

June 8, 2016

**VIA ELECTRONIC FILING**

Kirsten Walli, Board Secretary  
Ontario Energy Board  
P.O Box 2319  
2300 Yonge Street  
Toronto, Ontario, Canada  
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Re: *North American Electric Reliability Corporation*

Dear Ms. Walli:

The North American Electric Reliability Corporation hereby submits Petition of the North American Electric Reliability Corporation for Approval of Six NERC Glossary Definitions.

Please contact the undersigned if you have any questions concerning this filing.

Respectfully submitted,

/s/ Holly A. Hawkins

Holly A. Hawkins  
*Associate General Counsel for the North  
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Enclosure

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**ONTARIO ENERGY BOARD  
OF THE PROVINCE OF ONTARIO**

**NORTH AMERICAN ELECTRIC )  
RELIABILITY CORPORATION )**

**PETITION OF THE  
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION  
FOR APPROVAL OF SIX NERC GLOSSARY DEFINITIONS**

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June 8, 2016

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**Exhibit A**     Implementation Plan for BAL-005-1

**ONTARIO ENERGY BOARD  
OF THE PROVINCE OF ONTARIO**

**NORTH AMERICAN ELECTRIC )  
RELIABILITY CORPORATION )**

**PETITION OF THE  
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION  
FOR APPROVAL OF SIX NERC GLOSSARY DEFINITIONS**

The North American Electric Reliability Corporation (“NERC”) hereby submits for approval proposed definitions for the following terms in the NERC *Glossary of Terms Used in Reliability Standards* (“NERC Glossary”):

- “Reporting ACE;”
- “Actual Frequency;”
- “Actual Net Interchange;”
- “Scheduled Net Interchange (NIs);”
- “Interchange Meter Error (I<sub>ME</sub>);” and
- “Automatic Time Error Correction (ATEC)” (collectively, “Proposed Definitions”).<sup>1</sup>

NERC initially filed the Proposed Definitions on May 3, 2016,, along with proposed Reliability Standards BAL-005-1 and FAC-001-3 (“BAL-005 Filing”). In the BAL-005 Filing, NERC requested, consistent with the Federal Energy Regulatory Commission’s (“FERC”) directive in Order No. 810,<sup>2</sup> that the Proposed Definitions become effective upon the effective date of BAL-001-2, which is July 1, 2016.<sup>3</sup> As FERC may not have time to issue an order on the

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<sup>1</sup> Unless otherwise designated, all capitalized terms shall have the meaning set forth in the NERC Glossary, available at [http://www.nerc.com/files/Glossary\\_of\\_Terms.pdf](http://www.nerc.com/files/Glossary_of_Terms.pdf).

<sup>2</sup> *Real Power Balancing Control Performance Reliability Standard*, Order No. 810, 151 FERC ¶ 61,048 at P 43 (2015).

<sup>3</sup> See May 3 Filing, Exhibit D at 5.

entire BAL-005 Filing before July 1, 2016, NERC is filing this filing for approval of the Proposed Definitions to allow the applicable governmental authorities to act independently on the Proposed Definitions. Contemporaneously with this filing, NERC is withdrawing the Proposed Definitions from consideration in the BAL-005 Filing.

The Proposed Definitions (set forth in **Exhibit A**<sup>4</sup>), retirement of the existing definition of "Reporting ACE," and the associated Implementation Plan for the Proposed Definitions (set forth in **Exhibit A**) are just, reasonable, not unduly discriminatory or preferential, and in the public interest. The following filing is a summary of the development of the Proposed Definitions and the technical basis and purpose of the Proposed Definitions ("filing"). Given the need for implementation of the Proposed Definitions as described in FERC's Order No. 810 before the effective date of Reliability Standard BAL-001-2, NERC has requested that FERC shorten the comment period for the filing to a period of fourteen (14) days and that FERC consider the filing on an expedited timeframe.

## **I. NOTICES AND COMMUNICATIONS**

Notices and communications with respect to this filing may be addressed to:

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<sup>4</sup> NERC understands that the applicable governmental authorities will consider the Implementation Plan of BAL-005-1 along with Reliability Standard BAL-005-1. As such, NERC submits the Implementation Plan for BAL-005-1 for illustration only and requests only consideration of the definitions discussed within this filing.

