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		Review Due Date: January 20, 2013

Master/Local Control Center Procedure No. 11


(M/LCC 11)

Maintenance and Verification of New England System Restoration Plan

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1. References

FERC Order No. 693 Requirements – Restoration of Nuclear Power Plant Offsite Power Sources

NERC Reliability Standard EOP-005, System Restoration from Blackstart Resources

NERC Reliability Standard EOP-006, System Restoration Coordination

NPCC Regional Reliability Reference Directory # 8, System Restoration

ISO New England Operating Procedure No. 6, System Restoration (OP-6)

ISO New England Operating Procedure No. 11, Black Start Capability Testing Requirements (OP-11)

ISO New England Operating Procedure No. 11, Black Start Capability Testing Requirements Appendix A - Black Start Generators In the New England Reliability Coordinator Area / Balancing Authority Area (OP-11A)

ISO New England Operating Procedure No. 11 - Black Start Capability Testing Requirements - Appendix B - Black Start Groups of Stations That Must Meet Certain Pass Requirements (OP-11B)

Master/Local Control Center Procedure #17 - ISO and Local Control Center Joint Training (M/LCC 17)

ISO New England SOP-RTMKTS.0125.0020 - Communicate With Internal and External Parties

ISO New England SOP-RTMKTS.0180.0080 - Process Black Start Unit Testing


ISO New England SOP-RTMKTS.0200.0015 - Request OPTI Training and Changes to Training

LCC Local Restoration Plans:

CONVEX Operating Instruction #0006, System Restoration

Maine Operating Procedure No. 6, System Restoration

New Hampshire OP-0006, System Restoration

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NSTAR Operating Procedure No. 6, System Restoration

REMVEC Operating Procedure No. 6, System Restoration

VELCO Operating Procedure No. 6, System Restoration

2. Purpose

This procedure defines the processes and responsibilities for maintaining and verifying the adequacy of the ISO New England (ISO) System Restoration Plan to reestablish the New England Bulk Electric System (BES) in a stable and orderly manner following a partial or total shutdown of the New England BES.


The Master/Local Control Center (M/LCC) Heads have created the System Restoration Working Group (SRWG) and assigned to it responsibility for certain tasks with respect to maintaining, verifying and coordinating the System Restoration Plan and associated procedures. The SRWG membership is comprised of Transmission Owners, including representatives from each Local Control Center (LCC) and ISO (with an ISO staff member serving as SRWG Chair). Modifications to the System Restoration Plan are coordinated between ISO and each LCC. ISO and LCC responsibilities for maintaining and verifying the adequacy of the System Restoration Plan are generally met by the SRWG, which reports to the M/LCC Heads. Section 4 of this procedure documents the responsibilities of SRWG members.

ISO exercises its authority and responsibility to coordinate and promote the reliability of the System Restoration Plan in accordance with this procedure and with applicable Northeast Power Coordinating Council (NPCC) and North American Electric Reliability Corporation (NERC) requirements. ISO and LCCs ensure plans, procedures, and resources are available to restore the New England BES to a normal condition in the event of a partial or total shutdown of the electric system. These plans, procedures, and resources are evaluated annually by simulation or actual testing to verify their ability to effectively restore the New England BES following a partial or total shutdown of the electric system.

The SRWG also provides input to the Joint Trainers Task Force (JTTF) regarding annual System Restoration Plan Training and the M/LCC Training Simulator Model used in that training. In accordance with M/LCC 17, ISO and Local Control Center Joint Training, the ISO and LCCs jointly develop formal training programs for ISO and LCC Operations Training organizations, including training on the System Restoration Plan.

3. Background

3.1 The Purpose and Characteristics of the System Restoration Plan

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In accordance with the Transmission Operating Agreement (TOA) between ISO and New England Transmission Owners, ISO maintains a System Restoration Plan to restore the electric system to a normal condition in the event of a partial or total shut down of the New England BES. The System Restoration Plan is currently comprised of portions of the Local Restoration Plans of the LCCs and is maintained in consultation with the LCCs. As necessary and appropriate, ISO incorporates into the System Restoration Plan any modification developed by an LCC to its Local Restoration Plan, provided that any modification to an LCC Local Restoration Plan is subject to ISO's approval in order to coordinate and promote the reliability of the System Restoration Plan. The System Restoration Plan is described in ISO New England Operating Procedure No. 6 - System Restoration (OP-6), related OP-6 Attachments, and in Local Restoration Plan documents of each LCC.


