



***Women In Nuclear...Have a Say in Your
Future and in Our Industry's Future***

**Preston Swafford
CNO and EVP Nuclear Power Group**

***WIN Region II Conference
Oak Ridge, Tennessee
February 7, 2011***



Thanks to:

- ORNL for co-sponsoring and hosting the conference at ORNL
- TVA WIN team and ORNL WIN team who planned and organized the conference
- All of the members participating in conference
- Keynote speakers: Congressman Marsha Blackburn and Dr. Marilyn Brown of the TVA Board of Directors



Agenda

- TVA at a Glance
- New Generation
 - Watts Bar 2
 - Bellefonte
 - Small Modular Reactors
- TVA Collaboration and Programs with DOE
- Talent Management and Succession Planning
- Your Role
- Questions & Answers



TVA at a Glance

- 49 dams for integrated river management
- 11,000 miles of reservoir shoreline
- \$376 million in tax-equivalent payments to Valley states and counties
- \$2.4 billion spent in Valley states for goods, fuel, and services
- Over 17,000 miles of transmission lines



TVA at a Glance

- 7-State Region
- \$10.9 billion in annual revenue (2010)
- 80,000 square mile service area
- 158 distributors, 9 million residents
- 62 directly-served large industrial and federal customers
- 650,000 business and industries
- Financially self-supporting
- No taxpayer support
- No stockholders



Scope of TVA's Power System

- Generating Capacity of 33,128 Megawatts (MW)
 - 109 Hydro units (3,526 MW)
 - 4 Pumped storage units (1,618 MW)
 - 59 Coal-fired units (15,081 MW)
 - 6 Nuclear units (6,925 MW)
 - 6 Combined Cycle Units (1,784 MW)
 - 87 Combustion turbines (6,795 MW)
 - 9 Diesel generators (13 MW)
 - Renewable (wind, solar, methane gas) (5 MW)



