System Restoration Strategy
Task Force Status
MRC Update

October 25, 2012
Chantal Hendrzak
Black Start Units

Drivers for Change

NERC CIP Requirements

Federal & State Environmental Legislation (e.g. Mercury & Air Toxics Standards - MATS)

Cross zonal optimization

NJ High Electric Demand Day (HEDD)

Aging Infrastructure / Refurbishment Costs

Less effective RFP Replacement Process

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The System Restoration Strategy Task Force will analyze and evaluate PJM’s System Restoration plan and utilization of Black Start generation during a System Restoration as directed by the Markets and Reliability Committee.
<table>
<thead>
<tr>
<th>Description</th>
<th>Target Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education process</td>
<td>March 27</td>
</tr>
<tr>
<td>Identify stakeholder interests</td>
<td>March 27</td>
</tr>
<tr>
<td>Develop design criteria</td>
<td>April 25</td>
</tr>
<tr>
<td>Develop solution options</td>
<td>August 2012</td>
</tr>
<tr>
<td>Package solutions</td>
<td>September, 2012</td>
</tr>
<tr>
<td>Build consensus &amp; Develop recommended package solution</td>
<td>October, 2012</td>
</tr>
<tr>
<td>Vote at MRC</td>
<td>November, 2012</td>
</tr>
<tr>
<td>Solution final report</td>
<td>December, 2012</td>
</tr>
<tr>
<td>Solution implementation &amp; Periodic updates</td>
<td>TBD</td>
</tr>
</tbody>
</table>
**Original TF Timeline**

- **2012**
  - (Jan – Nov)
  - Restoration Task Force

- **2013**
  - Implement Strategy
  - (Manual & Tariff Changes)

- **2015**
  - Black Start Retirements Begin

- **Nov. 2012 MRC**
  - (Task Force Recommendation)

- **2013 / 2014**
  - Begin Procurement of Black Start
### SRSTF Revised Work Plan (Proposed)

<table>
<thead>
<tr>
<th>Stakeholder Process</th>
<th>Group Responsible</th>
<th>Target Date</th>
</tr>
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<tbody>
<tr>
<td>Charter Approval</td>
<td>MRC</td>
<td>3/29/12</td>
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<tr>
<td>Task Force / Subcommittee Formation</td>
<td>MRC</td>
<td>2/8/12</td>
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<tr>
<td>Problem Investigation</td>
<td>SRSTF</td>
<td>3/27/12</td>
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<tr>
<td>MRC Status Update</td>
<td>(MRC)</td>
<td>10/25/12</td>
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<td>Solution Approval</td>
<td>MRC</td>
<td>Jan. 2012</td>
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<tr>
<td>Recommendation(s) First Review</td>
<td>MRC</td>
<td>Dec. 20, 2012</td>
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<td>Final Vote</td>
<td>MRC</td>
<td>Jan. 31, 2013</td>
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<tr>
<td>Solution Final Report</td>
<td>SRSTF</td>
<td>Feb. 2013</td>
</tr>
</tbody>
</table>
• **GAST Process Status (Proposal Development Phase)**

• **Key Design Components & Key Learnings (thus far)**
  - System Restoration Target Time
    - Definition & Achievability
    - Not a strong correlation between amount of Black Start and overall Restoration time
  - Cross Zonal / Regional Black Start Resources
    - Inconsistency of Black Start / Critical Load margin across zones
  - Definition and construction of Critical Load & Black Start
  - Entity responsible for determining amount and location of Black Start
  - Black Start Procurement Process

• **Scope clarification (within SRSTF or other subcommittee?)**
  - Compensation design
  - Manual and Tariff modifications
**Proposed Revised TF Timeline**

- **Oct. 2012**
  - MRC
  - (Status Update & Revised Schedule)

- **Nov. 2012**
  - TF
  - (Developing Proposals)
  - # of meetings: 4*

- **Dec. 20 2012**
  - MRC
  - (Task Force Recommendation(s) Proposed)

- **Jan. 31 2013**
  - MRC
  - (Vote)

- **2013**
  - Implement Strategy
  - (Subcommittee Work, Manual & Tariff Changes, MC Approvals)

- **2013 / 2014**
  - Begin Procurement of Black Start

- **2015**
  - Black Start Retirements Begin