

**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# Registration Standards Applicability List for Coordinated Functional Registration (CFR)

CFR00093 (NPCC)

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**RELIABILITY | ACCOUNTABILITY**



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# Registration Status as of 1/26/2012

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CFR00093 NPCC

Last Update 6/1/2011

Member Entities	Original CFR Effective Registration Date
NCR07044 - Connecticut Light & Power Company	6/1/2011
NCR11133 - Connecticut Transmission Municipal Electric Energy Cooperative	6/1/2011

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-002-3

## Requirements:

- R1.1.** The Responsible Entity shall maintain documentation describing its risk-based assessment methodology that includes procedures and evaluation criteria.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2.** The risk-based assessment shall consider the following assets:

## Responsible Members:

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- R1.2.1.** Control centers and backup control centers performing the functions of the entities listed in the Applicability section of this standard.

## Responsible Members:

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- R1.2.2.** Transmission substations that support the reliable operation of the Bulk Electric System.

## Responsible Members:

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- R1.2.3.** Generation resources that support the reliable operation of the Bulk Electric System.

## Responsible Members:

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- R1.2.4.** Systems and facilities critical to system restoration, including blackstart generators and substations in the electrical path of transmission lines used for initial system restoration.

## Responsible Members:

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- R1.2.5.** Systems and facilities critical to automatic load shedding under a common control system capable of shedding 300 MW or more.

## Responsible Members:

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- R1.2.6.** Special Protection Systems that support the reliable operation of the Bulk Electric System.

## Responsible Members:

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- R1.2.7.** Any additional assets that support the reliable operation of the Bulk Electric System that the Responsible Entity deems appropriate to include in its assessment.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-002-3

## Requirements:

- R2.** Critical Asset Identification — The Responsible Entity shall develop a list of its identified Critical Assets determined through an annual application of the risk-based assessment methodology required in R1. The Responsible Entity shall review this list

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3.** Critical Cyber Asset Identification — Using the list of Critical Assets developed pursuant to Requirement R2, the Responsible Entity shall develop a list of associated Critical Cyber Assets essential to the operation of the Critical Asset. Examples at co

## Responsible Members:

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- R3.1.** The Cyber Asset uses a routable protocol to communicate outside the Electronic Security Perimeter; or,

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- R3.2.** The Cyber Asset uses a routable protocol within a control center; or,

## Responsible Members:

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- R3.3.** The Cyber Asset is dial-up accessible.

## Responsible Members:

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- R4.** Annual Approval — The senior manager or delegate(s) shall approve annually the risk-based assessment methodology, the list of Critical Assets and the list of Critical Cyber Assets. Based on Requirements R1, R2, and R3 the Responsible Entity may determine

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-003-3

## Requirements:

- R1.** Cyber Security Policy — The Responsible Entity shall document and implement a cyber security policy that represents management’s commitment and ability to secure its Critical Cyber Assets. The Responsible Entity shall, at minimum, ensure the following:

## Responsible Members:

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- R1.1.** The cyber security policy addresses the requirements in Standards CIP-002-3 through CIP-009-3, including provision for emergency situations.

## Responsible Members:

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- R1.2.** The cyber security policy is readily available to all personnel who have access to, or are responsible for, Critical Cyber Assets.

## Responsible Members:

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- R1.3.** Annual review and approval of the cyber security policy by the senior manager assigned pursuant to R2.

## Responsible Members:

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- R2.** Leadership — The Responsible Entity shall assign a single senior manager with overall responsibility and authority for leading and managing the entity’s implementation of, and adherence to, Standards CIP-002-3 through CIP-009-3.

## Responsible Members:

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- R2.1.** The senior manager shall be identified by name, title, and date of designation.

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- R2.2.** Changes to the senior manager must be documented within thirty calendar days of the effective date.

## Responsible Members:

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- R2.3.** Where allowed by Standards CIP-002-3 through CIP-009-3, the senior manager may delegate authority for specific actions to a named delegate or delegates. These delegations shall be documented in the same manner as R2.1 and R2.2, and approved by the senior

## Responsible Members:

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-003-3

## Requirements:

- R2.4.** The senior manager or delegate(s), shall authorize and document any exception from the requirements of the cyber security policy.

## Responsible Members:

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- R3.** Exceptions — Instances where the Responsible Entity cannot conform to its cyber security policy must be documented as exceptions and authorized by the senior manager or delegate(s).

## Responsible Members:

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- R3.1.** Exceptions to the Responsible Entity's cyber security policy must be documented within thirty days of being approved by the senior manager or delegate(s).

## Responsible Members:

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- R3.2.** Documented exceptions to the cyber security policy must include an explanation as to why the exception is necessary and any compensating measures.

## Responsible Members:

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- R3.3.** Authorized exceptions to the cyber security policy must be reviewed and approved annually by the senior manager or delegate(s) to ensure the exceptions are still required and valid. Such review and approval shall be documented.

## Responsible Members:

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- R4.** Information Protection — The Responsible Entity shall implement and document a program to identify, classify, and protect information associated with Critical Cyber Assets.

## Responsible Members:

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- R4.1.** The Critical Cyber Asset information to be protected shall include, at a minimum and regardless of media type, operational procedures, lists as required in Standard CIP-002-3, network topology or similar diagrams, floor plans of computing centers that con

## Responsible Members:

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- R4.2.** The Responsible Entity shall classify information to be protected under this program based on the sensitivity of the Critical Cyber Asset information.

## Responsible Members:

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-003-3

## Requirements:

- R4.3.** The Responsible Entity shall, at least annually, assess adherence to its Critical Cyber Asset information protection program, document the assessment results, and implement an action plan to remediate deficiencies identified during the assessment.

## Responsible Members:

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- R5.** Access Control — The Responsible Entity shall document and implement a program for managing access to protected Critical Cyber Asset information.

## Responsible Members:

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- R5.1.** The Responsible Entity shall maintain a list of designated personnel who are responsible for authorizing logical or physical access to protected information.

## Responsible Members:

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- R5.1.1.** Personnel shall be identified by name, title, and the information for which they are responsible for authorizing access.

## Responsible Members:

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- R5.1.2.** The list of personnel responsible for authorizing access to protected information shall be verified at least annually.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.2.** The Responsible Entity shall review at least annually the access privileges to protected information to confirm that access privileges are correct and that they correspond with the Responsible Entity's needs and appropriate personnel roles and responsibilities.

