

# Built on People & Performance

NUCLEAR POWER GROUP QUARTERLY UPDATE  
Fall 2012



## Improved Performance, Healthy Fleet

Our journey to become a nuclear fleet that builds and sustains a culture of operational excellence is underway. We started on a road to recovery more than three years ago, and we are moving forward as an increasingly aligned and improved fleet.

TVA's nuclear fleet continues to make strong progress. Our performance has improved in safety, work management, equipment reliability, and generation. Across our fleet, performance is being sustained as we make the right decisions and do the right work, at the right time, in the right way.



Through better alignment and by maximizing our resources, we are able to focus on three key areas: (1) improved performance at Browns Ferry and returning to standard regulatory oversight; (2) upgrades related to Fukushima; and (3) sustained operational excellence across the TVA nuclear fleet. As we focus on these areas, safety will remain paramount.

Most important, we are committed to making our fleet and TVA stronger and better.

Preston Swafford  
Chief Nuclear Officer



## Continuous Runs, Best Generation

Our corporate, as well as our fleet priority, has been improving the material condition of our nuclear assets through significant investments. This approach is critical to sustaining our fleet's reliability.

The results speak for themselves. Browns Ferry set a number of continuous run records. As a fleet, we achieved the best concurrent run of TVA's three nuclear sites in more than a decade.

Reliability is also tied to excellent coaching and training. For example, we have built a pipeline of operators, allowing us to place our most experienced and knowledgeable licensed operators in key positions at all of our sites.

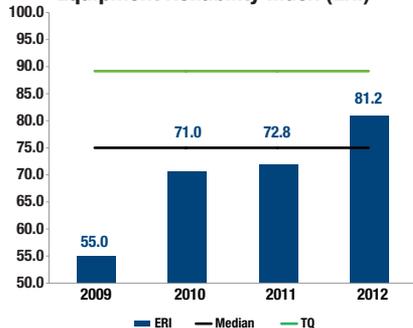
### Highlights for the quarter:

- **Nuclear Generation – Best year ever – 55,262 gigawatt-hours, surpassing the FY 2012 Business Plan goal of 55,108 gigawatt hours. The previous record**

**was 53,339 gigawatt hours in FY 2010.**

- **Nuclear Fleet TVA equivalent availability factor – 93.0% – Best performance since 2001 (93.3%)**
- **Nuclear Fleet – Simultaneous 300+ day runs. Watts Bar 1 – 318 days, Sequoyah 2 – 421 days, Browns Ferry 2 – 480 days at year end. Best performance since 2002.**

### Equipment Reliability Index (ERI)



# Safety

## Setting Safety Record, Focus On Error Rate

We embrace personal responsibility for sustaining nuclear safety excellence. Safety intervention involves both behavior and equipment.

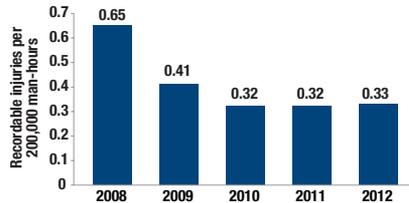
Since 2008, NPG's recordable injury rate (recordable injuries/hours worked) has dropped significantly, coming in at .33 in FY2012. Employees across the fleet are steadily improving the way they take care of themselves and others.

Our core values start with a safety-first approach. To achieve expected results, we are improving "eyes on the path," enhancing management observations, and providing peer-to-peer training.

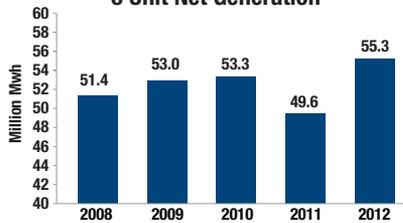
- **Nuclear Fleet – Combined 18/24 month Forced Loss Rate – 1.77% – Best performance since 2005 (1.01%).**
- **Nuclear Fleet – Safe workplace incident rate at .33, bettering the 2012 performance plan target of .35.**

- **Browns Ferry – Exceeded 5 million man-hours without a loss time accident.**

OSHA Recordable Injury Rate (RIR)



6 Unit Net Generation



## TVA Nuclear Power

At September 30, 2012

Nuclear Unit	Status	Nameplate Capacity (MW)	Net Capacity Factor for Fiscal Year 2012	Net Generation for Fiscal Year 2012 (GWh)	Date of Expiration of Operating License	Date of Expiration of Construction Permits
Browns Ferry Unit 1	Operating	1150	97.0%	9649	2033	
Browns Ferry Unit 2	Operating	1190	97.5%	9728	2034	
Browns Ferry Unit 3	Operating	1190	80.0%	7981	2036	
Sequoyah Unit 1	Operating	1221	86.4%	8940	2020	
Sequoyah Unit 2	Operating	1221	96.5%	9793	2021	
Watts Bar Unit 1	Operating	1230	88.6%	9171	2035	
Watts Bar Unit 2	Under Construction	1220				2013

# Organizational Health

## OHI: High Participation, Improved Results

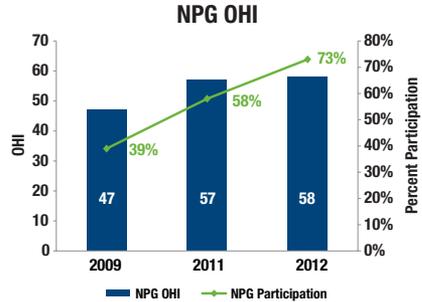
FY2012 was a challenging year for both TVA and our nuclear fleet. Almost 2,800 fleet employees shared their thoughts on issues that are vital to improved performance. Being able to better understand how we are doing as leaders and gaining insight into our cultural issues are important learning tools.

As a fleet, the good news is we didn't lose ground in nine outcomes measured. In fact, we improved in seven of the outcomes while remaining the same in the other two.

Leadership is one of the OHI outcomes where the fleet didn't gain any ground and that is something at which we will take a serious look. At the individual plants, Browns Ferry and Watts Bar showed improvement in their overall OHI scores while Sequoyah had a slight reduction.

- NPG's overall score increased 1% from 2011
- 7 outcome scores increased from 2011

**73% of NPG employees completed the OHI survey**



## Browns Ferry Update

### Generation Record, Recovery Focus

Our Nuclear Safety Review Board noted on September 14th that Browns Ferry is on the road to recovery, showing a steady improvement trend. Our goal in 2013 is for the Browns Ferry team to recover their regulatory performance, moving toward sustained cultural and operational excellence.

The Browns Ferry team worked hard to get ready for recent NRC review visits and demonstrated that lessons are being learned and changes implemented. We are living the commitment of doing the right work, the right way, right now.

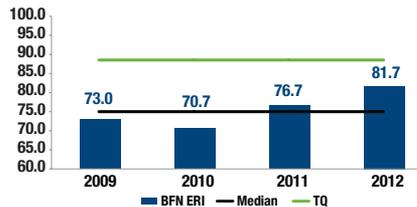
#### Highlights for the quarter:

- Browns Ferry Integrated Improvement Plan – 15 areas for improvement, 5 focus areas
- Browns Ferry set a site net generation record of 27,358 gigawatt hours. The previous record was 25,458 gigawatt hours in FY 2010.
- Browns Ferry Unit 2 was the best

**performing unit in TVA operating fleet – TVA equivalent availability factor – 99.12% and Forced Loss Rate – 0.43%.**

- Completed three successful 95-001 inspections in October and November 2012.

#### BFN Equipment Reliability Index (ERI)



#### BFN INPO Forced Loss Rate

