

ACE Definition

Project 2022-01 Reporting ACE Definition and Associated Terms

Draft ~~31~~

The drafting team (DT) is seeking comment on the following new ~~or~~, modified, ~~or retired~~ 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.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
Actual Net Interchange (NI_A) - (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	The algebraic sum of actual megawatt transfers across all Tie Lines, including Pseudo-Ties, to and from all a Adjacent Balancing Authority A areas within the same Interconnection. Actual megawatt transfers on asynchronous DC tie lines that are directly connected to another	Standards <ul style="list-style-type: none"> BAL-003-2 BAL-004-WECC-3 None Terms Reporting ACE (<i>current and proposed</i>)	Technical Reference Document: Balancing and Frequency Control Technical Reference Document: Integrating Reporting ACE with the NERC	Capitalized terms in definition.

Formatted: Bulleted + Level: 1 + Aligned at: 0" + Indent at: 0.25"

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	Interconnection are excluded from Actual Net Interchange.	Interconnection are excluded from Actual Net Interchange.		Reliability Standards Technical Reference Document: Area Control Error Diversity Interchange Process Reliability Guideline: Inadvertent Interchange	
ACE Diversity Interchange (ADI)		A frequency neutral exchange program where multiple participating Balancing Authorities utilize it to achieve reductions in their generation control and Reporting ACE through offsets to either Actual Net Interchange or Scheduled	Included in Reporting ACE definition.		New definition

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
		Net Interchange ACE components to create an ACE value closer to zero for each participant.			
Area Control Error - (ACE)	The instantaneous difference between a Balancing Authority's net actual and scheduled interchange, taking into account the effects of Frequency Bias, correction for meter error, and Automatic Time Error Correction (ATEC), if operating in the ATEC mode. ATEC is only applicable to Balancing Authorities in the Western Interconnection.	The instantaneous difference between an Balancing Authority's entity's net <u>Actual Net Interchange (NI_A)</u> and S <u>Scheduled Net I</u> nterchange (NI_S) , taking into account the effects of Frequency Bias, of <u>of</u> correction for meter error, and of Automatic Time Error Correction (ATEC) <u>Inadvertent Interchange Management (IIM)</u> ; if operating in the IIM <u>ATEC</u> mode. For compliance usage, refer to the term Reporting ACE. ATEC is only applicable to	Standards <ul style="list-style-type: none"> BAL-002-3 (<i>purpose</i>) BAL-003-2 BAL-005-1 Terms <ul style="list-style-type: none"> Control Performance Standard (<i>current; see proposed revisions</i>); Disturbance Control Standard (<i>current; proposed for</i> 	Reliability Guideline Operating Reserve Management Technical Reference Document: Balancing and Frequency Control Technical Reference Document: Area Control Error Diversity Interchange Process Inverter-Based	The old definition was restricted to only Balancing Authorities and excluded entities such as Balancing Authority Areas and Reserve Sharing Groups. Also updated terms to reflect current NERC defined terms and newly proposed terms added to the Reporting ACE term. Also added a clarifying statement to refer to Reporting ACE

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
		Balancing Authorities in the Western Interconnection.	<p>retirement);</p> <ul style="list-style-type: none"> • Frequency Bias Setting (<i>current; see proposed revisions</i>); • Reporting ACE (<i>current and proposed</i>) 	Resource Performance Guideline	for compliance purposes.
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.	A process designed and used to adjust a Balancing Authority Area's 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.	<p>Standards BAL-004-WECC-3</p> <p>Terms</p> <ul style="list-style-type: none"> • Joint Control; • Regulating Reserve; • Tie Line Bias (<i>current and revised</i>) 	<p>Technical Reference Document: Balancing and Frequency Control</p> <p>Inverter-Based Resource Performance Guideline</p> <p>Improvements to Interconnection Requirements for BPS-Connected Inverter-Based</p>	Team reviewed and determined minor grammar changes .

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
				Resources	
Automatic Time Error Correction – (ATEC)	<p>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.</p> $I_{ATEC} = \frac{PI_{accum}^{on/off\ peak}}{(1-Y)*H}$ <p>when operating in Automatic Time Error Correction Mode.</p> <p>The absolute value of I_{ATEC} shall not exceed L_{max}.</p>	<p>The addition of a component to, represented by the term I_{ATEC}, to the Reporting ACE equation for the Western Interconnection that modifies the control point for the purpose of continuously paying back Primary Inadvertent Interchange and to correct accumulated Time Error. Automatic Time Error Correction is only applicable in the Western Interconnection.</p> $I_{ATEC} = \frac{PI_{accum}^{on/off\ peak}}{(1-Y)*H}$ <p>when operating in Automatic Time Error Correction Mode.</p>	<p>Standards BAL-004-WECC-3</p> <p>Terms Reporting ACE (<i>current and proposed</i>)</p>	<p>Technical Reference Document: Balancing Authority Area Footprint Change Tasks</p> <p>Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards</p> <p>Reliability Guideline: Inadvertent Interchange</p>	<p>Re-organized published glossary terms to reflect changes made during the standard drafting process. Published term was unreadable. Added an islanding term, “BA_{Island}” to accurately reflect a BA that has lost synchronism with the remainder of the interconnection cannot have an impact on Time Error. Changed the method of allocating Primary Inadvertent to use</p>