In accordance with NERC Standards, ISO requires that the strategies and procedures in the LCCs' Local Restoration Plans are coordinated with the ISO's high-level strategy for restoring the New England BES. As the Reliability Coordinator, the scope of ISO's System Restoration Plan ends when offsite power has been provided to the New England nuclear generating stations, all of its LCCs are interconnected and synchronous Interconnections to neighboring Reliability Coordinator Areas (RCAs) have been established. After this is achieved, certain elements of LCC Local Restoration Plans and the restoration of all remaining New England load will continue.

The System Restoration Plan is designed to establish procedures and provide for the facilities and personnel necessary to enable system restoration from blackstart resources and maintain reliability during restoration. LCC Local Restoration Plans document cranking paths, including initial switching requirements, between blackstart generators in its area, as identified in ISO New England Operating Procedure No. 11, Black Start Capability Testing Requirements Appendix A - Black Start Generators In the New England Reliability Coordinator Area / Balancing Authority Area (OP-11A), and the generator(s) to be started. Recognizing that the technical aspects of system restoration (e.g. resource startups, load pickups, switching surges, voltages, frequency, synchronization of islands, etc.) are crucial, the System Restoration Plan, Local Restoration Plans and Generator Operator restoration procedures (e.g., procedures for starting a blackstart resource and energizing a bus) have been developed in a coordinated fashion.

3.2 Components of the System Restoration Plan

The core of the System Restoration Plan is comprised of a collection of interconnected contiguous paths from blackstart generators to New England nuclear generating stations, inter-LCC ties or Interconnections with neighboring RCAs. The facilities along these paths include:

- Facilities that are part of the ISO RCA basic minimum power system (BMPS),

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which is comprised of blackstart generators and generation/transmission substations that have been designated as key facilities (KFs); and

- Restoration Plan facilities to Interconnections and nuclear stations (RFINs), which are facilities that connect the BMPS KFs to nuclear stations in New England to interconnection points with neighboring RCAs as well as other selected facilities interconnected to the BMPS that are necessary to establish the core of the System Restoration Plan.

The ISO BMPS has been developed and is maintained by ISO, with input from the SRWG, to meet the requirements of NPCC Directory #8, System Restoration. Generally, ISO's BMPS consists of certain blackstart generators, generation substations associated with the first generators to be cranked by these blackstart generators, transmission lines and associated other transmission substations connected to load that are necessary to stabilize the system and establish stable islands for the purpose of initiating the System Restoration Plan. The BMPS includes the capability to synchronize electrical islands and permit the continuation of the System Restoration Plan. ISO has considered the configuration of the New England BES and the design of the System Restoration Plan to identify BMPS facilities on the 345 kV, 230 kV and 115 kV systems. In the event of a system blackout, the initial goal of the System Restoration Plan is to establish a BMPS from which station service power to nuclear stations and interconnections with neighboring RCAs can be restored, while also allowing for the continued restoration of the New England RCA.

As part of the development of the System Restoration Plan, ISO has classified certain facilities within the Plan in accordance with categories of restoration plan facilities established by NPCC in Directory #8. These facilities include KFs and RFINs.

- KFs are facilities that ISO considers essential and critical to the initiation of the System Restoration Plan and necessary to establish the BMPS following a system blackout. KFs include BMPS facilities, including blackstart generators and substations in the electrical path of transmission lines along the path of the System Restoration Plan as well as additional facilities that are not part of the BMPS, but that are considered critical to the establishment of the BMPS. These additional facilities include control centers and telecommunication facilities which are necessary to support protection and control facilities. Voice and data circuits between and within control centers along with voice and data circuits between control centers and BMPS KF generating / transmission substations are also included as KFs.
- RFINs are other facilities necessary to establish the core of the System Restoration Plan, including facilities that, in combination with BMPS KFs, form contiguous paths from BMPS KFs to nuclear stations in New England or to

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interconnection points with neighboring RCAs.