## **II. BACKGROUND**

### **A. NERC Reliability Standards Development Procedure**

The Proposed Definitions were developed in an open and fair manner and in accordance with the Reliability Standard development process. NERC develops Reliability Standards and associated NERC Glossary definitions in accordance with Section 300 (Reliability Standards Development) and Appendix 3D (NERC Standard Processes Manual) of the NERC Rules of Procedure.<sup>5</sup>

NERC's proposed rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing Reliability Standards, and thus satisfy certain of the criteria for approving Reliability Standards. The development process is open to any person or entity with a legitimate interest in the reliability of the Bulk-Power System. NERC considers the comments of all stakeholders, and stakeholders must approve, and the NERC Board of Trustees must adopt a Reliability Standard or associated NERC Glossary definition before NERC submits the Reliability Standard to the applicable governmental authorities.

### **B. Procedural History**

As discussed in the BAL-005 Filing, NERC began development of Reliability Standards BAL-005-1 and FAC-001-3 and several NERC Glossary definitions in Project 2010-14.2.1 in late 2014. Prior to the initial posting for these standards and definitions, FERC issued Order No. 810 approving Reliability Standard BAL-001-2 and, among others, the NERC Glossary

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<sup>5</sup> The NERC *Rules of Procedure* are available at <http://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx>. The NERC *Standard Processes Manual* is available at [http://www.nerc.com/comm/SC/Documents/Appendix\\_3A\\_StandardsProcessesManual.pdf](http://www.nerc.com/comm/SC/Documents/Appendix_3A_StandardsProcessesManual.pdf).

definition for “Reporting ACE.”<sup>6</sup> In Order No. 810, FERC also directed NERC to submit a revised definition of Reporting ACE to include “the ‘Lmax’ upper payback limit and the bounds of that upper payback limit” prior to the implementation of BAL-001-2.<sup>7</sup> Pursuant to its associated implementation plan, Reliability Standard BAL-001-2 and the definition of “Reporting ACE” will go into effect on July 1, 2016.

As the term “Reporting ACE” is used in proposed Reliability Standard BAL-005-1, the standard drafting team for BAL-005-1 developed a revised definition for “Reporting ACE” and five new definitions for associated components of Reporting ACE to address FERC’s concerns and to satisfy the abovementioned Order No. 810 directive. NERC stakeholders approved proposed Reliability Standard BAL-005-1 and the associated NERC Glossary definitions after two comment and ballot periods, with a final ballot that ended on February 8, 2016. The NERC Board of Trustees approved the proposed standard and associated definitions on February 11, 2016. On May 3, 2016, NERC filed the BAL-005 Filing for proposed Reliability Standards BAL-005-1 and FAC-001-3, eight new and revised NERC Glossary definitions (including the Proposed Definitions), and retirement of Reliability Standard BAL-006-2.

In the BAL-005 Filing, NERC submitted revised NERC Glossary definitions for “Reporting ACE” and each of the five components of Reporting ACE, including “Actual Frequency,” “Actual Net Interchange (NI<sub>A</sub>),” “Scheduled Net Interchange (NI<sub>S</sub>),” “Interchange Meter Error (I<sub>ME</sub>),” and “Automatic Time Error Correction (ATEC).” Because the currently effective definition of Reporting ACE includes several defined terms within the definition itself, NERC noted in the Petition that the proposal to separate

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<sup>6</sup> *Real Power Balancing Control Performance Reliability Standard*, Order No. 810, 151 FERC ¶ 61,048 (2015).

<sup>7</sup> *Id.* at P 43.

the five elements of Reporting ACE from the definition itself would “reduc[e] potential confusion associated with definitions embedded within a term.”<sup>8</sup> Finally, NERC explained in the filing that the revised definitions, taken together, would satisfy an outstanding FERC directive requiring NERC to “revise the definition of Reporting ACE to include the ‘Lmax’ upper payback limit and the bounds of that upper payback limit prior to the effective date of Reliability Standard BAL-001-1 [sic].”<sup>9</sup> As explained in the Implementation Plan for proposed Reliability Standard BAL-005-1, NERC requested approval of the Proposed Definitions effective immediately after the effective date of BAL-001-2.<sup>10</sup>

### III. JUSTIFICATION FOR APPROVAL

The following is a description of each of the Proposed Definitions, as initially provided in the BAL-005 Filing.

