

**Reliability Standard Audit Worksheet[[1]](#footnote-2)**

# PRC-006-3 – Automatic Underfrequency Load Shedding

***This section to be completed by the Compliance Enforcement Authority.***

|  |  |
| --- | --- |
| **Audit ID:** | Audit ID if available; or REG-NCRnnnnn-YYYYMMDD |
| **Registered Entity:** | Registered name of entity being audited |
| **NCR Number:** | NCRnnnnn |
| **Compliance Enforcement Authority:** | Region or NERC performing audit |
| **Compliance Assessment Date(s)[[2]](#footnote-3):** | Month DD, YYYY, to Month DD, YYYY |
| **Compliance Monitoring Method:** | [On-site Audit | Off-site Audit | Spot Check] |
| **Names of Auditors:** | Supplied by CEA |

# **Applicability of Requirements**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **BA** | **DP** | **GO** | **GOP** | **PA/PC** | **RC** | **RP** | **RSG** | **TO** | **TOP** | **TP** | **TSP** |
| **R1** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R2** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R3** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R4** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R5** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R6** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R7** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R8** |  | X\* |  |  |  |  |  |  | X\* |  |  |  |
| **R9** |  | X\* |  |  |  |  |  |  | X\* |  |  |  |
| **R10** |  |  |  |  |  |  |  |  | X |  |  |  |
| **R11** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R12** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R13** |  |  |  |  | X |  |  |  |  |  |  |  |
| **R14** |  |  |  |  | X |  |  |  |  |  |  |  |
|  | **BA** | **DP** | **GO** | **GOP** | **PA/PC** | **RC** | **RP** | **RSG** | **TO** | **TOP** | **TP** | **TSP** |
| **R15** |  |  |  |  | X |  |  |  |  |  |  |  |

\* UFLS entities shall mean all entities that are responsible for the ownership, operation, or control of UFLS equipment as required by the UFLS program established by the Planning Coordinators. Such entities may include one or more of the following: Transmission Owners, Distribution Providers, Transmission Owners that own Elements identified in the UFLS program established by the Planning Coordinators.

**Legend:**

|  |  |
| --- | --- |
| Text with blue background: | Fixed text – do not edit |
| Text entry area with Green background: | Entity-supplied information |
| Text entry area with white background: | Auditor-supplied information |

Findings

**(This section to be completed by the Compliance Enforcement Authority)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Req.** | **Finding** | **Summary and Documentation** | **Functions Monitored** |
| **R1** |  |  |  |
| **R2** |  |  |  |
| **R3** |  |  |  |
| **R4** |  |  |  |
| **R5** |  |  |  |
| **R6** |  |  |  |
| **R7** |  |  |  |
| **R8** |  |  |  |
| **R9** |  |  |  |
| **R10** |  |  |  |
| **R11** |  |  |  |
| **R12** |  |  |  |
| **R13** |  |  |  |
| **R14** |  |  |  |
| **R15** |  |  |  |

|  |  |
| --- | --- |
| **Req.** | **Areas of Concern** |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Req.** | **Recommendations** |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Req.** | **Positive Observations** |
|  |  |
|  |  |
|  |  |

Subject Matter Experts

Identify the Subject Matter Expert(s) responsible for this Reliability Standard.

**Registered Entity Response (Required; Insert additional rows if needed):**

|  |  |  |  |
| --- | --- | --- | --- |
| **SME Name** | **Title** | **Organization** | **Requirement(s)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

R1 Supporting Evidence and Documentation

**R1.** Each Planning Coordinator shall develop and document criteria, including consideration of historical events and system studies, to select portions of the Bulk Electric System (BES), including interconnected portions of the BES in adjacent Planning Coordinator areas and Regional Entity areas that may form islands.

**M1.** Each Planning Coordinator shall have evidence such as reports, or other documentation of its criteria to select portions of the Bulk Electric System that may form islands including how system studies and historical events were considered to develop the criteria per Requirement R1.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested[[3]](#endnote-2):

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| The documents and criteria used to select portions of the BES that may form islands. |
| A list of historical events used to select portions of the BES that may form islands. |
| The system studies used to select portions of the BES that may form islands. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R1

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Developed and documented criteria to select portions of the BES, including interconnected portions of the BES in adjacent Planning Coordinator (PC) areas and Regional Entity areas that may form islands. Including: |
|  | Consideration of historical events |
|  | System studies |
| **Note to Auditor:** The WECC Interconnection has a Regional Variance that replaces R1 in its entirety. | |

Auditor Notes:

R2 Supporting Evidence and Documentation

**R2.** Each Planning Coordinator shall identify one or more islands to serve as a basis for designing its UFLS program including:

**2.1.** Those islands selected by applying the criteria in Requirement R1, and

**2.2.** Any portions of the BES designed to detach from the Interconnection (planned islands) as a result of the operation of a relay scheme or Special Protection System, and

**2.3.** A single island that includes all portions of the BES in either the Regional Entity area or the Interconnection in which the Planning Coordinator’s area resides. If a Planning Coordinator’s area resides in multiple Regional Entity areas, each of those Regional Entity areas shall be identified as an island. Planning Coordinators may adjust island boundaries to differ from Regional Entity area boundaries by mutual consent where necessary for the sole purpose of producing contiguous regional islands more suitable for simulation.

**M2.** Each Planning Coordinator shall have evidence such as reports, memorandums, e-mails, or other documentation supporting its identification of an island(s) as a basis for designing a UFLS program that meet the criteria in Requirement R2, Parts 2.1 through 2.3.