The ISO maintains a list of System Restoration Plan facilities which includes and specifically designates facilities that are part of the BMPS and those that are designated as KFs and RFINs. This Restoration Plan Resources List (RPR List), which is updated by ISO once a year, is included as the confidential Attachment D to this Procedure. The RPR List includes a BMPS List, KF List and RFIN List. ISO informs entities that their facilities have been designated as KFs or RFINs in accordance with Section 4.6 of this procedure.


NOTE

ISO also maintains other documents containing information pertaining to blackstart generators:

1. A full list of all OATT Schedule 16 blackstart generators is contained in ISO OP-11A, which includes, for each generator, information on its location, megawatt capacity, and type of unit.
2. A list of the subset of OATT Schedule 16 blackstart generators that have been designated by ISO as BMPS KF blackstart generators is contained in Table 1 of ISO New England Operating Procedure No. 11 - Black Start Capability Testing Requirements - Appendix B - Black Start Groups of Stations That Must Meet Certain Pass Requirements.

Any entity that owns a KF is responsible for identifying each KF critical component (KFCC) within that KF, in accordance with NPCC Directory #8. A KFCC is equipment that is required for continued and proper operation of a KF in the event of a total loss of grid supply, such as blackstart generating units and substation backup power supplies (batteries, backup generators, etc.). In the 4th quarter of each year, the owners of KFCCs are required to update their list of KFCCs for the following year. Owners of KFCCs are required to perform the required maintenance and testing of the KFCCs on their respective lists throughout the following year, as specified in NPCC Directory #8.

The owners of KFCCs are also required to report failures of KFCCs or test failures of KFCCs to ISO, in accordance with NPCC Directory #8 and as detailed in SOP-RTMKTS.0125.0020 - Communicate With Internal and External Parties. ISO is required to log such reports (also in accordance with SOP-RTMKTS.0125.0020). The SRWG reviews such KFCC failures or test failures (in accordance with Section 4.1 of this Procedure), evaluates the implications of such failures on the System Restoration Plan (in accordance with Section 4.2 of this Procedure) and takes whatever action is necessary and appropriate to modify the System Restoration Plan or the implementation of the System Restoration Plan (in accordance with Section 4.3 of this Procedure).


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Any entity that owns an RFIN is responsible for identifying the associated equipment required for continued and proper operation of the RFIN in the event of a total loss of grid supply to that RFIN, in accordance with NPCC Directory #8 (Sections 5.5 and 5.6). Directory #8 testing requirements for this identified associated RFIN equipment are less specific than the requirements for KFCCs. Directory #8 contains a general requirement for RFIN owners to have a maintenance and testing program for such equipment. Directory #8 also requires RFIN owners to provide a summary of the maintenance and testing records for such equipment to ISO, upon request.

4. Procedure

4.1 Monitor Power System Network Changes and Other Factors that Could Impact the System Restoration Plan

1. The SRWG shall monitor changes to the power system network that could change the design or implementation of the System Restoration Plan, as follows:
 - A. ISO and LCC members of the SRWG shall monitor planned and unplanned permanent changes to the New England BES.
 - B. The ISO and LCC members of the SRWG shall maintain an awareness of system contingency events and system disturbances that may have implications for the System Restoration Plan.
 - C. At each SRWG meeting, the ISO Chair of the SRWG (or designee) shall provide an update to the SRWG on log entries made in the Key Facilities Log regarding reports to ISO of KFCC failures or KFCC test failures (System Operators make such log entries in accordance with SOP-RTMKTS.0125.0020 - Communicate With Internal and External Parties, Attachment I - Key Facilities Log).
 - D. On a regular basis throughout the calendar year, an ISO SRWG member shall report to the SRWG on the status of blackstart generators in the ISO Open Access Transmission Tariff (OATT) Schedule 16 blackstart program, including:
 - i. Updated information on blackstart generators for which the contract renewal dates are 13 – 15 months away.
 - ii. Results of blackstart generator testing performed in accordance with ISO New England Operating Procedure No. 11 - Black Start Capability Testing and SOP-RTMKTS.0180.0080 - Process Black Start Unit Testing.
 - E. The ISO Chair of the SRWG (or designee with membership in the NPCC

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CO-11 System Restoration Working Group) shall regularly monitor changes to the neighboring power system networks and be aware of the system restoration plans of neighboring Reliability Coordinators. If the ISO SRWG Chair finds conflicts between its restoration plans and the plans of any of its neighbors, the conflicts shall be resolved within 30 calendar days.

