



STATUS REPORT: System Restoration Strategy Senior Task Force

August 14, 2014

The System Restoration Strategy Senior Task Force will analyze and evaluate the viability and efficiency of PJM's System Restoration plan and utilization of Black Start resources given industry developments such as new environmental regulations, NERC CIP standards, and the increasing cost of Black Start generation. Any recommended changes will be brought to the Markets and Reliability Committee for approval.

SME: Glen Boyle
Facilitator/Chair: Chantal Hendrzak
Secretary: Amanda Egan

[Link to System Restoration Strategy Issue Tracking Site](#)

- A. **Issue Tracking Status:** *Solution Alternatives Proposed.*
- B. **Target Completion:** *Recommendations to MRC anticipated for late 2013.*
- C. **Progress Update:**
 - a. *A PJM Stakeholder notice was provided on February 3, 2012 regarding the creation of the System Restoration Strategy Senior Task Force (SRSSTF). SRSSTF sessions commenced on February 8, 2012. The first two meetings were targeted towards the development and finalization of the SRSSTF Charter. The SRSSTF Charter was presented as a first read at the 2/23/2012 meeting of the MRC.*
 - b. *Educational topics were presented to Task Force participants over the course of several meetings. Topics included a review of PJM Manual 36, a review of NERC standards applicable to System Restoration, a review of the environmental regulations that may impact Black start generation, a review of research and development projects and studies being conducted by PJM and others on the topic of System Restoration, and a review of the System Restoration plan and recent changes at ISO-NE.*
 - c. *The interest identification phase commenced on 3/27/2012 and preliminary documentation was assembled to capture stakeholder interests and concerns with respect to the System Restoration Strategy. On 4/10/2012, the Task Force reviewed the summarized interest documentation for accuracy and completeness. Revisions to the document were posted on PJM.com following the 4/10/2012 meeting and are currently available at the following link: [Preliminary Interests](#).*
 - d. *The SRSSTF Charter was approved at the 3/29/2012 MRC meeting.*
 - e. *The proposal development phase began on 4/10/2012. Task Force participants began to identify design components. The group continued to identify components, prioritize components, and began to identify solution options for each component at the 5/14/2012 SRSSTF meeting. Potential solution options are currently under review and were discussed further at the 6/21/2012 SRSSTF meeting.*
 - f. *At the 7/9/2012 meeting of the SRSSTF, task force participants reviewed a draft System Restoration proposal. Participants were asked to provide comment and feedback to the Chair and Facilitator on the draft proposal, in order to initiate further discussion of this topic.*
 - g. *The draft System Restoration proposal is currently under review and was discussed at the 7/25/2012 and 08/14/2012 SRSTF meetings. A formalized poll was issued to the task force participants during the week of August 20th, to obtain stakeholder consensus on potential solution components that should be included*

in the draft System Restoration proposal. Black Start procurement and cost allocation will be discussed at future meetings.