**Registered Entity Response (Required):**

**Question:** Does the entity’s area reside in multiple Regional Entity areas?  Yes  No

[If Yes, provide a list of the Regional Entity areas and proceed to the next question. If No, proceed to the Compliance Narrative section below.]

**Question:** Did the entity adjust island boundaries to differ from Regional Entity area boundaries?  Yes  No

[If Yes, proceed to the next question. If No, proceed to the Compliance Narrative section below.]

**Question:** Did the entity obtain mutual consent to adjust island boundaries to differ from Regional Entity area boundaries?  Yes  No

[If Yes, provide a list of the Regional Entities and Planning Coordinators involved in adjusting the island boundaries and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narrative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| A list of identified islands used as a basis for your UFLS Program. |
| A list of the islands selected by applying the criteria in Requirement R1. |
| A list of the portions of the BES designed to detach from the Interconnection (planned islands) as a result of the operation of a relay scheme or Special Protection System. |
| Identify the single island that includes all portions of the BES in either the Regional Entity area or the Interconnection in which the Planning Coordinator’s area resides. |
| Reports, memorandums, e-mails, or other documentation supporting identification of an island(s) as a basis for designing a UFLS program that meet the criteria in Requirement R2, Parts 2.1 through 2.3. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R2

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Identified one or more islands to serve as a basis for designing its UFLS program. It shall include: |
|  | (Part 2.1) Islands selected by applying the criteria in R1, and |
|  | (Part 2.2) Any portions of the BES designed to detach from the Interconnection (planned islands) as a result of the operation of a relay scheme or Special Protection System, and |
|  | (Part 2.3) A single island that includes all portions of the BES in either the Regional Entity area or the Interconnection in which the Planning Coordinator’s area resides. If a Planning Coordinator’s area resides in multiple Regional Entity areas, each of those Regional Entity areas shall be identified as an island. Planning Coordinators may adjust island boundaries to differ from Regional Entity area boundaries by mutual consent where necessary for the sole purpose of producing contiguous regional islands more suitable for simulation. |
|  | Responded to the applicability questions for the second part of R2.3 and provided evidence of compliance if the response was yes. |
|  | Identified all Regional Entities that are part of an island if the Planning Coordinator’s area resides in multiple Regional Entity areas. |
|  | Adjusted island boundaries to differ from Regional Entity area boundaries by mutual consent between Regional Entities and the Planning Coordinators where necessary, for the sole purpose of producing contiguous regional islands more suitable for simulation. |
| **Note to Auditor:** Evidence may include, but is not limited to, reports, memorandums, e-mails, or other documentation supporting its identification of an island(s).  The WECC Interconnection has a Regional Variance that replaces R2 in its entirety. | |

Auditor Notes:

R3 Supporting Evidence and Documentation

**R3.** Each Planning Coordinator shall develop a UFLS program, including notification of and a schedule for implementation by UFLS entities within its area, that meets the following performance characteristics in simulations of underfrequency conditions resulting from an imbalance scenario, where an imbalance = [(load — actual generation output) / (load)], of up to 25 percent within the identified island(s).

**3.1.** Frequency shall remain above the Underfrequency Performance Characteristic curve in PRC-006-3 - Attachment 1, either for 60 seconds or until a steady-state condition between 59.3 Hz and 60.7 Hz is reached, and

**3.2.** Frequency shall remain below the Overfrequency Performance Characteristic curve in PRC-006-3 - Attachment 1, either for 60 seconds or until a steady-state condition between 59.3 Hz and 60.7 Hz is reached, and

**3.3.** Volts per Hz (V/Hz) shall not exceed 1.18 per unit for longer than two seconds cumulatively per simulated event, and shall not exceed 1.10 per unit for longer than 45 seconds cumulatively per simulated event at each generator bus and generator step-up transformer high-side bus associated with each of the following:

* + - Individual generating units greater than 20 MVA (gross nameplate rating) directly connected to the BES
    - Generating plants/facilities greater than 75 MVA (gross aggregate nameplate rating) directly connected to the BES
    - Facilities consisting of one or more units connected to the BES at a common bus with total generation above 75 MVA gross nameplate rating.

**M3.** Each Planning Coordinator shall have evidence such as reports, memorandums, e-mails, program plans, or other documentation of its UFLS program, including the notification of the UFLS entities of implementation schedule, that meet the criteria in Requirement R3, Parts 3.1 through 3.3.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Evidence such as reports, memorandums, e-mails, program plans, or other documentation of your UFLS program, including the notification of the UFLS entities of implementation schedule, that meet the criteria in Requirement R3, Parts 3.1 through 3.3 . |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R3

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Developed a UFLS program, including notification of and a schedule for implementation by UFLS entities within its area that meets the following performance characteristics in simulations of underfrequency conditions resulting from an imbalance scenario as described in R3. |
|  | (Part 3.1) Frequency shall remain above the Underfrequency Performance Characteristic curve in PRC-006-3 - Attachment 1, either for 60 seconds or until a steady-state condition between 59.3 Hz and 60.7 Hz is reached, and |
|  | (Part 3.2) Frequency shall remain below the Overfrequency Performance Characteristic curve in PRC-006-3 - Attachment 1, either for 60 seconds or until a steady-state condition between 59.3 Hz and 60.7 Hz is reached, and |
|  | (Part 3.3) Volts per Hz (V/Hz) shall not exceed 1.18 per unit for longer than two seconds cumulatively per simulated event, and shall not exceed 1.10 per unit for longer than 45 seconds cumulatively per simulated event at each generator bus and generator step-up transformer high-side bus associated with each of the following: |
|  | * Individual generating units greater than 20 MVA (gross nameplate rating) directly connected to the BES |
|  | * Generating plants/facilities greater than 75 MVA (gross aggregate nameplate rating) directly connected to the BES |
|  | * Facilities consisting of one or more units connected to the BES at a common bus with total generation above 75 MVA gross nameplate rating |
|  | Provided notification and a schedule for implementation by identified UFLS entities within the Planning Coordinator’s area for R3. |
| **Note to Auditor:** Request a list of UFLS entities within the Planning Coordinator’s area to verify notification.  Evidence may include, but is not limited to, reports, memorandums, emails, program plans.  The Quebec and WECC Interconnections have Regional Variances that replace R3 in its entirety. | |

