

Project 2010-14.2 Periodic Review of BAL Standards
Periodic Review Team Recommendations on BAL-005
and BAL-006

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Reference Document for February 28, 2014 webinar

Standard BAL-005-0.2b — Automatic Generation Control

A. Introduction

1. **Title:** Automatic Generation Control
2. **Number:** BAL-005-0.2b
3. **Purpose:** This standard establishes requirements for Balancing Authority Automatic Generation Control (AGC) necessary to calculate Area Control Error (ACE) and to routinely deploy the Regulating Reserve. The standard also ensures that all facilities and load electrically synchronized to the Interconnection are included within the metered boundary of a Balancing Area so that balancing of resources and demand can be achieved.
4. **Applicability:**
 - 4.1. Balancing Authorities
 - 4.2. Generator Operators
 - 4.3. Transmission Operators
 - 4.4. Load Serving Entities
5. **Effective Date:** May 13, 2009

B. Requirements

- R1. All generation, transmission, and load operating within an Interconnection must be included within the metered boundaries of a Balancing Authority Area.
 - R1.1. Each Generator Operator with generation facilities operating in an Interconnection shall ensure that those generation facilities are included within the metered boundaries of a Balancing Authority Area.
 - R1.2. Each Transmission Operator with transmission facilities operating in an Interconnection shall ensure that those transmission facilities are included within the metered boundaries of a Balancing Authority Area.
 - R1.3. Each Load Serving Entity with load operating in an Interconnection shall ensure that

PRT Recommendation:

The PRT proposes certain revisions which would remove references to the types of resources and reserves utilized by the Balancing Authority to balance resources and demand. The PRT recommendations focus on the components that make up the Reporting ACE, and not on the ancillary service aspects of resource control that drew criticism from the industry for being specific to generation when BAL-005 was originally filed with the FERC.

The PRT recommends changing the title of BAL-005 to “Balancing Authority Control” to remove the implication that BAL-005 pertains exclusively to generation, and better reflect the focus on the BA acquiring necessary data to calculate Reporting ACE so that balancing of resources and demand can be achieved under Tie-Line Bias Control. The PRT suggested revisions in the redlined BAL-005 include the removal of any reference to AGC; based upon the input from the industry, the PRT recommends that the SDT consider whether the term AGC should be retained within any requirements.



- 2. **Number:** BAL-005-0.2b
- 3. **Purpose:** This standard establishes requirements for Balancing Authority Automatic Generation Control (AGC) necessary to calculate Area Control Error (ACE) and to routinely deploy the Regulating Reserve. The standard also ensures that all facilities and load electrically synchronized to the Interconnection are included within the metered boundary of a Balancing Area so that balancing of resources and demand can be achieved.
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PRT Recommendation:
 Consider making this Standard applicable to the BA and consider moving R1.1, R1.2 and R1.3 to an FAC Standard to ensure facilities are within the metered boundaries of a BA prior to transmission operation, resource operation, or load being served.

B. Requirements

- R1.** All generation, transmission, and load operating within an Interconnection must be included within the metered boundaries of a Balancing Authority Area.
 - R1.1.** Each Generator Operator with generation facilities operating in an Interconnection shall ensure that those generation facilities are included within the metered boundaries of a Balancing Authority Area.
 - R1.2.** Each Transmission Operator with transmission facilities operating in an Interconnection shall ensure that those transmission facilities are included within the metered boundaries of a Balancing Authority Area.
 - R1.3.** Each Load-Serving Entity with load operating in an Interconnection shall ensure that those loads are included within the metered boundaries of a Balancing Authority Area.

PRT Recommendation:

“This standard establishes requirements for acquiring necessary data for the Balancing Authority to calculate Reporting ACE so that balancing of resources and demand can be achieved under Tie-Line Bias Control.”