2. Prior to the end of the calendar year, the ISO SRWG Chair (or designee) shall compile completed Attachment C - Restoration Exercise Checklists (described in Section 4.2 of this Procedure) for that year and post them on the SRWG section of the LCC Information section of the ISO Internal Web site.
3. A staff member from the ISO Reliability & Operations Compliance (ROC) group shall keep the SRWG informed regarding changes to NERC and NPCC requirements pertaining to system restoration (notably, NERC Reliability Standard EOP-005, System Restoration from Blackstart Resources and NERC Reliability Standard EOP-006, System Restoration Coordination).


4.2 Evaluate the System Restoration Plan

The ISO and LCC members of the SRWG shall annually review and evaluate the System Restoration Plan by performing the following:

1. The SRWG shall review and evaluate the System Restoration Plan, by doing the following:
 - A. Consider changes to the power system network and changes to NERC/NPCC Requirements and evaluate whether such changes will require modifications to the implementation of the System Restoration Plan.
 - B. Evaluate the blackstart generation in the System Restoration Plan, including the following:
 - i. Review the results of blackstart testing and verify that the blackstart generating units in the System Restoration Plan can perform their intended function including an evaluation of whether the reported minimum amount of on-site fuel allows for appropriate run time to establish cranking path.
 - ii. Provide recommendations to the ISO Chair of the SRWG regarding the removal or withdrawal of blackstart generators from the Schedule 16 blackstart program.

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- iii. Verify that the number, size, availability, and location of system blackstart generating units are sufficient to meet NPCC, NERC and System Restoration Plan requirements.
 - C. Verify that the cranking path between each OP-11A blackstart generator and the generator to be started is documented, including initial switching requirements.
 - D. Verify that minimum load requirements for stability and station service for both blackstart generators and generators to be started are documented. Specifically, verify that the following information has been documented for each blackstart generator and each cranked generator:
 - i. Mechanical minimum level (MW) at which the generator can operate
 - ii. Station service load of the generator (MW)
 - iii. Maximum starting surge level of the generator (MW), where available [for cranked units only].
 - E. Evaluate the System Restoration Plan to identify areas where inter-LCC assistance and interaction is appropriate during system restoration.
 - F. In the 4th quarter of each year, the ISO and LCC members of the SRWG shall review the completed and compiled M/LCC 11 Attachment C - Restoration Exercise Checklists from the restoration simulation exercises conducted in that year and consider their content in their evaluation of the System Restoration Plan.
- 2. The SRWG shall review and evaluate applications from generating units to be included in the ISO OATT Schedule 16 blackstart program (if any). The SRWG will develop recommendations to the ISO regarding the inclusion of such generating units into the System Restoration Plan. Such evaluation shall consider information from Attachment A - New Black Start Generator (BSG) Capability, Assessment and Selection check list and the current list of OP-11A blackstart generators.
- 3. At least once every five years, SRWG members shall verify through analysis of actual events or technical study simulations that the restoration plan (including each blackstart generating unit in the System Restoration Plan) accomplishes its intended function.
 - A. Such analysis shall verify:
 - i. The steady-state capability of blackstart and cranked generators to meet the real and reactive power requirements of the transmission cranking paths supplying initial generator station and substation constant power loads