TVA Steam and Combustion Turbine Plant Locations

Kentucky

Virginia

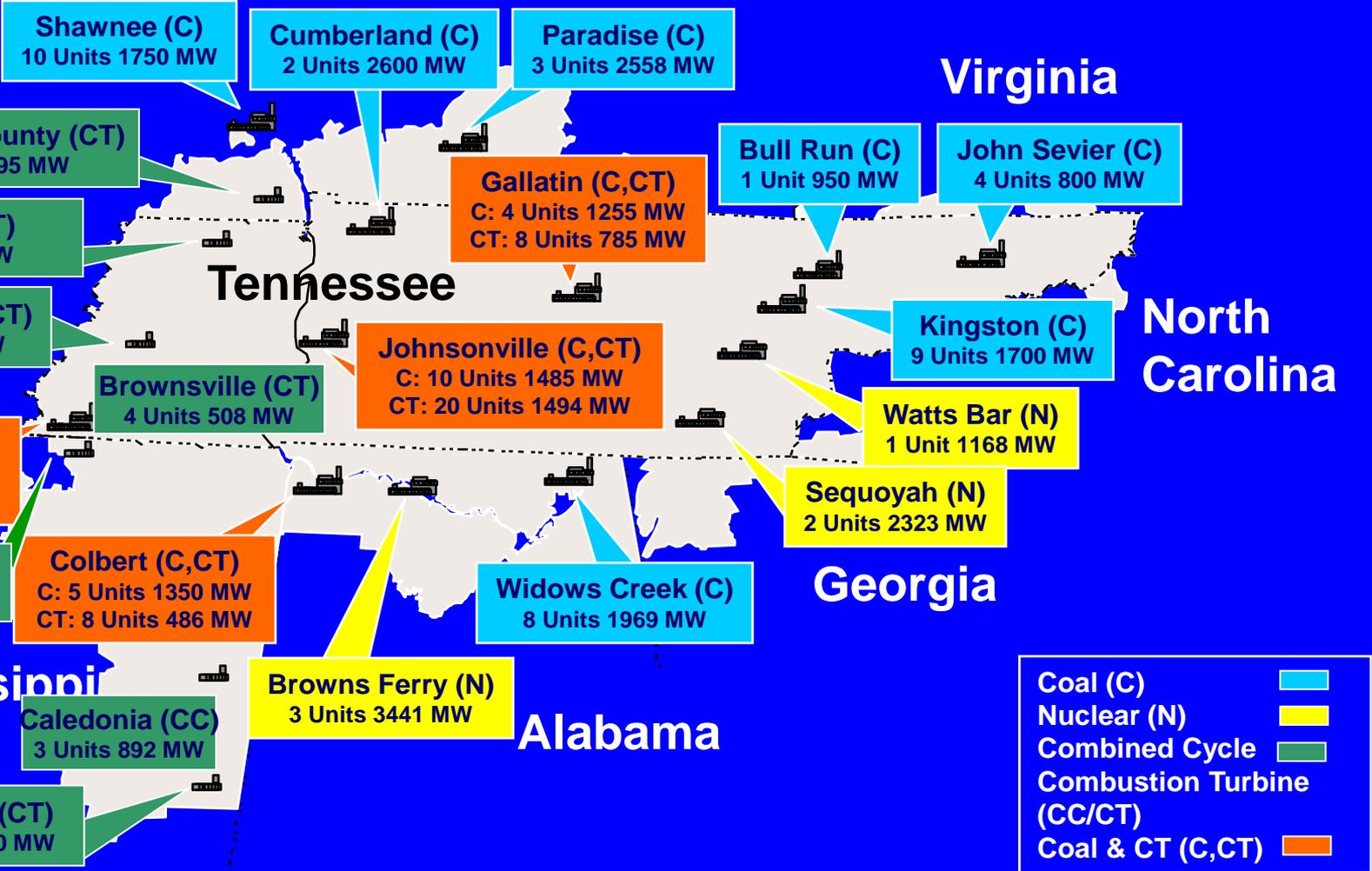
North Carolina

Georgia

Alabama

Mississippi

Tennessee



Coal (C)	
Nuclear (N)	
Combined Cycle (CC/CT)	
Coal & CT (C,CT)	



Embracing the Vision

TVA will be one of the nation's leading providers of low-cost and cleaner energy by 2020.





New Generation

Lead the nation in delivery
of new nuclear capacity



Watts Bar Unit 2



- 1,180 megawatts
- Budget: \$2.5 Billion
- Current staffing: 3,200
- Expected on-line 2013
- On schedule and within budget

Bellefonte Options

Babcock & Wilcox (Areva)



Westinghouse AP1000



- Construction permits reinstated
- Uses an existing asset
- \$248 million approved to keep Unit 1 a timely option

- Combined operating license applications under review
- Standardized design
- Evaluating project cost and schedule risks

Staff recommends completing Unit 1

Small Modular Reactors

- 125-megawatt reactors would be built in groups
- Could replace aging coal units and use existing sites and transmission
- “Passive” safety design
- 4 to 5 year fuel cycle
- mPower group plans to demonstrate this technology by 2020





TVA Collaboration and Programs with DOE



TVA Collaboration and Programs with DOE

Tritium Production

- Developed a program with DOE to produce tritium for the Department of Defense.
- TVA is irradiating tritium producing burnable absorber rods (TPBARs) in our Watts Bar Unit 1 reactor and maintaining the two Sequoyah reactors as backup



TVA Collaboration and Programs with DOE

Blended Low Enriched Uranium (BLEU) Fuel

- TVA is managing a program to use excess “off-specification” uranium from several DOE sites and blending it into nuclear fuel for use in TVA reactors.
- TVA competitively bid and put together a team of Areva and Nuclear Fuel Services to process and produce the fuel.
- This program saves 25% -30% in fuel costs for those reactors using the fuel. The BLEU fuel has been used in TVA’s Browns Ferry reactors.



