

# BAL-003-2 Frequency Response Obligation Allocation and Minimum Frequency Bias Settings for Operating Year 2025

November 2024

## Introduction

Compliance with Requirement R1 on Frequency Response performance of NERC Standard BAL-003-2 – Frequency Response and Frequency Bias Setting for Operating Year 2025 goes into effect on December 1, 2024. The official Frequency Response Obligations (FRO) and Minimum Frequency Bias Settings (FBS) for each Balancing Authority (BA) for Operating Year 2025 are attached.

This document outlines the procedure for setting FBS for 2023 and publishes the FRO and minimum FBS for BAL-003-2 operating year 2025 in accordance with BAL-003-2.

## Frequency Response Obligation Allocations

Interconnection Frequency Response Obligations (IFROs) are annually calculated for each of the four Interconnections and published in the Frequency Response Annual Analysis (FRAA) report. Through annual endorsement of that report the NERC Reliability and Security Technical Committee sanctions the IFROs for allocation by the Electric Reliability Organization (ERO) through the methods put forth in Standard BAL-003-2.

In accordance with the recommendations from the 2024 FRAA report that were approved by the NERC Resources Subcommittee and endorsed by the NERC Reliability and Security Technical Committee, the IFRO values for the Eastern, Western, and Québec Interconnections for operating year 2025 (December 2024 through November 2025) shall not remain the same values as calculated in the 2016 FRAA report for operating year 2017. The IFRO value for each Interconnection shall increase or decrease slightly (in absolute terms) due to a change in the credit for load resources (CLR) and resource loss protection criteria as discussed in the 2021 FRAA.

### Recommended IFROs for Operating Year 2025

	Eastern (EI)	Western (WI)	Texas (TI)	Québec (QI)	Units
Recommended IFROs	-923	-1,042	-455	-211	MW/0.1 Hz

### ***Allocation Method***

The ERO annually allocates the approved IFROs to the individual BAs for the upcoming BAL-003-2 operating year (December 1 through November 30) in accordance with the allocation method defined in BAL-003-2.

## **Frequency Bias Setting Procedure for 2025 Bias Year**

Note that each year there will be a short lag period between receipt of the FRO for December implementation and its use in the implementation of the Variable FBS by BAs using it in Requirement R3 of BAL-003-2.

BAs utilizing Variable Bias Settings should use the Operating Year 2025 FRO provided for implementation on December 1, 2024, for the purpose of compliance with Requirement R3 starting on the 3 business days starting on or after June 1, 2025, as specified by the ERO.

### ***Minimum Frequency Bias Settings***

In accordance with BAL-003-2 a BA using a fixed Frequency Bias Setting sets its Frequency Bias Setting to the greater of (in absolute terms) any number the BA chooses between 100% and 125% of its Frequency Response Measure as calculated on FRS Form 1, or the BA minimum Frequency Bias Setting allocated from the Interconnection Minimum as determined by the ERO. This document provides the minimum FBS for each BA.

### ***2025 Frequency Performance Data Submittal***

BAs will submit their 2023 data on FRS Forms FR-1 and FR-2 through the Balancing Authority Submittal Site (BAS Site) no later than April 15, 2025. The ERO will then publish the final FBS values in time for implementation on or about May 30, 2025.

### ***L10 Calculations***

The BA  $L_{10}$  values, previously used for CPS2, are still calculated for information purposes and for use with the Western Interconnection Automatic Time Error Correction (ATEC). The BA  $L_{10}$  values can only be calculated after all the FBS for the interconnections are known. Therefore, after all the FBS are submitted, the ERO will calculate  $L_{10}$  values and distribute the data along with the final FBS for implementation on or within 3 business days of June 16, 2025.

## **Frequency Bias Setting Schedule for 2025**

The FBS to be used for Bias Setting year 2025 (June 2025 through May 2026) for compliance with Requirements R2, R3, and R4 of Standard BAL-003-2 will be implemented using the following process:

1. Prior to March 1, 2025, the final FRS Form 1s will be posted for each Interconnection pre-populated with frequency events for all four quarters of operating year 2024 (December 1, 2023 through November 30, 2024).
2. By April 15, 2025, all BAs complete their frequency response analysis using the frequency events selected by the ERO for all four quarters of operating year 2024 and their desired FBS for the 2025 operating year. BAs submit their FRS Form 1 and FRS Form 2s to the ERO via the BAS Site. The final BA FBS and  $L_{10}$  values cannot be calculated until completed and accurate Form 1s are received for

all BAs in that interconnection. It is therefore essential that all BAs submit their FRS forms no later than April 1st in accordance with BAL-003-2.

