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Presented by George B. Blankenship, Senior Consultant, Allegheny Power, at the West Virginia Energy Infrastructure Workshop on December 11, 2003 at Stonewall Resort, Roanoke, WV. This meeting was a part of the Energy Roadmap Workshop Series commissioned by West Virginia Governor Bob Wise.



**Energy Infrastructure Workshop
Energy Roadmap Series
Stonewall Jackson Resort**

**The Allegheny Power
Infrastructure**

December 11, 2003

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Senior Consultant**

SAFETY is a TEAM Effort



Overview

- **Allegheny Energy & Allegheny Power**
- **Reliability**
 - **August 18 Blackout**
 - **Hurricane Isabel**
- **Interconnection Arrangements**
- **Current Interconnection Projects**
- **Critical Transmission Issues**



About Allegheny Energy

- **Allegheny Power – Electric & Gas Utility**
 - Monongahela Power – WV & OH
 - Potomac Edison – WV, MD & VA
 - West Penn Power – PA
- **Allegheny Energy Supply Co., LLC**
- **Six Major Power Stations in WV**
 - Producing More than 5,000 Megawatts
- **5,285 Employees System-wide**
 - 2,318 in WV
- **PJM West & ECAR**

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About Allegheny Power

System Wide

- 1,506,868 Electric Customer
- 228,365 Gas Customers
- 4,697 Miles of Transmission Lines
- 66,680 Miles of Distribution Lines
- 4,600 Miles of Gas Distribution Lines

West Virginia

- 474,572 Electric Customers
- 228,365 Gas Customers
- 2,137 Miles of Transmission Lines
- 26,408 Miles of Distribution Lines
- 4,600 Miles of Gas Distribution Lines



More About Allegheny Power – West Virginia

Electric Customers

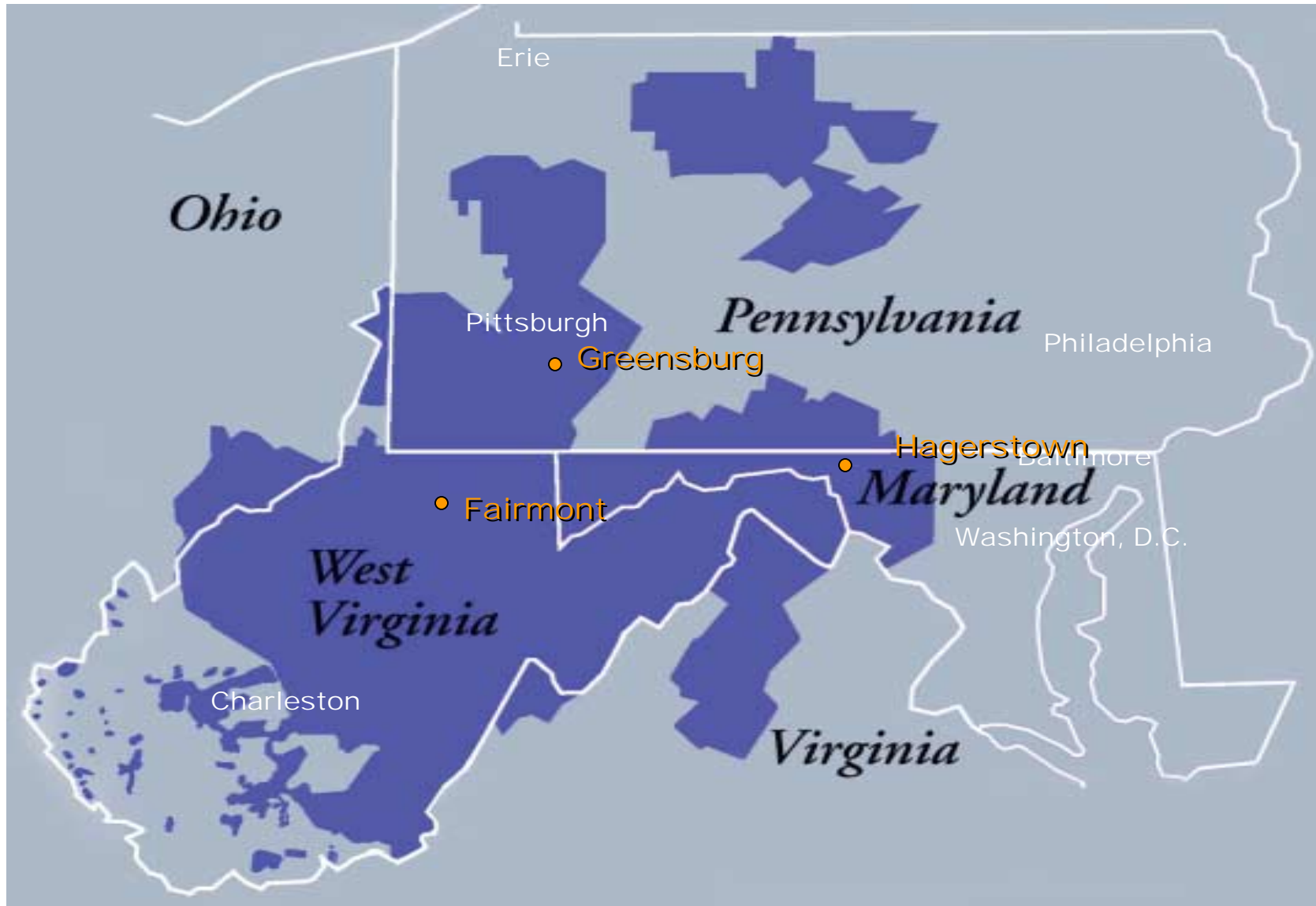
- 410,864 Residential
- 54,645 Commercial
- 8,708 Industrial
- 345 Street Lighting
- 10 Other
- 16,340 MWHs Delivered Annually