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<p>I_{ATEC} shall be zero when operating in any other AGC mode.</p> <ul style="list-style-type: none"> L_{max} is the maximum value allowed for I_{ATEC} set by each BA between $0.2 * B_i$ and L_{10}, $0.2 * B_i \leq L_{max} \leq L_{10}$ $L_{10} = 1.65 * \frac{\epsilon_{10} \sqrt{(-10B_i)(-10B_s)}}{\epsilon_{10}}$ ϵ_{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, ϵ_{10}, is the same for every Balancing Authority 	<p>The absolute value of I_{ATEC} shall not exceed L_{max}.</p> <p>I_{ATEC} shall be zero when operating in any other AGC mode.</p> <ul style="list-style-type: none"> L_{max} is the maximum value allowed for I_{ATEC} set by each BA between $0.2 * B_i$ and L_{10}; i.e. $0.2 * B_i \leq L_{max} \leq L_{10}$. $L_{10} = 1.65 * \epsilon_{10} * \sqrt{(-10B_i)(-10B_s)}$ ϵ_{10} is a constant derived from the targeted frequency bound. It is the targeted root-mean-square (RMS) value of ten-minute average Ffrequency eError based on frequency performance over a given year. The 			<p>actual Bias settings to- reflect each Balancing Authority's share of Time Error impact more accurately.</p> <p>Capitalized NERC defined terms.</p>

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<p>Area within an Interconnection.</p> <ul style="list-style-type: none"> • $Y = B_i / B_s$. • 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 $(1-Y) * (I_{actual} - B_i * \Delta TE/6)$ 	<p>bound, ϵ_{10}, is the same for every Balancing Authority Area within an Interconnection.</p> <ul style="list-style-type: none"> • $Y = B_i/B_s$. • -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). <u>For entities with a variable Frequency Bias, the annual time weighted average FBS based on</u> 			

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<ul style="list-style-type: none"> • I_{actual} is the hourly Inadvertent Interchange for the last hour. • ΔTE is the hourly change in system Time Error as distributed by the Interconnection time monitor, where: $\Delta\text{TE} = \text{TE}_{\text{end hour}} - \text{TE}_{\text{begin hour}} - \text{TD}_{\text{adj}} - (t) * (\text{TE}_{\text{offset}})$ • 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. 	<p><u>the one minute values used in BAL-001 when frequency is greater than 60.036Hz or less than 59.964 Hz.</u></p> <ul style="list-style-type: none"> • Primary Inadvertent Interchange ($\text{PII}_{\text{hourly}}$) is $(1-Y) * (I_{\text{actual}} - B_i * \Delta\text{TE}/6) * B_{\text{Island}}$ • B_{Island} = Binary term: 1 indicates the BA is interconnected; 0 indicates the BA is entirely islanded and not interconnected. • $-I_{\text{actual}}$ is the hourly Inadvertent Interchange for the last hour. • $-\Delta\text{TE}$ is the hourly change in system Time Error as distributed by the Interconnection time monitor, where: 			

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<ul style="list-style-type: none"> 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: $PII_{accum}^{on/offpeak} = \text{last period's } PII_{accum}^{on/offpeak} + PII_{hourly}$	$\Delta TE = TE_{end\ hour} - TE_{begin\ hour} - TD_{adj} - (t) * (TE_{offset})$ <ul style="list-style-type: none"> TD_{adj} is the Reliability Coordinator adjustment for differences with Interconnection time monitor control center clocks. t is the number of minutes <u>spent performing -of</u> manual Time Error Correction that occurred during <u>each</u> 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: 			

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
		$PI_{accum}^{on/offpeak} = \text{last period's } PI_{accum}^{on/offpeak} +$			
Balancing Authority Area (BAA)	The collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The	Added Acronym	Standards <ul style="list-style-type: none"> BAL-003-2 COM-001-3 	Reliability Guideline: Operating Reserve Management	Added Acronym

