

## 2019 Frequency Bias Settings

Effective: **12/1/2019**

### Eastern Interconnection

Adjustments: PSCO & WACM

BA	Bias Type	Receive Overlap Reg	Provide Overlap Reg	2019 FBS MW/0.1Hz	Peak Demand (MW) (2017 FERC 714)	2019 L <sub>10</sub>	OY 2019 BA FRO MW/0.1Hz
AEC	Fixed	No	No	-10.4	2,125	22.0	-2.0
AECI	Fixed	No	No	-34.5	4,526	40.1	-6.7
CHC	Fixed	No	No	-2.3	10	10.3	-0.1
CPL	Fixed	No	No	-112.6	14,534	72.4	-22.0
DUK	Fixed	No	No	-176.4	20,120	90.6	-34.4
EEI	Fixed	No	No	-5.0	-	15.3	-0.6
FMPP	Fixed	No	No	-28.9	3,491	36.7	-5.6
FPC	Fixed	No	No	-79.5	11,257	60.8	-15.5
FPL	Fixed	No	No	-218.0	23,232	100.7	-40.7
GVL	Fixed	No	No	-3.2	418	12.2	-0.6
HST	Fixed	No	No	-0.5	110	4.8	-0.1
IESO	Fixed	No	No	-235.7	21,786	104.7	-46.0
ISNE	Fixed	No	No	-189.4	23,968	93.9	-36.9
JEA	Fixed	No	No	-15.4	2,727	26.8	-3.0
LGEE	Fixed	No	No	-61.3	6,834	53.4	-12.0
MHEB	Fixed	No	No	-54.5	4,887	50.4	-10.6
MISO	Fixed	No	No	-1,060.6	112,929	222.2	-206.8
NBSO	Fixed	No	Yes	-26.2	3,304	34.9	-5.1
NSB	Fixed	No	No	-0.4	97	4.3	-0.1
NSPI	Fixed	Yes	No	-18.2	2,018	29.1	-3.6
NYIS	Fixed	No	No	-244.9	29,699	106.7	-47.7
PJM	Fixed	No	No	-1,347.7	145,763	250.4	-262.7
SC	Fixed	No	No	-58.2	4,989	52.0	-6.7
SCEG	Fixed	No	No	-42.7	4,701	44.6	-8.3
SEC	Fixed	No	No	-22.7	489	32.5	-2.1
SEPA	Fixed	No	No	-1.1	-	7.2	-0.2
SOCO	Fixed	No	No	-403.1	40,959	137.0	-79.2
SPA	Fixed	No	No	-14.8	149	26.2	-1.1
SPC	Fixed	No	No	-42.2	3,792	44.3	-8.2
SWPP	Fixed	No	No	-441.0	50,421	143.2	-86.0
TAL	Fixed	No	No	-4.6	598	14.6	-0.9
TEC	Fixed	No	No	-36.3	4,115	41.1	-7.1
TVA	Fixed	No	No	-268.2	29,899	111.7	-52.3

Note: PJM peak demand includes peak demand for OVEC.

**Total  
EI FBS -5,260**

**Total  
EI IFRO -1,015**

# 2019 Frequency Bias Settings

Effective: **12/1/2019**

## Western Interconnection

Adjustments: PSCO & WACM

BA	Bias Type	Receive Overlap Reg	Provide Overlap Reg	2019 FBS MW/0.1Hz	Peak Demand (MW) (2017 FERC 714)	2019 L <sub>10</sub>	OY 2019 BA FRO MW/0.1Hz
AESO	Fixed	No	No	-153.5	11,558	63.6	-80.4
AVA	Fixed	No	No	-53.1	2,382	37.4	-11.8
AVRN	Fixed	No	No	-6.0	-	12.5	-1.6
AZPS	Fixed	No	No	-55.5	7,365	38.3	-29.1
BANC	Fixed	No	No	-31.5	4,777	28.8	-13.1
BCHA	Variable	No	No	-112.0	11,165	54.4	-65.4
BPAT	Variable	No	No	-162.8	10,943	65.6	-81.7
CFE	Fixed	No	No	-29.4	2,622	27.9	-13.1
CHPD	Fixed	No	No	-25.0	494	25.7	-3.8
CISO	Fixed	No	No	-369.7	49,900	98.8	-193.7
DEAA	Fixed	No	No	-1.9	-	7.1	-1.0
DOPD	Fixed	No	No	-3.9	425	10.1	-2.0
EPE	Fixed	No	No	-11.7	1,932	17.6	-6.1
GCPD	Fixed	No	No	-27.2	803	26.8	-6.5
GRID	Fixed	No	No	-15.7	-	20.4	-3.2
GRIF	Fixed	No	No	-1.8	-	6.9	-0.9
GWA	Fixed	No	No	-0.5	-	3.6	-0.3
HGMA	Fixed	No	No	-1.7	-	6.7	-0.9
IID	Fixed	No	No	-6.5	1,073	13.1	-2.4
IPCO	Variable	No	No	-37.6	3,806	31.5	-17.2
LDWP	Fixed	No	No	-54.7	7,094	38.0	-26.1
NEVP	Fixed	No	No	-61.2	9,186	40.2	-32.1
NWMT	Fixed	No	No	-20.2	1,803	23.1	-10.6
PACE	Fixed	No	No	-90.4	8,870	48.8	-47.4
PACW	Fixed	No	No	-38.5	4,288	31.9	-20.2
PGE	Fixed	No	No	-32.3	4,039	29.2	-16.9
PNM	Fixed	No	No	-31.4	2,571	28.8	-13.8
PSCO	Fixed	No	No	-84.5	8,734	47.2	-39.9
PSEI	Fixed	No	No	-37.1	6,391	31.3	-19.4
SCL	Fixed	No	No	-49.8	1,868	36.3	-8.2
SRP	Fixed	No	No	-55.4	7,292	38.2	-29.0
TEPC	Fixed	No	No	-57.6	3,365	39.0	-14.1
TIDC	Fixed	No	No	-4.8	654	11.3	-2.2
TPWR	Fixed	No	No	-17.5	997	21.5	-4.1
WACM	Fixed	No	No	-51.4	3,379	36.8	-31.5
WALC	Fixed	No	No	-23.04	1,624	24.7	-7.4
WAUW	Fixed	No	No	-2	167	6.7	-0.6
WWA	Fixed	No	No	-0.6	-	4.0	-0.3
<b>Total WI FBS</b>				<b>-1,819</b>	<b>Total WI IFRO</b>		<b>-858</b>