Auditor Notes:

R4 Supporting Evidence and Documentation

**R4.** Each Planning Coordinator shall conduct and document a UFLS design assessment at least once every five years that determines through dynamic simulation whether the UFLS program design meets the performance characteristics in Requirement R3 for each island identified in Requirement R2. The simulation shall model each of the following:

**4.1.** Underfrequency trip settings of individual generating units greater than 20 MVA (gross nameplate rating) directly connected to the BES that trip above the Generator Underfrequency Trip Modeling curve in PRC-006-3 – Attachment 1.

**4.2.** Underfrequency trip settings of generating plants/facilities greater than 75 MVA (gross aggregate nameplate rating) directly connected to the BES that trip above the Generator Underfrequency Trip Modeling curve in PRC-006-3 – Attachment 1.

**4.3.** Underfrequency trip settings of any facility consisting of one or more units connected to the BES at a common bus with total generation above 75 MVA (gross nameplate rating) that trip above the Generator Underfrequency Trip Modeling curve in PRC-006-3 – Attachment 1.

**4.4.** Overfrequency trip settings of individual generating units greater than 20 MVA (gross nameplate rating) directly connected to the BES that trip below the Generator Overfrequency Trip Modeling curve in PRC-006-3 — Attachment 1.

**4.5.** Overfrequency trip settings of generating plants/facilities greater than 75 MVA (gross aggregate nameplate rating) directly connected to the BES that trip below the Generator Overfrequency Trip Modeling curve in PRC-006-3 — Attachment 1.

**4.6.** Overfrequency trip settings of any facility consisting of one or more units connected to the BES at a common bus with total generation above 75 MVA (gross nameplate rating) that trip below the Generator Overfrequency Trip Modeling curve in PRC-006-3 — Attachment 1.

**4.7.** Any automatic Load restoration that impacts frequency stabilization and operates within the duration of the simulations run for the assessment.

**M4.** Each Planning Coordinator shall have dated evidence such as reports, dynamic simulation models and results, or other dated documentation of its UFLS design assessment that demonstrates it meets Requirement R4, Parts 4.1 through 4.7.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated evidence such as reports, dynamic simulation models and results, or other dated documentation of your UFLS design assessment that demonstrates the simulation modeled each requirement in R4, Parts 4.1 through 4.7, and that the assessment(s) were performed at least once every five years. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R4

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Conducted and documented a UFLS design assessment at least once every five years that determines through dynamic simulation whether the UFLS program design meets the performance characteristics in R3 for each island identified in Requirement R2. Verify the simulation modeled each of the following: |
|  | (Part 4.1) Underfrequency trip settings of individual generating units greater than 20 MVA (gross nameplate rating) directly connected to the BES that trip above the Generator Underfrequency Trip Modeling curve in PRC-006-3 – Attachment 1. |
|  | (Part 4.2) Underfrequency trip settings of generating plants/facilities greater than 75 MVA (gross aggregate nameplate rating) directly connected to the BES that trip above the Generator Underfrequency Trip Modeling curve in PRC-006-3 – Attachment 1. |
|  | (Part 4.3) Underfrequency trip settings of any facility consisting of one or more units connected to the BES at a common bus with total generation above 75 MVA (gross nameplate rating) that trip above the Generator Underfrequency Trip Modeling curve in PRC-006-3 – Attachment 1. |
|  | (Part 4.4) Overfrequency trip settings of individual generating units greater than 20 MVA (gross nameplate rating) directly connected to the BES that trip below the Generator Overfrequency Trip Modeling curve in PRC-006-3 — Attachment 1. |
|  | (Part 4.5) Overfrequency trip settings of generating plants/facilities greater than 75 MVA (gross aggregate nameplate rating) directly connected to the BES that trip below the Generator Overfrequency Trip Modeling curve in PRC-006-3 — Attachment 1. |
|  | (Part 4.6) Overfrequency trip settings of any facility consisting of one or more units connected to the BES at a common bus with total generation above 75 MVA (gross nameplate rating) that trip below the Generator Overfrequency Trip Modeling curve in PRC-006-3 — Attachment 1. |
|  | (Part 4.7) Any automatic Load restoration that impacts frequency stabilization and operates within the duration of the simulations run for the assessment. |
| **Note to Auditor:** The Quebec and WECC Interconnections have Regional Variances that replace R4 in its entirety. | |

Auditor Notes:

R5 Supporting Evidence and Documentation

**R5.** Each Planning Coordinator, whose area or portions of whose area is part of an island identified by it or another Planning Coordinator which includes multiple Planning Coordinator areas or portions of those areas, shall coordinate its UFLS program design with all other Planning Coordinators whose areas or portions of whose areas are also part of the same identified island through one of the following:

* + - Develop a common UFLS program design and schedule for implementation per Requirement R3 among the Planning Coordinators whose areas or portions of whose areas are part of the same identified island, or
    - Conduct a joint UFLS design assessment per Requirement R4 among the Planning Coordinators whose areas or portions of whose areas are part of the same identified island, or
    - Conduct an independent UFLS design assessment per Requirement R4 for the identified island, and in the event the UFLS design assessment fails to meet Requirement R3, identify modifications to the UFLS program(s) to meet Requirement R3 and report these modifications as recommendations to the other Planning Coordinators whose areas or portions of whose areas are also part of the same identified island and the ERO.

