



Document name	Remedial Action Scheme Review and Assessment Plan PRC-(012 through 014)-WECC-CRT-2 Regional Criterion
Category	<input type="checkbox"/> Regional Reliability Standard <input checked="" type="checkbox"/> Regional Criterion <input type="checkbox"/> Regional Business Practice <input type="checkbox"/> Policy <input type="checkbox"/> Guideline <input type="checkbox"/> Report or other <input type="checkbox"/> Charter
Document date	September 17, 2013
Adopted/approved by	WECC Board of Directors
Date adopted/approved	September 17, 2013
Custodian (entity responsible for maintenance and upkeep)	Standards
Stored/filed	Approved Regional Criteria
Previous name/number	(if any) This document supersedes WECC-0055, PRC-012 through 014 WECC-CRT-1. The name has not been changed.
Status	<input checked="" type="checkbox"/> in effect January 1, 2014

Version Control

Version	Date	Action	Change Highlights
1	6/22/2011	WECC Board approved	Version 1 to meet NERC FITB requirements.
2	9/17/2013	WECC Board approved	Version 2 to meet Blackout recommendations. Adds more reporting requirements.



A. Introduction

1. **Title:** **Remedial Action Scheme Review and Assessment Plan
WECC Criterion**
2. **Number:** PRC-012 through 14-WECC-CRT-2
3. **Purpose:** To: 1) establish a documented Remedial Action Scheme (RAS) review procedure to ensure compliance per PRC-012-0, 2) establish a RAS database per PRC-013-0, and 3) meet the Regional Reliability Organization / Reliability Assurer requirements of PRC-014-0.

This regional criterion was developed pursuant to North American Electric Reliability Corporation (NERC) Reliability Standards PRC-012-0 (Special Protection System Review Procedure), PRC-013-0 (Special Protection System Database) and PRC-014-0 (Special Protection System Assessment). Violation of this criterion may result in a violation of the any of the above mentioned NERC Reliability Standards. Violation of NERC Reliability Standards may result in financial penalties imposed by NERC.

4. **Applicability:**

For purposes of this document, the Applicable Entity designated in the Reporting Party field of Attachment A to this document is the Applicable Entity for purposes of each Requirement wherein the “Reporting Party” is used as the Applicable Entity. The Applicable Entity used in the Reporting Party field must be selected from 4.1. through 4.3. below.

- 4.1 Transmission Owner
- 4.2 Generator Owner
- 4.3 Distribution Provider
- 4.4 Reliability Assurer (WECC)

5. Effective Date: January 1, 2014

B. Requirements and Measures:

WR1. The Reliability Assurer (WECC) shall create and maintain a WECC Remedial Action Scheme Database containing, at a minimum, the information described on the WECC Remedial Action Scheme Information Sheet (Attachment A).

WM1. The Reliability Assurer (WECC) shall produce the WECC Remedial Action Scheme Database containing the information provided on the WECC Remedial Action Scheme Information Sheet (Attachment A) as required in WR1.

WR2. Each Reporting Party shall complete and forward the data described in the WECC Remedial Action Scheme Information Sheet (Attachment A) to the Reliability Assurer (WECC) no later than 90 days after the Effective Date of this document. (PRC-012-0, R1.1; See also PRC-012-0, R1.2)

WM2. Each Reporting Party shall produce evidence that a completed WECC Remedial Action Scheme Information Sheet (Attachment A) required in WR2: 1) was submitted to the Reliability Assurer (WECC), 2) by the designated Reporting Party listed in the Reporting Party field of Attachment A, and 3) was provided to the Reliability Assurer (WECC) no later than 90 days after the Effective Date of this document.

Evidence may include but is not limited to a dated copy of database information described in Attachment A including dated correspondence of transmittal of the database information from the Reporting Party to the Reliability Assurer (WECC).