## Responsible Members:

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- R5.3.** The Responsible Entity shall assess and document at least annually the processes for controlling access privileges to protected information.

## Responsible Members:

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- R6.** Change Control and Configuration Management — The Responsible Entity shall establish and document a process of change control and configuration management for adding, modifying, replacing, or removing Critical Cyber Asset hardware or software, and implement

## Responsible Members:

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-004-3

## Requirements:

- R1. Awareness — The Responsible Entity shall establish, document, implement, and maintain a security awareness program to ensure personnel having authorized cyber or authorized unescorted physical access to Critical Cyber Assets receive on-going reinforcement

## Responsible Members:

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- R2. Training — The Responsible Entity shall establish, document, implement, and maintain an annual cyber security training program for personnel having authorized cyber or authorized unescorted physical access to Critical Cyber Assets. The cyber security tra

## Responsible Members:

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- R2.1. This program will ensure that all personnel having such access to Critical Cyber Assets, including contractors and service vendors, are trained prior to their being granted such access except in specified circumstances such as an emergency.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R2.2. Training shall cover the policies, access controls, and procedures as developed for the Critical Cyber Assets covered by CIP-004-3, and include, at a minimum, the following required items appropriate to personnel roles and responsibilities:

## Responsible Members:

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- R2.2.1. The proper use of Critical Cyber Assets;

## Responsible Members:

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- R2.2.2. Physical and electronic access controls to Critical Cyber Assets;

## Responsible Members:

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- R2.2.3. The proper handling of Critical Cyber Asset information; and,

## Responsible Members:

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- R2.2.4. Action plans and procedures to recover or re-establish Critical Cyber Assets and access thereto following a Cyber Security Incident.

## Responsible Members:

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-004-3

## Requirements:

- R2.3.** The Responsible Entity shall maintain documentation that training is conducted at least annually, including the date the training was completed and attendance records.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3.** Personnel Risk Assessment —The Responsible Entity shall have a documented personnel risk assessment program, in accordance with federal, state, provincial, and local laws, and subject to existing collective bargaining unit agreements, for personnel havin

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3.1.** The Responsible Entity shall ensure that each assessment conducted include, at least, identity verification (e.g., Social Security Number verification in the U.S.) and seven-year criminal check. The Responsible Entity may conduct more detailed reviews, as

## Responsible Members:

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- R3.2.** The Responsible Entity shall update each personnel risk assessment at least every seven years after the initial personnel risk assessment or for cause.

## Responsible Members:

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- R3.3.** The Responsible Entity shall document the results of personnel risk assessments of its personnel having authorized cyber or authorized unescorted physical access to Critical Cyber Assets, and that personnel risk assessments of contractor and service vendo

## Responsible Members:

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- R4.** Access — The Responsible Entity shall maintain list(s) of personnel with authorized cyber or authorized unescorted physical access to Critical Cyber Assets, including their specific electronic and physical access rights to Critical Cyber Assets.

## Responsible Members:

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- R4.1.** The Responsible Entity shall review the list(s) of its personnel who have such access to Critical Cyber Assets quarterly, and update the list(s) within seven calendar days of any change of personnel with such access to Critical Cyber Assets, or any change

## Responsible Members:

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: CIP-004-3

## Requirements:

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- R4.2.** The Responsible Entity shall revoke such access to Critical Cyber Assets within 24 hours for personnel terminated for cause and within seven calendar days for personnel who no longer require such access to Critical Cyber Assets.

## Responsible Members:

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**NCR11133**      **Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-005-3

## Requirements:

- R1.** Electronic Security Perimeter — The Responsible Entity shall ensure that every Critical Cyber Asset resides within an Electronic Security Perimeter. The Responsible Entity shall identify and document the Electronic Security Perimeter(s) and all access poi

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** Access points to the Electronic Security Perimeter(s) shall include any externally connected communication end point (for example, dial-up modems) terminating at any device within the Electronic Security Perimeter(s).

## Responsible Members:

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- R1.2.** For a dial-up accessible Critical Cyber Asset that uses a non-routable protocol, the Responsible Entity shall define an Electronic Security Perimeter for that single access point at the dial-up device.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3.** Communication links connecting discrete Electronic Security Perimeters shall not be considered part of the Electronic Security Perimeter. However, end points of these communication links within the Electronic Security Perimeter(s) shall be considered acce

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.4.** Any non-critical Cyber Asset within a defined Electronic Security Perimeter shall be identified and protected pursuant to the requirements of Standard CIP-005-3.

## Responsible Members:

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- R1.5.** Cyber Assets used in the access control and/or monitoring of the Electronic Security Perimeter(s) shall be afforded the protective measures as a specified in Standard CIP-003-3; Standard CIP-004-3 Requirement R3; Standard CIP-005-3 Requirements R2 and R3;

## Responsible Members:

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- R1.6.** The Responsible Entity shall maintain documentation of Electronic Security Perimeter(s), all interconnected Critical and non-critical Cyber Assets within the Electronic Security Perimeter(s), all electronic access points to the Electronic Security Perimet

## Responsible Members:

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- R2.** Electronic Access Controls — The Responsible Entity shall implement and document the organizational processes and technical and procedural mechanisms for control of electronic access at all electronic access points to the Electronic Security Perimeter(s).

## Responsible Members:

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-005-3

## Requirements:

- R2.1. These processes and mechanisms shall use an access control model that denies access by default, such that explicit access permissions must be specified.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.2. At all access points to the Electronic Security Perimeter(s), the Responsible Entity shall enable only ports and services required for operations and for monitoring Cyber Assets within the Electronic Security Perimeter, and shall document, individually or

## Responsible Members:

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- R2.3. The Responsible Entity shall implement and maintain a procedure for securing dial-up access to the Electronic Security Perimeter(s).

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.4. Where external interactive access into the Electronic Security Perimeter has been enabled, the Responsible Entity shall implement strong procedural or technical controls at the access points to ensure authenticity of the accessing party, where technically

## Responsible Members:

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- R2.5. The required documentation shall, at least, identify and describe:

## Responsible Members:

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- R2.5.1. The processes for access request and authorization.

