# Posting 2

## Posting

This project was posted for comment from December 12, 2022, through January 11, 2023.

WECC distributed notice for the posting on December 1, 2022. The drafting team (DT) asked stakeholders to provide feedback on the proposed document(s) through a standardized electronic template.

Multiple comments were received from a single entity.

## Location of Comments

Comments can be viewed in their original format on the [WECC-0147](https://www.wecc.org/Standards/pages/wecc-0147.aspx) project page under the “Submit and Review Comments” accordion.

## Changes in Response to Comment

* Background
  + The drafting team included language in the Background section highlighting current and future treatment of Requirement R5. R5 as approved: 1) has no bearing on Automatic Time Error Correction (ATEC), 2) migrated from the pre-2000 Minimum Operating Requirement Criteria (MORC) without any technical support—past or present, and 3) addresses Automatic Generation Capabilities (AGC) not included in any other Standard. Because deletion of R5 may create a reliability gap, R5 is retained herein; however, it should be relocated to an AGC-related Standard using a NERC Standard Authorization Request.
* Standardization of Language
  + To conform to NERC’s definitional approach, the legacy term *Net Actual Interchange (NAI)* was replaced with *Actual Net Interchange (ANI)*. *Net Scheduled Interchange (NSI)* was replaced with *Scheduled Net Interchange (SNI)*.
* Requirements
  + Posting 2, Requirement R2 was replaced with the following:
    - “R2. Each Balancing Authority shall operate its system such that, following the conclusion of each month, the month-end absolute value of its On-Peak and Off-Peak, accumulated Primary Inadvertent Interchange (PIIaccum), as calculated by the Interchange Software, are each individually less than or equal to 150% of the previous calendar year’s integrated hourly peak demand where peak demand is total load plus total exports. [Violation Risk Factor Medium:] [Time Horizon: Operations Assessment]
      * 2.1. For new BAs, the peak demand will be the maximum hourly integrated peak demand as it increases during the first year of operation.”
  + Posting 2, Requirement R7 was deleted.
    - The task is already covered in NERC’s INT-009-03, Implementation of Interchange. Since neither NERC nor FERC has approved the language, there is no need to justify its deletion from this project.
  + The following replaces as approved Requirement R8, adding a new R8 and R9:
    - R8. Each Balancing Authority making a month-end adjustment shall input that value as part of its Actual Net Interchange.
      * M8. Each Balancing Authority making a month-end adjustment will have evidence that it input that value as part of its Actual Net Interchange, as required in Requirement R8.
    - R9. Each Balancing Authority making a month-end adjustment shall ensure that value is added to its accumulated Primary Inadvertent Interchange.
      * M9. Each Balancing Authority making a month-end adjustment will have evidence that the value was added to its accumulated Primary Inadvertent Interchange, as required in Requirement R9.

## Minority View

* The drafting team did not concur with Bonneville Power Administration (BPA) as to the appropriate location for specified text. However, the team did endeavor to either retain the text or relocate it so that its intent was still available.
* The drafting team did not concur with BPA as to retention of requirement R5 as approved. However, the team did retain the reliability task of Requirement R5 because the task is not located in any other Standard. The modal-specific language was moved to the Guideline section. The Guideline section will be further updated after the Requirements are further distilled.

## Proposed Effective Date

The proposed effective date is the first day of the second quarter following regulatory approval.

## Justification

As proposed, many of the required tasks are already being performed in the same or similar manner as those currently approved. The new or modified tasks impose a minimal burden achievable in the time window between regulatory approval and the proposed Effective Date.

## Impact on Other Documents

None.

## Action Plan

On March 30, 2023, the WECC-0147, BAL-004-WECC-4, Automatic Time Error Correction (ATEC) Drafting Team (DT) agreed to post Posting 3 for a 30-day comment period. Once the comment period opens, comments can be submitted by selecting the **Submit and Review Comments** accordion on the WECC-0147 homepage. Then, click **Submit Responses to Posting 3**.

