



Mon Power

West Virginia Super Circuit

Project Description

This *FirstEnergy*/MonPower RDSI demonstrates improved distribution system performance, reliability, and security of electric supply through the integration of distributed resources.

The West Virginia Super Circuit (WVSC) is a smart grid demonstration project led by *FirstEnergy*. Its subsidiary MonPower is working with selected partners and vendors to demonstrate improved distribution system performance, reliability, and security of electric supply through the integration of distributed resources and advanced technologies.

Goals/Objectives

- Seek to achieve greater than 15% peak power reduction in a cost competitive manner on a MonPower (AP) circuit located in Morgantown, WV
- Demonstrate the viability of advanced circuit control through multi-agent technologies
- Leverage advanced wireless communications to address interoperability issues between control and protection systems and distributed energy resources
- Demonstrate the benefits of the integrated operation of technologies such as rotary and inverter-based distributed generation, energy storage, Automated Load Control (ALC), advanced wireless communications, and advanced system control technologies
- Demonstrate advanced operational strategies such as dynamic islanding and micro-grids to serve priority loads through advanced control strategies
- Demonstrate the reliability benefits of Dynamic Feeder Reconfiguration across several adjacent feeders

Key Milestones

- Data Collection & Archival system complete (11/23/2012)
- Modeling & Simulation complete (1/11/2013)

Benefits

- improved distribution system performance,
- reliability of electric supply
- security of electric supply

CONTACTS

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PARTNERS

Leidos (formerly SAIC)
Advanced Power and Electricity Research Center
Environment and Infrastructure, LLC
Intergraph (formerly Augusta)
West Virginia University (WVU)
North Carolina State University (NCSU)

PROJECT DURATION

2008-9/2013

BUDGET

Total Project Value

\$4,258,926

DOE/Non-DOE Share

\$2,819,058/\$1,439,868

DEMONSTRATION STATES

West Virginia

CID: NT02868

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