## Responsible Members:

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- R2.5.2. The authentication methods.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.5.3. The review process for authorization rights, in accordance with Standard CIP-004-3 Requirement R4.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.5.4. The controls used to secure dial-up accessible connections.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-005-3

## Requirements:

- R2.6.** Appropriate Use Banner — Where technically feasible, electronic access control devices shall display an appropriate use banner on the user screen upon all interactive access attempts. The Responsible Entity shall maintain a document identifying the conten

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3.** Monitoring Electronic Access — The Responsible Entity shall implement and document an electronic or manual process(es) for monitoring and logging access at access points to the Electronic Security Perimeter(s) twenty-four hours a day, seven days a week.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3.1.** For dial-up accessible Critical Cyber Assets that use non-routable protocols, the Responsible Entity shall implement and document monitoring process(es) at each access point to the dial-up device, where technically feasible.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3.2.** Where technically feasible, the security monitoring process(es) shall detect and alert for attempts at or actual unauthorized accesses. These alerts shall provide for appropriate notification to designated response personnel. Where alerting is not techn

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.** Cyber Vulnerability Assessment — The Responsible Entity shall perform a cyber vulnerability assessment of the electronic access points to the Electronic Security Perimeter(s) at least annually. The vulnerability assessment shall include, at a minimum, th

## Responsible Members:

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- R4.1.** A document identifying the vulnerability assessment process;

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.2.** A review to verify that only ports and services required for operations at these access points are enabled;

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.3.** The discovery of all access points to the Electronic Security Perimeter;

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: CIP-005-3

Requirements:

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R4.4. A review of controls for default accounts, passwords, and network management community strings;

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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R4.5. Documentation of the results of the assessment, the action plan to remediate or mitigate vulnerabilities identified in the assessment, and the execution status of that action plan.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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R5. Documentation Review and Maintenance — The Responsible Entity shall review, update, and maintain all documentation to support compliance with the requirements of Standard CIP-005-3.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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R5.1. The Responsible Entity shall ensure that all documentation required by Standard CIP-005-3 reflect current configurations and processes and shall review the documents and procedures referenced in Standard CIP-005-3 at least annually.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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R5.2. The Responsible Entity shall update the documentation to reflect the modification of the network or controls within ninety calendar days of the change.

Responsible Members:

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R5.3. The Responsible Entity shall retain electronic access logs for at least ninety calendar days. Logs related to reportable incidents shall be kept in accordance with the requirements of Standard CIP-008-3.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-006-3c

## Requirements:

- R1.** Physical Security Plan — The Responsible Entity shall document, implement, and maintain a physical security plan, approved by the senior manager or delegate(s) that shall address, at a minimum, the following:

### Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** All Cyber Assets within an Electronic Security Perimeter shall reside within an identified Physical Security Perimeter. Where a completely enclosed (“six-wall”) border cannot be established, the Responsible Entity shall deploy and document alternative me

### Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2.** Identification of all physical access points through each Physical Security Perimeter and measures to control entry at those access points.

### Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3.** Processes, tools, and procedures to monitor physical access to the perimeter(s).

### Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.4.** Appropriate use of physical access controls as described in Requirement R4 including visitor pass management, response to loss, and prohibition of inappropriate use of physical access controls.

### Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.5.** Review of access authorization requests and revocation of access authorization, in accordance with CIP-004-3 Requirement R4.

### Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.6.** A visitor control program for visitors (personnel without authorized unescorted access to a Physical Security Perimeter), containing at a minimum the following:

### Responsible Members:

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- R1.6.1.** Logs (manual or automated) to document the entry and exit of visitors, including the date and time, to and from Physical Security Perimeters.

### Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-006-3c

## Requirements:

R1.6.2. Continuous escorted access of visitors within the Physical Security Perimeter.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

R1.7. Update of the physical security plan within thirty calendar days of the completion of any physical security system redesign or reconfiguration, including, but not limited to, addition or removal of access points through the Physical Security Perimeter, ph

## Responsible Members:

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R1.8. Annual review of the physical security plan.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

R2. Protection of Physical Access Control Systems — Cyber Assets that authorize and/or log access to the Physical Security Perimeter(s), exclusive of hardware at the Physical Security Perimeter access point such as electronic lock control mechanisms and badge

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

R2.1. Be protected from unauthorized physical access.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

R2.2. Be afforded the protective measures specified in Standard CIP-003-3; Standard CIP-004-3 Requirement R3; Standard CIP-005-3 Requirements R2 and R3; Standard CIP-006-3 Requirements R4 and R5; Standard CIP-007-3; Standard CIP-008-3; and Standard CIP-009-3.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

R3. Protection of Electronic Access Control Systems — Cyber Assets used in the access control and/or monitoring of the Electronic Security Perimeter(s) shall reside within an identified Physical Security Perimeter.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

R4. Physical Access Controls — The Responsible Entity shall document and implement the operational and procedural controls to manage physical access at all access points to the Physical Security Perimeter(s) twenty-four hours a day, seven days a week. The Re

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-006-3c

## Requirements:

- R5.** Monitoring Physical Access — The Responsible Entity shall document and implement the technical and procedural controls for monitoring physical access at all access points to the Physical Security Perimeter(s) twenty-four hours a day, seven days a week. U

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R6.** Logging Physical Access — Logging shall record sufficient information to uniquely identify individuals and the time of access twenty-four hours a day, seven days a week. The Responsible Entity shall implement and document the technical and procedural mec

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R7.** Access Log Retention — The Responsible Entity shall retain physical access logs for at least ninety calendar days. Logs related to reportable incidents shall be kept in accordance with the requirements of Standard CIP-008-3.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8.** Maintenance and Testing — The Responsible Entity shall implement a maintenance and testing program to ensure that all physical security systems under Requirements R4, R5, and R6 function properly. The program must include, at a minimum, the following:

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8.1.** Testing and maintenance of all physical security mechanisms on a cycle no longer than three years.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8.2.** Retention of testing and maintenance records for the cycle determined by the Responsible Entity in Requirement R8.1.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8.3.** Retention of outage records regarding access controls, logging, and monitoring for a minimum of one calendar year.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-007-3

## Requirements:

- R1.** Test Procedures — The Responsible Entity shall ensure that new Cyber Assets and significant changes to existing Cyber Assets within the Electronic Security Perimeter do not adversely affect existing cyber security controls. For purposes of Standard CIP-0

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** The Responsible Entity shall create, implement, and maintain cyber security test procedures in a manner that minimizes adverse effects on the production system or its operation.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2.** The Responsible Entity shall document that testing is performed in a manner that reflects the production environment.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3.** The Responsible Entity shall document test results.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.** Ports and Services — The Responsible Entity shall establish, document and implement a process to ensure that only those ports and services required for normal and emergency operations are enabled.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.1.** The Responsible Entity shall enable only those ports and services required for normal and emergency operations.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.2.** The Responsible Entity shall disable other ports and services, including those used for testing purposes, prior to production use of all Cyber Assets inside the Electronic Security Perimeter(s).