PRT Recommendation: Revise R1 and add a new R2 to be BA requirements that all Actual Net Interchange and Scheduled Net Interchange used by the BA in its Reporting ACE calculation have an Adjacent BA:

R1 – “Each Balancing Authority shall implement only those Tie-Lines and Pseudo-Ties with Adjacent Balancing Authorities as Actual Net Interchange in the Reporting ACE.”

R2 – “Each Balancing Authority shall implement only those Interchange Schedules including Dynamic Schedules with Adjacent Balancing Authorities as Scheduled Net Interchange in the Reporting ACE. “

R1.2. Each Transmission Operator with transmission facilities operating in an Interconnection shall ensure that those transmission facilities are included within the metered boundaries of a Balancing Authority Area.

R1.3. Each Load-Serving Entity with load operating in an Interconnection shall ensure that those loads are included within the metered boundaries of a Balancing Authority Area.

R2. Each Balancing Authority shall maintain Regulating Reserve that can be controlled by AGC to meet the Control Performance Standard. (Retirement approved by FERC effective January 21, 2014.)

R3. A Balancing Authority providing Regulation Service shall ensure that adequate metering, communications, and control equipment are employed to prevent such service from becoming a Burden on the Interconnection or other Balancing Authority Areas. ←

→ R4. A Balancing Authority providing Regulation Service shall notify the Host Balancing Authority for whom it is controlling if it is unable to provide the service, as well as any Intermediate Balancing Authorities.

R5. A Balancing Authority receiving Regulation Service shall ensure that backup plans are in place to provide replacement Regulation Service should the supplying Balancing Authority no longer be able to provide this service.

R6. The Balancing Authority's AGC shall compare total Net Actual Interchange to total Net Scheduled Interchange plus Frequency Bias obligation to determine the Balancing Authority's ACE. Single Balancing Authorities operating asynchronously may employ alternative ACE calculations such as (but not limited to) flat frequency control. If a Balancing Authority is unable to calculate ACE for more than 30 minutes it shall notify its Reliability Coordinator.

PRT Recommendation for R4:

Retire R4, as the basis for coordination of common values between Adjacent BAs is covered in the recommended R3 and correction of information not available has also been addressed. These requirements should ensure that any failure to perform would be reflected in the BA performance under BAL-001-2.

PRT Recommendation for R3:

Remove the reference to Regulation Service and expand R3 to address the implementation of Tie-Lines, Pseudo-Ties, and Dynamic Schedules in a similar manner, as all require agreement on the common information that will be used between the Adjacent BAs, the implementation of dynamically changing data in the Reporting ACE, and review of the hourly-integrated values against megawatt-hour metering to determine if error exists. Recommended changes include the following Requirement text:

“Adjacent Balancing Authorities shall ensure that adequate metering, communications, and control equipment are employed between them to ensure that common and agreed-upon values are communicated to both Balancing Authorities for all Tie-Lines, Pseudo-Ties, and Interchange Schedules including Dynamic Schedules, even when primary source data is not available.”

- R1.2. Each Transmission Operator with transmission facilities operating in an Interconnection shall ensure that those transmission facilities are included within the metered boundaries of a Balancing Authority Area.
- R1.3. Each Load-Serving Entity with load operating in an Interconnection shall ensure that those loads are included within the metered boundaries of a Balancing Authority Area.
- R2. Each Balancing Authority shall maintain Regulating Reserve that can be controlled by AGC to meet the Control Performance Standard. (Retirement approved by FERC effective January 21, 2014.)
- R3. A Balancing Authority providing Regulation Service shall ensure that adequate metering, communications, and control equipment are employed to prevent such service from becoming a Burden on the Interconnection or other Balancing Authority Areas.
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- R6. The Balancing Authority's AGC shall compare total Net Actual Interchange to total Net Scheduled Interchange plus Frequency Bias obligation to determine the Balancing Authority's ACE. Single Balancing Authorities operating asynchronously may employ alternative ACE calculations such as (but not limited to) flat frequency control. If a Balancing Authority is unable to calculate ACE for more than 30 minutes it shall notify its Reliability Coordinator.