TVA Collaboration and Programs with DOE

Nuclear Power 2010

- TVA was the lead utility to license the AP1000 a first-of-a-kind reactor design under NP2010
- TVA submitted the first AP1000 application to the NRC under this program.
- The lead plant was later transitioned to Southern Company when TVA decided to finish its existing partially-completed Bellefonte units before constructing an AP1000 unit.



TVA Collaboration and Programs with DOE

Consortium for Advanced Simulation of Light Water Reactors (CASL)

- TVA is part of a team located at ORNL that is applying supercomputers to advanced modeling of light water reactors.
- CASL is a five-year, \$250 million program funded by DOE. TVA is supplying data from its pressurized water reactors to assist in validating advanced simulation codes and models.



TVA Collaboration and Programs with DOE

Recycling (Reprocessing) Used Reactor Fuel

- TVA has worked with ORNL in the past to develop proposals for demonstrating a commercial scale nuclear fuel recycling facility on the Oak Ridge.
- There is currently no program for this, pending the result of a Blue Ribbon Commission appointed by President Obama to make recommendations on how to manage the back end of the nuclear fuel cycle. Nevertheless, this is an example of a significant initiative in which TVA might be willing to be engaged, in the event such a program is ever authorized.



TVA Collaboration and Programs with DOE

Small Modular Reactors

- TVA is developing a project to license a small modular reactor at TVA's Clinch River site adjacent to Oak Ridge National Labs (ORNL)
- ORNL is supporting a potential Power Purchase Agreement (PPA) for power from the reactor to provide "zero air emission" energy to supply the reservation



TVA Collaboration and Programs with DOE

Mixed Oxide Fuel (MOX)

- TVA is working with Areva-Shaw Services located at Savannah River (DOE laboratory site) to utilize MOX (plutonium and uranium) made from surplus weapons material and blended down to create fuel for commercial reactors



Talent Management and Succession Planning



Talent Management and Succession Planning

- I spend a good portion of my time on talent management, building a diverse team that brings to our business creative ideas and more effective solutions
- Focusing on developing internal talent through the 9-Box and succession planning
- Our internal selections of supervising managers is now more than 80%
- Actively working with various universities and colleges for recruitment of top talent



