



U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

DOE SynchroPhasor Projects Introduction

*NASPI Working Group Meeting
October 5, 2010*

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Office of Electricity Delivery and Energy Reliability
US Department of Energy*



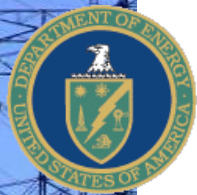
SGIG and SG Demonstration Phasor Projects

- American Transmission Company, LLC (PMU)
- American Transmission Company, LLC (SCADA)
- Duke Energy Carolinas, LLC
- Entergy Services, Inc.
- Midwest Energy, Inc
- Midwest ISO, Inc
- ISO New England, Inc
- New York ISO, Inc
- PJM Interconnection, LLC
- Western Electricity Coordinating Council
- Center for the Commercialization of Electric Technologies
- Florida Power & Light



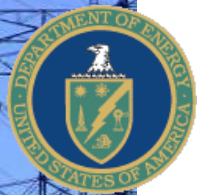
SGIG Awards - Funding and Period of Performance

- Federal Funding
\$ 147,990,985
- Applicant Funding
\$ 150,454,793
- Period of Performance – Five Years
 - Three years for equipment installation
 - Two years for operation and data collection

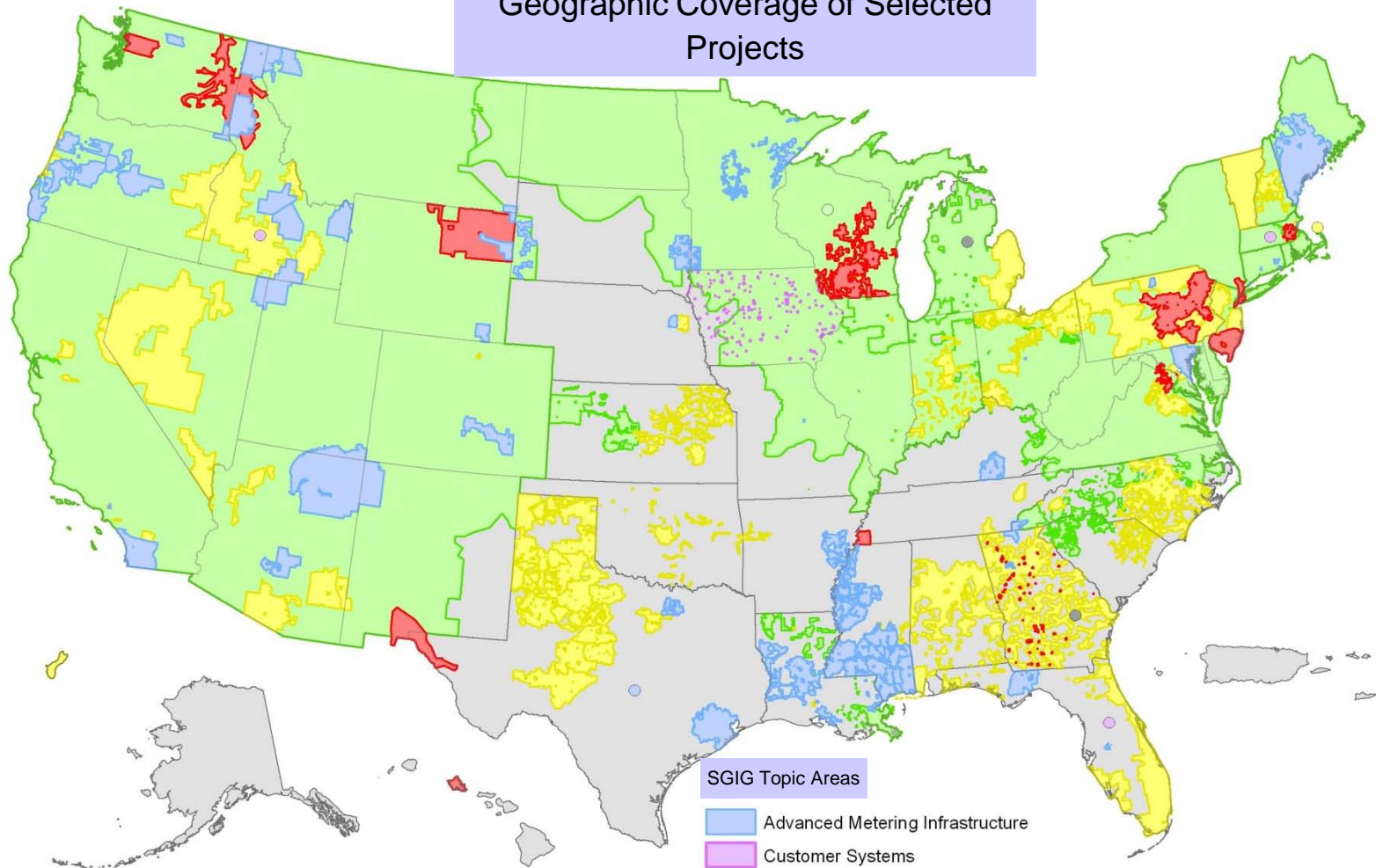


Planning, Execution and Reporting

- Project Execution Plan
- Cyber Security Plan
- Metrics and Benefits Reporting Plan
 - Build Metrics
 - Impact Metrics



Geographic Coverage of Selected Projects



SGIG Topic Areas

- Advanced Metering Infrastructure
- Customer Systems
- Electric Systems Distribution
- Electric Transmission Systems
- Equipment Manufacturing
- Integrated and/or Crosscutting Systems

100 Projects

Circle indicates project where specific utility/area is not known.

SMART GRID INVESTMENT GRANTS



Synchrophasor Projects Applications – a Sample

- Wide-Area Visualization and Monitoring
- Angle and Frequency Monitoring
- Inter-area Oscillation Detection & Analysis
- Proximity to Voltage Collapse
- State Estimation
- Dynamic Model Validation
- Fast Frequency Regulation





Contact Information

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Transmission Reliability Peer Review, October 19-20, 2010
<http://events.energetics.com/TRPeerReview/index.html>



Summary of SGIG Selections

Topic Area	Number of Applications Selected/ Conforming	Federal Funding (\$)	Applicant Funding (\$)	Applicant Cost Share (%)
Equipment Manufacturing	2/14	25,786,501	25,807,502	50.02
Customer Systems	5/27	32,402,210	34,933,413	51.88
Advanced Metering Infrastructure	31/138	818,245,749	1,194,272,137	59.34
Electric Distribution	13/39	254,260,753	254,738,977	50.05
Electric Transmission	10/28	147,990,985	150,454,793	50.41
Integrated and Crosscutting	39/143	2,150,505,323	3,082,366,420	59.09
Total	100/389	3,429,191,521	4,742,573,246	58.04