PRT Recommendation for R5:
Retire R5, as the requirements placed upon the implementation of Dynamic Transfers are covered within the suggested R3. With respect to having a backup plan to the extent that a service may no longer be provided, the PRT believes this would be in the terms of the business arrangement. As proposed by the PRT, the requirements remaining in BAL-005 would ensure that any failure to perform would be reflected in the BA performance under BAL-001-2.

PRT Recommendation for R6:

The first sentence is covered in the definition of "Reporting ACE." The intent of the sentence, "Single Balancing Authorities operating asynchronously ..." should be captured in proposed changes to the definition of Reporting ACE. The SDT should explore whether covering the loss of the ability to calculate Reporting ACE is more appropriate in EOP-008. The terms used in Requirement R6 need to be consistent with those used in Reporting ACE if the requirement is retained. The SDT should consider whether the 30-minute requirement for RC notification is sufficient or excessive, and whether communication under such circumstances could be better addressed elsewhere in the standards, including EOP-008. The PRT recommends that if a timing requirement remains in the standard, that it be structured in a manner to not require communication with the RC if the capability to calculate Reporting ACE is restored within the defined notification period.

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R7. The Balancing Authority shall operate AGC continuously unless such operation adversely impacts the reliability of the Interconnection. If AGC has become inoperative, the Balancing Authority shall use manual control to adjust generation to maintain the Net Scheduled Interchange.

R8. The Balancing Authority shall ensure that data acquisition for and calculation of ACE occur at least every six seconds.

R8.1. Each Balancing Authority shall provide redundant and independent frequency metering equipment that shall automatically activate upon detection of failure of the primary source. This overall installation shall provide a minimum availability of 99.95%.

R9. The Balancing Authority shall include all Interchange Schedules with Adjacent Balancing Authorities in the calculation of Net Scheduled Interchange for the ACE equation.

R9.1. Balancing Authorities with a high voltage direct current (HVDC) link to another Balancing Authority connected asynchronously to their Interconnection may choose to omit the Interchange Schedule related to the HVDC link from the ACE equation if it is modeled as internal generation or load.

R10. The Balancing Authority shall include all Dynamic Schedules in the calculation of Net Scheduled Interchange for the ACE equation.

R11. Balancing Authorities shall include the effect of ramp rates, which shall be identical and agreed to between affected Balancing Authorities, in the Scheduled Interchange values to calculate ACE.

PRT Recommendation for R8 and R8.1:

Revise R8 with the proper context of a minimum normal scan rate and clarify how frequently all components must be factored into the Reporting ACE equation under normal operation. With respect to the sub-requirements, the SDT should ensure that any proposed revisions accommodate abnormal and emergency operations, including the possibility that the EMS or supporting telemetry may not be available, such as during an evacuation to a backup site. **R8.1,** The BA should have visibility of system frequency within parameters consistent with EOP-008; however, the PRT recommends that the requirement not be prescriptive.

PRT Recommendation for R7:

Retire this Requirement under Paragraph 81. The first sentence covers having a functional EMS or other system capable of calculating Reporting ACE and controlling resources, though resources can be dispatched manually without any detriment to reliability. The PRT believes that the term “operate AGC” in R7 refers to the capability to continuously calculate ACE, not automatic control of resources to the extent BAs cannot take resources off “AGC” mode.

Standard BAL-005-0.2b — Automatic Generation Control

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- R11.** Balancing Authorities shall include the effect of ramp rates, which shall be identical and agreed to between affected Balancing Authorities, in the Scheduled Interchange values to calculate ACE.

PRT Recommendation for R10 and R11:

The PRT recommends the retirement of these requirements, as the basics of both requirements are factored into the definition of Scheduled Net Interchange (NI_s) used in the Reporting ACE calculation as defined in the NERC Glossary.

PRT Recommendation for R9:

Retire R9 and R9.1. R9 is covered in the definition of Reporting ACE, and the proposed R1 and R2 ensure that the BA does not include any Interchange in its Reporting ACE that does not have an Adjacent BA.

