SynchroPhasor Technology Deployment Project Update

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TOA-AC Meeting
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Project Financials: Planned vs. Reported Spending

Thousands

Forecast  Reported to DOE

$0  $1,381

$1,381  $7,372

$7,372

Mar '10  May '10  Jul '10  Sep '10  Nov '10  Jan '11  Mar '11  May '11  Jul '11  Sep '11  Nov '11  Jan '12  Mar '12  May '12  Jul '12  Sep '12  Nov '12  Jan '13  Mar '13
PMU Installations vs. Baseline

# of Substations

- Baseline
- Completed Installations
- Communicating to PJM
<table>
<thead>
<tr>
<th>Company</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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</thead>
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<td>AEP</td>
<td></td>
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</tr>
<tr>
<td>APS</td>
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<td>2</td>
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<tr>
<td>BG&amp;E</td>
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<td>2</td>
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<tr>
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<td></td>
<td>Q1</td>
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<td>Q1</td>
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<tr>
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</table>

**Expected Completion Quarters**

- Q4 2010
- Q1 2011
- Q2 2011
- Q3 2011
- Q4 2011
- Q1 2012
- Q2 2012
- Q3 2012
- Q4 2012
- Q4 2010 ARRA report submitted to FederalReporting.gov on Jan. 10th
- Virginia Tech received first equipment from SEL for testing
- Hardware configured for PDC and visualization installation (Q1 2011)
- Circuit installations at PJM data center and initial TO PDC installations (in progress)
- PJM PDC installation to be completed by end of February
• Project requirements/design lead standards development
• Preparation of testing facilities at Virginia Tech were delayed
• Confidence in the performance of PMU/PDC equipment
• Current invoices to DOE reflect only a fraction of total project expenditures (only seven TOs have provided invoicing data to PJM)