DNA of Historical Outages

- Trees
- Tools
- Training
TVA Power System

- 80,000 Square-Mile Region
- 17,000 Miles of Line
- 1,015 Substations & Connection Points
- ¼ Million Right-of-Way Acres
- 8.3 Million Consumers

Peak Demand
Summer    29,344 MW
Winter    29,866 MW
Trees—Managing Vegetation

- Focusing on 230-kV & above lines & interties
- Up to ½ million trees will be removed this fiscal year
- Set record of 176 days without a tree contacting any line
- Filed FERC vegetation management report
In FY ‘03 TVA added:

- 140 miles of new transmission line
- 3 substations & 2 switching stations
- 34 new delivery points

$1.25 billion invested since 1996
Tools—Increasing Grid Visibility

**Good Decisions From a Sea of Data, Alarms & Indicators**

- Power World simulator shows real-time flows
- PSOP shows real-time generator/transmission/interchange/customer data
- Data Exchange Agreements: TVA/Entergy/Southern & TVA/PJM/MISO
- Phasor Measurement Units will extend visibility across Eastern Interconnection
Training—Engaging Employees

- Conducted at fully redundant backup control center
- Installing full-function control room simulator
  - Operations training
  - Emergency training
- Training Program acknowledged in NERC Readiness Audit