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	Balancing Authority maintains load-resource balance within this area.		<ul style="list-style-type: none"> • EOP-004-4 • EOP-011-1 • MOD-004-1 • PRC-005-6 • TOP-001-5 <p>Terms <i>Multiple terms</i></p>	<p>Technical Reference Document: Balancing and Frequency Control</p> <p>Technical Reference Document: Balancing Authority Area Footprint Change Tasks</p> <p>Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards</p>	
Balancing Contingency	Any single event described in Subsections (A), (B), or	Any single event described in Subsections (A), (B), or	Standards BAL-002-3	Reliability Guideline	Added acronym and updated to

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
Event – <u>(BCE)</u>	<p>(C) below, or any series of such otherwise single events, with each separated from the next by one minute or less.</p> <p>A. Sudden loss of generation due to:</p> <ul style="list-style-type: none"> i. unit tripping, or ii. loss of generator Facility resulting in isolation of the generator from the Bulk Electric System or from the responsible entity's System, or iii. sudden unplanned outage of transmission Facility; <p>And, that causes an unexpected change to</p>	<p>(C) below, or any series of such otherwise single events, with each separated from the next by one minute or less.</p> <p>A. Sudden loss of generation due to:</p> <ul style="list-style-type: none"> i. unit tripping, or ii. loss of generator Facility resulting in isolation of the generator from the Bulk Electric System or from the responsible entity's System, or iii. sudden unplanned outage of transmission Facility; <p>And, that causes an unexpected change to the responsible entity's Reporting ACE.</p>	<p>Terms</p> <ul style="list-style-type: none"> • Contingency Reserve; • Most Severe Single Contingency; • Reportable Balancing Contingency Event 	<p>Operating Reserve Management</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>correct NERC defined term.</p>

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<p>the responsible entity's ACE.</p> <p>B. Sudden loss of an Import, due to forced outage of transmission equipment that causes an unexpected imbalance between generation and Demand on the Interconnection.</p> <p>C. Sudden restoration of a Demand that was used as a resource that causes an unexpected change to the responsible entity's ACE.</p>	<p>B. Sudden loss of an import, due to forced outage of transmission equipment that causes an unexpected imbalance between generation and Demand on the Interconnection.</p> <p>C. Sudden restoration of a Demand that was used as a resource that causes an unexpected change to the responsible entity's <u>Reporting</u> ACE.</p>			
Control Performance Standard = (CPS)	The reliability standard that sets the limits of a Balancing Authority's Area Control Error over a specified time period.	<u>Methodology of controlling Reporting ACE relative to Frequency Error, expressed as a moving average subject to a limit. It is used as an indicator of sufficient</u>	<p>Standards</p> <ul style="list-style-type: none"> BAL-001-2 BAL-003-2 (Attachment A) 	<p>Reliability Guideline: Operating Reserve Management</p> <p>Technical</p>	

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
		secondary AGC control to maintain energy balance and Scheduled Frequency.	Terms None	Reference Document: Balancing and Frequency Control Technical Reference Document: Area Control Error Diversity Interchange Process	
Disturbance	<ol style="list-style-type: none"> 1. An unplanned event that produces an abnormal system condition. 2. Any perturbation to the electric system. 3. The unexpected change in ACE that is caused by the sudden failure of generation or interruption of load. 	<ol style="list-style-type: none"> 1. An unplanned event that produces an abnormal system condition. 2. Any perturbation to the electric system. 3. The unexpected change in Reporting ACE that is caused by the sudden failure of generation or interruption of load 	Standards <ul style="list-style-type: none"> • BAL-002-3 • EOP-004-4 • EOP-005-3 • MOD-026-1 • MOD-027-1 • MOD-033-2 • PRC-026-1 Terms	Reliability Guideline: Operating Reserve Management Recommended Approaches for UFLS Program Design with Increasing Penetrations of DERs	Update to the NERC defined term “Reporting ACE” to accurately reflect current terminology.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
			<ul style="list-style-type: none"> Disturbance Control Standard <i>(proposed for retirement)</i>; Disturbance Monitoring Equipment 	<p>Methods for Establishing IROs</p> <p>Reliability Guideline: Generating Unit Operations During Complete Loss of Communications</p> <p>Inverter-Based Resource Performance Guideline</p> <p>Reliability Guideline: Bulk Power System Reliability Perspectives on the Adoption of IEEE 1547-2018</p> <p>Load Composition Guideline</p>	

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
				Reliability Guideline: Model Verification of Aggregate DER Models used in Planning Studies Power Plant Model Verification and Testing for Synchronous Machines DER Modeling Power Plant Model Verification for Inverter-Based Resources Reliability Guideline: DER Data Collection for Modeling in Transmission Planning Studies	