#### A. Reporting ACE

**Reporting ACE:** The scan rate values of a Balancing Authority Area’s (BAA) Area Control Error (ACE) measured in MW includes the difference between the Balancing Authority Area’s Actual Net Interchange and its Scheduled Net Interchange, plus its Frequency Bias Setting obligation, plus correction for any known meter error. In the Western Interconnection, Reporting ACE includes Automatic Time Error Correction (ATEC).

Reporting ACE is calculated as follows:

$$\text{Reporting ACE} = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME}$$

Reporting ACE is calculated in the Western Interconnection as follows:

$$\text{Reporting ACE} = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME} + I_{ATEC}$$

Where:

- $NI_A$  = Actual Net Interchange.
- $NI_S$  = Scheduled Net Interchange.
- $B$  = Frequency Bias Setting.
- $F_A$  = Actual Frequency.

<sup>8</sup> See BAL-005 Filing.

<sup>9</sup> *Id.*

<sup>10</sup> See BAL-005 Filing, Exhibit D at 5.



- $F_S$  = Scheduled Frequency.
- $I_{ME}$  = Interchange Meter Error.
- $I_{ATEC}$  = Automatic Time Error Correction.

All NERC Interconnections operate using the principles of Tie Line Bias (TLB) Control and require the use of an ACE equation similar to the Reporting ACE defined above. Any modification(s) to this specified Reporting ACE equation that is(are) implemented for all BAAs on an Interconnection and is(are) consistent with the following four principles of Tie Line Bias control will provide a valid alternative to this Reporting ACE equation:

1. All portions of the Interconnection are included in exactly one BAA so that the sum of all BAAs' generation, load, and loss is the same as total Interconnection generation, load, and loss;
2. The algebraic sum of all BAAs' Scheduled Net Interchange is equal to zero at all times and the sum of all BAAs' Actual Net Interchange values is equal to zero at all times;
3. The use of a common Scheduled Frequency  $F_S$  for all BAAs at all times; and,
4. Excludes metering or computational errors. (The inclusion and use of the  $I_{ME}$  term corrects for known metering or computational errors.)

The currently effective definition of Reporting ACE defines several components used to calculate Reporting ACE. The revised, proposed definition of Reporting ACE is clearer because it only includes the Reporting ACE calculation. As described below, each of the components used to calculate Reporting ACE have been separated from the definition of Reporting ACE to avoid confusion. Additionally, the revised calculation for Reporting ACE set forth above incorporates ATEC for entities in the Western Interconnection, which, as set forth below, requires that “[t]he absolute value of  $I_{ATEC}$  shall not exceed  $L_{max}$ .” Accordingly, the proposed definition of Reporting ACE addresses FERC’s directive in Paragraph 43 of Order No. 810 to “revise the definition of Reporting ACE to include the ‘Lmax’ upper payback limit and the bounds of that upper payback limit prior to the effective date of Reliability Standard BAL-001-1.”<sup>11</sup>

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<sup>11</sup> *Real Power Balancing Control Performance Reliability Standard*, Order No. 810, 151 FERC ¶ 61,048 at P 43 (2015) (explaining that the  $L_{max}$  upper payback limit and the bounds of that limit were necessary for the Western Interconnection).

## B. Components of Reporting ACE

**Actual Frequency ( $F_A$ ):** The Interconnection frequency measured in Hertz (Hz).

**Actual Net Interchange ( $NI_A$ ):** The algebraic sum of actual megawatt transfers across all Tie Lines, including Pseudo-Ties, to and from all Adjacent Balancing Authority areas within the same Interconnection. Actual megawatt transfers on asynchronous DC tie lines that are directly connected to another Interconnection are excluded from Actual Net Interchange.