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- ii. The dynamic capability of blackstart and cranked generators to meet the dynamic power requirements of the transmission cranking paths supplying initial generator station and substation loads including voltage and frequency control normally attained through induction motor starting
 - iii. The magnitude of transmission transient over-voltages that result from energizing transmission lines, cables and transformers.
 - B. The SRWG members shall also develop and update, as necessary, a report that details the step-by-step switching of the study path. This report shall include all technical study data and list equipment models, assumptions and relevant time domain plots of voltages, currents, and frequency.
 - C. As necessary, the SRWG Chair shall request that the M/LCC Heads provide technical support when a system restoration-related transmission transient analysis study is required.
4. Verify the adequacy of the System Restoration Plan through annual simulation exercises conducted as part of the annual System Restoration Plan Training using the M/LCC Training Simulator Model and during any other system restoration exercise. During any simulation or exercise involving the System Restoration Plan the following shall be performed:
- A. The ISO SRWG member and an SRWG member (or designee) from each LCC shall complete the Attachment C - Restoration Exercise Checklist and provide a copy to the ISO SRWG Chair in a timely manner.
 - B. During any System Restoration Plan simulation or exercise that includes the restoration of one or more offsite power sources to a nuclear power plant, the SRWG member for an LCC (or designee) with a nuclear power plant within its operational footprint shall ensure that the timeframe to restore auxiliary power to the nuclear power plant following a simulated blackout as determined during such simulation or exercise is documented in M/LCC 11 Attachment B – NERC Restoration of Nuclear Power Plant Offsite Power Source Data Request Form.
5. The SRWG shall review and evaluate the RPR List and provide input and recommendations regarding any desired modifications to this list to the ISO SRWG Chair.

4.3 Update the System Restoration Plan and Associated Documents

1. At least on an annual basis, based on the SRWG review and evaluation of the System Restoration Plan, the SRWG shall revise the System Restoration Plan as

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necessary, including correction of any deficiencies found during restoration simulations, as follows:

- A. The ISO and LCC SRWG members shall oversee updates to the System Restoration Plan.
- B. Each LCC shall ensure that its Local Restoration Plan and associated documents maintain consistency with the high-level objectives of the ISO System Restoration Plan.
- C. The ISO shall modify its System Restoration Plan and associated documents, as necessary, to maintain consistency with ISO-approved LCC Local Restoration Plans and associated documents.
- D. No later than during the 4th quarter of each year, considering input provided by the SRWG, the SRWG Chair shall update the RPR list.


NOTE

The LCC Local Restoration Plan documents must be approved by ISO, as described in Section 4.4 of this Procedure.

2. The ISO and LCCs shall always update their respective ISO System Restoration Plan and LCC Local Restoration Plan documents within 90 calendar days after identifying any unplanned permanent System modifications, or prior to implementing a planned New England BES modification, that would change the implementation of the System Restoration Plan
3. As needed, the ISO Chair of the SRWG, with input from the SRWG, shall seek additional blackstart generators to replace or augment the existing blackstart generators in the System Restoration Plan.

4.4 Review and Approve the System Restoration Plan

1. The ISO shall coordinate and promote the reliability of the System Restoration Plan.
2. The ISO SRWG members shall consult with the LCC SRWG members whenever ISO develops changes to the ISO System Restoration Plan.
3. LCC Local Restoration Plan documents shall be consistent with the LCC Local Restoration Plan approved by ISO.
4. During the 1st quarter of each year, each LCC SRWG member (or designee) shall review its LCC Local Restoration Plan and submit it to the ISO SRWG

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Chair. Such submittal shall be in the form of a presentation of the LCC Local Restoration Plan to the SRWG that shall include, at a minimum:

- A. Overview of any proposed modifications to the Plan
 - B. Description of how the plan aligns with ISO's system restoration priorities, including:
 - i. Establishment of the BMPS
 - ii. Restoration of offsite power to nuclear generating stations
 - iii. Restoration of synchronous interconnections between ISO and neighboring RCAs
 - C. Overview of elements of the plan that call for coordination with ISO and other LCCs
5. In the 1st quarter of each year, the SRWG shall provide recommendations for proposed Plan modifications to the SRWG Chair.
 6. Each year, following its review and evaluation of the System Restoration Plan, (including any proposed modifications to the Plan), the ISO SRWG members shall determine whether they consider the Plan to be acceptable. For the Plan to be acceptable, the applicable elements of each LCC Local Restoration Plan must be compatible with the ISO System Restoration Plan and must, at a minimum:
 - A. Align with ISO's system restoration priorities, including:
 - i. Establishment of the BMPS
 - ii. Restoration of offsite power to nuclear generating stations
 - iii. Restoration of synchronous interconnections between ISO and neighboring RCAs
 - B. Include elements that call for coordination between the LCC and ISO and between the LCC and other LCCs

