DOE SynchroPhasor Projects

Introduction

NASPI Working Group Meeting

October 5, 2010

Phil Overholt

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
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

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