**Scheduled Net Interchange ( $NI_S$ ):** The algebraic sum of all scheduled megawatt transfers, including Dynamic Schedules, to and from all Adjacent Balancing Authority areas within the same Interconnection, including the effect of scheduled ramps. Scheduled megawatt transfers on asynchronous DC tie lines directly connected to another Interconnection are excluded from Scheduled Net Interchange.

**Interchange Meter Error ( $I_{ME}$ ):** A term, normally zero, used in the Reporting ACE calculation to compensate for data or equipment errors affecting any other components of the Reporting ACE calculation.

**Automatic Time Error Correction (ATEC):** The addition of a component to the ACE equation for the Western Interconnection that modifies the control point for the purpose of continuously paying back Primary Inadvertent Interchange to correct accumulated time error. Automatic Time Error Correction is only applicable in the Western Interconnection.

$$I_{ATEC} = \frac{PII_{accum}^{on/off\ peak}}{(1-Y)*H} \quad \text{when operating in Automatic Time Error Correction Mode.}$$

The absolute value of  $I_{ATEC}$  shall not exceed  $L_{max}$ .

$I_{ATEC}$  shall be zero when operating in any other AGC mode.

- $L_{max}$  is the maximum value allowed for  $I_{ATEC}$  set by each BA between  $0.2*|B_i|$  and  $L_{10}$ ,  $0.2*|B_i| \leq L_{max} \leq L_{10}$ .
- $L_{10} = 1.65 * \epsilon_{10} \sqrt{(-10B_i)(-10B_S)}$ .
- $\epsilon_{10}$  is a constant derived from the targeted frequency bound. It is the targeted root-mean-square (RMS) value of ten-minute average frequency error based on frequency performance over a given year. The bound,  $\epsilon_{10}$ , is the same for every Balancing Authority Area within an Interconnection.
- $Y = B_i / B_S$ .
- $H$  = Number of hours used to payback primary inadvertent interchange energy. The value of  $H$  is set to 3.
- $B_i$  = Frequency Bias Setting for the Balancing Authority Area (MW / 0.1 Hz).
- $B_S$  = Sum of the minimum Frequency Bias Settings for the Interconnection (MW / 0.1 Hz).
- Primary Inadvertent Interchange ( $PII_{hourly}$ ) is  $(1-Y) * (II_{actual} - B_i * \Delta TE/6)$

- $II_{\text{actual}}$  is the hourly Inadvertent Interchange for the last hour.  $\Delta TE$  is the hourly change in system Time Error as distributed by the Interconnection time monitor, where:  $\Delta TE = TE_{\text{end hour}} - TE_{\text{begin hour}} - TD_{\text{adj}} - (t) * (TE_{\text{offset}})$
- $TD_{\text{adj}}$  is the Reliability Coordinator adjustment for differences with Interconnection time monitor control center clocks.
- $t$  is the number of minutes of manual Time Error Correction that occurred during the hour.
- $TE_{\text{offset}}$  is 0.000 or +0.020 or -0.020.
- $PII_{\text{accum}}$  is the Balancing Authority Area's accumulated  $PII_{\text{hourly}}$  in MWh. An On-Peak and Off-Peak accumulation accounting is required, where:

$$PII_{\text{accum}}^{\text{on/offpeak}} = \text{last period's } PII_{\text{accum}}^{\text{on/offpeak}} + PII_{\text{hourly}}$$

As mentioned above, the components of Reporting ACE have been separated from the definition of Reporting ACE. This separation will improve reliability by reducing potential confusion associated with definitions embedded within a term. The proposed definition of ATEC also improves the current definition by addressing FERC's directive in Order No. 810 for NERC to "revise the definition of Reporting ACE to include the 'Lmax' upper payback limit and the bounds of that upper payback limit prior to the effective date of Reliability Standard BAL-001-1."<sup>12</sup> The proposed definition of ATEC, which is incorporated into the proposed definition of Reporting ACE and is only applicable in the Western Interconnection, states that "[t]he absolute value of  $I_{\text{ATEC}}$  shall not exceed  $L_{\text{max}}$ ."