WR3. The Reliability Assurer (WECC) shall designate the Remedial Action Scheme Reliability Subcommittee (RASRS), or its successor, as the entity responsible for the WECC *review procedure* for proposed and existing RASs within the Western Interconnection to meet the NERC performance requirements of TPL-001 – TPL-003, or its successor and Regional criteria. (PRC-012-0, R.1.8)

WM3. The Reliability Assurer (WECC) shall produce evidence that it designated the RASRS, or its successor, as the entity responsible for the review procedure for proposed and existing RASs within the Western Interconnection as required in WR3.

Evidence may include but is not limited to annotations in the minutes of the Operating Committee or the RASRS, or correspondence between

WECC staff and either the chair of the Operating Committee or the RASRS so indicating that designation.

WR4. Each Reporting Party shall use the process as established by the RASRS to submit a RAS for review.

WM4. Each Reporting Party shall provide evidence that it used the process as established by the RASRS to submit a RAS for review, in accordance with WR4 above.

Evidence may include, but is not limited to, annotations in the minutes of the Operating Committee or the RASRS, or correspondence between WECC staff and either the chair of the Operating Committee or the RASRS so indicating adherence to the process.

WR5. The Reliability Assurer (WECC) shall instruct the RASRS or its successor to ensure that each RAS reviewed meets, at a minimum, the following: (PRC-012-0, R1.8)

- 1) The LAPS and WAPS are designed so that a single component failure, when the LAPS or the WAPS is intended to operate, does not prevent any portion of the interconnected transmission system within WECC from meeting the performance requirements defined in NERC Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0, or its successor. (PRC-012-0, R1.3.)
- 2) Inadvertent operation of the RAS meets the same performance requirement (TPL-001-0, TPL-002-0, and TPL-003-0, or their successors) as that required of the contingency for which it was designed, and does not exceed TPL-003-0, or its successor. (PRC-012-0, R1.4)
- 3) The proposed RAS will coordinate with other protection and control systems and applicable WECC emergency procedures. (PRC-012-0, R1.5)

WM5. The Reliability Assurer (WECC) shall produce evidence that it instructed the RASRS (or its successor), to ensure that each RAS reviewed met, at a minimum, each of the elements listed in WR5 above.

Evidence may include, but is not limited to, annotations in the minutes of the Operating Committee or the RASRS, or correspondence between WECC staff and either the chair of the Operating Committee or the RASRS so indicating that designation.

WR6. The Reliability Assurer (WECC) shall designate the Operating Committee (OC), or its successor, as the entity responsible to *approve* the WECC review procedure for proposed and existing RASs within the Western Interconnection, based upon receipt of a positive recommendation of the RASRS. (PRC-012-0, R.1.8)

WM6. The Reliability Assurer (WECC) shall produce evidence that it designated the Operating Committee (OC), or its successor, as the entity responsible to approve the review procedure for proposed and existing RASs within the Western Interconnection, per WR6 above.

Evidence may include, but is not limited to, annotations in the minutes of the Operating Committee or the RASRS, or correspondence between WECC staff and either the chair of the Operating Committee or the RASRS so indicating that designation.

WR7. The Reliability Assurer (WECC) shall instruct the RASRS, or its successor, to review a RAS at the level of a WAPS, when requested to do so by the Operating Committee.

WM7. The Reliability Assurer (WECC) shall produce evidence that it instructed the RASRS, or its successor, to review a RAS at the level of a WAPS, when requested to do so by the Operating Committee, per WR7 above.

Evidence must include production of the request and correspondence between the Reliability Assurer (WECC) and the chair of the RASRS, or its successor, indicating the content of the instruction.

WR8. Each Reporting Party shall review the WECC Remedial Action Scheme Database for accuracy and report any changes (or lack thereof), modifications, retirements or expansions of its RAS to the Reliability Assurer, no later than December 31 of each calendar year. (PRC-012-0, R1.2)

WM8. Each Reporting Party shall produce evidence that it: 1) reviewed the WECC Remedial Action Scheme Database in accordance with WR8, and 2) reported evidence of that review to the Reliability Assurer (WECC) through the Reporting Party listed in the Reporting Party field of the WECC Remedial Action Scheme Information Sheet (Attachment A) no later than December 31 of each calendar year.