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.3.** In the case where unused ports and services cannot be disabled due to technical limitations, the Responsible Entity shall document compensating measure(s) applied to mitigate risk exposure.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-007-3

## Requirements:

- R3.** Security Patch Management — The Responsible Entity, either separately or as a component of the documented configuration management process specified in CIP-003-3 Requirement R6, shall establish, document and implement a security patch management program

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3.1.** The Responsible Entity shall document the assessment of security patches and security upgrades for applicability within thirty calendar days of availability of the patches or upgrades.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3.2.** The Responsible Entity shall document the implementation of security patches. In any case where the patch is not installed, the Responsible Entity shall document compensating measure(s) applied to mitigate risk exposure.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.** Malicious Software Prevention — The Responsible Entity shall use anti-virus software and other malicious software (“malware”) prevention tools, where technically feasible, to detect, prevent, deter, and mitigate the introduction, exposure, and propagation

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.1.** The Responsible Entity shall document and implement anti-virus and malware prevention tools. In the case where anti-virus software and malware prevention tools are not installed, the Responsible Entity shall document compensating measure(s) applied to mi

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.2.** The Responsible Entity shall document and implement a process for the update of anti-virus and malware prevention “signatures.” The process must address testing and installing the signatures.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.** Account Management — The Responsible Entity shall establish, implement, and document technical and procedural controls that enforce access authentication of, and accountability for, all user activity, and that minimize the risk of unauthorized system acce

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.1.** The Responsible Entity shall ensure that individual and shared system accounts and authorized access permissions are consistent with the concept of “need to know” with respect to work functions performed.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-007-3

## Requirements:

- R5.1.1.** The Responsible Entity shall ensure that user accounts are implemented as approved by designated personnel. Refer to Standard CIP-003-3 Requirement R5.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.1.2.** The Responsible Entity shall establish methods, processes, and procedures that generate logs of sufficient detail to create historical audit trails of individual user account access activity for a minimum of ninety days.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.1.3.** The Responsible Entity shall review, at least annually, user accounts to verify access privileges are in accordance with Standard CIP-003-3 Requirement R5 and Standard CIP-004-3 Requirement R4.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.2.** The Responsible Entity shall implement a policy to minimize and manage the scope and acceptable use of administrator, shared, and other generic account privileges including factory default accounts.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.2.1.** The policy shall include the removal, disabling, or renaming of such accounts where possible. For such accounts that must remain enabled, passwords shall be changed prior to putting any system into service.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.2.2.** The Responsible Entity shall identify those individuals with access to shared accounts.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.2.3.** Where such accounts must be shared, the Responsible Entity shall have a policy for managing the use of such accounts that limits access to only those with authorization, an audit trail of the account use (automated or manual), and steps for securing the a

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R5.3.** At a minimum, the Responsible Entity shall require and use passwords, subject to the following, as technically feasible:

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-007-3

## Requirements:

R5.3.1. Each password shall be a minimum of six characters.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R5.3.2. Each password shall consist of a combination of alpha, numeric, and "special" characters.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R5.3.3. Each password shall be changed at least annually, or more frequently based on risk.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6. Security Status Monitoring — The Responsible Entity shall ensure that all Cyber Assets within the Electronic Security Perimeter, as technically feasible, implement automated tools or organizational process controls to monitor system events that are relate

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6.1. The Responsible Entity shall implement and document the organizational processes and technical and procedural mechanisms for monitoring for security events on all Cyber Assets within the Electronic Security Perimeter.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6.2. The security monitoring controls shall issue automated or manual alerts for detected Cyber Security Incidents.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6.3. The Responsible Entity shall maintain logs of system events related to cyber security, where technically feasible, to support incident response as required in Standard CIP-008-3.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6.4. The Responsible Entity shall retain all logs specified in Requirement R6 for ninety calendar days.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6.5. The Responsible Entity shall review logs of system events related to cyber security and maintain records documenting review of logs.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-007-3

## Requirements:

- R7.** Disposal or Redeployment — The Responsible Entity shall establish and implement formal methods, processes, and procedures for disposal or redeployment of Cyber Assets within the Electronic Security Perimeter(s) as identified and documented in Standard CIP

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R7.1.** Prior to the disposal of such assets, the Responsible Entity shall destroy or erase the data storage media to prevent unauthorized retrieval of sensitive cyber security or reliability data.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R7.2.** Prior to redeployment of such assets, the Responsible Entity shall, at a minimum, erase the data storage media to prevent unauthorized retrieval of sensitive cyber security or reliability data.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R7.3.** The Responsible Entity shall maintain records that such assets were disposed of or redeployed in accordance with documented procedures.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8.** Cyber Vulnerability Assessment — The Responsible Entity shall perform a cyber vulnerability assessment of all Cyber Assets within the Electronic Security Perimeter at least annually. The vulnerability assessment shall include, at a minimum, the following

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8.1.** A document identifying the vulnerability assessment process;

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8.2.** A review to verify that only ports and services required for operation of the Cyber Assets within the Electronic Security Perimeter are enabled;

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8.3.** A review of controls for default accounts; and,

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: CIP-007-3

Requirements:

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- R8.4.** Documentation of the results of the assessment, the action plan to remediate or mitigate vulnerabilities identified in the assessment, and the execution status of that action plan.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R9.** Documentation Review and Maintenance — The Responsible Entity shall review and update the documentation specified in Standard CIP-007-3 at least annually. Changes resulting from modifications to the systems or controls shall be documented within thirty c

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-008-3

## Requirements:

- R1.** Cyber Security Incident Response Plan — The Responsible Entity shall develop and maintain a Cyber Security Incident response plan and implement the plan in response to Cyber Security Incidents. The Cyber Security Incident response plan shall address, at

## Responsible Members:

**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.** Procedures to characterize and classify events as reportable Cyber Security Incidents.

## Responsible Members:

**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

- R1.2.** Response actions, including roles and responsibilities of Cyber Security Incident response teams, Cyber Security Incident handling procedures, and communication plans.

## Responsible Members:

**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

- R1.3.** Process for reporting Cyber Security Incidents to the Electricity Sector Information Sharing and Analysis Center (ES-ISAC). The Responsible Entity must ensure that all reportable Cyber Security Incidents are reported to the ES-ISAC either directly or thr

## Responsible Members:

**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

- R1.4.** Process for updating the Cyber Security Incident response plan within thirty calendar days of any changes.