**M5.** Each Planning Coordinator, whose area or portions of whose area is part of an island identified by it or another Planning Coordinator which includes multiple Planning Coordinator areas or portions of those areas, shall have dated evidence such as joint UFLS program design documents, reports describing a joint UFLS design assessment, letters that include recommendations, or other dated documentation demonstrating that it coordinated its UFLS program design with all other Planning Coordinators whose areas or portions of whose areas are also part of the same identified island per Requirement R5.

**Registered Entity Response (Required):**

**Question:** Is the entity’s area, or portions of its area, part of an island, identified by it or another Planning Coordinator that also includes the area or portions of the area of another Planning Coordinator?  Yes  No

[If Yes, provide a list of these Planning Coordinators and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narrative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated evidence such as joint UFLS program design documents, reports describing a joint UFLS design assessment, letters that include recommendations, or other dated documentation demonstrating that the entity coordinated its UFLS program design with all other Planning Coordinators whose areas or portions of areas are also part of the same identified island per Requirement R5. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R5

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Coordinated its UFLS program design with all other Planning Coordinators whose areas or portions of areas are also part of the same identified island through one of the following: |
|  | * Developed a common UFLS program design and schedule for implementation per Requirement R3 among the Planning Coordinators, or |
|  | * Conducted a joint UFLS design assessment per Requirement R4 among the Planning Coordinators, or |
|  | * Conducted an independent UFLS design assessment per Requirement R4 for the identified island, and in the event the UFLS design assessment failed to meet R3, identified modifications to the UFLS program(s) to meet R3 and reported the modifications as recommendations to the other Planning Coordinators and the ERO. |
| **Note to Auditor:** The WECC Interconnection has a Regional Variance that replaces R5 in its entirety. | |

Auditor Notes:

R6 Supporting Evidence and Documentation

**R6.** Each Planning Coordinator shall maintain a UFLS database containing data necessary to model its UFLS program for use in event analyses and assessments of the UFLS program at least once each calendar year, with no more than 15 months between maintenance activities.

**M6.** Each Planning Coordinator shall have dated evidence such as a UFLS database, data requests, data input forms, or other dated documentation to show that it maintained a UFLS database for use in event analyses and assessments of the UFLS program per Requirement R6 at least once each calendar year, with no more than 15 months between maintenance activities.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated evidence such as a UFLS database, data requests, data input forms, or other dated documentation to show that a UFLS database containing data necessary to model your UFLS program for use in event analyses and assessments was maintained for use in event analyses and assessments of the UFLS program per Requirement R6 at least once each calendar year, with no more than 15 months between maintenance activities. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R6

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Maintained a UFLS database to model its UFLS program for use in event analyses and assessments of the UFLS program. |
|  | A database that includes model data sufficient to be effective when the entity is performing an event analysis or assessment of the UFLS program. |
|  | Documentation demonstrating the database was maintained at least once each calendar year but with no more than 15 months between maintenance activities. |
| **Note to Auditor:** Examples of “model data sufficient to be effective” can be subjective depending on the size and scope of the Planning Coordinator’s area. Potential examples may include model data specified in the R4 sub-requirements. | |

Auditor Notes:

R7 Supporting Evidence and Documentation

**R7.** Each Planning Coordinator shall provide its UFLS database containing data necessary to model its UFLS program to other Planning Coordinators within its Interconnection within 30 calendar days of a request.

**M7.** Each Planning Coordinator shall have dated evidence such as letters, memorandums, e-mails or other dated documentation that it provided their UFLS database to other Planning Coordinators within their Interconnection within 30 calendar days of a request per Requirement R7.

**Registered Entity Response (Required):**

**Question:** Did the entity receive a request to provide its UFLS database to other Planning Coordinators within its Interconnection?  Yes  No

[If Yes, provide a list of requests and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated evidence such as letters, memorandums, e-mails or other dated documentation that entity provided its UFLS database containing data necessary to model its UFLS program to other Planning Coordinators within their Interconnection within 30 calendar days of a request per Requirement R7. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R7

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Dated request(s) received from other Planning Coordinators within its Interconnection. |
|  | Dated response(s) providing the requested UFLS database. |
|  | Provided a response within 30 calendar days of the request. |
| **Note to Auditor:** | |

Auditor Notes:

R8 Supporting Evidence and Documentation

**R8.** Each UFLS entity shall provide data to its Planning Coordinator(s) according to the format and schedule specified by the Planning Coordinator(s) to support maintenance of each Planning Coordinator’s UFLS database.