If ISO SRWG members find the Plan to be acceptable, the ISO SWRG Chair shall tentatively approve the Plan.
 7. In any event, the ISO Chair shall always approve or reject an applicable LCC Local Restoration Plan portion of the System Restoration Plan within 30 calendar days following receipt of the Plan and such approval or rejection shall always be supported by stated reasons.

4.5 Provide Input on System Restoration Procedures, Models and Training

1. An ISO SRWG member and each LCC SRWG member shall serve as a point of contact to annually provide information and support to the JTTF regarding the


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following:

- A. Annual System Restoration Plan Training content, strategies and materials.
 - i. In the 1st quarter of each year, the ISO and LCC SRWG members shall discuss annual System Restoration Plan Training content, strategies and materials and provide recommended changes to such training, as needed, to the ISO SRWG Chair.
 - ii. If the SRWG develops suggestions for changes to annual System Restoration Plan Training content, strategies and materials, the SRWG Chair shall submit these suggestions to the JTTF Chair during the 1st quarter of each year for the suggestions to be considered for the training to be conducted later in that year. These suggestions shall be submitted via an official training request (as described in SOP-RTMKTS.0200.0015 - Request OPTI Training and Changes to Training).
- B. System Restoration Plan simulation exercise scenarios.
 - i. In the 2nd quarter of each year, the ISO and LCC SRWG members shall discuss and develop ideas for simulation exercise scenarios. Such specifications shall consider pre-existing outages, abnormal operations and real-time events that may be incorporated into an exercise.
 - ii. The SRWG Chair shall provide the scenario specifications to the JTTF Chair in the 2nd quarter of a year for the suggestions to be considered for the annual System Restoration Plan Training or other scheduled training pertaining to the System Restoration Plan to be conducted in that year. These suggestions shall be submitted via an official training request (as described in SOP-RTMKTS.0200.0015 - Request OPTI Training and Changes to Training).
2. M/LCC Training Simulator Model data and configuration. Early in the 2nd quarter of each year, each ISO and LCC SRWG member shall provide support to the ISO staff member that maintains the M/LCC Training Simulator Model, as requested by that ISO staff member, regarding the review of the Model and data. This information may include, but not be limited to recommendations for Model updates, provision of Model data and support for Model validation. This will allow the Model to be ready for the System Restoration Plan Training to be conducted in that year.

NOTE

The fidelity of the M/LCC Training Simulator Model is essential to performing a representative test of the System Restoration Plan. Blackstart Generators, Key Facilities, and other facilities in the System Restoration Plan must be accurately

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modeled in the M/LCC Training Simulator Model.

4.6 Communicate Information Regarding the System Restoration Plan


1. Each LCC SRWG member (or designee) with a nuclear power plant within its operational footprint shall ensure that the time it took to restore auxiliary power to the nuclear power plant during any system restoration exercise that included that element as a part of the exercise is documented, as follows:
 - A. Submit information to the NPCC in accordance with NPCC requirements and Federal Energy Regulatory Commission (FERC) Order No. 693.
 - B. Provide the same information provided to NPCC as per 4.6.1.A to the ISO SRWG Chair.
2. The ISO and LCCs shall provide the entities identified in the System Restoration Plan with a description of any changes to their roles and specific tasks prior to the effective date of the plan.
3. In the 4th quarter of each year, the ISO SRWG Chair (or designee) shall notify entities that own KFs or RFINs that their facilities have been designated as such.
4. The ISO SRWG Chair (or designee) and the SRWG member from each LCC (or designee) shall ensure that that latest approved copies of their respective System Restoration Plan documents are posted on either the LCC Information section of the ISO Internal Web site (LCCs have direct access and authorization to post materials to that location) or the ISO public Web site, as appropriate.
5. The ISO SRWG Chair (or designee) shall ensure that hard copies of the latest versions of the System Restoration Plan documents are in the ISO Restoration Room.