- h. Results of the SRSTF poll were reviewed at the 8/29/2012 SRSTF meeting. Based on these results, solution packages are under development and will be voted on at the 9/26 meeting. Black start procurement and cost allocation were discussed in depth at the 8/29/2012 and 9/14/2012 SRSTF meetings. Through these discussions, participants have been narrowing down solution options to be included in solution packages. These topics were also discussed at the 9/21/2012 meeting.*
- i. PJM has also started to reach out to the PJM states via OPSI and one-on-one discussions with the states to raise awareness of the System Restoration Strategy Task Force. The focus of the discussions is to educate on what System Restoration is, the challenges the task force is addressing, the progress of the task force to date, as well as to solicit input from the states on design criteria and the package solutions.*
- j. A poll was issued on 9/26/2012 to obtain stakeholder feedback on system restoration solution option packages currently on the table. Participants were asked to complete the poll by 10/2/2012 so that the results could be analyzed, graphed and presented for review at the 10/5/2012 SRSTF meeting. Since that meeting, additional packages have been offered by members and are under review by the task force. Procurement options are also under review and the task force participants are working to narrow down these options in hopes to add them to solution packages in the near future.*
- k. A status update on the Task Force was provided at the October MRC and a 2 month extension (first review of recommendations in December, final MRC vote in January) was granted. Additionally, compensation was added to the scope of the Task Force.*
- l. At the 11/13 meeting, the group reviewed and approved an updated charter inclusive of compensation. This meeting focused primarily on reviewing solution packages in depth, including a detailed review of the PJM/MMU package. The Task Force will continue the review of the solution packages at the 11/30 meeting, in an effort to narrow down viable options.*
- m. At the 11/30, 12/10 and 12/18 SRSTF meetings, the group continued the review of the solution packages from PJM/IMM and Exelon. On 12/19/2012, the voting tool was opened, to capture official votes on each solution package. The vote closed on 1/11/2013.*
- n. At the 1/18 meeting, the group reviewed the results of the vote. 112 responses were received. The PJM/IMM package passed with a simple majority, receiving a favorable response of 50.89%. The Exelon package received a 32.14% favorable response. The results of the vote plus the draft System Restoration Strategy proposal will be reviewed at the 1/31/2013 MRC meeting. The group continued discussions around compensation, cost allocation, manual and Tariff language for the proposed Strategy. It is anticipated the MRC will vote on the Task Force recommendation in February.*
- o. A Task Force status update was also given to the TOA-AC on 1/8 and provided to the Consumer Advocates and Public Interests Groups on 1/22/2013.*
- p. At the 1/29 meeting of the SRSTF, the Task Force reviewed updates to the draft System Restoration Strategy draft proposal, as well as updates to manual language. The group also spent some time vetting options for cost allocation and compensation. At the 1/31 MRC meeting, Ms. Hendrzak presented a first read of the recommendations of the SRSTF regarding updates to system restoration strategy. She discussed the elements of the proposal, and reviewed the design components. Additionally, Mr. Robert Taylor, of Exelon, presented an alternate proposal to the MRC regarding System Restoration. There are only 2 components that drive the difference between the PJM/IMM proposal and the Exelon proposal.*
- q. At the 2/15 meeting of the SRSTF, the group reached universal agreement on the 2 design components in question, Black Start start-up time and cross-zonal coordination dispute process, resulting in a single*

proposal that moved forward to the MRC for a vote. The group also reviewed the updated manual and tariff language and continued discussions on compensation and cost allocation. These conversations will continue at the 2/22 SRSTF meeting. The TF also discussed the OPSI resolution received regarding the removal of a Target Restoration time from the PJM Manuals. PJM will continue its state outreach and education on the topic and seek feedback from the states on what they are willing to support in order to make Black Start capability even more robust.

- r. At the 2/28 MRC meeting, Ms. Hendrzak reported on the final recommendations of the SRSTF and asked the MRC to endorse those recommendations regarding System Restoration. Members endorsed the proposed strategy and associated Manual and Tariff revisions by acclamation with no objections and three abstentions. Compensation discussions will continue and will be voted on separately from the Strategy.
- s. At the 3/15 SRSTF meeting, the TF continued discussions around compensation and cost allocation changes that are required by the changes to the strategy. More general Black Start compensation issues were discussed and included brief presentations from Mr. Neal Fitch, of NRG, on black start compensation considerations, and Mr. Brock Ondayko, of AEP, on capability incentives and performance based restoration. Additionally, the TF further reviewed potential tariff changes.
- t. On 3/18, a formal vote opened on the relevant compensation solution options. This vote closed on Wednesday, 3/20 and the results, as well as required tariff changes as they relate to compensation, were reviewed at the 3/25 SRSTF meeting, and taken to the MRC on 3/28, as a first read. The MRC will be asked to endorse the proposed compensation and cost allocation methodology at its next meeting, scheduled for 4/25.
- u. Additionally on 3/28, the MRC was also asked to provide direction to the TF as to whether or not the broader black start compensation topic should be included in the scope of the TF. A sense of the room was estimated, and the SRSTF was asked to develop a proposed revision to the current SRSTF charter to effect this investigation. The proposed revisions were discussed in depth at the 4/12 SRSTF meeting and will be brought to the 4/25 MRC meeting as a first read and potential vote depending on the discussion. In contingency with these draft charter updates, the TF also began to identify interests at the 4/12 SRSTF meeting, as they relate to compensation, cost allocation, and reliability back stop. Interest gathering will continue at the next scheduled TF meeting, slated to take place on 4/26/2013. Voting at the 4/25/2013 MRC and May MC meetings will be conducted on the OATT changes based on the system restoration strategy changes and narrow-scope compensation and cost allocation issues associated with these strategy changes.
- v. The OATT changes required to support the system restoration strategy changes and narrow-scope compensation and cost allocation issues associated with these strategy changes were approved at the May MC meeting during the PJM Annual Meeting. The RTO-wide Black Start RFP, a key component of the approved strategy, is targeted to be issued at the beginning of July 2013, with a conference call scheduled for July 9th to answer questions about the RFP from anyone considering submitting a response.
- w. PJM also intends to provide an update on existing Black Start RFPs as well as a status update on the RTO-wide Black Start RFP as a separate agenda item on the MC Webinar. PJM also plans to conduct individual state outreach to continue the dialogue on the new Black Start Strategy and RFP status.
- x. The TF's charter change has also been approved, to allow for further discussion on Black Start compensation, cost allocation, and reliability back stop options. During the May and June TF meetings, background information was provided regarding how other ISO/RTOs compensate Black Start units. The compensation matrix, inclusive of design components, the status quo, and some possible alternative solutions are being developed.
- y. At the June 21st and July 15th meeting of the SRSTF, the group continued to develop potential solution options as they relate to the design components for compensation of Black Start. Presentations on