Evidence may include, but is not limited to, reports describing the review and the dates it took place, and correspondence between the Reporting Party and the Reliability Assurer (WECC) reflecting the required content.

WR9. Each Reporting Party shall submit any additions, changes, modifications, retirements, or expansions of its RAS, to the RASRS or its successor, prior to placing the RAS or its changes into service.

WM9. Each Reporting Party shall produce evidence that it submitted to the RASRS all proposed RAS changes per WR9, prior to placing the RAS or changes to an existing RAS into service.

Evidence may include but is not limited to: 1) dated correspondence between the Reporting Party and either the chair of the Operating Committee or the chair of the RASRS describing the RAS in question and its proposed date of service, or 2) production of studies run to establish and update seasonal System Operating Limits impacting the RAS.

WR10. Each Transmission Owner, each Generation Owner, and each Distribution Provider shall assess its RAS(s) for operation, coordination and effectiveness, at least once each five years.

WM10. *This Requirement is to ensure assessment takes place on a periodic basis; reporting of that assessment is addressed in WR11 and WM11.*

Each Transmission Owner, each Generation Owner, and each Distribution Provider shall produce evidence that it assessed its RAS(s) per WR10, at least once each five years.

Evidence that the assessment was conducted includes, at a minimum, production of a completed Attachment B of this document showing the results of the WR10 assessment.

Evidence may also include but is not limited to: 1) dated correspondence between the Reporting Party and either the chair of the Operating Committee or the chair of the RASRS describing the RAS in question and its proposed date of service, or 2) production of studies run to establish and update seasonal System Operating Limits impacting the RAS.

As to the completion date, for example, if the most recent WR10 assessment took place in June 2007, the next required assessment will be no later than June 2012.

WR11. Each Reporting Party shall *report* the RAS assessment, required in WR10 above, by sending a completed Attachment B of this criterion to the Reliability Assurer (WECC) no later than December 31 of the calendar year in which the assessment was completed.

WM11. *This Requirement is to ensure reporting takes place on a periodic basis; assessment of the RAS(s) is addressed in WR10 and WM10.*

Each Reporting Party shall produce evidence that it reported the results of its RAS(s) assessment required under WR10 of this document, by forwarding a completed version of Attachment B of this document, to the Reliability Assurer (WECC), no later than December 31 of the calendar year in which the assessment was completed.

As to the completion date, for example, if the most recent WR10 assessment took place in June 2007, the next required assessment will be no later than June 2012, with reporting to WECC no later than December 31, 2012.

WR12. Each Reporting Party shall retain documentation to support Attachment B data for the most recent assessment study reported and provide that data to WECC within 30 days upon request.

WM12. *This Requirement is to ensure data retention to support the assessment summary reported under WR11 and Attachment B.*

Each Reporting Party shall produce evidence that it retained the documentation required in WR12, for the time period specified, and where applicable, that it provided the specified data to WECC within the prescribed period.

Evidence may include but is not limited to a dated copy of assessment information supporting Attachment B including dated correspondence of transmittal of the supporting information from the Reporting Party to the Reliability Assurer (WECC).

Attachment A

WECC Remedial Action Scheme Information Sheet

This WECC Remedial Action Scheme Information Sheet is to be completed in accordance with this document by the Reporting Party identified in accordance with the assignment prioritization described in the Report Party Explanation field of this Attachment.

Explanations for Attachment A are contained in the following table.

The reporting template and instructions for filing of this Attachment can be obtained from the WECC web site.

The contents of Attachment A constitute the minimum data included in the WECC RAS Database. This document shall not be interpreted as prohibiting the expansion of the WECC RAS Database to include information beyond that contained in Attachment A.

