



Allegheny Power Smart Grid Activities in West Virginia

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Allegheny Power Overview

1.6 Million Customers in 4 states

31,000 square miles

2,700 employees

65,000 miles of Overhead lines

Transmission- 4,600 miles

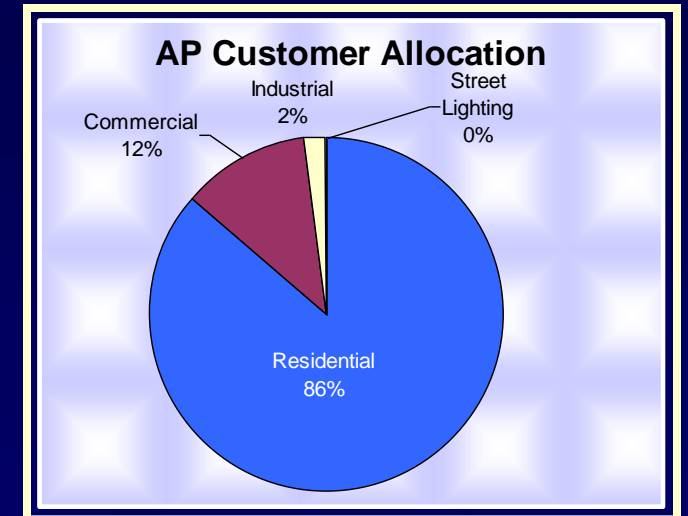
Distribution- 61,000 miles

9,200 miles of Underground lines

44.2 million MWh delivered annually

4.1 million customer calls annually

Customer Satisfaction





Recent and Proposed Smart Grid Activities in WV

1. Morgantown Developmental Field Test (DFT)
2. West Virginia Super Circuit (WVSC)
3. Research Ridge Test Facility (RRTF)
4. West Virginia Smart Grid Implementation Plan (WVSGIP)
5. West Virginia Distribution Network Modernization (WV DNM)



Morgantown Developmental Field Test (DFT)

Partially funded by the US Department of Energy (DoE) and developed and integrated by a team consisting of Allegheny Power, Augusta Systems, Inc., Research and Development Solutions, Patrick Energy Services, General Electric, and Microsol.

Located in Morgantown, WV the DFT features Dynamic Feeder Reconfiguration for more reliable delivery.



West Virginia Super Circuit Project (WVSC)

One of nine successful projects submitted to the DOE under funding opportunity DE-FC26-08NT02868.

Allegheny Power is the project lead on this team consisting of Augusta Systems, Inc., WVU Research Park, WVU APERC, NC State, and SAIC


Located in Morgantown, WV the WVSC builds on the foundation of the DFT project and integrates various features of the Smart Grid including customer owned energy resources, advanced computer modeling, and microgrids.



Research Ridge Test Facility (RRTF)

A smart metering research project sponsored by Allegheny Power and performed by Augusta Systems, Inc.

Located at Augusta Systems Research Ridge facility, in Morgantown, WV this project studies the various aspects of AMI metering and Home Area Networks and serves as an advanced metering education center.



WV Smart Grid Implementation Plan (WVSGIP)

A scoping project with team members Allegheny Power, WV Division of Energy, NETL, US DOE Office of Electricity Delivery and Energy Reliability, Research and Development Solutions, AEP, and WVU APERC

This report represents the first State-wide implementation plan for a totally integrated Smart Grid.



West Virginia Distribution Network Modernization Project (WV DNM)

Building on several initiatives and projects funded by Allegheny Power over the past two years, this DNM project focuses on a deployment in the areas served by the Morgantown and Parkersburg Service Centers. The DNM is included in the recently filed base rate case.

This project focuses on distribution monitoring, analysis and remote control to improve reliability to customers in the Parkersburg and Morgantown areas.