Gas Customers

- 207,851 Residential
- 20,514 Commercial & Industrial
- 24,044,000 MCF Delivered Annually



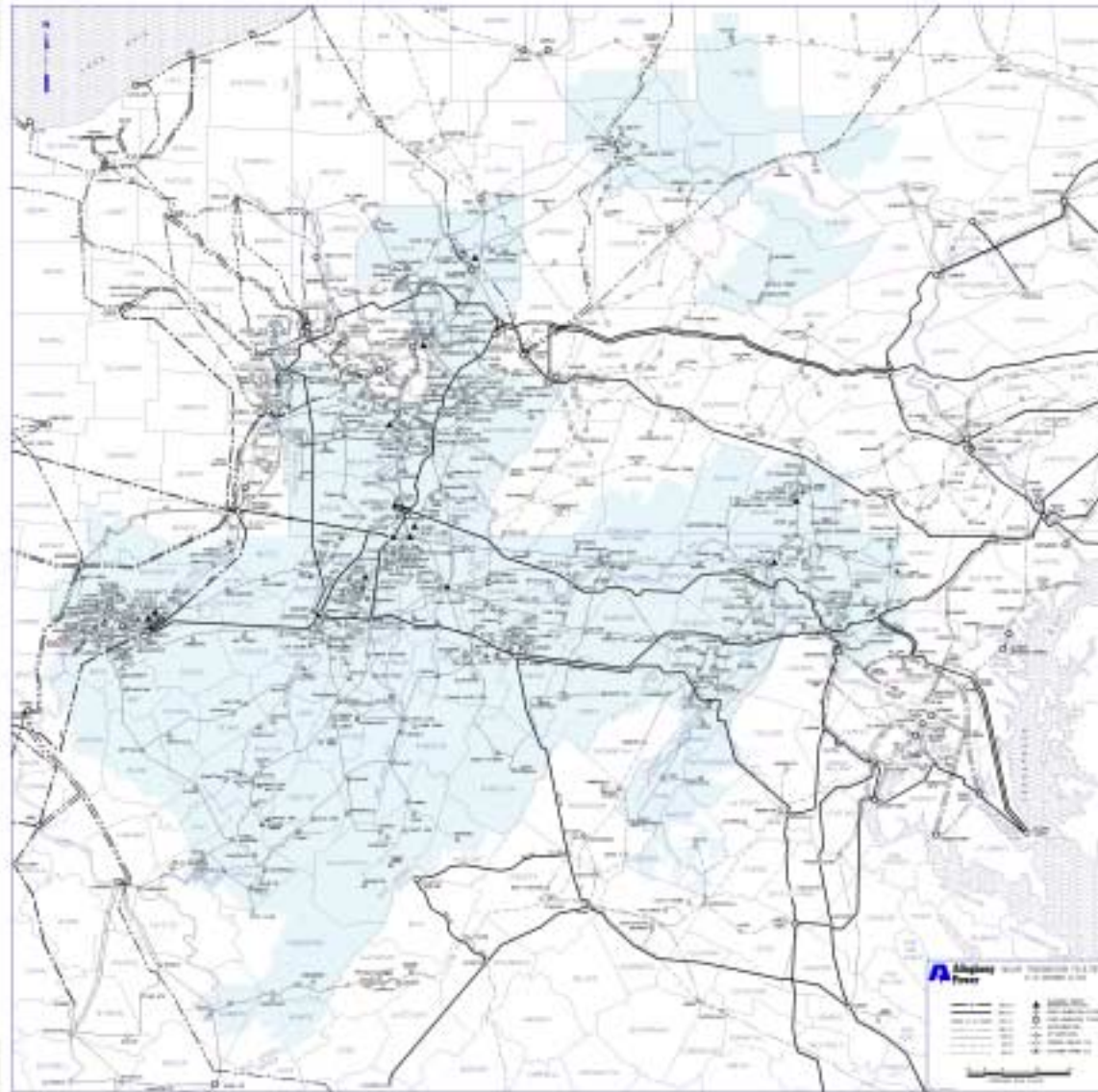