3. By June 1st the ERO validates FBS, computes the sum of FBS for each Interconnection, and determines  $L_{10}$  values for each BA. The ERO will post that report on the BAS Site and the RS website.
4. During the first three business days of June 2025, unless specified otherwise by the ERO, BAs will implement the 2025 FBS in their Reporting ACE calculation. In May of each year the ERO will announce a target date for implementation.

### FBS Implementation Timeline Operating Year 2025

Deadline	Action
February 1 <sup>st</sup> , 2025	Final OY2024 event selections are completed.
March 1 <sup>st</sup> , 2025	ERO pre-populates Form 1s with OY2024 event data.
April 15 <sup>th</sup> , 2025	Balancing Authorities submit completed Form 1s and 2s via BASS.
May 30 <sup>th</sup> , 2025	ERO publishes final FBS values and their implementation date.
June 2025	Balancing Authorities implement the 2025 FBS in their Reporting ACE calculation based on ERO assigned implementation date.

Balancing Authority Frequency Response Obligations for Operating Year 2025					For Comparison Only		For Comparison Only			
BA Name	BA Acronym	Maximum Monthly Peak Demand (2023 MW) FERC 714 Data	BA Net Generation + BA Net Energy for Load (2023 MWh) FERC 714 Data	OY2025 BA % Ratio (BAL-003-2 Attach A)	OY2025 BA FROs (MW/0.1 Hz)	Year over Year BA FRO Change	OY2024 BA FROs (MW/0.1 Hz)	OY2025 Minimum Frequency Bias Settings For Fixed Bias BAs	Year over Year Min FBS Change	OY2024 Minimum BA Frequency Bias Settings
<b>Eastern Interconnection</b>		<b>610,096</b>	<b>6,207,460,940</b>	<b>100.00%</b>	<b>OY2025 EI IFRO -923</b>			<b>0.9% of EI Peak Demand -5,491</b>		
Associated Electric Cooperative, Inc.	AECI	4922	46136148	0.74%	-6.9	-5.48%	-7.3	-40.8	-6.85%	-43.8
Cube Hydro Carolinas	CHC	8.9	840092.2718	0.01%	-0.1	0.00%	-0.1	-0.7	0.00%	-0.7
Duke Energy Progress, Inc.	CPLE	13020	130488376	2.10%	-19.4	-1.52%	-19.7	-115.4	-2.20%	-118.0
Duke Energy Carolinas	DUK	21135	211274266	3.40%	-31.4	-1.57%	-31.9	-186.9	-2.10%	-190.9
Florida Municipal Power Pool	FMPP	3898	37759830	0.61%	-5.6	0.00%	-5.6	-33.4	0.60%	-33.2
Duke Energy Florida, Inc.	FPC	12460	99442681	1.60%	-14.8	-0.67%	-14.9	-88.0	-1.12%	-89.0
Florida Power & Light Co.	FPL	28765	293051866	4.72%	-43.6	8.19%	-40.3	-259.2	7.64%	-240.8
Gainesville Regional Utilities	GVL	410	4313931	0.07%	-0.6	0.00%	-0.6	-3.8	8.57%	-3.5
Homestead, City of	HST	125	617688	0.01%	-0.1	0.00%	-0.1	-0.5	0.00%	-0.5
Ontario IESO	IESO	23713	285251323	4.60%	-42.4	1.92%	-41.6	-252.3	1.57%	-248.4
ISO-NE	ISNE	24043	214343556	3.45%	-31.9	-1.54%	-32.4	-189.6	-2.12%	-193.7
JEA (Jacksonville)	JEA	2816	21152604	0.34%	-3.1	-3.13%	-3.2	-18.7	-2.09%	-19.1
LG&E and KU Services Company	LGEE	6809	61249928	0.99%	-9.1	-5.21%	-9.6	-54.2	-5.08%	-57.1
Manitoba Hydro	MHEB	4926.590576	59693671.16	0.96%	-8.9	-7.29%	-9.6	-52.8	-8.17%	-57.5
Midcontinent Independent System Operator, Inc.	MISO	119400	1260932349	20.31%	-187.5	-1.32%	-190.0	-1,115.4	-1.71%	-1,134.8
New Brunswick Power Corporation	NBPSO	3880	31028098	0.50%	-4.6	4.55%	-4.4	-27.4	4.58%	-26.2
Nova Scotia Power Inc.	NSPI	2455	19817662	0.32%	-2.9	-6.45%	-3.1	-17.5	-6.42%	-18.7
New York Independent System Operator	NYIS	30206	272354846	4.39%	-40.5	-1.22%	-41.0	-240.9	-1.63%	-244.9
PJM Interconnection, LLC	PJM	147178	1580267671	25.46%	-235	-1.22%	-237.9	-1,397.8	-1.64%	-1,421.1
South Carolina Public Service Authority (Santee)	SC	4940	46786782	0.75%	-7	4.48%	-6.7	-41.4	3.24%	-40.1
South Carolina Electric & Gas Company (Dominion)	SCEG	4784	46748942	0.75%	-7	0.00%	-7.0	-41.4	-1.19%	-41.9
Seminole Electric Cooperative	SEC	494	15269791	0.25%	-2.3	21.05%	-1.9	-13.5	16.38%	-11.6
Southeastern Power Administration	SEPA	0	1500978	0.02%	-0.2	0.00%	-0.2	-1.3	8.33%	-1.2
Southern Company Services, Inc. - Trans	SOCO	45677.646	468129742	7.54%	-69.6	-0.43%	-69.9	-414.1	-0.84%	-417.6
Southwestern Power Administration	SPA	116	4683324	0.08%	-0.7	-30.00%	-1.0	-4.1	-29.31%	-5.8
Saskatchewan Power Corporation	SPC	3693	50152087	0.81%	-7.5	2.74%	-7.3	-44.4	1.37%	-43.8
Southwest Power Pool	SWPP	63005	573587222	9.24%	-85.3	1.91%	-83.7	-507.4	1.46%	-500.1
Tallahassee, City of	TAL	616	5699121	0.09%	-0.8	0.00%	-0.8	-5.0	0.00%	-5.0
Tampa Electric Company	TEC	4669	44607939	0.72%	-6.6	3.12%	-6.4	-39.5	3.13%	-38.3
Tennessee Valley Authority	TVA	31931	320278426	5.16%	-47.6	6.73%	-44.6	-283.3	6.26%	-266.6