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
				DER_A Model Parameterization Improvements to Interconnection Requirements for BPS-Connected Inverter-Based Resources	
Disturbance Control Standard – (DCS)	The reliability standard that sets the time limit following a Disturbance within which a Balancing Authority must return its Area Control Error to within a specified range.	RETIRE	Standards BAL-002-3 Terms None	Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards	RETIRE
Dynamic Interchange Schedule or Dynamic Schedule	A time-varying energy transfer that is updated in Real-time and included in the Scheduled Net Interchange (NIS) term in the same manner as an Interchange Schedule in	A time-varying energy transfer that is updated in Real-time and included in the Scheduled Net Interchange (NI _s) term in the same manner as an	Standards <ul style="list-style-type: none"> BAL-002-WECC-3 INT-009-3 	Technical Reference Document: Integrating Reporting ACE with the NERC	Update to the NERC defined term “Reporting ACE” to accurately reflect current terminology.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	the affected Balancing Authorities' control ACE equations (or alternate control processes).	Interchange Schedule in the affected Balancing Authorities' Reporting control ACE equations (or alternate control processes).	Terms Scheduled Net Interchange (NIs) <i>(current and proposed)</i>	Reliability Standards	Eliminated the word "equation" for consistency and eliminated the parenthetical which has no known application.
Frequency Bias Setting (FBS)	A number, either fixed or variable, usually expressed in MW/0.1 Hz, included in a Balancing Authority's Area Control Error equation to account for the Balancing Authority's inverse Frequency Response contribution to the Interconnection, and discourage response withdrawal through secondary control systems.	A <u>negative</u> number either fixed or variable, usually expressed in MW/0.1 Hz, included in a Balancing Authority's Area Control Error <u>Reporting ACE equation</u> to account for the Balancing Authority's inverse <u>Frequency Response contribution</u> to the Interconnection Frequency Error , and discourage response withdrawal through secondary control systems.	Standards <ul style="list-style-type: none"> BAL-001-2 BAL-003-2 Terms Reporting ACE <i>(current and proposed)</i>	Reliability Guideline: Operating Reserve Management Technical Reference Document: Balancing Authority Area Footprint Change Tasks Technical Reference Document: Integrating	Added language to indicate this value must be a negative number and eliminated language to was not accepted in practice (usually). Update to the NERC defined term "Reporting ACE" to accurately reflect current terminology.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
				Reporting ACE with the NERC Reliability Standards	
Frequency Error	The difference between the actual and scheduled frequency. ($F_A - F_S$)	The difference between the A actual F frequency and the S scheduled # frequency. ($F_A - F_S$)	Standards: <ul style="list-style-type: none"> BAL-001-2 MOD-027-1 Term: <ul style="list-style-type: none"> Control Performance Standard Reporting ACE Frequency Regulation; Reporting ACE (<i>current and proposed</i>); Time Error Correction 	Power Plant Model Verification and Testing for Synchronous Machines DER_A Model Parameterization	

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
			<i>(proposed)</i>		
Inadvertent Interchange	The difference between the Balancing Authority's Net Actual Interchange and Net Scheduled Interchange. (IA – IS)	The difference between the Balancing Authority's Net Actual Net Interchange and Net Scheduled Net Interchange. (NI _A – NI _S)	Standards BAL-004-WECC-3 Terms <ul style="list-style-type: none"> Automatic Time Error Correction (I_ATEC) (<i>current and proposed</i>); Dynamic Transfer; Primary Inadvertent Interchange (WECC) 	Technical Reference Document: Balancing and Frequency Control Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards Reliability Guideline: Inadvertent Interchange	Updated to correct NERC defined terms and correct acronyms.
Inadvertent Interchange Management – (IIM)	New term to NERC glossary	A term used in Reporting ACE to allow for management of Inadvertent Interchange	Standards None Terms		New term to NERC glossary

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
		<u>and correction of Time Error. The I_{IM} 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>	Reporting Ace (proposed)		
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.	A term used in the Reporting ACE calculation to compensate for data or equipment errors affecting any other components of the Reporting ACE calculation .	Standards None Terms Reporting ACE (current and proposed)	Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards	Eliminated the word “calculation” for consistency
Interchange Schedule	An agreed-upon Interchange Transaction size (megawatts), start and end time, beginning and ending ramp times and rate, and type required for delivery and receipt of	No changes	Standards MOD-028-2 Terms <ul style="list-style-type: none"> Dynamic Interchange 	Technical Reference Document: Balancing and Frequency Control Methods for	Team reviewed and determined no changes