The posting period will open April 6, 2023, and close May 8, 2023.

The DT will meet on May 18, May 25, and June 8, 2023, to address comments received.

Posting 3 covers only Sections A–C. The remaining portions of the document will be addressed as Requirements draw nearer to completion.

## Contacts and Appeals

If you feel your comment has been omitted or overlooked, please contact [W. Shannon Black](mailto:sblack@wecc.org), WECC Consultant, at (503) 307-5782. In addition, there is a WECC Reliability Standards appeals process.

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| --- | --- |
| Commenter | Organization |
| Andria Jessup on behalf of Bonneville Power Administration (BPA) | BPA |

**Index to Questions, Comments, and Responses**

Posting 2 only covers Sections A–C of BAL-004-WECC-4. Other sections will be covered in subsequent postings.

1. The DT invites comment on all other aspects of Sections A through C. Other sections will be addressed in subsequent postings.

**Question 1**

1. **The drafting team invites comment on all other aspects of Sections A through C. Other sections will be addressed in subsequent postings.**

| Summary Consideration: | See summary in the preamble. | |
| --- | --- | --- |
| Commenter/Comment | | Response |
| BPA | | **Comment 1—Relocating Information (See also Comment 4)**  1. BPA is concerned that more and more content is being placed into the rationale sections. Since the Rationale sections are not enforceable, the enforceable standard language is becoming watered down or not clear due to the reliance on the Rationale sections.  *Retain R5*  For example, the current BAL-004-WECC-4 proposal is to remove the operating modes mentioned in BAL-004-WECC-3, R5 and put that language into the rationale for R5 in BAL-004-WECC-4. This language was originally in BAL-004-WECC-1, R3 and BAL-004-WECC-3, R5.  *Dilution of Requirement / Location of Language*  In addition, language that used to be in BAL-004-WECC-1, R4.2 and R4.3 is now in the Rationale section for Month End Adjustment (BAL-004-WECC-3, R7, BAL-004-WECC-4, R8) explaining that the adjustments for IIaccum are to be applied as 100% PIIaccum.  This language in the Requirements made them enforceable. Moving them to the Rationale section removed that. If the Rationale section were to be removed at a future Drafting Team meeting, then important contextual language (formerly enforceable) would be lost for the standard.  **Comment 2—Standardized Terminology**  2. Due to the results of the NERC ACE SAR drafting team, it is recommended that the terms in the standard be changed to ‘Actual Net Interchange’ (NIA) and ‘Scheduled Net Interchange’ (NIS) throughout the document in lieu of other versions of those terms. This will align the new version of the document with the NERC Glossary of Terms (Used in Reliability Standards) (Glossary).  **Comment 3—R2 Bounding / Suggested New Language**  3. In order to adhere to FERC’s requirement that there be an upper bound on the amount of accumulated primary inadvertent interchange, the language from the existing Standard is needed but can be modified. However, the modification for the new R2 does not work. PIIaccum is the amount of accumulated primary inadvertent interchange for either on or off-peak, and should not be compared with the average load or generation in any particular hour. This is why the previous year’s peak demand was used in the existing standard.  BPA’s recommendation is to revert to the existing language. To accommodate new Balancing Authority’s (BA), be they generation-only or BAs with load, the peak demand would be the peak that occurred from the inception of the BA until the first year is concluded, and then use the previous year’s peak demand. To accommodate all BAs with one requirement, peak demand can be described as total load plus total exports for each hour.  Example for first year after inception:  First month peak: 250 MW, this is used until exceeded.  Mid-month of second month peak reaches 400 MW; this is now used as the peak demand until exceeded.    BPA recommends the following new language:  R1. Each Balancing Authority shall operate its system such that, following the conclusion of each month, the month-end absolute value of its On-Peak and Off-Peak, Accumulated Primary Inadvertent Interchange (PIIaccum), as calculated by the interchange software, are each individually less than or equal to 150% of the previous calendar year’s integrated hourly peak demand where peak demand is total load plus total exports. [Violation Risk Factor Medium:] [Time Horizon: Operations Assessment]  1.1 For new BAs, the peak demand will be the maximum hourly integrated peak demand as it increases during the first year of operation.  **Comment 4—Retain Requirement R5 from Posting 1 (See also Comment 1)**  4. BPA’s response to Posting 1 was to retain the original language of BAL-004-WECC-3, R5. BPA agrees with the DT response that this language is out of place in this standard. However, the fact that this language is not contained in any other NERC or WECC standard drives the concern that the language should not be removed entirely from the BAL-004-WECC standard.  BPA’s preference would be to retain the original language until a Standard Authorization Request (SAR) is initiated to find a suitable placement of that Requirement language. If this is not agreed upon by the Drafting Team, BPA agrees with the new R5 language but would like the original language of BAL-004-WECC-3, R5 transferred to the Rationale section of the new version for Requirement R5.  **Comment 5—Delete Requirement R7**  5. BPA does not believe R7 is needed because the Requirement is covered under existing Standards (INT-021-WECC-CRT-3 and INT-009, R1).  **Comment 6a. - Requested Change to Requirement Proposed R8**  6. BAL-004-WECC-“4”, R8—Month End Adjustments: BPA proposes the following language change to this Requirement to include language stating how to apply the adjustment:  Each Balancing Authority shall input its month-end adjustment into the Interchange Software as part of its Actual Net Interchange and the BA shall validate that 100% of the adjustment is reflected as Primary Inadvertent Interchange and shall be added to the appropriate On or Off-Peak Accumulated Primary Inadvertent Interchange.  **Comment 6b. - Keep the Original Requirement R8 (Referring to Bilateral/Unilateral Payback)**  7. BAL-004-WECC-4, Payback using ATEC vs bilateral/unilateral payback (BAL-004-WECC-3, R8)  a. BPA disagrees with the removal of this Requirement due to the severity of the consequences of disrupting the automatic nature of the ATEC payback function.  b. BPA suggests ensuring the following phrase is included in the main Standard body, which could be done by keeping BAL-004-WECC-3, R8: Bilateral and unilateral payback of inadvertent interchange is not allowed.  c. Other Requirements in the Standard address the use of the Interchange Software to calculate ATEC (Rx) and state that ATEC shall remain in-service at all times (R4). However, neither of those prohibit entities from engaging in a payback method outside of the ATEC mechanism.  d. Keeping this Requirement in place closes the door on the possibility of alternative payback methods (for example, inadvertent payback had a term early on in the ACE equation prior to ATEC, and other methods are used in the Eastern Interconnection). Placing the reasoning in a Rationale justification that is not enforceable, but that could cause a significant impact to ATEC payback, is not acceptable. |
| **Comment 1—Relocating Information / Results Based Requirements**  *Retention of R5 without Diluting Reliability (See also Comment 4)*  The DT appreciates BPA’s observations regarding Version 3, R5, and agrees that it should not be deleted outright. However, the approved language of Version 3, R5 is problematic. Notwithstanding that R5 has no technical justification, retention of the modal-specific parentheticals constricts the operators’ options. Rather than dictate how the entity needs to respond to an operational condition, Results-based drafting conventions would remove that language and free the operator to respond in the most appropriate manner.  *Capability vs. Mandate to Use the Capability*  It should be noted that as-approved Version 3, R5 only requires an entity to *have a specified capability.* There is *no mandate to use that capability* nor is there a mandate to correlate the ATEC calculation with the AGC operating mode used to match operating conditions. In short, the entity simply must be “capable” of changing AGC modes. This conclusion is proven in the Measure stating “M3. For [Version 1] Requirement R3, a BA in the Western Interconnection must be able to demonstrate its *ability to change* its AGC operating mode.” (Emphasis added.)  