Allegheny Power's Service Territory



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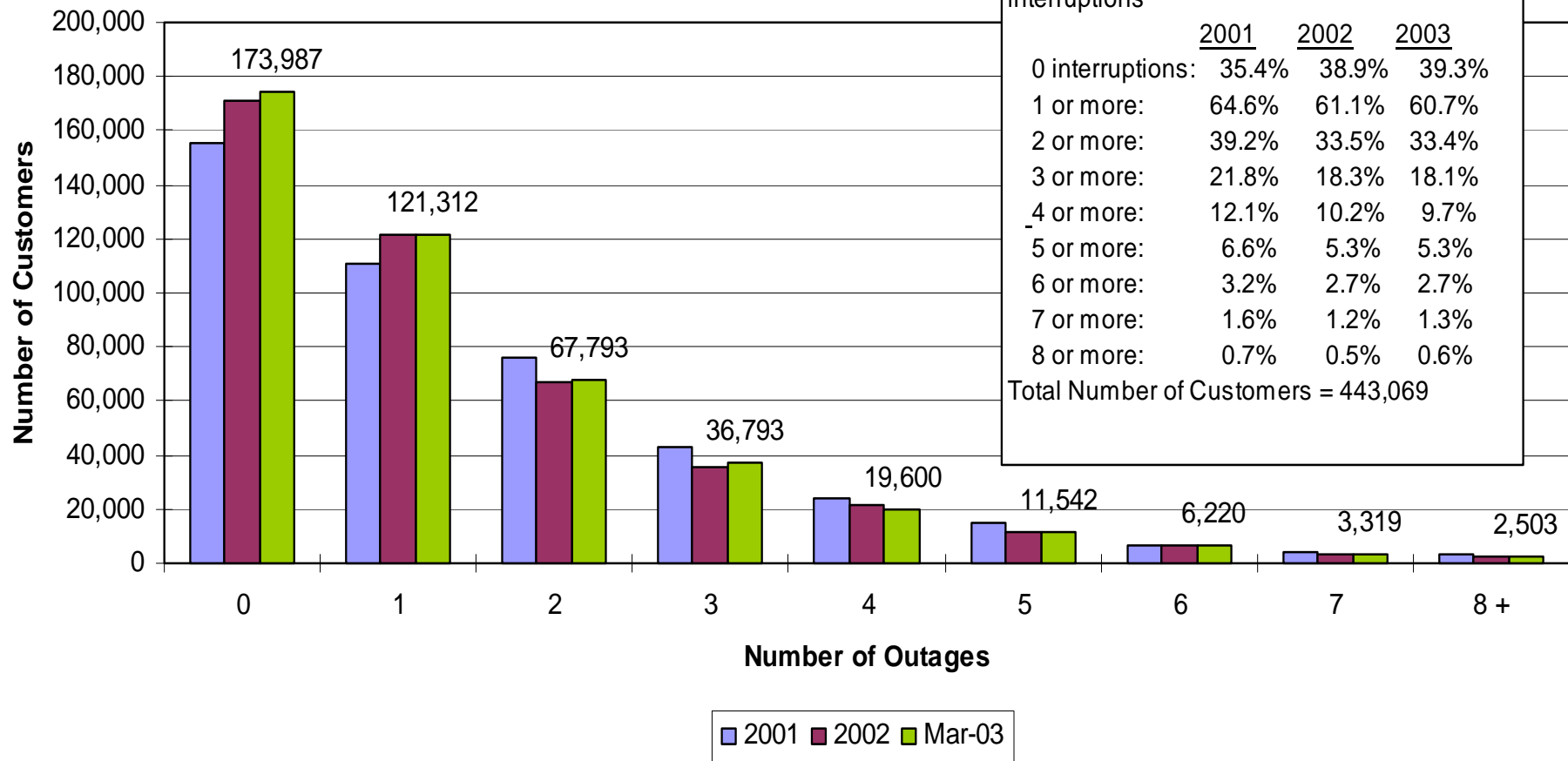
Allegheny Power's Transmission Grid