compensation were made by NRG Power Marketing, LLC and PJM. The group intends to begin to narrow down these options at the July 25th TF meeting. PJM will present a potential solution package at this meeting, and participants will have the opportunity to present

- z. Additionally, on July 1st, an RTO-Wide Black Start Request for Proposal was issued. This was a key component of the new, recently approved System Restoration strategy. On July 9th, Mr. David Schweizer, of PJM, hosted a WebEx to review the RFP. The market window for this RFP is from 7/1/2013 through 9/30/2013. Mr. Schweizer will continue to update the SRSTF as the process progresses.
- aa. The Tariff changes for the approved Restoration Strategy were also filed with the FERC on July 9th.
- bb. Black Start RFP status update as of 7/29/2013:

Active Replacement RFP status:

- NJ (PS, JCPL, ACE): RFP awards made in ACE and JCPL zones – finalizing awards in PS zone by early August.
- BGE / Pepco: Target for award of viable BS solutions is late July / early August.
- PJM also working to notify proposals not selected ASAP so proposers can consider submitting for RTO wide RFP.

RTO Wide 5 Year Selection Process RFP:

- RFP posted 7/1/2013.
- Pre-Bid WebEx meeting 7/9 – Q&A responses posted 7/19, with weekly updates on new Q&A to follow by PJM.
- Notification of Intent to Bid Due 8/30/2013, with proposals due 9/30/2013.

State Outreach: PJM conducting outreach sessions with State Commissions in early August – focus is:

- Black Start definitions and a review of previous discussions on PJM System Restoration Strategy.
- Review ongoing RFP processes for Black Start Resources (active Replacement RFPs and RTO wide 5 Year Selection Process RFP), including timelines.
- Review current efforts within the System Restoration Strategy Task Force (SRSTF).

- cc. At the August 16th, August 27th, and September 13th meetings of the SRSTF, the group reviewed the compensation solution packages which are currently available for consideration by the Task Force. The group will be polled on their interest in further exploring these packages prior to the September 30th TF meeting. Additionally, the group is working on the development of design components and solution options for reliability backstop options. These items will continue to be discussed at upcoming meetings.
- dd. Intent to Bid responses for the RTO-wide RFP were due back to PJM by August 31st. The results have been positive. Approximately 50 new units have indicated their interest to provide Black Start service. These units cover approximately 60% of the PJM zones. The responses to the RFP are due back to PJM by September 30th.
- ee. State outreach continues. PJM has met with state commissioners and staff in the states of Maryland and New Jersey since the last report.

- ff. *PJM received 58 unit responses to the RTO-wide RFP. 55% of TO zones have received potential Black Start unit responses. PJM will work with the TOs to begin the analysis phase of these responses with an anticipated completion date by April 1, 2014. PJM will prioritize the evaluations with those areas that are deficient in Black Start being the highest priority.*

At the 10/11/13 SRSTF meeting, discussions around compensation and Reliability Backstop continued. There are currently 4 compensation proposals on the table at the SRSTF. The group is working to finalize details on these proposals and hopes to vote on them at the task force in November. The SRSTF is also working on development of a Reliability Backstop solution that would be utilized during Black Start shortages if there are no responses to the RFPs.

