

## Project 2022-01 Reporting ACE Definition and Associated Terms | Draft 2 (Redline)

The drafting team (DT) is seeking comment on the following new or modified terms used in the proposed standards. The first column (*NERC Glossary Term*) provides the NERC Glossary term being modified or proposed as a new. The DT is proposing acronyms to some currently approved and new Glossary terms as shown in redline. The second column (*Currently Approved Definition*) provides the currently approved definition and the third column (*DT Proposed New or Revised*) reflects the proposed modifications to the current definitions in redline and also reflects newly proposed definitions in clean view. The fourth column identifies the currently effective Reliability Standards or *Glossary* terms in which the proposed terms are used.

### Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards Effected / Definitions Affected	Technical Guidelines / Reference Documents	Notes
<b>Inadvertent Interchange Management – (I<sub>IM</sub>)</b>	New term to NERC glossary	A term used in Reporting ACE to allow for management of Inadvertent Interchange and correction of Time Error. <u>The I<sub>IM</sub> value is not used for unilateral paybacks and is null unless there is a regional procedure in place to coordinate an inadvertent control methodology for an Interconnection.</u>	<b>Standards</b> None  <b>Terms</b> Reporting Ace (proposed)		New term to NERC glossary
<b>Reporting Area Control Error – (Reporting ACE)</b>	The scan rate values of a Balancing Authority Area’s (BAA) Area Control Error (ACE) measured in MW includes the difference between the	The scan rate values of a Balancing Authority Area’s Area Control Error (ACE) measured in MW, which includes the error in scheduled interchange adjusted	<b>Standards</b>  <ul style="list-style-type: none"> <li>• BAL-001-2</li> <li>• BAL-002-3</li> <li>• BAL-005-1</li> </ul>	Technical Reference Document: Balancing and Frequency	Modified to reflect a common term across all multiple BA interconnections.

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	<p>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(A<sub>TEC</sub>). Reporting ACE is calculated as follows:  <math>Reporting\ ACE = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME}</math>                      Reporting ACE is calculated in the Western Interconnection as follows:  <math>Reporting\ ACE = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME} + I_{ATEC}</math>                      Where:</p> <ul style="list-style-type: none"> <li>• NI<sub>A</sub> = Actual Net Interchange.</li> <li>• NI<sub>S</sub> = Scheduled Net Interchange.</li> <li>• B = Frequency Bias Setting.</li> <li>• F<sub>A</sub> = Actual Frequency.</li> </ul>	<p>for Frequency Bias obligation, known meter error, and inadvertent management. Reporting ACE is calculated as follows:  <math>Reporting\ ACE = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME} + I_{IM}</math>                      Where:</p> <ul style="list-style-type: none"> <li>• NI<sub>A</sub> = Actual Net Interchange.</li> <li>• NI<sub>S</sub> = Scheduled Net Interchange.</li> <li>• B = Frequency Bias Setting.</li> <li>• F<sub>A</sub> = Actual Frequency.</li> <li>• F<sub>S</sub> = Scheduled Frequency.</li> <li>• I<sub>ME</sub> = Interchange Meter Error.</li> </ul> <p>I<sub>IM</sub> = Inadvertent Interchange Management. <u>(Term is expressed if a regional procedure exists, otherwise is null and does not need to be included in the Balancing Authority's Reporting ACE.)</u></p> <ul style="list-style-type: none"> <li>○ In the Western</li> </ul>	<p><b>Terms</b></p> <ul style="list-style-type: none"> <li>• Automatic Generation Control;</li> <li>• Interchange Meter Error (I<sub>ME</sub>) (<i>current and proposed</i>);</li> <li>• Pre-Reporting Contingency Event ACE Value;</li> <li>• Pseudo-Tie (<i>current and proposed</i>)</li> </ul>	<p>Control</p> <p>Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards</p> <p>Technical Reference Document: Area Control Error Diversity Interchange Process</p>	<p>This change will allow regions to create methodologies to control Inadvertent Interchange accumulations.</p> <p>Added ADI to the updated version.</p>

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	<ul style="list-style-type: none"> <li>• <math>F_S</math> = Scheduled Frequency.</li> <li>• <math>I_{ME}</math> = Interchange Meter Error.</li> <li>• <math>I_{ATEC}</math> = Automatic Time Error Correction.</li> </ul> <p>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:</p> <ol style="list-style-type: none"> <li>1. All portions of the Interconnection are included in exactly one BAA so that the sum of all BAAs' generation, load, and loss is</li> </ol>	<p>Interconnection this term is <math>I_{ATEC}</math>.</p> <p>All NERC Interconnections operate using the principles of TieLine 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 that is(are) implemented for all BAAs <del>in</del> 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:</p> <ol style="list-style-type: none"> <li>1. Each individual portion of the Interconnection is included in exactly one BAA so that the sum of all BAAs' generation, Load, and losses is the same as total Interconnection generation, Load, and losses;</li> <li>2. The algebraic sum of all BAAs' Scheduled Net Interchange is</li> </ol>			

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	<p>the same as total Interconnection generation, load, and loss;</p> <p>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;</p> <p>3. The use of a common Scheduled Frequency FS for all BAAs at all times; and,</p> <p>4. Excludes metering or computational errors. (The inclusion and use of the I<sub>ME</sub> term corrects for known metering or computational errors.)</p>	<p>equal to zero at all times and the sum of all BAAs’ Actual Net Interchange values is equal to zero at all times; <u>This includes effects of ACE Diversity Interchnage (ADI) implementations;</u></p> <p>3. The use of a common Scheduled Frequency for all BAAs at all times; and,</p> <p>4. Excludes metering or computational errors. (The inclusion and use of the I<sub>ME</sub> term corrects for known metering or computational errors.)</p>			