#### IV. EFFECTIVE DATE

NERC respectfully requests approval of the Proposed Definitions as effective as described in the Implementation Plan for BAL-005-1, attached in **Exhibit A** of this filing. As explained in the Implementation Plan, the proposed effective date for the definitions of "Reporting ACE," "Actual Frequency," "Actual Net Interchange (NI<sub>A</sub>)," "Scheduled Net

<sup>12</sup> *Real Power Balancing Control Performance Reliability Standard*, Order No. 810, 151 FERC ¶ 61,048 at P 43 (2015) (explaining that the Lmax upper payback limit and the bounds of that limit were necessary for the Western Interconnection).

Interchange (NIs),” “Interchange Meter Error (I<sub>ME</sub>),” and “Automatic Time Error Correction (ATEC)” is “immediately after the effective date of BAL-001-2.” The proposed effective date ensures that the definition of “Reporting ACE” submitted on May 13, 2014 in *Petition of the North American Electric Reliability Corporation for Approval of Proposed Reliability Standard BAL-001-2 – Real Power Balancing Control Performance* and to FERC in FERC Docket RM14-10-1 never becomes effective.

**V. CONCLUSION**

For the reasons set forth above, NERC respectfully requests approval of (i) the Proposed Definitions, (ii) retirement of the currently effective definition of the term “Reporting ACE,” and (iii) the associated implementation of the Proposed Definitions as just, reasonable, not unduly discriminatory or preferential, and in the public interest.

Respectfully submitted,

/s/ Andrew C. Wills

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*Counsel for the North American Electric  
Reliability Corporation*

Date: June 8, 2016

**Exhibit A**

**Implementation Plan for Proposed BAL-005-1**

# Implementation Plan

## Project 2010-14.2.1 Balancing Authority Reliability-based Controls Reliability Standard BAL-005-1

### **Requested Approval**

- BAL-005-1 – Balancing Authority Controls

### **Requested Retirement**

- BAL-005-0.2b – Automatic Generation Control
- BAL-006-2 – Inadvertent Interchange - Requirement R3

### **Prerequisite Approval**

- FAC-001-3 – Facility Interconnection Requirements

### **Revisions to Glossary Terms**

The following definitions shall become effective when BAL-005-1 becomes effective:

**Actual Frequency ( $F_A$ ):** The Interconnection frequency measured in Hertz (Hz).

**Actual Net Interchange ( $NI_A$ ):** The algebraic sum of actual megawatt transfers across all Tie Lines, including Pseudo-Ties, to and from all Adjacent Balancing Authority areas within the same Interconnection. Actual megawatt transfers on asynchronous DC tie lines that are directly connected to another Interconnection are excluded from Actual Net Interchange.

**Scheduled Net Interchange ( $NI_S$ ):** The algebraic sum of all scheduled megawatt transfers, including Dynamic Schedules, to and from all Adjacent Balancing Authority areas within the same Interconnection, including the effect of scheduled ramps. Scheduled megawatt transfers on asynchronous DC tie lines directly connected to another Interconnection are excluded from Scheduled Net Interchange.

**Interchange Meter Error (IME):** A term used in the Reporting ACE calculation to compensate for data or equipment errors affecting any other components of the Reporting ACE calculation.

**Automatic Time Error Correction (ATEC):** The addition of a component to the ACE equation for the Western Interconnection that modifies the control point for the purpose of continuously paying back Primary Inadvertent Interchange to correct accumulated time error. Automatic Time Error Correction is only applicable in the Western Interconnection.

$$I_{ATEC} = \frac{PII_{accum}^{on/off\ peak}}{(1-Y)*H} \text{ when operating in Automatic Time Error Correction Mode.}$$

The absolute value of  $I_{ATEC}$  shall not exceed  $L_{max}$ .

$I_{ATEC}$  shall be zero when operating in any other AGC mode.