Regarding R9.1, the Actual Net Interchange and Scheduled Net Interchange values in the Reporting ACE calculation include provisions for the Balancing Authority to include its high voltage direct (HVDC) link to another asynchronous interconnection. By assuring the values are handled consistently in the actual and scheduled Interchange terms included in the real-time Reporting ACE by definition, the Balancing Authority is not being instructed “how” to implement the HVDC link, but allowed to decide the method it will use.

R12. Each Balancing Authority shall include all Tie Line flows with Adjacent Balancing Authority Areas in the ACE calculation.

R12.1. Balancing Authorities that share a tie shall ensure Tie Line MW metering is telemetered to both control centers, and emanates from a common, agreed-upon source using common primary metering equipment. Balancing Authorities shall ensure that megawatt-hour data is telemetered or reported at the end of each hour.

R12.2. Balancing Authorities shall ensure the power flow and ACE signals that are utilized for calculating Balancing Authority performance or that are transmitted for Regulation Service are not filtered prior to transmission, except for the Anti-aliasing Filters of Tie Lines.

R12.3. Balancing Authorities shall install common metering equipment where Dynamic Schedules or Pseudo-Ties are implemented between two or more Balancing Authorities to deliver the output of Jointly Owned Units or to serve remote load.

R13. Each Balancing Authority shall perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the accuracy of its control equipment. The Balancing Authority shall adjust the component (e.g., Tie Line meter) of ACE that is in error (if known) or use the interchange meter error (I_{ME}) term of the ACE equation to compensate for any equipment error until repairs can be made.

R14. The Balancing Authority shall provide its operating personnel with sufficient instrumentation and data recording equipment to facilitate monitoring of control performance, generation response, and after-the-fact analysis of area performance. As a minimum, the Balancing Authority shall provide its operating personnel with real-time values for ACE, Interconnection frequency and Net Actual Interchange with each Adjacent Balancing Authority Area.

R15. The Balancing Authority shall provide adequate and reliable backup power supplies and shall periodically test these supplies at the Balancing Authority's control center and other critical

PRT Recommendation for R12:

The PRT recommends a new requirement R3 where each respective Adjacent Balancing Authority has agreed to common measuring points that produce an agreed-to common value to be included in the calculation of Reporting ACE. Accuracy and review of the agreed-to common value is reflected in the new R3 requiring comparison of hourly megawatt-hour values against the integrated data operated to for Tie-Lines, Dynamic Schedules, and Pseudo-Ties.

The PRT recommends the ACE and Reporting ACE definitions be reviewed (understanding and identifying as well why there is a difference) to assure that they are comprehensive (including items such as all AC Tie-Lines, Pseudo-ties, and all other necessary Adjacent BA information).



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PRT Recommendation for R13:

The PRT suggests moving elements of Requirement R13, as reflected on the suggested redline. Specifically, for the first sentence of Requirement R13, the PRT has suggested a redline change to address performing hourly error checks of the NIA operated to for the hour against an end-of-the-hour reference. The PRT also recommends a separate requirement specific to adjustments as needed to the Reporting ACE to reflect the meter error adjustment. However, the PRT is concerned that requiring correction of a component of ACE when in error (no matter how negligible) would be problematic, in that not all errors require correction.

PRT Recommendation for R14:

Define the minimum expectations for situational awareness of the BES. The PRT also recommends that the individual components of actual and scheduled interchange with each Adjacent Balancing Authority also be captured (Tie-Lines, Pseudo-Ties, Dynamic Schedules, block schedules as needed for coordination, and real-time schedules).