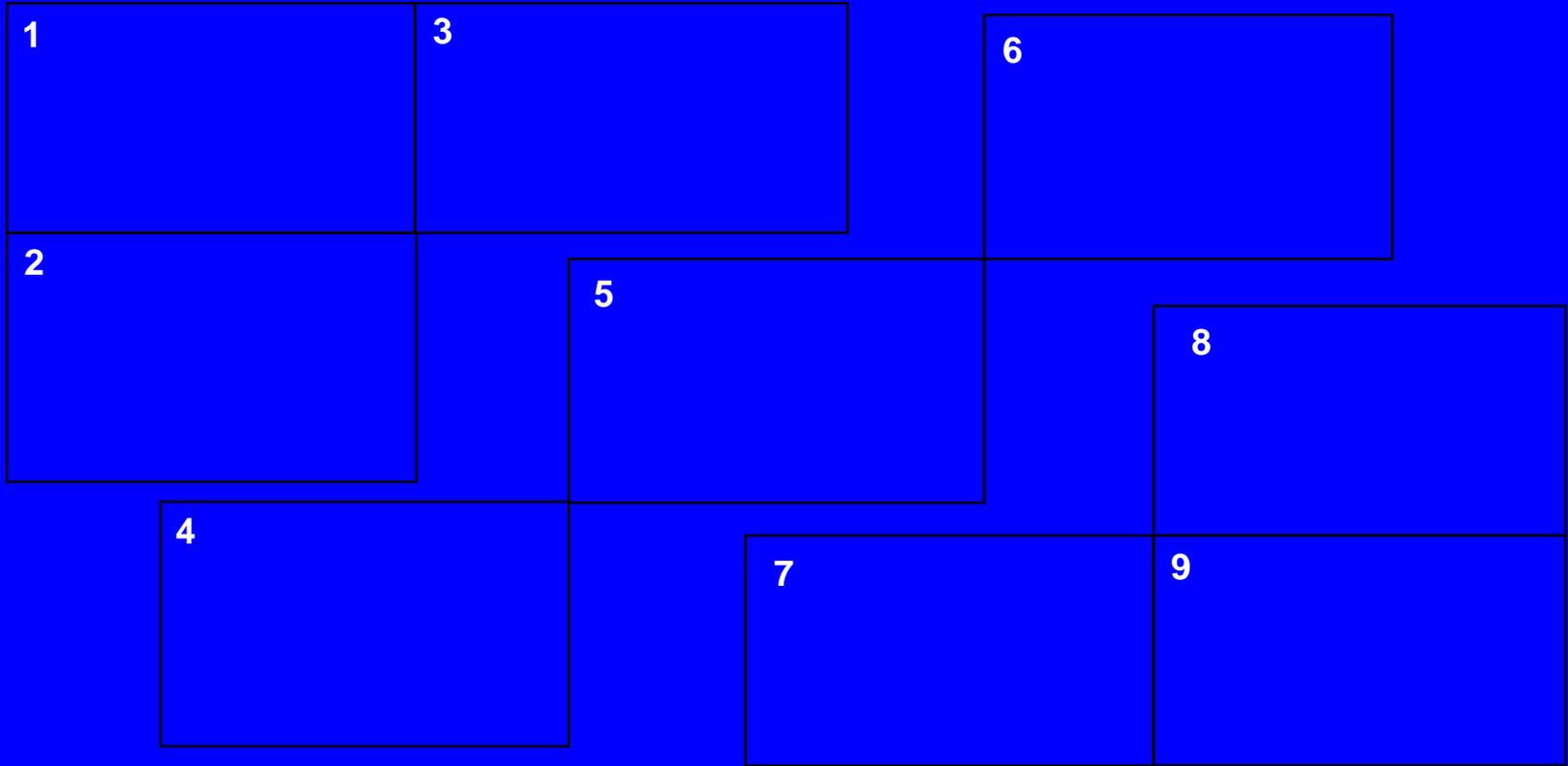
9-Box Template

Leadership Potential

Top Third: No more than a third



Performance



Bottom Third: No less than a third



Benefits of 9-Box

- Assessments performed quarterly
- Individuals assessed on performance and leadership potential
- Used for succession planning
- Used for performance reviews
- Focus development on:
 - Top third individuals with highest potential
- Management tool for getting to know the players



Talent Management and Succession Planning

- Tremendous need for you . . . We need a diverse workforce.
- Diversity is more than race and gender . . . includes age, religion, geographical roots, language, and points-of-view
- Amazing what diversity can do for organization; brings out the best



Talent Management and Succession Planning

- Able to promote from within as a result of aligning our organization with our values; creating development opportunities and providing tools for individuals to map their careers
- However, the real responsibility for moving a career forward is not with me or any organization; it lies with the individual



Individual's Role

- Be honest about your strengths, weaknesses, and abilities
- Develop a solid understanding of your organization's values, and be aligned with how it conducts business
- Map out your path for advancement with a detailed individual development plan
- Get a mentor, be a mentor
- Make some sacrifices



Individual's Role (cont'd)

- Take initiative, such as taking on rotational assignments, obtaining senior reactor operator certifications, and serving with INPO as a loanee
- Consistently achieve excellent results and get those in the right way
- Develop a network of professional contacts, like you are doing here today



Individual's Role (cont'd)

- Talk often with your supervisor to ensure that your development plan aligns and supports the goals and vision of your company, and that you are achieving desired results at the pace your company expects
- Continually seek feedback from your peers, supervisor, subordinates, and internal/external customers
- Make an appointment with your boss's boss
- Determine where you want to go and what moves are required to pull it off



The Ball is in Your Court

- Those of you here today have a desire to learn and a passion for excellence
- The opportunities are there for you if you plan your career, work at it, and take responsibility for it
- Not only will our industry benefit by your action, but you'll be also rewarded through professional development, career advancement, pride in making a difference, and a sense of personal fulfillment



Questions??

TVA