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	power and energy between the Source and Sink Balancing Authorities involved in the transaction.		<p>Schedule or Dynamic Schedule (<i>current and proposed</i>);</p> <ul style="list-style-type: none"> • Net Interchange Schedule (<i>proposed for retirement</i>); • Net Scheduled Interchange (<i>proposed for retirement</i>); • Ramp Rate or Ramp (<i>see proposed revisions</i>); • Reliability Adjustment RFI; • Scheduling Entity; 	Establishing IROLS	

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
			<ul style="list-style-type: none"> Sink Balancing Authority; Source Balancing Authority; Tie Line Bias (<i>current and proposed</i>) 		
Implemented Interchange	The state where the Balancing Authority enters the Confirmed Interchange into its Area Control Error equation.	The state where the Balancing Authority enters the Confirmed Interchange into its Reporting ACE Area Control Error equation.	Standards None Terms <ul style="list-style-type: none"> Reliability Adjustment; Arranged Interchange 		Update to the NERC defined term “Reporting ACE” to accurately reflect current terminology.
Net Interchange Schedule	The algebraic sum of all Interchange Schedules with each Adjacent Balancing Authority.	Retire	Standards None Terms None	Reliability Guideline: Inadvertent Interchange	Retire. Term is no longer utilized.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
Net Scheduled Interchange	The algebraic sum of all Interchange Schedules across a given path or between Balancing Authorities for a given period or instant in time.	Retire	Standards None Terms None		Retire. Term is no longer utilized.
Operating Reserve – Spinning	The portion of Operating Reserve consisting of: <ul style="list-style-type: none"> • Generation synchronized to the system and fully available to serve load within the Disturbance Recovery Period following the contingency event; or • Load fully removable from the system within the Disturbance Recovery Period following the contingency event. 	The portion of Operating Reserve consisting of: <ul style="list-style-type: none"> • Generation synchronized to the system and fully available to serve load within the Disturbance rRecovery Pperiod following the Ccontingency event; or • Load fully removable from the system within the Disturbance rRecovery Pperiod following the contingency event. 	Standards BAL-002-WECC-3 Terms None	Reliability Guideline: Operating Reserve Management Technical Reference Document: Balancing and Frequency Control Power Plant Model Verification for Inverter-Based Resources	Utilized proper capitalization on terms that are not NERC defined.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
Operating Reserve – Supplemental	<p>The portion of Operating Reserve consisting of:</p> <ul style="list-style-type: none"> • Generation (synchronized or capable of being synchronized to the system) that is fully available to serve load within the Disturbance Recovery Period following the contingency event; or • Load fully removable from the system within the Disturbance Recovery Period following the contingency event. 	<p>The portion of Operating Reserve consisting of:</p> <ul style="list-style-type: none"> • Generation (synchronized or capable of being synchronized to the system) that is fully available to serve load within the Disturbance Rrecovery pPeriod following the contingency event; or • Load fully removable from the system within the Disturbance Rrecovery pPeriod following the contingency event. 	<p>Standards BAL-002-WECC-3</p> <p>Terms None</p>	<p>Technical Reference Document: Balancing and Frequency Control</p> <p>Power Plant Model Verification for Inverter-Based Resources</p>	Utilized proper capitalization on terms that are not NERC defined.
Overlap Regulation Service	A method of providing regulation service in which the Balancing Authority providing the regulation service incorporates another Balancing	A method of providing R egulation S ervice in which the Balancing Authority providing the R egulation S ervice incorporates into it sits	<p>Standards</p> <ul style="list-style-type: none"> • BAL-001-2 • BAL-003-2 <p>Terms</p>	Technical Reference Document: Integrating Reporting ACE with the NERC	Update to the NERC defined term “Reporting ACE”, “Actual Net Interchange”, “Scheduled Net