Remedial Action Scheme Information Sheet Explanations

<u>Data Item</u>	<u>Explanation</u>
Reporting Party	<p>The Transmission Owner is the Reporting Party.</p> <p>Where there is not a Transmission Owner that owns a portion of the RAS, the Generator Owner becomes the Reporting Party.</p> <p>Where there is not a Transmission Owner or a Generator Owner that owns a portion of the RAS, the Distribution Provider becomes the Reporting Party.</p> <p>When applying the above prioritization, if multiple entities (e.g. multiple Transmission Owners in the first described tier) own a portion of the RAS, those multiple entities may designate a single entity from that group to serve as the Reporting Party. If a single Reporting Party is not designated, all of the entities of the specified prioritization tier become responsible as the Reporting Party.</p>
RAS Name	<p>Provide the name by which the Reporting Party references the scheme.</p>

Remedial Action Scheme Review and Assessment Plan
PRC-(012 through 014)-WECC-CRT-2

Classification	WAPS (Wide Area Protection Scheme), LAPS (Local Area Protection Scheme), or Safety Net (SN) as initially classified by the Transmission Owner(s), Generator Owner(s) and Distribution Provider(s) that owns all or part of an existing or proposed RAS as reported by the Reporting Party. (That initial classification is subject to review by the RASRS.)
Major WECC RAS	If this scheme is in WECC Reliability Standard PRC-STD-003, Table 3, Major WECC RAS List, enter the number from the list. If the scheme is not on the Major WECC RAS List, enter NA.
Operating Procedure	If the Transmission Owner(s), Generator Owner(s) and Distribution Provider(s) that owns all or part of an existing or proposed RAS as reported by the Reporting Party has a written operating procedure for this scheme, provide the identifying procedure number or title. If no operating procedure is available, enter NONE or NA.
Design Objectives	Data required to describe Design Objectives — contingencies and system conditions for which the scheme was designed.
Operation	Data required describing Operation — The actions taken by the scheme in response to Disturbance conditions.
Modeling	Data required for adequate Modeling — Information on detection logic or relay settings that control operation of the scheme.
Original In Service Year	Enter the year that the scheme originally went into service, not including any subsequent upgrades or other modifications. If specific records are not available, a best estimate such as “early 1980’s” is acceptable.
Recent Assessment Group	Identify the group (typically the Transmission Owner(s), Generator Owner(s) and Distribution Provider(s) that owns all or part of an existing or proposed RAS as reported by the Reporting Party that performed the most recent assessment of scheme operation, coordination and effectiveness.
Recent Assessment Date	Enter the date of the most recent assessment performed (mm/yyyy) that evaluated scheme operation, coordination and effectiveness.

Attachment B

WECC RAS Initial or Periodic Assessment Summary

Information on Attachment B will be used by the RASRS to ensure proper analysis, operation, coordination and effectiveness of the RAS.

Although the content of Attachment A and Attachment B are both provided to WECC, it is only the content of Attachment A that constitutes the minimum data to be contained in the WECC RAS Database. This criterion shall not be interpreted as prohibiting the expansion of the WECC RAS Database to include information beyond that contained in Attachment A.

RAS Name	
Reporting Party (The Reporting Party for this entry will always be the same as the Reporting Party entry listed in the Reporting Party field of Attachment A.)	
Group Conducting this RAS Assessment	
Assessment Date	
Review the scheme purpose and impact to ensure proper classification, is it (still) necessary, does it serve the intended purposes, and does it continue to meet current performance requirements.	
This RAS assessment included the following:	
Study Years	
System Conditions	
Contingencies analyzed (select what applies) N-1 N-1-1 N-2 Extreme	
Date when the technical studies were completed	
Does this RAS comply with NERC standards and WECC Criteria?	
Discuss any coordination problems found between	

Remedial Action Scheme Review and Assessment Plan
PRC-(012 through 014)-WECC-CRT-2

this RAS and other protection and control systems during this (most recent) assessment.	
Provide a Corrective Action Plan if this RAS was found to be non-compliant or had coordination problems during this (most recent) assessment (should be NA for owner's initial assessment).	