**M8.** Each UFLS Entity shall have dated evidence such as responses to data requests, spreadsheets, letters or other dated documentation that it provided data to its Planning Coordinator according to the format and schedule specified by the Planning Coordinator to support maintenance of the UFLS database per Requirement R8.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| The format and schedule specified by the Planning Coordinator to receive data to support maintenance of the Planning Coordinator’s UFLS database. |
| Dated evidence such as responses to data requests, spreadsheets, letters or other dated documentation that entity provided data to its Planning Coordinator according to the format and schedule specified by the Planning Coordinator to support maintenance of the Planning Coordinator’s UFLS database. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R8

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Dated documentation the data was provided to the Planning Coordinator in the format specified and in accordance with the established schedule. |
| **Note to Auditor:** A UFLS entity is an entity responsible for the ownership, operation, or control of UFLS equipment as required by the UFLS program established by the Planning Coordinators. UFLS entities shall be identified in R3.  R6 requires the Planning Coordinator to maintain its UFLS database at least once each calendar year, but no more than 15 months. It is anticipated, but not required, that the schedule established by the Planning Coordinator to receive data from a UFLS entity would be consistent with R6.  If the UFLS entity states it notified the Planning Coordinator of no changes to its data since its last submission verify the Planning Coordinator’s “format and schedule” allows for this type of submission. | |

Auditor Notes:

R9 Supporting Evidence and Documentation

**R9.** Each UFLS entity shall provide automatic tripping of Load in accordance with the UFLS program design and schedule for implementation, including any Corrective Action Plan, as determined by its Planning Coordinator(s) in each Planning Coordinator area in which it owns assets.

**M9.** Each UFLS Entity shall have dated evidence such as spreadsheets summarizing feeder load armed with UFLS relays, spreadsheets with UFLS relay settings, or other dated documentation that it provided automatic tripping of load in accordance with the UFLS program design and schedule for implementation , including any Corrective Action Plan, per Requirement R9.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Documentation of the UFLS program design and schedule for implementation, including any Corrective Action Plan as determined by the Planning Coordinator(s). |
| Dated evidence such as spreadsheets summarizing feeder load armed with UFLS relays, spreadsheets with UFLS relay settings, or other dated documentation that it provided automatic tripping of Load in accordance with the UFLS program design and schedule for implementation , including any Corrective Action Plan, by the Planning Coordinator(s) in each Planning Coordinator area in which the entity owns assets. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R9

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has*:* |
|  | Dated documentation the entity provided automatic tripping of Load in accordance with the UFLS program design and schedule for implementation, including any Corrective Action Plan, as determined by the associated Planning Coordinator. |
| **Note to Auditor:** A UFLS entity is an entity responsible for the ownership, operation, or control of UFLS equipment as required by the UFLS program established by the Planning Coordinators. Evidence may include, but is not limited to, spreadsheets summarizing feeder load and UFLS relay settings. | |

Auditor Notes:

R10 Supporting Evidence and Documentation

**R10.** Each Transmission Owner shall provide automatic switching of its existing capacitor banks, Transmission Lines, and reactors to control over-voltage as a result of underfrequency load shedding if required by the UFLS program and schedule for implementation, including any Corrective Action Plan, as determined by the Planning Coordinator(s) in each Planning Coordinator area in which the Transmission Owner owns transmission.

**M10.** Each Transmission Owner shall have dated evidence such as relay settings, tripping logic or other dated documentation that it provided automatic switching of its existing capacitor banks, Transmission Lines, and reactors in order to control over-voltage as a result of underfrequency load shedding if required by the UFLS program and schedule for implementation, including any Corrective Action Plan, per Requirement R10.

**Registered Entity Response (Required):**

**Question:** Is the entity required by the UFLS programs of the Planning Coordinators in which it owns transmission, to provide automatic switching to control over-voltage resulting from underfrequency load shedding?  Yes  No

[If Yes, provide details, statement if Corrective Action Plans were included, and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narrative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| UFLS programs and schedules for implementation requirements for the entity to provide automatic switching to control over-voltage as a result of underfrequency load shedding, including any Corrective Action Plans. |
| Dated evidence such as relay settings, tripping logic or other dated documentation that it provided automatic switching of its existing capacitor banks, Transmission Lines, and reactors in order to control over-voltage as a result of underfrequency load shedding if required by the UFLS program and schedule for implementation, including any Corrective Action Plan, as determined by the Planning Coordinator(s) in each Planning Coordinator area in which you own transmission. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R10

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Documentation the entity provided the specified automatic switching of existing capacitor banks, Transmission Lines, and reactors to control over-voltage as a result of underfrequency load shedding where required by the UFLS program and schedule. |
| **Note to Auditor:** Evidence may include, but is not limited to, relays settings or tripping logic. | |

Auditor Notes:

R11 Supporting Evidence and Documentation

**R11.** Each Planning Coordinator, in whose area a BES islanding event results in system frequency excursions below the initializing set points of the UFLS program, shall conduct and document an assessment of the event within one year of event actuation to evaluate:

**11.1** The performance of the UFLS equipment,

**11.2** The effectiveness of the UFLS program.

**M11.** Each Planning Coordinator shall have dated evidence such as reports, data gathered from an historical event, or other dated documentation to show that it conducted an event assessment of the performance of the UFLS equipment and the effectiveness of the UFLS program per Requirement R11.

**Registered Entity Response (Required):**

**Question:** Did the entity experience a BES islanding event that resulted in system frequency excursions below the initializing set points of the UFLS program?  Yes  No

[If Yes, provide evidence of the assessment of the event and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narrative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| The dated BES islanding event report, description or other documentation necessary to perform the assessment. |
| Dated evidence such as reports, data gathered from an historical event, or other dated documentation to show a BES islanding event assessment was conducted, within one year of the event, to assess the performance of the UFLS equipment and the effectiveness of the UFLS program. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R11

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Reviewed the entity’s dated assessment of the event and verify the assessment was conducted and documented within one year of the event and includes the following: |
|  | (Part 11.1) An evaluation of the performance of the UFLS equipment, |
|  | (Part 11.2) An evaluation of the effectiveness of the UFLS program. |
| **Note to Auditor:** Requirement R11 specifies the assessment must be conducted and documented within “one year” of the event. A period of one year is considered to be 365 days from the date of the event.  The WECC Interconnection has a Regional Variance that replaces R11 in its entirety. | |

Auditor Notes:

R12 Supporting Evidence and Documentation

**R12.** Each Planning Coordinator, in whose islanding event assessment (per R11) UFLS program deficiencies are identified, shall conduct and document a UFLS design assessment to consider the identified deficiencies within two years of event actuation.