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	Authority's actual interchange, frequency response, and schedules into providing Balancing Authority's AGC/ACE equation.	Reporting ACE a receiving another -Balancing Authority's A actual Net interchange, frequency response and S scheduled Net interchange, and response to Interconnection Frequency Error. into providing Balancing Authority's AGC /ACE equation.	None	Reliability Standards	Interchange" and "response to Interconnection Frequency Error", to accurately reflect current terminology.
Pre-Reporting Contingency Event ACE Value	The average value of Reporting ACE, or Reserve Sharing Group Reporting ACE when applicable, in the 16-second interval immediately prior to the start of the Contingency Event Recovery Period based on EMS scan rate data.	Team reviewed; no changes determined	Standards BAL-002-3 Terms None	Reliability Guideline: Operating Reserve Management	Update to the NERC defined term "Reporting ACE" to accurately reflect current terminology and grammatical changes to improve understanding.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
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).	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).	Standards <ul style="list-style-type: none"> BAL-005-1 BAL-002-WECC-3 INT-009-3 Terms Actual Net Interchange (<i>current and proposed</i>)	Technical Reference Document: Balancing Authority Area Footprint Change Tasks	Eliminated the word "equation" for consistency and eliminated the parenthetical which has no known application.
Ramp Rate or Ramp	(Schedule) The rate, expressed in megawatts per minute, at which the interchange schedule is attained during the ramp period. (Generator) The rate, expressed in megawatts per minute, that a generator changes its output.	(Schedule) The rate, expressed in megawatts per minute, at which the i nterchange s chedule is attained during the ramp period. (Generator) The rate, expressed in megawatts per minute, that a generator changes its output.	Standards None Terms Response Rate	Technical Reference Document: Balancing and Frequency Control Reliability Guideline: Generating Unit Operations During Complete Loss of Communications	Capitalized NERC defined terms within the definition.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
				<p>Inverter-Based Resource Performance Guideline</p> <p>Performance, Modeling, and Simulations of BPS-Connected BESS and Hybrid Power Plants</p> <p>Reliability Guideline: Model Verification of Aggregate DER Models used in Planning Studies</p> <p>DER Modeling</p> <p>Power Plant Model Verification for Inverter-Based Resources</p>	

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
				<p>Reliability Guideline: DER Data Collection for Modeling in Transmission Planning Studies</p> <p>DER_A Model Parameterization</p> <p>Improvements to Interconnection Requirements for BPS-Connected Inverter-Based Resources</p>	
Regulation Service	The process whereby one Balancing Authority contracts to provide corrective response to all or a portion of the ACE of another Balancing Authority. The Balancing Authority providing the response assumes the	The process whereby one Balancing Authority contracts to provide corrective response to all or a portion of the Reporting ACE of another Balancing Authority. The Balancing Authority providing the response assumes the	<p>Standards</p> <ul style="list-style-type: none"> BAL-001-2 BAL-003-2 <p>Terms</p> <ul style="list-style-type: none"> Overlap Regulation Service 	<p>Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards</p>	

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	obligation of meeting all applicable control criteria as specified by NERC for itself and the Balancing Authority for which it is providing the Regulation Service.	obligation of meeting all applicable control criteria as specified by NERC for itself and the Balancing Authority for which it is providing the Regulation <u>corrective response Service</u> .	<p><i>(proposed)</i>;</p> <ul style="list-style-type: none"> Supplemental Regulation Service <i>(proposed)</i> 		
Reporting ACE Area Control Error – (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).	The scan rate values of a Balancing Authority Area’s (BAA) Area Control Error (ACE) measured in MW, <u>which includes the error in scheduled interchange adjusted for Frequency Bias obligation, known meter error, and inadvertent management. 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</u>	<p>Standards</p> <ul style="list-style-type: none"> BAL-001-2 BAL-002-3 BAL-005-1 <p>Terms</p> <ul style="list-style-type: none"> Automatic Generation Control; Interchange Meter Error (IME) <i>(current and proposed)</i>; Pre-Reporting 	<p>Technical Reference Document: Balancing and Frequency Control</p> <p>Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards</p> <p>Technical Reference</p>	Modified to reflect a common term across all multiple BA interconnections. This change will allow regions to create methodologies to control Inadvertent Interchange accumulations.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<p>Reporting ACE is calculated as follows: $Reporting\ ACE = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME}$ Reporting ACE is calculated in the Western Interconnection as follows: $Reporting\ ACE = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME} + I_{ATEC}$ Where:</p> <ul style="list-style-type: none"> • 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. 	<p>for any known meter error. In the Western Interconnection, Reporting ACE includes Automatic Time Error Correction (I_{ATEC}). Reporting ACE is calculated as follows: $Reporting\ ACE = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME}$ Reporting ACE is calculated in the Western Interconnection as follows: $Reporting\ ACE = (NI_A - NI_S) - 10B (F_A - F_S) - I_{ME} + I_{ATEC}$ Where:</p> <ul style="list-style-type: none"> • NI_A = Actual Net Interchange. • NI_S = Scheduled Net Interchange. • B = Frequency Bias Setting. • F_A = Actual Frequency. 	<p>Contingency Event ACE Value;</p> <ul style="list-style-type: none"> • Pseudo-Tie (current and proposed) 	<p>Document: Area Control Error Diversity Interchange Process</p>	