- $L_{max}$  is the maximum value allowed for  $I_{ATEC}$  set by each BA between  $0.2*|B_i|$  and  $L_{10}$ ,  $0.2*|B_i| \leq L_{max} \leq L_{10}$ .
- $L_{10} = 1.65 * \epsilon_{10} \sqrt{(-10B_i)(-10B_S)}$ .
- $\epsilon_{10}$  is a constant derived from the targeted frequency bound. It is the targeted root-mean-square (RMS) value of ten-minute average frequency error based on frequency performance over a given year. The bound,  $\epsilon_{10}$ , is the same for every Balancing Authority Area within an Interconnection.
- $Y = B_i / B_S$ .
- $H$  = Number of hours used to payback primary inadvertent interchange energy. The value of  $H$  is set to 3.
- $B_i$  = Frequency Bias Setting for the Balancing Authority Area (MW / 0.1 Hz).
- $B_S$  = Sum of the minimum Frequency Bias Settings for the Interconnection (MW / 0.1 Hz).
- Primary Inadvertent Interchange ( $PII_{hourly}$ ) is  $(1-Y) * (II_{actual} - B_i * \Delta TE/6)$
- $II_{actual}$  is the hourly Inadvertent Interchange for the last hour.  
 $\Delta TE$  is the hourly change in system Time Error as distributed by the Interconnection time monitor, where:  $\Delta TE = TE_{end\ hour} - TE_{begin\ hour} - TD_{adj} - (t)*(TE_{offset})$
- $TD_{adj}$  is the Reliability Coordinator adjustment for differences with Interconnection time monitor control center clocks.
- $t$  is the number of minutes of manual Time Error Correction that occurred during the hour.
- $TE_{offset}$  is 0.000 or +0.020 or -0.020.
- $PII_{accum}$  is the Balancing Authority Area's accumulated  $PII_{hourly}$  in MWh. An On-Peak and Off-Peak accumulation accounting is required, where:

$$PII_{accum}^{on/offpeak} = \text{last period's } PII_{accum}^{on/offpeak} + PII_{hourly}$$

**Reporting ACE:** The scan rate values of a Balancing Authority Area’s (BAA) Area Control Error (ACE) measured in MW includes the difference between the Balancing Authority Area’s Actual Net Interchange and its Scheduled Net Interchange, plus its Frequency Bias Setting obligation, plus correction for any known meter error. In the Western Interconnection, Reporting ACE includes Automatic Time Error Correction (ATEC).

Reporting ACE is calculated as follows:

$$\text{Reporting ACE} = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME}$$

Reporting ACE is calculated in the Western Interconnection as follows:

$$\text{Reporting ACE} = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME} + I_{ATEC}$$

Where:

- $NI_A$  = Actual Net Interchange.
- $NI_S$  = Scheduled Net Interchange.
- $B$  = Frequency Bias Setting.
- $F_A$  = Actual Frequency.
- $F_S$  = Scheduled Frequency.
- $I_{ME}$  = Interchange Meter Error.
- $I_{ATEC}$  = Automatic Time Error Correction.

All NERC Interconnections operate using the principles of Tie-line Bias (TLB) Control and require the use of an ACE equation similar to the Reporting ACE defined above. Any modification(s) to this specified Reporting ACE equation that is(are) implemented for all BAAs on an Interconnection and is(are) consistent with the following four principles of Tie Line Bias control will provide a valid alternative to this Reporting ACE equation:

1. All portions of the Interconnection are included in exactly one BAA so that the sum of all BAAs’ generation, load, and loss is the same as total Interconnection generation, load, and loss;
2. The algebraic sum of all BAAs’ Scheduled Net Interchange is equal to zero at all times and the sum of all BAAs’ Actual Net Interchange values is equal to zero at all times;
3. The use of a common Scheduled Frequency  $F_S$  for all BAAs at all times; and,



4. Excludes metering or computational errors. (The inclusion and use of the  $I_{ME}$  term corrects for known metering or computational errors.)

**Automatic Generation Control (AGC):** A process designed and used to adjust a Balancing Authority Areas' Demand and resources to help maintain the Reporting ACE in that of a Balancing Authority Area within the bounds required by applicable NERC Reliability Standards.

**Pseudo-Tie:** A time-varying energy transfer that is updated in Real-time and included in the Actual Net Interchange term (NIA) in the same manner as a Tie Line in the affected Balancing Authorities' Reporting ACE equation (or alternate control processes).