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<b>Western Interconnection</b>					<b>OY2025 WI IFRO</b>			<b>0.9% of WI Peak Demand</b>		
		<b>178,993</b>	<b>1,746,316,332</b>	<b>100.00%</b>	<b>-1041.80</b>		<b>-1042.00</b>	<b>-1,610.9</b>		
Alberta Electric System Operator	AESO	11632	172603585	9.88%	-103	3.73%	-99.3	-159.2	-1.85%	-162.2
Avista Corporation	AVA	2395	25685872	1.47%	-15.3	1.32%	-15.1	-23.7	-4.05%	-24.7
Avangrid Renewables	AVRN	0	8796560	0.50%	-5.2	13.04%	-4.6	-8.1	8.00%	-7.5
Arizona Public Service Company	AZPS	8288	65644051	3.76%	-39.2	3.98%	-37.7	-60.6	-1.46%	-61.5
Balancing Authority of Northern California (Sacramento)	BANC	4561	31419350	1.80%	-18.7	16.88%	-16.0	-29.0	10.69%	-26.2
British Columbia Hydro and Power Authority	BCHA	10730	117893038	6.75%	-70.3	-12.13%	-80.0	-108.8	-16.69%	-130.6
Bonneville Power Administration	BPAT	10687	137423071	7.87%	-82	-10.58%	-91.7	-126.8	-15.35%	-149.8
Comision Federal de Electricidad (CEN)	CFE	3393	31350498	1.80%	-18.7	1.63%	-18.4	-28.9	-3.67%	-30.0
Public Utility District No. 1 of Chelan County	CHPD	486	6254273	0.36%	-3.7	-15.91%	-4.4	-5.8	-19.44%	-7.2
California Independent System Operator	CISO	44230	396014017	22.68%	-236.3	2.83%	-229.8	-365.3	-2.66%	-375.3
Arlington Valley, LLC - AVBA	DEAA	0	2264922	0.13%	-1.4	27.27%	-1.1	-2.1	16.67%	-1.8
PUD No. 1 of Douglas County	DOPD	442	2759624	0.16%	-1.6	6.67%	-1.5	-2.5	4.17%	-2.4
El Paso Electric Company	EPE	2384	15035809	0.86%	-9	12.50%	-8.0	-13.9	6.11%	-13.1
Public Utility District No. 2 of Grant County Washington	GCPD	972	11108595	0.64%	-6.6	-9.59%	-7.3	-10.2	-15.00%	-12.0
Gridforce Energy Management, LLC	GRID	0	15969640	0.91%	-9.5	15.85%	-8.2	-14.7	8.89%	-13.5
NaturEner Power Watch, LLC (BHE)	GWA	0	456517	0.03%	-0.3	0.00%	-0.3	-0.4	-20.00%	-0.5
New Harquahala Generating Station	HGMA	0	2308703	0.13%	-1.4	-12.50%	-1.6	-2.1	-16.00%	-2.5
Imperial Irrigation District	IID	973	4697994	0.27%	-2.8	0.00%	-2.8	-4.3	-4.44%	-4.5
Idaho Power Company	IPCO	4008	34773679	1.99%	-20.7	4.55%	-19.8	-32.1	-0.93%	-32.4
Los Angeles Department of Water and Power	LDWP	6000	33810358	1.94%	-20.2	-7.76%	-21.9	-31.2	-12.85%	-35.8