- R13. Each Balancing Authority shall perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the accuracy of its control equipment. The Balancing Authority shall adjust the component (e.g., Tie Line meter) of ACE that is in error (if known) or use the interchange meter error (I_{ME}) term of the ACE equation to compensate for any equipment error until repairs can be made.
- R14. The Balancing Authority shall provide its operating personnel with sufficient instrumentation and data recording equipment to facilitate monitoring of control performance, generation response, and after-the-fact analysis of area performance. As a minimum, the Balancing Authority shall provide its operating personnel with real-time values for ACE, Interconnection frequency and Net Actual Interchange with each Adjacent Balancing Authority Area.
- R15. The Balancing Authority shall provide adequate and reliable backup power supplies and shall periodically test these supplies at the Balancing Authority's control center and other critical 

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locations to ensure continuous operation of AGC and vital data recording equipment during loss of the normal power supply.

- R16. The Balancing Authority shall sample data at least at the same periodicity with which ACE is calculated. The Balancing Authority shall flag missing or bad data for operator display and archival purposes. The Balancing Authority shall collect coincident data to the greatest practical extent, i.e., ACE, Interconnection frequency, Net Actual Interchange, and other data shall all be sampled at the same time.

PRT Recommendation for R16:

The PRT recommends moving the requirement for flagging bad data to the redlined R6 (old R14).

PRT Recommendation for R15:
The PRT struggled with developing a recommendation on this requirement, as one would assume that the need to calculate Reporting ACE and the expectation of the BA maintaining situational awareness of the BES would not require a prescriptive requirement for redundancy of power supply to ensure continuous calculation of Reporting ACE and operation of vital data acquisition and recording equipment. Conversely, should the NERC requirements define the minimum expectations for such functionality for a BA to demonstrate that it meets the minimum expectations under EOP-008? The SDT should consider placing a requirement in FAC with respect to supporting infrastructure or functionality, or review EOP-008 to determine if additional requirements should be considered for primary control center functionality.

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R17. Each Balancing Authority shall at least annually check and calibrate its time error and frequency devices against a common reference. The Balancing Authority shall adhere to the minimum values for measuring devices as listed below:

Device	Accuracy
Digital frequency transducer	≤ 0.001 Hz
MW, MVAR, and voltage transducer	≤ 0.25 % of full scale
Remote terminal unit	≤ 0.25 % of full scale
Potential transformer	≤ 0.30 % of full scale
Current transformer	≤ 0.50 % of full scale

C. Measures

Not specified.

D. Compliance

PRT Recommendation for R17:
The PRT recommends that this requirement be written to be specific to the elements required for Reporting ACE. As such, the PRT recommends one requirement to address the frequency device and a separate requirement to address the MW measurement. The PRT also recommends that the SDT review whether any other accuracy requirements that apply to the calculation of VARs and voltage should be included in a TOP or FAC standard. Further study would be needed on the “.25% of full scale” and the “appropriate accuracy” language.

A. **Introduction**

1. **Title:** **Inadvertent Interchange**

2. **Number:** BAL-006-2

3. **Purpose:**

This standard defines a process for monitoring Balancing Authorities to ensure that, over the long term, Balancing Authority Areas do not excessively depend on other Balancing Authority Areas in the Interconnection for meeting their demand or Interchange obligations.

4. **Applicability:**

4.1. Balancing Authorities.

5. **Effective Date:** First day of first calendar quarter after applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, first day of first calendar quarter after Board of Trustees adoption.

B. **Requirements**

R1. Each Balancing Authority shall calculate and record hourly Inadvertent Interchange.

(Violation Risk Factor: Lower)

R2. Each Balancing Authority shall include all AC tie lines that connect to its Adjacent Balancing Authority Areas in its Inadvertent Interchange account. The Balancing Authority shall take into account interchange served by jointly owned generators. *(Violation Risk Factor: Lower)*

R3. Each Balancing Authority shall ensure all of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities. *(Violation Risk Factor: Lower)*

PRT Recommendation:

As the revisions proposed for BAL-006 focus on the minimum requirements for Adjacent Balancing Authorities to agree upon the hourly MW amounts of scheduled and actual Interchange between them, which reinforces that errors in coordination or process will be identified, the PRT recommends that the SDT revise the Purpose statement to be consistent with the requirements as further developed under the SAR posted with this recommendation.