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Reliability

March 2003 12-Month Ending Customer Outage Frequency West Virginia

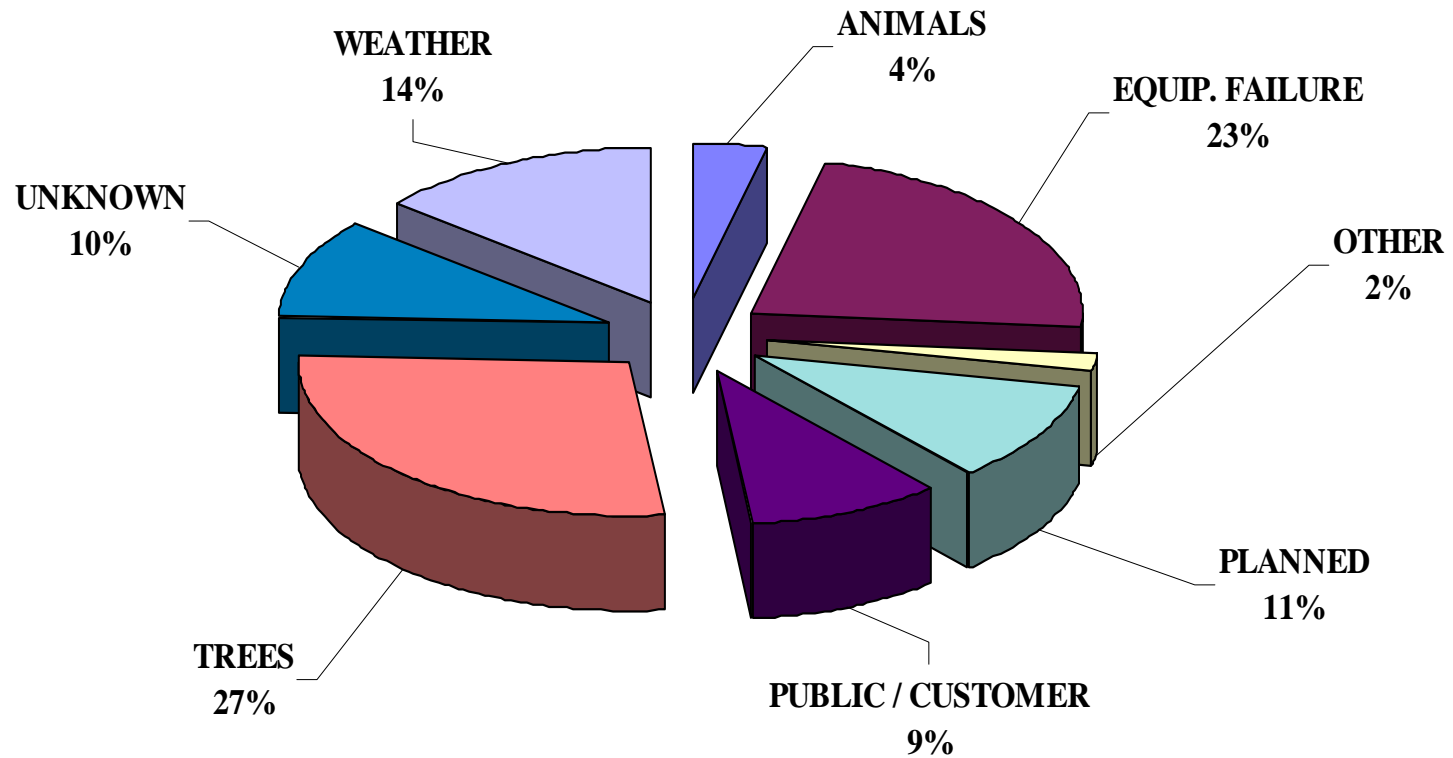


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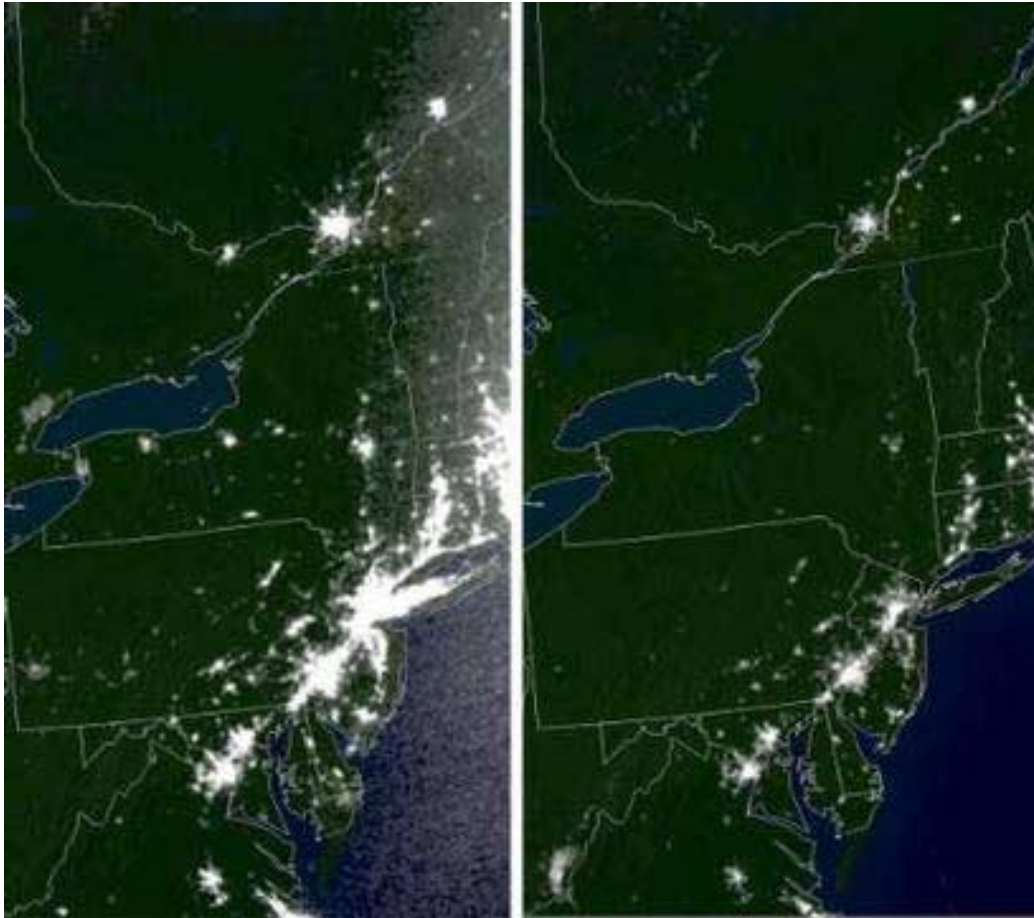
Reliability

West Virginia - 2002 Interrupted Customers by Cause





August 14, 2003 Blackout



Allegheny Power Service Territory

- No AP Customers Interrupted

PJM

- Approx. 93% of PJM's area remained unaffected by outages
- 4,500 MWs of generation lost
 - 4100 – New Jersey
 - 400 – Pennsylvania



Hurricane Isabel

- **Total Customers Interrupted – 243,000**
- **WV Customers Interrupted – 47,661**
- **Financial Impact to AP**
 - **\$15MM System-wide**
 - **\$2.1MM in WV**
- **Regular Outage Reporting to PSC & County Officials**
- **Regular Helicopter Patrols**
- **Worked closely with other utilities both prior to and during the storm**
- **Utilized outside resources**
- **Assisted Dominion with restoration efforts**

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ECAR Reliability Standards

- **System Performance**
- **Reliability Assessments**
- **System Data Modeling**

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Interconnection Process

- **Coordinated through PJM**
- **3 Step Process**
 - **Feasibility Study**
 - **System Impact Study**
 - **Facilities Study**
- **Payments made to PJM prior to each study**



Active Interconnection Projects

- **Six active NUG Projects**
- **1,326 MWs**
- **One 90 MW Project went online in 2003**
- **Three Wind Projects totally 650 MWs**



Critical Transmission Issues

- **Energy Policy Act of 2003**
- **Regional Transmission Expansion Planning Protocol (RTEPP)**
- **Standards of Conduct**



Questions?

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