Nevada Power Company	NEVP	10146	71642072	4.10%	-42.7	0.95%	-42.3	-66.1	-4.20%	-69.0
NorthWestern Corporation (NorthWestern Energy)	NWMT	1992	22264757	1.27%	-13.3	2.31%	-13.0	-20.5	-3.30%	-21.2
PacifiCorp_East	PACE	9460	104277023	5.97%	-62.2	-2.20%	-63.6	-96.2	-7.41%	-103.9
PacifiCorp_West	PACW	4009	33576335	1.92%	-20	-8.68%	-21.9	-31.0	-13.41%	-35.8
Portland General Electric Company	PGE	4464	41992337	2.40%	-25.1	7.73%	-23.3	-38.7	1.57%	-38.1
Public Service Company of New Mexico	PNM	2818	27634256	1.58%	-16.5	-2.94%	-17.0	-25.5	-7.94%	-27.7
Public Service Company of Colorado	PSCO	8496	87794045	5.03%	-52.4	3.15%	-50.8	-81.0	-2.29%	-82.9
Puget Sound Energy, Inc.	PSEI	4755	45510115	2.61%	-27.2	11.02%	-24.5	-42.0	4.74%	-40.1
Seattle City Light	SCL	1970	14601834	0.84%	-8.7	-9.38%	-9.6	-13.5	-14.01%	-15.7
Salt River Project Agricultural Improvement and Power District	SRP	8269	60809474	3.48%	-36.3	10.33%	-32.9	-56.1	4.47%	-53.7
Tucson Electric Power	TEPC	3423	28765534	1.65%	-17.2	0.00%	-17.2	-26.5	-5.69%	-28.1
Turlock Irrigation District	TIDC	658	5117093	0.29%	-3.1	6.90%	-2.9	-4.7	0.00%	-4.7
City of Tacoma, Department of Public Utilities, Light Division	TPWR	920	7076042	0.41%	-4.2	-10.64%	-4.7	-6.5	-15.58%	-7.7
Western Area Power Administration - Rocky Mountain Region	WACM	4790	61370113	3.51%	-36.6	-0.27%	-36.7	-56.6	-5.67%	-60.0
Western Area Power Administration - Desert Southwest Region	WALC	1482	15667875	0.90%	-9.3	-13.89%	-10.8	-14.5	-18.08%	-17.7
Western Area Power Administration - Upper Great Plains Region	WAUW	160	1383815	0.08%	-0.8	-11.11%	-0.9	-1.3	-7.14%	-1.4
NaturEner Wind Watch, LLC (BHE)	WWA	0	563456	0.03%	-0.3	-25.00%	-0.4	-0.5	-16.67%	-0.6
<b>ERCOT Interconnection</b>					<b>OY2025 TI IFRO</b>					
		<b>80,910</b>	<b>890,244,686</b>	<b>100%</b>	<b>-455</b>	15.19%	<b>-395</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Electric Reliability Council of Texas, Inc.	ERCOT	80,910	890,244,686	100%	-455	15.19%	-395			
<b>Québec Interconnection</b>					<b>OY2025 QI IFRO</b>					
				<b>100%</b>	<b>-211</b>	0.00%	<b>-211</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Hydro-Québec TransEnergie	HQT	-	-	100%	-211	0.00%	-211			