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4. **Applicability:**

4.1. Balancing Authorities.

5. **Effective Date:** First day of first calendar quarter after applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, first day of first calendar quarter after Board of Trustees adoption.

B. **Requirements**

R1. Each Balancing Authority shall calculate and record hourly Inadvertent Interchange. *(Violation Risk Factor: Lower)*

R2. Each Balancing Authority shall include all AC tie lines that connect to its Adjacent Balancing Authority Areas in its Inadvertent Interchange account. The Balancing Authority shall take into account interchange served by jointly owned generators. *(Violation Risk Factor: Lower)*

R3. Each Balancing Authority shall ensure all of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities. *(Violation Risk Factor: Lower)*

PRT Recommendation for R1:

The PRT recommends removing Requirement R1 as written and recommends that the SDT determine if there is merit in including the calculation of Inadvertent Interchange in a reliability metric to measure performance to certain requirements under BAL-005. In development of any metric, the PRT recommends that the SDT determine the appropriate time-frame for reliability (as close to real-time as possible). Similar to how BAL-001-2 has CPS1 and BAAL measures dependent upon the BA calculating its Reporting ACE without a stated requirement that, "Each BA shall calculate its Reporting ACE," the PRT felt that if the industry supports a measure being developed that uses Inadvertent Interchange in the measure of performance, that the BA would calculate Inadvertent Interchange as needed to measure compliance.



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4. **Applicability:**

- 4.1. Balancing Authorities.

5. **Effective Date:** First day of first calendar quarter after applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, first day of first calendar quarter after Board of Trustees adoption.

B. **Requirements**

- R1.** Each Balancing Authority shall calculate and record hourly Inadvertent Interchange. (*Violation Risk Factor: Lower*)
- R2.** Each Balancing Authority shall include all AC tie lines that connect to its Adjacent Balancing Authority Areas in its Inadvertent Interchange account. The Balancing Authority shall take into account interchange served by jointly owned generators. (*Violation Risk Factor: Lower*)
- R3.** Each Balancing Authority shall ensure all of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities. (*Violation Risk Factor: Lower*)

PRT Recommendation for R2:

The PRT recommends incorporating Requirement R2 into a revised definition of Inadvertent Interchange: The PRT recommends that this definition be modified to capture that the calculation is on an hourly basis and includes the megawatt-hour values for Tie-Lines, Pseudo-Ties, and Dynamic Schedules, along with other scheduled interchange implemented under block scheduling, which does not include the effect of the ramps. The PRT recommends that the definition also include the NERC definitions of On-Peak Accounting and Off-Peak Accounting, which reference the NAESB business practice for inadvertent interchange accounting. The PRT also recommends that the definition clarify the treatment of scheduled and actual interchange associated with asynchronous ties between Interconnections.



A. Introduction

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4. **Applicability:**

4.1. Balancing Authorities.

5. **Effective Date:** First day of first calendar quarter after applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, first day of first calendar quarter after Board of Trustees adoption.

B. Requirements

R1. Each Balancing Authority shall calculate and record hourly Inadvertent Interchange. (*Violation Risk Factor: Lower*)

R2. Each Balancing Authority shall include all AC tie lines that connect to its Adjacent Balancing Authority Areas in its Inadvertent Interchange account. The Balancing Authority shall take into account interchange served by jointly owned generators. (*Violation Risk Factor: Lower*)

R3. Each Balancing Authority shall ensure all of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities. (*Violation Risk Factor: Lower*)

PRT Recommendation for R3:

The PRT recommends incorporating Requirement R3 into BAL-005, as the requirement relates to information used in Real-time to determine if significant error exists between the hourly megawatt-hour values gathered at the end of the hour, and the hourly integrated values of the scan-rate data operated to. The coordination and agreement of the common points used for hourly megawatt-hour accounting should be applicable to Tie-Lines, Pseudo-Ties and Dynamic Schedules. A requirement for comparing hourly megawatt-hour values to the hourly-integrated values is reflected as well in the redlined suggested revisions to BAL-005.



