan (IRP)

- Guides energy resource planning
- Balances costs and risks to benefit all stakeholders
- Allows flexible responses to change
- Reduces environmental impacts
TVA’s Current 2011 IRP Recommendations

Current Resource Plan

- Nuclear generation
- Coal capacity
- Natural gas as an intermediate supply source
- Energy efficiency and demand response
- Cost-effective renewable energy
- Pumped storage hydro capacity

Balanced Portfolio Created Best Option
The Challenge: an Electric System that is Multidirectional

Evolving Reality: Renewables, energy efficiency (EE), distributed generation, demand response (DR) managed by multiple entities

Image Source: EPRI
Trends Toward Economic and Energy Efficiencies Continue

**Energy Intensity**
Less energy is required to produce a dollar of GRP

**Avg Use per NonFarm Employee**
Average use per employee is expected to decline

**Technology Usage**
Adoption of technology continues, but it only accounts for around 15-20% of power usage through 2024.

**Lighting Efficiency**
Improved lighting efficiency offsets increasing technology usage through 2015.
In general, the gap to top quartile among the nation’s Top 100 Utilities will be lower than those of the regional peers because the Southeast region on average has lower rates than the nation as a whole.
While the recommendations from the 2011 IRP study remain valid, significant changes nationally and regionally occurred that motivated TVA to refresh the study now, such as:

- Abundant natural gas
- Decline in electricity demand growth
- New schedule for completing Watts Bar Nuclear Unit 2
- TVA's clean-air commitments

TVA elected to refresh the IRP analysis about a year ahead of schedule to better position the utility to respond to future uncertainties.