**M12.** Each Planning Coordinator shall have dated evidence such as reports, data gathered from an historical event, or other dated documentation to show that it conducted a UFLS design assessment per Requirements R12 and R4 if UFLS program deficiencies are identified in R11.

**Registered Entity Response (Required):**

**Question:** Did the entity experience a BES islanding event that resulted in system frequency excursions below the initializing set points of the UFLS program?  Yes  No

[If Yes, proceed to the next question. If No, proceed to the Compliance Narrative section below.]

**Question:** Did the assessment conducted under Requirement R11 identify any UFLS program deficiencies?  Yes  No

[If Yes, provide evidence of the assessment and deficiencies identified and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narrative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| The dated BES islanding event report, description or other documentation necessary to perform the UFLS design assessment. |
| The dated assessment of the effectiveness of the program and performance of the UFLS equipment for the event conducted under R11. |
| Dated evidence such as reports, data gathered from an historical event, or other dated documentation to show that entity conducted a UFLS design assessment per Requirements R12 and R4 if UFLS program deficiencies are identified in the UFLS equipment and effectiveness performance assessment. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R12

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | The dated UFLS design assessment considering the deficiencies, identified in a R11 islanding event assessment, within two years of the event. |
| **Note to Auditor:** Requirement R12 specifies that the design assessment must be conducted and documented within “two years” of the event. A period of “two years” is considered to be 730 days from the date of the event.  The WECC Interconnection has a Regional Variance that replaces R12 in its entirety. | |

Auditor Notes:

R13 Supporting Evidence and Documentation

**R13.** Each Planning Coordinator, in whose area a BES islanding event occurred that also included the area(s) or portions of area(s) of other Planning Coordinator(s) in the same islanding event and that resulted in system frequency excursions below the initializing set points of the UFLS program, shall coordinate its event assessment (in accordance with Requirement R11) with all other Planning Coordinators whose areas or portions of whose areas were also included in the same islanding event through one of the following:

* Conduct a joint event assessment per Requirement R11 among the Planning Coordinators whose areas or portions of whose areas were included in the same islanding event, or
  + - Conduct an independent event assessment per Requirement R11 that reaches conclusions and recommendations consistent with those of the event assessments of the other Planning Coordinators whose areas or portions of whose areas were included in the same islanding event, or
    - Conduct an independent event assessment per Requirement R11 and where the assessment fails to reach conclusions and recommendations consistent with those of the event assessments of the other Planning Coordinators whose areas or portions of whose areas were included in the same islanding event, identify differences in the assessments that likely resulted in the differences in the conclusions and recommendations and report these differences to the other Planning Coordinators whose areas or portions of whose areas were included in the same islanding event and the ERO.

**M13.** Each Planning Coordinator, in whose area a BES islanding event occurred that also included the area(s) or portions of area(s) of other Planning Coordinator(s) in the same islanding event and that resulted in system frequency excursions below the initializing set points of the UFLS program, shall have dated evidence such as a joint assessment report, independent assessment reports and letters describing likely reasons for differences in conclusions and recommendations, or other dated documentation demonstrating it coordinated its event assessment (per Requirement R11) with all other Planning Coordinator(s) whose areas or portions of whose areas were also included in the same islanding event per Requirement R13.

**Registered Entity Response (Required):**

**Question:** Did the entity experience a BES islanding event that also included the areas or portions of areas of other Planning Coordinators in the same islanding event and that resulted in system frequency excursions below the initializing set points of the UFLS program?  Yes  No

[If Yes, provide evidence of the assessment of the event and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narrative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated evidence such as a joint assessment report, independent assessment reports and letters describing likely reasons for differences in conclusions and recommendations, or other dated documentation demonstrating entity coordinated the event assessment (per Requirement R11) with all other Planning Coordinator(s) whose areas or portions of whose areas were also included in the same islanding event per Requirement R13. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R13

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Dated documentation that it coordinated the event assessment conducted under Requirement R11, with all other Planning Coordinators whose areas or portions of areas were also included in the same event. The coordinated event assessment must be by one of the following methods: |
|  | * Joint event assessment per Requirement R11 among the Planning Coordinators, or |
|  | * Conducted an independent assessment per R11 that reached conclusions and recommendations consistent with those of the other Planning Coordinators assessment, or |
|  | * Conducted an independent assessment per Requirement R11 that failed to reach conclusions and recommendations consistent with those of the other Planning Coordinators assessment, identified differences in the assessment processes resulting in inconsistent conclusions and recommendations, and reported the differences to all involved Planning Coordinators and ERO. |
| **Note to Auditor:** Evidence of coordination of event assessment may include, but is not limited to, joint assessment reports or independent assessment reports with letters stating likely reasons for differences in conclusions and recommendations.  The WECC Interconnection has a Regional Variance that replaces R13 in its entirety. | |

Auditor Notes:

R14 Supporting Evidence and Documentation

**R14.** Each Planning Coordinator shall respond to written comments submitted by UFLS entities and Transmission Owners within its Planning Coordinator area following a comment period and before finalizing its UFLS program, indicating in the written response to comments whether changes will be made or reasons why changes will not be made to the following:

**14.1.** UFLS program, including a schedule for implementation

**14.2.** UFLS design assessment

**14.3.** Format and schedule of UFLS data submittal.

**M14.** Each Planning Coordinator shall have dated evidence of responses, such as e-mails and letters, to written comments submitted by UFLS entities and Transmission Owners within its Planning Coordinator area following a comment period and before finalizing its UFLS program per Requirement R14.