**Balancing Authority:** The responsible entity that integrates resource plans ahead of time, maintains Demand and resource balance within a Balancing Authority Area, and supports Interconnection frequency in real time.

### Applicable Entities

- Balancing Authority

### Applicable Facilities

- N/A

### Background

Reliability Standard BAL-005-1 addresses Balancing Authority Reliability-based Controls and establishes requirements for acquiring data necessary to calculate Reporting Area Control Error (Reporting ACE). Reliability Standard BAL-005-1 (Balancing Authority Controls) and associated Implementation Plan was developed in conjunction with FAC-001-3 to ensure that entities with facilities and Load operating in an Interconnection are within a Balancing Authority Area's metered boundaries. This coordination will allow for the collection of data necessary to calculate Reporting Area Control Error (Reporting ACE) to achieve the best results under BAL-005-1.

### General Considerations

To guarantee proper coordination as intended by the standard drafting team for Project 2010-14.2.1, FAC-001-3 will be implemented immediately after BAL-005-1 becomes effective as reflected in the Implementation Plan for FAC-001-3, and BAL-006-2 Requirement R3 will be retired concurrently with the effective date for BAL-005-1. Finally, to ensure proper coordination with BAL-001-2, approved by the Commission in Order No. 810 issued on April 16, 2015, the following definitions associated with BAL-005-1 will be implemented concurrently with the effective date for BAL-001-2:

- Reporting ACE
- Actual Frequency
- Actual Net Interchange
- Scheduled Net Interchange
- Interchange Meter Error
- Automatic Time Error Correction

## **Effective Dates**

### **Definitions**

The definitions of the following terms shall become effective immediately after the effective date of BAL-001-2<sup>1</sup>:

- Reporting ACE
- Actual Frequency
- Actual Net Interchange
- Scheduled Net Interchange
- Interchange Meter Error
- Automatic Time Error Correction

### **BAL-005-1**

Where approval by an applicable governmental authority is required, BAL-005-1 and associated definitions, except the definitions enumerated in the section directly above, shall become effective on the first day of the first calendar quarter that is twelve months

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<sup>1</sup> Because the definition of "Reporting ACE" associated with BAL-005-1 will become effective immediately after the effective date of BAL-001-2, the definition of "Reporting ACE" that was approved by the Commission on April 16, 2015 in Order No. 810 (151 FERC ¶ 61,048) will never go into effect.

after the effective date of the applicable governmental authorities order approving the standard, or as otherwise provided for by the applicable governmental authority.

Where approval by an applicable governmental authority is not required, BAL-005-1 and associated definitions, except the definitions enumerated in the section directly above, shall become effective on the first day of the first calendar quarter that is twelve months after the date the standard is adopted by the NERC Board of Trustees', or as otherwise provided for in that jurisdiction.

## **Retirements**

BAL-005-0.2b (Automatic Generation Control) shall be retired immediately prior to the Effective Date of BAL-005-1 (Balancing Authority Controls) in the particular jurisdiction in which the revised standard is becoming effective.

BAL-006-2 (Inadvertent Interchange) Requirement R3 shall be retired immediately prior to the Effective Date of BAL-005-1 (Balancing Authority Controls) in the particular jurisdiction in which the revised standard is becoming effective.

The existing definitions of Automatic Generation Control, Pseudo Tie and Balancing Authority shall be retired at midnight of the day immediately prior to the effective date of BAL-005-1, in the jurisdiction in which the new standard is becoming effective.

The existing definitions of Reporting ACE, Actual Frequency, Actual Net Interchange, Scheduled Net Interchange, Interchange Meter Error, and Automatic Time Error Correction shall be retired immediately after the effective date of BAL-001-2.<sup>2</sup>

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<sup>2</sup> Note that the definition of Reporting ACE that was approved by the Commission in Order No. 810, which will replace the existing definition of Reporting ACE, will be retired immediately prior to the effective date for the revised definition of Reporting ACE, as described above. As such, the definition of Reporting ACE approved by the Commission in Order No. 810 will never go into effect.