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

AP Customer Allocation
Residential 86%
Commercial 12%
Industrial 2%
Street Lighting 0%
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)
Located in Morgantown, WV the DFT features Dynamic Feeder Reconfiguration for more reliable delivery.

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 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.
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.

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