- gg. *A vote on the four available compensation solution packages is currently underway. The vote on these packages opened on November 12th and will close at 5 pm on November 20th. Results of this vote will be shared at the SRSTF meeting scheduled to take place on November 22nd. The package receiving the simple majority will be moved forward to the MRC for a first read, at a future MRC meeting. The TF continues to work on solution options as they relate to Reliability Backstop and the discussion of this topic will continue at the November 22nd task force meeting.*

State outreach continues with the PA PUC scheduled for December 11th.

- hh. *Results of the TF vote on the compensation solution packages were reviewed at the November 22, 2013 SRSTF meeting. The Minimum Incentive proposal received a 65.85% favorable vote and was presented as the main motion at the January 30, 2014 MRC meeting as a first read. The Proxy for Formula Replacement proposal received a 63.41% favorable vote and was presented as an alternate motion at the January 30, 2014 MRC meeting for a first read. The MRC will be asked to vote on the compensation proposal at the February 27, 2014 meeting.*

Due to inclement weather, both the January 28 and February 07 SRSTF meetings were cancelled.

The Task Force continues to work on development of a Reliability Backstop solution that would be utilized during Black Start shortages. Further discussion will take place on this with a proposal by AEP and PHI at the February 21, 2014 SRSTF meeting.

- ii. *The Markets and Reliability Committee voted on the compensation proposals at the February 27 meeting. The proposed Minimum Incentive Proposal Tariff and Manual 27 revisions failed in a sector-weighted vote with 3.01 in favor. The alternate proposal, Proxy for Formula Replacement, was voted on and also failed in a sector-weighted vote with 2.24 in favor. As a result, the Task Force is currently being polled to gauge stakeholder interest around potential modifications to the current compensations proposals, in addition to understanding whether participants wish to further discuss Black Start compensation at the SRSTF. The results of the poll will be discussed at the March 25 SRSTF meeting.*

Reliability Backstop is still under discussion within the task force and potential solution options will continue to be vetted at the March 25 meeting.

- jj. *Polling results were reviewed at the March 25 SRSTF meeting. Based on the results of the poll, PJM will put forward a compensation proposal with four minor changes to items for consideration by the Task Force. The SRSTF continues to discuss Reliability backstop options and the proposals put forth by PHI and AEP. The current target is to go to the May MRC with a first read on both the scaled down compensation proposal and reliability backstop option and the June MRC for a vote on each solution proposal.*

With regard to the RTO-wide RFP, PJM is 100% complete with the award of RFPs in TO zones where there was an identified black start shortage. RFPs are still being evaluated in zones where there is an identified surplus of black start – in these zones PJM is evaluating RFP proposals vs. any opportunity to



terminate existing black start only where necessary in order to optimize the black start resources and restoration plans.

PJM has also completed the impact assessment of a very recent black start termination in the AEP zone. After evaluation with the affected TOs, PJM has issued an incremental black start RFP.

- kk. After The SRSTF meeting on May 22, task force participants were asked to vote on the available Compensation and Reliability Backstop solution packages. The vote opened on May 23 and closed on June 4. Results of the vote were reviewed at the June 9 task force meeting. For Compensation, Minor Compensation Changes with Limited Fuel Storage package received majority support. For Reliability Backstop, the Tier 1 Consensus Proposal package received majority support. Both packages will be taken to the June 26 MRC meeting for a first read, and will be voted on at the July 31 MRC.*
- ll. Ms. Hendrzak presented the proposed Black Start compensation changes and reliability backstop package developed by the SRSTF. Both packages were presented at the July 31 MRC where the committee was asked to endorse the proposals.*
- mm. The proposed Black Start compensation changes and reliability backstop changes developed by the SRSTF were presented at the July MRC meeting. Following discussion, the proposed Tariff and Manual 27 revisions related to Black Start compensation were endorsed by acclamation with two objections and two abstentions, and proposed Tariff and Manuals 14D and 36 revisions related to the reliability backstop were endorsed by acclamation with no objections and two abstentions. As work on these issues has been completed the committee approved sunsetting the SRSTF with no objections or abstentions*

D. Action Requested: *Status only – no action requested at this time.*

E. Author: **A. Egan**

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