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<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> <p>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</p>	<ul style="list-style-type: none"> • F_s = Scheduled Frequency. • I_{ME} = Interchange Meter Error. • I_{MATEC} = Automatic Time Error Correction Inadvertent Interchange Management. (Term is expressed if a regional procedure exists, otherwise is null and is not included in the Balancing Authority's Reporting ACE.) ◦ In the Western Interconnection this term is I_{ATEC} <p>All NERC Interconnections operate using the principles of Tie-line Bias (TLB) Control and require the use of an ACE equation</p>			

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<p>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 IME term corrects for known metering or computational errors.)</p>	<p>similar to the Reporting ACE defined above. Any modification(s) to this specified Reporting ACE equation that is(are) implemented for all BAAs in an 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> <p>1. All <u>Each individual</u> portions of the Interconnection are <u>is</u> included in exactly one BAA so that the sum of all BAAs' generation, L <u>load</u>, and losses is the same as total Interconnection generation, L <u>load</u>, and losses;</p> <p>2. The algebraic sum of all BAAs' Scheduled Net</p>			

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
		<p>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. <u>This includes effects of ACE Diversity Interchange (ADI) implementations;</u></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_{ME} term corrects for known metering or computational errors.)</p>			
Reportable Balancing Contingency Event – (RBCE)	Any Balancing Contingency Event occurring within a one-minute interval of an initial sudden decline in ACE based on EMS scan rate data that results in a loss of MW output less	Any Balancing Contingency Event occurring within a one-minute interval of an initial sudden decline in <u>the responsible entity's Reporting ACE</u> that results in a loss of MW output less	Standards BAL-002-3 Terms Contingency Event Recovery Period	Reliability Guideline: Operating Reserve Management Technical Reference	Update to the NERC defined term "Reporting ACE" to accurately reflect current terminology. Moved note on

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<p>than or equal to the Most Severe Single Contingency, and greater than or equal to the lesser amount of:</p> <p>(i) 80% of the Most Severe Single Contingency, or</p> <p>(ii) the amount listed below for the applicable Interconnection. Prior to any given calendar quarter, the 80% threshold may be reduced by the responsible entity upon written notification to the Regional Entity.</p> <ul style="list-style-type: none"> • Eastern Interconnection – 900 MW • Western Interconnection – 500 MW • ERCOT – 800 MW 	<p>than or equal to its Most Severe Single Contingency (<u>MSSC</u>), and greater than or equal to the lesser amount of:</p> <p>(i) 80% of its MSSC. <u>Prior to any given calendar quarter, the 80% threshold may be reduced by the responsible entity upon written notification to its Regional Entity</u>, or</p> <p>(ii) the amount listed below for the applicable Interconnection. <u>Prior to any given calendar quarter, the 80% threshold may be reduced by the responsible entity upon written notification to its Regional Entity.</u></p>		Document: Area Control Error Diversity Interchange Process	modification of 80% threshold for readability.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	<ul style="list-style-type: none"> Quebec – 500 MW 	<ul style="list-style-type: none"> Eastern Interconnection: 900 MW Western Interconnection: 500 MW ERCOT: 800 MW Quebec: 500 MW 			
Reportable Disturbance	Any event that causes ACE change greater than or equal to 80% of a Balancing Authority’s or reserve sharing group’s most severe contingency. The definition of a reportable disturbance is specified by each Regional Reliability Organization. This definition may not be retroactively adjusted in response to observed performance.	Retire	Standards CIP-002-5.1 <i>(outdated reference in G&TB)</i> Terms None		Retire