points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities. *(Violation Risk Factor: Lower)*

R4. Adjacent Balancing Authority Areas shall operate to a common Net Interchange Schedule and Actual Net Interchange value and shall record these hourly quantities, with like values but opposite sign. Each Balancing Authority shall compute its Inadvertent Interchange based on the following: *(Violation Risk Factor: Lower)*

R4.1. Each Balancing Authority, by the end of the next business day, shall agree with its Adjacent Balancing Authorities to: *(Violation Risk Factor: Lower)*

R4.1.1. The hourly values of Net Interchange Schedule. *(Violation Risk Factor: Lower)*

R4.1.2. The hourly integrated megawatt-hour values of Net Actual Interchange. *(Violation Risk Factor: Lower)*

R4.2. Each Balancing Authority shall use the agreed-to daily and monthly accounting data to compile its monthly accumulated Inadvertent Interchange for the On-Peak and Off-Peak hours of the month. *(Violation Risk Factor: Lower)*

R4.3. A Balancing Authority shall make after-the-fact corrections to the agreed-to daily and monthly accounting data only as needed to reflect actual operating conditions (e.g. a meter being used for control was sending bad data). Changes or corrections based on non-reliability considerations shall not be reflected in the Balancing Authority's Inadvertent Interchange. After-the-fact corrections to scheduled or actual values will not be accepted without agreement of the Adjacent Balancing Authority(ies). *(Violation Risk Factor: Lower)*

R5. Adjacent Balancing Authorities that cannot mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities by the 15th calendar day of the following

PRT Recommendation for R4.2 and R4.3:

R4.2: The SDT should evaluate whether this requirement is addressed in the new definition of Inadvertent Interchange by the proposed reference to On-Peak Accounting and Off-Peak Accounting.

R4.3: The PRT recommends that the SDT review this requirement to determine what elements of the requirement are necessary to support reliability. The SDT also should investigate whether it can close the loop to ensure that operations personnel are provided information on the comparison of monthly revenue class meters to meters used for real-time operation.

PRT Recommendation for R4:

The PRT recommends that the SDT review current practices for confirmation for interchange after-the-fact to determine and justify a shorter duration for reliability purposes. The PRT also recommends that Requirement R4 be restated to require that the agreement is based upon the aggregate net schedules and net actuals by adjacent BAs as further defined in the new definition of Inadvertent Interchange. In concept, every Tie-Line, Pseudo-Tie, and Interchange Schedule (including Dynamic Schedules), implemented in the Reporting ACE calculation should have an accompanying after-the-fact megawatt-hour value accounted for in the calculation of Inadvertent Interchange.



R4.3. A Balancing Authority shall make after-the-fact corrections to the agreed-to daily and monthly accounting data only as needed to reflect actual operating conditions (e.g. a meter being used for control was sending bad data). Changes or corrections based on non-reliability considerations shall not be reflected in the Balancing Authority's Inadvertent Interchange. After-the-fact corrections to scheduled or actual values will not be accepted without agreement of the Adjacent Balancing Authority(ies).
(Violation Risk Factor: Lower)

R5. Adjacent Balancing Authorities that cannot mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities by the 15th calendar day of the following

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PRT Recommendation for R5:
The PRT recommends that the SDT review whether the practice that requires BAs to mutually agree by the 15th calendar day is needed for reliability. The PRT believes there may be merit in requiring BAs to identify the cause of the dispute, and to either correct it within a prescribed number of days, or require dispute resolution. The language as written may not be sufficiently compulsory.

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month shall, for the purposes of dispute resolution, submit a report to their respective Regional Reliability Organization Survey Contact. The report shall describe the nature and the cause of the dispute as well as a process for correcting the discrepancy. *(Violation Risk Factor: Lower)*

C. Measures

None specified.

D. Compliance