## Responsible Members:

**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

- R1.5.** Process for ensuring that the Cyber Security Incident response plan is reviewed at least annually.

## Responsible Members:

**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

- R1.6.** Process for ensuring the Cyber Security Incident response plan is tested at least annually. A test of the Cyber Security Incident response plan can range from a paper drill, to a full operational exercise, to the response to an actual incident.

## Responsible Members:

**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

- R2.** Cyber Security Incident Documentation — The Responsible Entity shall keep relevant documentation related to Cyber Security Incidents reportable per Requirement R1.1 for three calendar years.

## Responsible Members:

**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: CIP-009-3

## Requirements:

- R1. Recovery Plans — The Responsible Entity shall create and annually review recovery plan(s) for Critical Cyber Assets. The recovery plan(s) shall address at a minimum the following:

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1. Specify the required actions in response to events or conditions of varying duration and severity that would activate the recovery plan(s).

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.2. Define the roles and responsibilities of responders.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R2. Exercises — The recovery plan(s) shall be exercised at least annually. An exercise of the recovery plan(s) can range from a paper drill, to a full operational exercise, to recovery from an actual incident.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R3. Change Control — Recovery plan(s) shall be updated to reflect any changes or lessons learned as a result of an exercise or the recovery from an actual incident. Updates shall be communicated to personnel responsible for the activation and implementation

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R4. Backup and Restore — The recovery plan(s) shall include processes and procedures for the backup and storage of information required to successfully restore Critical Cyber Assets. For example, backups may include spare electronic components or equipment,

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R5. Testing Backup Media — Information essential to recovery that is stored on backup media shall be tested at least annually to ensure that the information is available. Testing can be completed off site.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: FAC-001-0

## Requirements:

- R1. The Transmission Owner shall document, maintain, and publish facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Reliability Organization, subregional, Power Pool, and individual Transmission Owner

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1. Generation facilities,

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.2. Transmission facilities, and

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.3. End-user facilities.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R2. The Transmission Owner's facility connection requirements shall address, but are not limited to, the following items:

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R2.1. Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R2.1.1. Procedures for coordinated joint studies of new facilities and their impacts on the interconnected transmission systems.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R2.1.10. Power quality impacts.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R2.1.11. Equipment Ratings.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: FAC-001-0

## Requirements:

R2.1.12. Synchronizing of facilities.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.13. Maintenance coordination.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.14. Operational issues (abnormal frequency and voltages).

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.15. Inspection requirements for existing or new facilities.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.16. Communications and procedures during normal and emergency operating conditions.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.2. Procedures for notification of new or modified facilities to others (those responsible for the reliability of the interconnected transmission systems) as soon as feasible.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.3. Voltage level and MW and MVAR capacity or demand at point of connection.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.4. Breaker duty and surge protection.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.5. System protection and coordination.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R2.1.6. Metering and telecommunications.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: FAC-001-0

Requirements:

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R2.1.7. Grounding and safety issues.

Responsible Members:

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NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

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R2.1.8. Insulation and insulation coordination.

Responsible Members:

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NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

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R2.1.9. Voltage, Reactive Power, and power factor control.

Responsible Members:

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NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

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R3. The Transmission Owner shall maintain and update its facility connection requirements as required. The Transmission Owner shall make documentation of these requirements available to the users of the transmission system, the Regional Reliability Organizat

Responsible Members:

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NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: FAC-002-0

## Requirements:

- R1.** The Generator Owner, Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall each coordinate and cooperate on its assessments with it

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2.** Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3.** Evidence that the parties involved in the assessment have coordinated and cooperated on the assessment of the reliability impacts of new facilities on the interconnected transmission systems. While these studies may be performed independently, the result

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.4.** Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance in accordance with Reliability Standard TPL-001-0.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.5.** Documentation that the assessment included study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.** The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the reliability impact of the new facilities and their connections

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: FAC-002-1

## Requirements:

- R1. The Generator Owner, Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall each coordinate and cooperate on its assessments with it

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1. Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2. Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3. Evidence that the parties involved in the assessment have coordinated and cooperated on the assessment of the reliability impacts of new facilities on the interconnected transmission systems. While these studies may be performed independently, the result

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.4. Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance under both normal and contingency conditions in accordance with Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.5. Documentation that the assessment included study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2. The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the reliability impact of the new facilities and their connections

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: FAC-003-1

## Requirements:

- R1. The Transmission owner shall prepare, and keep current, a formal transmission vegetation management (TVMP). The TVMP shall include the Transmission Owner's objectives, practices, approved procedures, and work specifications.

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.1. The TVMP shall define a schedule for and the type (aerial, ground) of ROW vegetation inspections. This schedule should be flexible enough to adjust for changing conditions. The inspection schedule shall be based on the anticipated growth of vegetation a

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.2. The Transmission Owner, in the TVMP, shall identify and document clearances between vegetation and any overhead, ungrounded supply conductors, taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under m

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.2.1. Clearance 1 — The Transmission Owner shall determine and document appropriate clearance distances to be achieved at the time of transmission vegetation management work based upon local conditions and the expected time frame in which the Transmission Owner

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.2.2. Clearance 2 — The Transmission Owner shall determine and document specific radial clearances to be maintained between vegetation and conductors under all rated electrical operating conditions. These minimum clearance distances are necessary to prevent fl

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.2.2.1. Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5, IEEE 516-2003, phase-to-ground distances, with appropriate altitude correction factors applied.

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.2.2.2. Where transmission system transient overvoltage factors are known, clearances shall be derived from Table 7, IEEE 516-2003, phase-to-phase voltages, with appropriate altitude correction factors applied.

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.3. All personnel directly involved in the design and implementation of the TVMP shall hold appropriate qualifications and training, as defined by the Transmission Owner, to perform their duties.

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: FAC-003-1

## Requirements:

- R1.4.** Each Transmission Owner shall develop mitigation measures to achieve sufficient clearances for the protection of the transmission facilities when it identifies locations on the ROW where the Transmission Owner is restricted from attaining the clearances

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.5.** Each Transmission Owner shall establish and document a process for the immediate communication of vegetation conditions that present an imminent threat of a transmission line outage. This is so that action (temporary reduction in line rating, switching li

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R2.** The Transmission Owner shall create and implement an annual plan for vegetation management work to ensure the reliability of the system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R3.** The Transmission Owner shall report quarterly to its RRO, or the RRO's designee, sustained transmission line outages determined by the Transmission Owner to have been caused by vegetation.