**Registered Entity Response (Required):**

**Question:** Did the entity receive written comments from applicable UFLS entities and Transmission Owner(s) during the comment period?  Yes  No

[If Yes, proceed to the next question. If No, proceed to the Compliance Narative section below.]

**Question:** Did the entity provide a written response to the written comments of each applicable UFLS entity and Transmission Owner(s) indicating whether the changes will be made or the reasons why changes will not be made prior to finalizing the changes?  Yes  No

[If Yes, provide a list of comment periods and associated dates and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narrative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated evidence of responses, such as e-mails and letters, to written comments submitted by UFLS entities and Transmission Owners within entity’s Planning Coordinator area following a comment period and before finalizing entity’s UFLS program indicating whether changes will be made or reasons why changes will not be made. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R14

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Responded to each written comment received by the entity from each applicable UFLS entity and Transmission Owner following the comment period regarding: |
|  | (Part 14.1) UFLS program, including a schedule for implementation |
|  | (Part 14.2) UFLS design assessment |
|  | (Part 14.3) Format and schedule of UFLS data submittal |
|  | For each response to a written comment indicated whether the change will be made or the reasons why the change will not be made. |
|  | Provided all written responses prior to finalizing the entity’s UFLS program. |
| **Note to Auditor:** | |

Auditor Notes:

R15 Supporting Evidence and Documentation

**R15.** Each Planning Coordinator that conducts a UFLS design assessment under Requirement R4, R5, or R12 and determines that the UFLS program does not meet the performance characteristics in Requirement R3, shall develop a Corrective Action Plan and a schedule for implementation by the UFLS entities within its area.

**15.1.** For UFLS design assessments performed under Requirement R4 or R5, the Corrective Action Plan shall be developed within the five-year time frame identified in Requirement R4.

**15.2.** For UFLS design assessments performed under Requirement R12, the Corrective Action Plan shall be developed within the two-year time frame identified in Requirement R12

**M15.** Each Planning Coordinator that conducts a UFLS design assessment under Requirement R4, R5, or R12 and determines that the UFLS program does not meet the performance characteristics in Requirement R3, shall have a dated Corrective Action Plan and a schedule for implementation by the UFLS entities within its area, that was developed within the time frame identified in Part 15.1 or 15.2.

**Registered Entity Response (Required):**

**Question:** Did the entity’s design assessment (performed under Requirement R4, R5 or R12) determine the UFLS program did not meet the performance characteristics of Requirement R3 during the compliance monitoring period?  Yes  No

[If Yes, provide details and evidence of compliance as indicated below and proceed to the Compliance Narrative section below. If No, proceed to the Compliance Narrative section below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedi:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| A dated Corrective Action Plan and a schedule for implementation by the UFLS entities within the entity’s area that was developed within the time frame identified in Part 15.1 or 15.2. |

Registered Entity Evidence (Required):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.** | | | | | |
| **File Name** | **Document Title** | **Revision or Version** | **Document Date** | **Relevant Page(s) or Section(s)** | **Description of Applicability of Document** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

|  |
| --- |
|  |
|  |
|  |

Compliance Assessment Approach Specific to PRC-006-3, R15

***This section to be completed by the Compliance Enforcement Authority***

|  |  |
| --- | --- |
|  | Review the evidence to verify the entity has: |
|  | Dated Corrective Action Plan(s). |
|  | Dated schedule for implementation for each Corrective Action Plan by the UFLS entities. |
|  | (Part 15.1.) Developed any Corrective Action Plan(s) from design assessments performed under Requirement R4 or R5 within the five-year timeframe identified in Requirement R4. |
|  | (Part 15.2.) Developed any Corrective Action Plan(s) from design assessments performed under Requirement R12 within the two-year timeframe identified in Requirement R12. |
| **Note to Auditor:** The WECC Interconnection has a Regional Variance that replaces R3, R4, R5, and R12 in their entirety. | |

Auditor Notes:

Additional Information:



Reliability Standard

In addition to the Reliability Standard, there is background information available on the NERC Web Site.

Capitalized terms in the Reliability Standard refer to terms in the NERC Glossary, which may be found on the NERC Web Site.

Sampling Methodology

Sampling is essential for auditing compliance with NERC Reliability Standards since it is not always possible or practical to test 100% of either the equipment, documentation, or both, associated with the full suite of enforceable standards. The Sampling Methodology Guidelines and Criteria (see NERC website), or sample guidelines, provided by the Electric Reliability Organization help to establish a minimum sample set for monitoring and enforcement uses in audits of NERC Reliability Standards.

Regulatory Language

Reliability Standard PRC-006-3 revises the regional Variance for the Québec Interconnection as necessary to account for the physical characteristics and operational practices of that Interconnection. No changes have been made to any of the continent-wide Requirements of Commission-approved Reliability Standard PRC-006-2 nor the regional Variance for the Western Electricity Coordinating Council (“WECC”) Interconnection.

The standard, which was developed in accordance with the NERC Rules of Procedure through the Northeast Power Coordinating Council (“NPCC”) standard development process, was adopted by the NPCC Board of Trustees on May 3, 2017 and by the NERC Board of Trustees on August 10, 2017. The standard has been submitted for the approval of the Regie d’lenergie of the Province of Québec.