It would seem the goal of the language was to require the entity to use values from the selected AGC mode to calculate the corresponding ATEC. This conclusion is buttressed by Version 1, R3 stating “[t]he ACE used for NERC reports shall be the same ACE as the AGC operating mode in use,” and the Guideline section of subsequent versions stating the goal is to “set the AGC and calculate the ACE in a manner that correspond to the system operating conditions.”  The issue, then, is twofold: 1) ensure retention of the requirement to be “capable,” and 2) ensure the entity uses the appropriate values to calculate its ATEC.  To retain the capability requirement, Version 4 R5 requires the Balancing Authority to be “able to change” (have the capability) AGC to meet operating conditions. This retains the enforceability of the capability with the caveat that the Requirement to have AGC capabilities is better placed in another Standard.  Thus, carte blanche removal of the Requirement would be inappropriate, as it could lead to a reliability gap.  *Treatment of Modal References*  The proposed Requirement has not retained the specified list of operating modes for specified conditions. Retention of the modal references reduces operational flexibility. In keeping with NERC’s results-based approach, the Requirement removes the prescriptive language that could otherwise restrict the operator from choosing a more condition-appropriate operating response. The proposed Requirement states “what” needs to be done and not “how” it should be done. That is the essence of a results-based requirement.  *No Supporting Evidence to Keep the Modal Language*  In taking this approach, the DT recognizes there is no supporting documentation explaining why this feature appeared when WECC’s circa pre-2000 Minimum Operating Requirement Criteria (MORC) was translated to the 2007 Version 1. As such, the Guideline section will need to be updated more clearly reflecting the intent of the language. Those sections will be updated once the requirements are more firmly distilled.  *Ensuring Appropriate Values*  To ensure that the appropriate values are used for the ATEC calculation, the DT proposed Version 4, R1 requiring the entity use the Interchange Software as a sole source of ATEC values.  *Relocation of Version 1, R4.2 and R4.3 to the Guidelines*  The issue distills down to “what” not “how.”  BPA notes that moving the content of Version 1, R4.2 and R4.3 into the Guidelines nullifies enforceability of that language. BPA is correct. As noted above regarding R5, drafting conventions have changed since Version 1 and morphed into results-based language. Version 1 mandated “how” the calculation should be done; subsequent versions mandate “what” should take place.  Although there is no documentation explaining the connection between the MORC and 2007 Version 1, the DT did find a mapping document filed with Version 2 explaining why Version 1, R4 changed. The following excerpt states the Version 2 DT “clarified the previous requirement *and adopted the NERC requirement format.” (*Emphasis added.)   |  |  |  |  | | --- | --- | --- | --- | | **Version 1**  **R4.** Regardless of the AGC operating mode, each BA in the Western Interconnection shall compute its hourly Primary Inadvertent Interchange when hourly checkout is complete. If hourly checkout is not complete by 50 minutes after the hour, compute Primary Inadvertent Interchange with best available data. This hourly value shall be added to the appropriate accumulated Primary Inadvertent Interchange balance for either On-Peak or Off-Peak periods. [Risk Factor: Lower] | **Version 2**  **R4.** By 50 minutes after each hour each Balancing Authority shall compute the following:   1. PII**hourly**, 2. On-Peak PIIaccum, 3. Off-Peak PIIaccum, 4. Automatic Time Error Correction term (*IATEC)* | **Explanation**  The drafting team clarified the previous requirement and adopted the NERC requirement format. |  |   *Inclusion of the Prior Language in the Guidelines is Appropriate*  The Guidelines section should focus on language that assists with technical understanding of a Requirement or Reliability Standard. By contrast, the Requirements section focuses on what to achieve (results-based language) and not how to achieve it.  “Results based standards are standards that focus on required actions or results (the "what") and not necessarily the methods by which to accomplish those actions or results (the "how"). This concept was introduced to electric reliability standards in 2010, when it was included in the NERC Standard Processes Manual. Since that time, standard drafting teams have strived to draft standards with these concepts in mind.” NERC Results Based Standards Page[[1]](#footnote-1)  As currently approved, the language states “how” the task is to be done (Version 1, R4—PIIaccum; Version 4, R5—operating modes) and not “what” is to be achieved. As such, the language does not meet the goal of a results-based Requirement. That said, the language remains valuable, and its intent should be retained.  Retention in the Guidelines section provides the reader with a greater technical understanding of the Requirement’s goal without prescribing how to reach the goal. As such, the language is more appropriately located in the Guideline section.  *No Supporting Evidence to Keep the Language in a Requirement*  The DT also shares BPA’s concern regarding loss of historic context for the Requirements.  BPA asserts that retaining the language in the Requirements is essential to reliability because it has always been there. As the Background section indicates, the language: 1) predates Version 1, 2) was created before 2000 (more than 22 years ago), 3) stems from the MORC that is now retired, and 4) neither the original translation of the MORC to a Standard nor any subsequent filing has provided any technical support that the language is essential for reliability, or why the verbiage was ever included in a Standard. Restated, there has never been any historic support for the language, only reliance on the premise that it has been important for unspecified reasons since the 1990s.  The drafting team has included language in the Background section highlighting the lack of technical support while retaining the historical record.  **Comment 2—Standardized Terminology**  To conform to NERC’s definitional approach, the term *Net Actual Interchange (NAI)* was replaced with *Actual Net Interchange (ANI)*. *Net Scheduled Interchange (NSI)* was replaced with *Scheduled Net Interchange (SNI)*.  **Comment 3—R2 Bounding / Suggested New Language**  The drafting team accepted BPA’s proposed language with the exception that the lower-case use of “Accumulated” and upper-case of “Interchange Software” were adopted.  **Comment 4—Retain Requirement R5[[2]](#footnote-2) - Modal Language**  Please see response to Comment 1. The modal language is included in Posting 3, Guidelines for Requirement R5; however, the entire Guidelines section will be reviewed in subsequent postings.  **Comment 5—Posting 2, Proposed R7**  The drafting team concurred the Posting 2, Requirement R7 could be deleted. The task is already covered in NERC’s INT-009-03, Implementation of Interchange. Since neither NERC nor FERC has approved the language, there is no need to justify its deletion from this project.  **Comment 6a. and 6b.—Posting 2, Requirement R8 (Posting 3 Replaces with New R8 and R9)**  The DT and BPA agreed that by replacing Version 3, R8 with the following proposed two Requirements (New R8 and R9, plus associated Measures), the intent and reliability tasks of as approved R8 were retained.  **R8.** Each Balancing Authority making a month-end adjustment shall input that value as part of its Actual Net Interchange.  **M8.** Each Balancing Authority making a month-end adjustment will have evidence that it input that value as part of its Actual Net Interchange, as required in Requirement R8.  **R9.** Each Balancing Authority making a month-end adjustment shall ensure that value is added to its accumulated Primary Inadvertent Interchange.  **M9.** Each Balancing Authority making a month-end adjustment will have evidence that the value was added to its accumulated Primary Inadvertent Interchange, as required in Requirement R9. | | |

1. NERC Results Based Standards Page <https://www.nerc.com/pa/Stand/Pages/ResultsBasedStandards.aspx#:~:text=Results%20based%20standards%20are%20standards,the%20NERC%20Standard%20Processes%20Manual>. [↑](#footnote-ref-1)
2. As-approved Version 3, “R5. Each Balancing Authority shall be able to change its Automatic Generation Control operating mode between Flat Frequency (for blackout restoration); Flat Tie Line (for loss of frequency telemetry); Tie Line Bias; and Tie Line Bias plus Time Error Control (used in ATEC mode), to correspond to current operating conditions. [Violation Risk Factor: Medium] [Time Horizon: Real-Time Operations]” [↑](#footnote-ref-2)