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R3.1.** Multiple sustained outages on an individual line, if caused by the same vegetation, shall be reported as one outage regardless of the actual number of outages within a 24-hour period.

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R3.2.** The Transmission Owner is not required to report to the RRO, or the RRO's designee, certain sustained transmission line outages caused by vegetation: (1) Vegetation-related outages that result from vegetation falling into lines from outside the ROW that r

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R3.3.** The outage information provided by the Transmission Owner to the RRO, or the RRO's designee, shall include at a minimum: the name of the circuit(s) outaged, the date, time and duration of the outage; a description of the cause of the outage; other pertine

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R3.4.** An outage shall be categorized as one of the following:

## Responsible Members:

**NCR07044 Connecticut Light & Power Company**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: FAC-003-1

Requirements:

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**R3.4.1.** Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW;

Responsible Members:

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**NCR07044** Connecticut Light & Power Company

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**R3.4.2.** Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the ROW;

Responsible Members:

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**NCR07044** Connecticut Light & Power Company

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**R3.4.3.** Category 3 — Fall-ins: Outages caused by vegetation falling into lines from outside the ROW.

Responsible Members:

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**NCR07044** Connecticut Light & Power Company

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: FAC-008-1

## Requirements:

- R1.** The Transmission Owner and Generator Owner shall each document its current methodology used for developing Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned Facilities. The methodology shall include all of the following:

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.1.** A statement that a Facility Rating shall equal the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.2.** The method by which the Rating (of major BES equipment that comprises a Facility) is determined.

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.2.1.** The scope of equipment addressed shall include, but not be limited to, generators, transmission conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.2.2.** The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.3.** Consideration of the following:

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.3.1.** Ratings provided by equipment manufacturers.

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.3.2.** Design criteria (e.g., including applicable references to industry Rating practices such as manufacturer's warranty, IEEE, ANSI or other standards).

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

- R1.3.3.** Ambient conditions.

### Responsible Members:

**NCR07044 Connecticut Light & Power Company**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: FAC-008-1

Requirements:

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R1.3.4. Operating limitations.

Responsible Members:

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NCR07044 Connecticut Light & Power Company

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R1.3.5. Other assumptions.

Responsible Members:

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NCR07044 Connecticut Light & Power Company

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R2. The Transmission Owner and Generator Owner shall each make its Facility Ratings Methodology available for inspection and technical review by those Reliability Coordinators, Transmission Operators, Transmission Planners, and Planning Authorities that have

Responsible Members:

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NCR07044 Connecticut Light & Power Company

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R3. If a Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Authority provides written comments on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings Methodology, the Transmission Owner or Gener

Responsible Members:

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NCR07044 Connecticut Light & Power Company

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: FAC-009-1

Requirements:

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- R1.** The Transmission Owner and Generator Owner shall each establish Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology.

Responsible Members:

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**NCR07044**      **Connecticut Light & Power Company**

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- R2.** The Transmission Owner and Generator Owner shall each provide Facility Ratings for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities to its asso

Responsible Members:

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**NCR07044**      **Connecticut Light & Power Company**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: IRO-004-1

Requirements:

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- R4.** Each Transmission Operator, Balancing Authority, Transmission Owner, Generator Owner, Generator Operator, and Load-Serving Entity in the Reliability Coordinator Area shall provide information required for system studies, such as critical facility status,

Responsible Members:

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**NCR11133**      **Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: MOD-010-0

Requirements:

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- R1. The Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners (specified in the data requirements and reporting procedures of MOD-011-0\_R1) shall provide appropriate equipment characteristics, system data, and existing and futur

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R2. The Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners (specified in the data requirements and reporting procedures of MOD-011-0\_R1) shall provide this steady-state modeling and simulation data to the Regional Reliability

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: MOD-012-0

Requirements:

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- R1. The Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners (specified in the data requirements and reporting procedures of MOD-013-0\_R1) shall provide appropriate equipment characteristics and system data in compliance with th

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R2. The Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners (specified in the data requirements and reporting procedures of MOD-013-0\_R1) shall provide dynamics system modeling and simulation data to its Regional Reliability Or

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: NUC-001-2

## Requirements:

- R2. The Nuclear Plant Generator Operator and the applicable Transmission Entities shall have in effect one or more Agreements that include mutually agreed to NPIRs and document how the Nuclear Plant Generator Operator and the applicable Transmission Entities

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R3. Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall incorporate the NPIRs into their planning analyses of the electric system and shall communicate the results of these analyses to the Nuclear Plant Ge

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4. Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall:  
[Risk Factor: High]

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.1. Incorporate the NPIRs into their operating analyses of the electric system.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.2. Operate the electric system to meet the NPIRs.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R4.3. Inform the Nuclear Plant Generator Operator when the ability to assess the operation of the electric system affecting NPIRs is lost.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R6. Per the Agreements developed in accordance with this standard, the applicable Transmission Entities and the Nuclear Plant Generator Operator shall coordinate outages and maintenance activities which affect the NPIRs.  
[Risk Factor: Medium]

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R8. Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall inform the Nuclear Plant Generator Operator of actual or proposed changes to electric system design, configuration, operations, limits, protection sy

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: NUC-001-2

## Requirements:

R9. The Nuclear Plant Generator Operator and the applicable Transmission Entities shall include, as a minimum, the following elements within the agreement(s) identified in R2: [Risk Factor: Medium]

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R9.1. Administrative elements:

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R9.1.1. Definitions of key terms used in the agreement.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R9.1.2. Names of the responsible entities, organizational relationships, and responsibilities related to the NPIRs.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R9.1.3. A requirement to review the agreement(s) at least every three years.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R9.1.4. A dispute resolution mechanism.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R9.2. Technical requirements and analysis:

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R9.2.1. Identification of parameters, limits, configurations, and operating scenarios included in the NPIRs and, as applicable, procedures for providing any specific data not provided within the agreement.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R9.2.2. Identification of facilities, components, and configuration restrictions that are essential for meeting the NPIRs.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: NUC-001-2

## Requirements:

**R9.2.3.** Types of planning and operational analyses performed specifically to support the NPIRs, including the frequency of studies and types of Contingencies and scenarios required.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.3.** Operations and maintenance coordination:

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.3.1.** Designation of ownership of electrical facilities at the interface between the electric system and the nuclear plant and responsibilities for operational control coordination and maintenance of these facilities.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.3.2.** Identification of any maintenance requirements for equipment not owned or controlled by the Nuclear Plant Generator Operator that are necessary to meet the NPIRs.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.3.3.** Coordination of testing, calibration and maintenance of on-site and off-site power supply systems and related components.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.3.4.** Provisions to address mitigating actions needed to avoid violating NPIRs and to address periods when responsible Transmission Entity loses the ability to assess the capability of the electric system to meet the NPIRs. These provisions shall include respon

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.3.5.** Provision for considering, within the restoration process, the requirements and urgency of a nuclear plant that has lost all off-site and on-site AC power. .