[***North American Electric Reliability Corp.,* Unpublished Letter Order in Docket No. RD15-2-000 (Mar. 4, 2015).**](http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/PRC-006-2%20Letter%20Order.pdf)

p. 2. The purpose of proposed Reliability Standard PRC-006-2 is to establish design and documentation requirements for automatic underfrequency load shedding (UFLS) programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures. Proposed Reliability Standard PRC-006-2 states that it is applicable to planning coordinators, UFLS entities (a term defined in the proposed Reliability Standard), and transmission owners that own elements identified in the underfrequency load shedding programs established by planning coordinators. The petition maintains that the proposed Reliability Standard contains changes that address the Commission’s concern in Order No. 763 relating to Requirement R9 of PRC-006-1.In Order No. 763, the Commission approved Reliability Standard PRC-006-1. In addition, the Commission directed NERC to include explicit language in a subsequent version of the Reliability Standard clarifying that applicable entities are required to implement corrective actions identified by the planning coordinator in accordance with a schedule established by the same planning coordinator. The petition states that this is accomplished by additional language in Reliability Standard PRC-006-2, Requirements R9 and R10, and the introduction of a new Requirement R15. The revisions also place deadlines for corrective action plans to be developed by the planning coordinator. The petition states that these proposed deadlines are within the timeframes identified in Requirements R4, R5 or R12.

p. 2. NERC’s uncontested filing is hereby approved pursuant to the relevant authority delegated to the Director, Office of Electric Reliability under 18 C.F.R. § 375.303 (2014), effective as of the date of this Order.

***Automatic Underfrequency Load Shedding and Load Shedding Plans Reliability***

***Standards*,** [**Order No. 763**](http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Order_PRC-006-1_EOP-003-2_2012.5.7.pdf)**, 139 FERC ¶ 61,098, *order granting clarification*, 140 FERC ¶**

**61,164 (2012).**

P 4. The Commission neither approved nor remanded NERC-approved Reliability Standard PRC-006-0 in Order No. 693, which required regional reliability organizations to develop, coordinate, document and assess UFLS program design and effectiveness at least every five years. The Commission determined neither to approve nor remand this “fill-in-the-blank” Reliability Standard because the regional procedures had not been submitted, and the Commission held that it would not propose to approve or remand PRC-006-0 until the ERO submitted the additional information.

P 12. The UFLS program addressed in Reliability Standard PRC-006-1 is important to arresting declining frequency and assisting recovery of frequency following system events that lead to system instability, which can result in a blackout. Accordingly, the Reliability Standard is necessary for reliability because UFLS is used in extreme conditions to stabilize the balance between generation and load after an electrical island has been formed, dropping enough load to allow frequency to stabilize within the island. PRC-006-1, in conjunction with the conforming changes to EOP-003-2, provides last resort Bulk-Power System preservation measures by establishing the first national Reliability Standard of common performance characteristics that all UFLS programs must meet. For the same reasons, we approve the regional variance for WECC in PRC-006-1.

P 23. Reliability Standard PRC-006-1 does not limit the resources that can be modeled in the UFLS assessments and that power system models used in UFLS assessments generally model all qualifying generation, including resources not directly connected to the bulk electric system. In summary, although PRC-006-1 does not require all of the generation that is not directly connected to the bulk electric system to be included in the modeling, the subset of these resources that are required to assure that the UFLS models are sufficient to accurately predict system performance will be included.

Revision History for RSAW

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Reviewers** | **Revision Description** |
| 1 | 11/21/2017 | NERC Compliance Assurance, RSAW Task Force | New Document for consistency with the changes to newest version of approved Standard. |
|  |  |  |  |
|  |  |  |  |

1. NERC developed this Reliability Standard Audit Worksheet (RSAW) language in order to facilitate NERC’s and the Regional Entities’ assessment of a registered entity’s compliance with this Reliability Standard. The NERC RSAW language is written to specific versions of each NERC Reliability Standard. Entities using this RSAW should choose the version of the RSAW applicable to the Reliability Standard being assessed. While the information included in this RSAW provides some of the methodology that NERC has elected to use to assess compliance with the requirements of the Reliability Standard, this document should not be treated as a substitute for the Reliability Standard or viewed as additional Reliability Standard requirements. In all cases, the Regional Entity should rely on the language contained in the Reliability Standard itself, and not on the language contained in this RSAW, to determine compliance with the Reliability Standard. NERC’s Reliability Standards can be found on NERC’s website. Additionally, NERC Reliability Standards are updated frequently, and this RSAW may not necessarily be updated with the same frequency. Therefore, it is imperative that entities treat this RSAW as a reference document only, and not as a substitute or replacement for the Reliability Standard. It is the responsibility of the registered entity to verify its compliance with the latest approved version of the Reliability Standards, by the applicable governmental authority, relevant to its registration status.

   The RSAW may provide a non-exclusive list, for informational purposes only, of examples of the types of evidence a registered entity may produce or may be asked to produce to demonstrate compliance with the Reliability Standard. A registered entity’s adherence to the examples contained within this RSAW does not necessarily constitute compliance with the applicable Reliability Standard, and NERC and the Regional Entity using this RSAW reserve the right to request additional evidence from the registered entity that is not included in this RSAW. This RSAW may include excerpts from FERC Orders and other regulatory references which are provided for ease of reference only, and this document does not necessarily include all applicable Order provisions. In the event of a discrepancy between FERC Orders, and the language included in this document, FERC Orders shall prevail. [↑](#footnote-ref-2)
2. Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs. [↑](#footnote-ref-3)
3. Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity’s discretion. [↑](#endnote-ref-2)