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
Reserve Sharing Group – (RSG)	A group whose members consist of two or more Balancing Authorities that collectively maintain, allocate, and supply operating reserves required for each Balancing Authority’s use in recovering from contingencies within the group. Scheduling energy from an Adjacent Balancing Authority to aid recovery need not constitute reserve sharing provided the transaction is ramped in over a period the supplying party could reasonably be expected to load generation in (e.g., ten minutes). If the transaction is ramped in quicker (e.g., between zero and ten minutes) then, for the	A group whose members consist of two or more Balancing Authorities that collectively maintain, allocate, and supply Operating R eserves required for each Balancing Authority’s use in recovering from contingencies within the group. Scheduling energy from an Adjacent Balancing Authority to aid recovery need not constitute reserve sharing provided the transaction is ramped in over a period the supplying party could reasonably be expected to load generation in (e.g., ten minutes). If the transaction is ramped in more quickly er (e.g., between zero and ten minutes) then, for the purposes of recovery from <u>a Reportable Balancing</u>	<p>Standards</p> <ul style="list-style-type: none"> • PRC-005-6 • BAL-001-2 • BAL-002-3 • BAL-002-WECC-3 <p>Terms</p> <p>Reserve Sharing Group Reporting ACE</p>	Reliability Guideline: Operating Reserve Management	Update to the NERC defined term “Operating Reserves” to accurately reflect current terminology. Replaced “disturbance control performance” with “Balancing Contingency Event” to accurately reflect changes to BAL-002-3 terminology.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	purposes of disturbance control performance, the areas become a Reserve Sharing Group.	Contingency Event disturbance control performance , the areas become a Reserve Sharing Group.			
Reserve Sharing Group Reporting ACE	At any given time of measurement for the applicable Reserve Sharing Group (RSG), the algebraic sum of the ACEs (or equivalent as calculated at such time of measurement) of the Balancing Authorities participating in the RSG at the time of measurement.	At any given time of measurement for the applicable Reserve Sharing Group (RSG), the algebraic sum of the Reporting ACEs (or equivalent as calculated at such time of measurement) of the Balancing Authorities participating in the RSG at the time of measurement.	Standards BAL-001-2 Terms None		Edited to accurately require a Reserve Sharing Group's Reporting ACE to use the sum of the Balancing Authorities Reporting ACE.
Scheduled Frequency	60.0 Hertz, except during a time correction	60. 00 Hertz, except during a Time Error Correction	Standards • BAL-001-2 • MOD-027-1 Terms	Reliability Guideline: Operating Reserve Management Technical Reference	Added resolution to the term as Time Error corrections are normally performed in +/- .02 Hz increments.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
			<ul style="list-style-type: none"> • Frequency Regulation; • Reporting ACE (<i>current and proposed</i>); • Time Error Correction (<i>proposed</i>) 	Document: Integrating Reporting ACE with the NERC Reliability Standards	Also capitalized terms that are NERC defined glossary terms.
Scheduled Net Interchange (NIs) (NIs)	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	Added acronym	Standards None Terms Reporting ACE (<i>current and proposed</i>)	Technical Reference Document: Balancing and Frequency Control Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards Technical	Added acronym

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	excluded from Scheduled Net Interchange.			Reference Document: Area Control Error Diversity Interchange Process Reliability Guideline: Inadvertent Interchange	
Supplemental Regulation Service	A method of providing regulation service in which the Balancing Authority providing the regulation service receives a signal representing all or a portion of the other Balancing Authority's ACE.	A method of providing R egulation S ervice in which the Balancing Authority providing the R egulation S ervice receives a signal representing all or a portion of the other Balancing Authority's R eporting ACE.	Standards None Terms None		Update to the NERC defined term "Reporting ACE" to accurately reflect current terminology.
Tie Line Bias (TLB)	A mode of Automatic Generation Control that	A mode of Automatic Generation Control that	Standards BAL-004-WECC-3		Added acronym and capitalized defined terms.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
	allows the Balancing Authority to : 1) maintain its Interchange Schedule and 2) respond to Interconnection frequency error.	allows the Balancing Authority to : 1) maintain its Interchange Schedule and 2) respond to Interconnection frequency error.	Terms Reporting ACE		
Time Error (TE)	The difference between the Interconnection time measured at the Balancing Authority(ies) and the time specified by the National Institute of Standards and Technology. Time error is caused by the accumulation of Frequency Error over a given period.	The difference between the Interconnection time measured at the Balancing Authority(ies) and the time specified by the National Institute of Standards and Technology. Time error The <u>difference</u> is caused by the accumulation of Frequency Error over a given period.	Standards None Terms <ul style="list-style-type: none">Automatic Time Error Correction (<i>current and proposed</i>);Time Error Correction (<i>current and proposed</i>)	Technical Reference Document: Balancing and Frequency Control Technical Reference Document: Integrating Reporting ACE with the NERC Reliability Standards	Added acronym commonly used and minor grammatical change to definition.

Table 1: Retired, Modified, or Newly Proposed Definitions

NERC Glossary Term	Currently Approved Definition	DT Proposed New or Revised REDLINE TO Currently Approved	Standards / Definitions Affected	Technical Guidelines / Reference Documents	Notes
Time Error Correction (TEC)	An offset to the Interconnection’s scheduled frequency to return the Interconnection’s Time Error to a predetermined value.	A manual offset to the Interconnection’s S scheduled F frequency to return the Interconnection’s Time Error to a predetermined range value.	Standards BAL-004-WECC-3 Terms <ul style="list-style-type: none"> Automatic Time Error Correction (<i>current and proposed</i>); Scheduled Frequency (<i>proposed</i>) 	Technical Reference Document: Balancing and Frequency Control Technical Reference Document: Balancing Authority Area Footprint Change Tasks	Added the word “manual” to indicate this process is not automatically implemented.