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.3.6.** Coordination of physical and cyber security protection of the Bulk Electric System at the nuclear plant interface to ensure each asset is covered under at least one entity's plan.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: NUC-001-2

## Requirements:

**R9.3.7.** Coordination of the NPIRs with transmission system Special Protection Systems and underfrequency and undervoltage load shedding programs.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.4.** Communications and training:

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.4.1.** Provisions for communications between the Nuclear Plant Generator Operator and Transmission Entities, including communications protocols, notification time requirements, and definitions of terms.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.4.2.** Provisions for coordination during an off-normal or emergency event affecting the NPIRs, including the need to provide timely information explaining the event, an estimate of when the system will be returned to a normal state, and the actual time the syst

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.4.3.** Provisions for coordinating investigations of causes of unplanned events affecting the NPIRs and developing solutions to minimize future risk of such events.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.4.4.** Provisions for supplying information necessary to report to government agencies, as related to NPIRs.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

**R9.4.5.** Provisions for personnel training, as related to NPIRs.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-004-1

Requirements:

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- R1.** The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a

Responsible Members:

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**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

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- R3.** The Transmission Owner, any Distribution Provider that owns a transmission Protection System, and the Generator Owner shall each provide to its Regional Reliability Organization, documentation of its Misoperations analyses and Corrective Action Plans acco

Responsible Members:

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**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-004-2

Requirements:

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- R1.** The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a

Responsible Members:

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**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

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- R3.** The Transmission Owner, any Distribution Provider that owns a transmission Protection System, and the Generator Owner shall each provide to its Regional Entity, documentation of its Misoperations analyses and Corrective Action Plans according to the Regio

Responsible Members:

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**NCR11133** Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-005-1

## Requirements:

- R1.** Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall have a Protection System maintenance and testing program for Protection Systems that a

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** Maintenance and testing intervals and their basis.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2.** Summary of maintenance and testing procedures.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.** Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall provide documentation of its Protection System maintenance and testing program and the

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.1.** Evidence Protection System devices were maintained and tested within the defined intervals.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.2.** Date each Protection System device was last tested/maintained.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-007-0

Requirements:

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- R1. The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall ensure that its UFLS program is consistent with its Regional Reliability Organization's UFLS program requirements.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R2. The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as needed.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R3. The Transmission Owner and Distribution Provider that owns a UFLS program (as required by its Regional Reliability Organization) shall provide its documentation of that UFLS program to its Regional Reliability Organization on request (30 calendar days).

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-008-0

Requirements:

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- R1. The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall have a UFLS equipment maintenance and testing program in place. This UFLS equipment maintenance and testing program shall in

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R2. The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results t

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-009-0

## Requirements:

- R1.** The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** A description of the event including initiating conditions.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2.** A review of the UFLS set points and tripping times.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3.** A simulation of the event.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.4.** A summary of the findings.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.** The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS program to it

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-010-0

## Requirements:

- R1.** The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assess

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** This assessment shall include, but is not limited to:

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.1.** Coordination of the UVLS programs with other protection and control systems in the Region and with other Regional Reliability Organizations, as appropriate.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.2.** Simulations that demonstrate that the UVLS programs performance is consistent with Reliability Standards TPL-001-0, TPL-002-0, TPL-003-0 and TPL-004-0.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.3.** A review of the voltage set points and timing.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.** The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on requ

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-011-0

## Requirements:

- R1. The Transmission Owner and Distribution Provider that owns a UVLS system shall have a UVLS equipment maintenance and testing program in place. This program shall include:

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1. The UVLS system identification which shall include but is not limited to:

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.1. Relays.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.2. Instrument transformers.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.3. Communications systems, where appropriate.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.4. Batteries.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.2. Documentation of maintenance and testing intervals and their basis.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.3. Summary of testing procedure.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.4. Schedule for system testing.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.5. Schedule for system maintenance.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-011-0

Requirements:

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R1.6. Date last tested/maintained.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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R2. The Transmission Owner and Distribution Provider that owns a UVLS system shall provide documentation of its UVLS equipment maintenance and testing program and the implementation of that UVLS equipment maintenance and testing program to its Regional Reliab

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-015-0

Requirements:

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- R1. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall maintain a list of and provide data for existing and proposed SPSs as specified in Reliability Standard PRC-013-0\_R1.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R2. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall have evidence it reviewed new or functionally modified SPSs in accordance with the Regional Reliability Organization's procedures as defined in Reliability Standard

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R3. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of SPS data and the results of Studies that show compliance of new or functionally modified SPSs with NERC Reliability Standards and Regional R

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-016-0.1

Requirements:

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- R1. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall analyze its SPS operations and maintain a record of all misoperations in accordance with the Regional SPS review procedure specified in Reliability Standard PRC-012-

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R2. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall take corrective actions to avoid future misoperations.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R3. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of the misoperation analyses and the corrective action plans to its Regional Reliability Organization and NERC on request (within 90 calendar d

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-017-0

## Requirements:

- R1. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall have a system maintenance and testing program(s) in place. The program(s) shall include:

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1. SPS identification shall include but is not limited to:

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.1. Relays.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.2. Instrument transformers.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.3. Communications systems, where appropriate.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1.4. Batteries.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.2. Documentation of maintenance and testing intervals and their basis.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.3. Summary of testing procedure.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.4. Schedule for system testing.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.5. Schedule for system maintenance.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-017-0

Requirements:

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R1.6. Date last tested/maintained.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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R2. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of the program and its implementation to the appropriate Regional Reliability Organizations and NERC on request (within 30 calendar days).

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-018-1

## Requirements:

- R1. Each Transmission Owner and Generator Owner required to install DMEs by its Regional Reliability Organization (reliability standard PRC-002 Requirements 1-3) shall have DMEs installed that meet the following requirements:

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.1. Internal Clocks in DME devices shall be synchronized to within 2 milliseconds or less of Universal Coordinated Time scale (UTC)

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R1.2. Recorded data from each Disturbance shall be retrievable for ten calendar days..