NOTE

In accordance with SOP-RTMKTS.0125.0020 - Communicate With Internal and External Parties, ISO provides its emergency plans to its neighboring Transmission Operators, Balancing Authorities and Reliability Coordinators by emailing a listing of its emergency plans (including references to System Restoration Plan documents).

4.7 SRWG Chair Administrative Responsibilities

The SRWG Chair (or designee) shall:

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1. Coordinate with the ISO Reliability and Operations Compliance (ROC) department, in January of each year, to determine the NPCC Criteria Reporting Schedule for that year which pertains to the requirements of Directory #8, System Restoration that are applicable to ISO and the LCCs. The SRWG Chair shall also assist the ROC in any required self-certifications of compliance with Directory #8 requirements throughout the year.
2. Be responsible for the planning and scheduling of SRWG meetings, establishing meeting agendas and drafting meeting minutes.
3. Document the SRWG's evaluation and approval of the System Restoration Plan and associated documents that are performed in a given year in accordance with this Procedure by completing an "Annual SRWG Report" and presenting it to the M/LCC Heads in the 1st quarter of the following year. This Report shall summarize SRWG activities throughout the year.
4. By the end of each year, present to the SRWG a set of proposed target dates for the following year for the completion of the SRWG tasks described in this Procedure. In developing these target dates, the SRWG Chair shall refer to the example dates in Attachment E – Example of System Restoration Plan Evaluation Timeline.

5. Performance Measures


1. The "SRWG Annual Report" for a given year is developed and presented to the M/LCC Heads by March 1 of the following year.

6. List of Restoration Plan Acronyms

Acronym	Description	Section and Page Number(s) of This Document Where Term is Defined/Described
BMPS	basic minimum power system	Section 3.2, Pages 4-5
KF	key facility	Section 3.2, Pages 4-5
KFCC	key facility critical component	Section 3.2, Page 6


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RFIN	Restoration Plan facilities to Interconnections and nuclear stations	Section 3.2, Pages 4-5
RPR List	Restoration Plan Resources List	Section 3.2, Page 5

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7. Revision History

Rev. No.	Date	Reason
0	05/25/07	Original Procedure
1	12/14/07	Revised to reflect NSTAR LCC status
2	03/12/09	Changed header, from Manager to Director; Changed header Review Due Date: from a fixed calendar date to 24 months from the Revision Date; Added Attachments B and C; Clarified responsibilities regarding development of key facilities list; Made general editorial corrections.
3	01/20/11	Biennial review by procedure owner; Global: made minor formatting and editorial changes, font to Arial, updated Header copyright date, replaced Footer page numbers with Page X of Y format, Section 3 added "Reliability", replaced "Power" with "Electric", deleted the full word title for NPCC Directory # 8;
4	09/15/11	Updated Procedure Title, Contact and Reference document titles. Major restructuring of document to improve organization and flow and eliminate redundancies (see especially entirely revamped Section 4). Clarified and delineated the responsibilities of ISO and LCCs. For the most part, the activities and functions in the previous version have been retained. A few responsibilities have been added (for activities already performed, but not documented, such as notifications to KF and RFIN owners that their facilities have been designated as such). Deleted SRWG certain responsibilities pertaining to conducting training and system restoration exercises (SRWG not responsible for this – they only provide input). Added Background section to include description of the purpose and characteristics of the restoration plan and components of the restoration plan (BMPS, KFs, RFINs). Added additional details for certain requirements.

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8. Attachments

Attachment A - New Black Start Generator (BSG) Capability, Assessment and Selection check list

Attachment B – NERC Restoration of Nuclear Power Plant Offsite Power Source Data Request Form

Attachment C – Restoration Exercise Checklist

Attachment D – Restoration Plan Resources List (Confidential)

Attachment E – Example of System Restoration Plan Evaluation Timeline

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