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R2. The Transmission Owner and Generator Owner shall each install DMEs in accordance with its Regional Reliability Organization's installation requirements (reliability standard PRC-002 Requirements 1 through 3).

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R3. The Transmission Owner and Generator Owner shall each maintain, and report to its Regional Reliability Organization on request, the following data on the DMEs installed to meet that region's installation requirements (reliability standard PRC-002 Requirement

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R3.1. Type of DME (sequence of event recorder, fault recorder, or dynamic disturbance recorder).

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R3.2. Make and model of equipment.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R3.3. Installation location.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

- R3.4. Operational status.

### Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-018-1

## Requirements:

R3.5. Date last tested.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R3.6. Monitored elements, such as transmission circuit, bus section, etc.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R3.7. Monitored devices, such as circuit breaker, disconnect status, alarms, etc.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R3.8. Monitored electrical quantities, such as voltage, current, etc.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R4. The Transmission Owner and Generator Owner shall each provide Disturbance data (recorded by DMEs) in accordance with its Regional Reliability Organization's requirements (reliability standard PRC-002 Requirement 4).

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R5. The Transmission Owner and Generator Owner shall each archive all data recorded by DMEs for Regional Reliability Organization-identified events for at least three years.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6. Each Transmission Owner and Generator Owner that is required by its Regional Reliability Organization to have DMEs shall have a maintenance and testing program for those DMEs that includes:

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6.1. Maintenance and testing intervals and their basis.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

R6.2. Summary of maintenance and testing procedures.

## Responsible Members:

NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-021-1

## Requirements:

- R1.** Each Transmission Owner and Distribution Provider that owns a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall annually update its UVLS data to support the Regional UVLS program database. The following data sh

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** Size and location of customer load, or percent of connected load, to be interrupted.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2.** Corresponding voltage set points and overall scheme clearing times.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3.** Time delay from initiation to trip signal.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.4.** Breaker operating times.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.5.** Any other schemes that are part of or impact the UVLS programs such as related generation protection, islanding schemes, automatic load restoration schemes, UFLS and Special Protection Systems.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R2.** Each Transmission Owner and Distribution Provider that owns a UVLS program shall provide its UVLS program data to the Regional Reliability Organization within 30 calendar days of a request.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-023-1

## Requirements:

- R1.** Each Transmission Owner, Generator Owner, and Distribution Provider shall use any one of the following criteria (R1.1 through R1.13) for any specific circuit terminal to prevent its phase protective relay settings from limiting transmission system loadabi

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.1.** Set transmission line relays so they do not operate at or below 150% of the highest seasonal Facility Rating of a circuit, for the available defined loading duration nearest 4 hours (expressed in amperes).

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.10.** Set transformer fault protection relays and transmission line relays on transmission lines terminated only with a transformer so that they do not operate at or below the greater of: - 150% of the applicable maximum transformer nameplate rating (expressed

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.11.** For transformer overload protection relays that do not comply with R1.10 set the relays according to one of the following: - Set the relays to allow the transformer to be operated at an overload level of at least 150% of the maximum applicable nameplate

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.12.** When the desired transmission line capability is limited by the requirement to adequately protect the transmission line, set the transmission line distance relays to a maximum of 125% of the apparent impedance (at the impedance angle of the transmission l

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.12.1.** Set the maximum torque angle (MTA) to 90 degrees or the highest supported by the manufacturer.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.12.2.** Evaluate the relay loadability in amperes at the relay trip point at 0.85 per unit voltage and a power factor angle of 30 degrees.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.12.3.** Include a relay setting component of 87% of the current calculated in R1.12.2 in the Facility Rating determination for the circuit.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

Standard: PRC-023-1

## Requirements:

- R1.13.** Where other situations present practical limitations on circuit capability, set the phase protection relays so they do not operate at or below 115% of such limitations.

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.2.** Set transmission line relays so they do not operate at or below 115% of the highest seasonal 15-minute Facility Rating<sup>2</sup> of a circuit (expressed in amperes).

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3.** Set transmission line relays so they do not operate at or below 115% of the maximum theoretical power transfer capability (using a 90-degree angle between the sending-end and receiving-end voltages and either reactance or complex impedance) of the circuit

## Responsible Members:

**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.3.1.** An infinite source (zero source impedance) with a 1.00 per unit bus voltage at each end of the line.

## Responsible Members:

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- R1.3.2.** An impedance at each end of the line, which reflects the actual system source impedance with a 1.05 per unit voltage behind each source impedance.

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

- R1.4.** Set transmission line relays on series compensated transmission lines so they do not operate at or below the maximum power transfer capability of the line, determined as the greater of: - 115% of the highest emergency rating of the series capacitor. - 1

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- R1.5.** Set transmission line relays on weak source systems so they do not operate at or below 170% of the maximum end-of-line three-phase fault magnitude (expressed in amperes).

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- R1.6.** Set transmission line relays applied on transmission lines connected to generation stations remote to load so they do not operate at or below 230% of the aggregated generation nameplate capability.

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-023-1

Requirements:

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- R1.7.** Set transmission line relays applied at the load center terminal, remote from generation stations, so they do not operate at or below 115% of the maximum current flow from the load to the generation source under any system configuration.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R1.8.** Set transmission line relays applied on the bulk system-end of transmission lines that serve load remote to the system so they do not operate at or below 115% of the maximum current flow from the system to the load under any system configuration.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R1.9.** Set transmission line relays applied on the load-end of transmission lines that serve load remote to the bulk system so they do not operate at or below 115% of the maximum current flow from the load to the system under any system configuration.

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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- R2.** The Transmission Owner, Generator Owner, or Distribution Provider that uses a circuit capability with the practical limitations described in R1.6, R1.7, R1.8, R1.9, R1.12, or R1.13 shall use the calculated circuit capability as the Facility Rating of the

Responsible Members:

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**NCR11133 Connecticut Transmission Municipal Electric Energy Cooperative**

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# Registration Status as of 1/26/2012

Applicable Regional Entity: NPCC

Applicable Function: TO

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Standard: PRC-STD-001-1

## Requirements:

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**WR1.** Each Transmission Operator or Transmission Owner identified in Section 4.1 must submit documentation that an officer of the organization certifies that: a. All protective relay applications are appropriate for the Bulk Power Transmission Paths (“BPTP”) i

## Responsible Members:

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**NCR11133**      **Connecticut Transmission Municipal Electric Energy Cooperative**