Released: November 2017
Next Update: November 2018

Table 4.B Winter net internal demand, capacity resources, and capacity margins by North American Electric Reliability Corporation Region, 2001/2002-2016/2017 actual, 2017-2028 projected

megawatts and percent

Interconnection	NERC Regional Assesment Area	Net Internal Demand[1] -- Winter																										
		Actual																Projected										
		2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018E	2018/ 2019E	2019/ 2020E	2020/ 2021E	2021/ 2022E	2022/ 2023E	2023/ 2024E	2024/ 2025E	2025/ 2026E	2026/ 2027E	2027/ 2028E
	FRCC	39,699	42,001	36,229	41,449	42,493	45,993	46,093	45,042	51,703	45,954	39,924	46,456	39,124	42,822	40,246	40,491	41,994	42,462	42,835	43,285	43,659	44,066	44,489	44,881	45,275	45,689	45,689
	NPCC	42,551	45,980	47,850	47,859	46,328	48,394	46,185	47,151	44,864	44,172	43,806	46,008	47,186	45,204	42,841	43,745	44,549	44,129	44,158	43,699	43,455	43,277	43,133	43,031	42,946	42,894	42,841
	Balance of Eastern Region	341,158	360,748	357,026	371,011	375,365	385,887	383,779	384,495	399,204	389,351	385,428	407,717	404,248	428,714	385,178	400,915	412,516	416,133	419,010	424,021	425,588	427,176	429,774	432,275	434,863	437,434	440,836
	ECAR	82,831	84,844	86,332	91,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAAC	39,458	46,159	45,625	45,565	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAIN	38,412	39,974	39,955	40,618	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAPP	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,877	4,443	5,726	5,304	5,294	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MISO	NA	NA	NA	NA	NA	NA	NA	NA	NA	80,311	83,946	77,364	109,400	104,713	95,920	99,054	99,384	99,948	101,336	102,455	103,249	103,785	104,408	105,186	105,869	106,534	107,194
	MRO	21,575	23,090	24,042	24,446	32,854	34,582	34,358	34,539	33,983	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	PJM	NA	NA	NA	NA	NA	NA	NA	NA	NA	115,535	110,963	132,229	140,510	143,086	129,771	131,021	132,297	133,035	132,582	126,706	126,881	127,065	127,655	127,593	128,118	128,678	129,420
	RFC[5]	NA	NA	NA	NA	151,600	147,800	141,200	142,395	143,827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SERC	130,311	137,541	133,244	139,486	160,054	173,036	176,766	175,199	188,653	148,062	147,454	151,097	109,866	138,694	122,790	129,306	128,469	130,926	131,781	132,651	133,555	134,582	135,636	136,860	138,005	139,180	140,476
Eastern Interconnection	SPP	28,571	29,140	27,828	29,096	30,857	30,469	31,455	32,362	32,741	40,566	38,622	41,301	39,168	36,927	36,697	41,534	40,783	40,495	40,818	41,408	41,569	41,553	42,182	42,274	42,620	42,796	43,630
ERCOT	TRE	43,908	44,719	41,988	44,010	46,991	46,038	46,068	46,747	56,191	55,917	50,100	54,390	57,256	58,419	59,187	59,650	52,509	53,549	53,549	54,342	54,889	55,445	56,015	56,589	57,146	57,713	58,917
Western Interconnection	WECC	95,395	94,554	100,337	101,002	105,670	107,586	113,504	110,977	106,256	99,515	107,568	109,058	110,765	104,205	108,935	104,737	110,354	111,263	111,558	97,538	112,856	113,844	114,668	115,252	115,915	116,587	117,272
All Interconnections	Contiguous U.S.	562,711	588,002	583,430	605,331	616,847	633,898	635,629	634,412	658,219	634,909	626,826	663,629	658,579	679,364	636,387	649,538	661,922	667,537	671,110	662,886	680,447	683,809	688,079	692,029	696,145	700,317	705,555

Interconnection	NERC Regional Assesment Area	Capacity Resources[2] -- Winter																										
		Actual																Projected										
		2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018E	2018/ 2019E	2019/ 2020E	2020/ 2021E	2021/ 2022E	2022/ 2023E	2023/ 2024E	2024/ 2025E	2025/ 2026E	2026/ 2027E	2027/ 2028E
	FRCC	44,336	46,219	50,010	51,196	49,066	56,896	57,510	53,278	52,751	57,358	56,466	57,557	58,155	58,155	58,284	58,001	58,693	58,357	60,293	60,260	60,653	62,788	62,796	63,518	63,744	63,983	63,983
	NPCC	66,314	68,884	73,123	74,277	76,076	76,110	75,772	79,394	78,992	70,557	72,741	79,173	78,433	79,944	75,099	74,104	77,980	77,721	80,572	81,921	81,087	81,637	81,637	81,637	81,637	81,637	81,637
	Balance of Eastern Region	488,418	511,642	524,995	538,041	545,850	547,005	537,094	545,843	567,746	573,274	544,706	581,939	592,780	561,762	551,779	570,682	572,437	592,389	608,228	625,881	635,538	636,448	636,642	637,701	639,208	640,730	642,191
	ECAR	115,926	123,823	129,351	131,187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAAC	63,604	66,143	68,134	69,604	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAIN	63,209	66,694	68,942	66,414	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAPP	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,941	4,960	6,480	6,951	6,974	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MISO	NA	NA	NA	NA	NA	NA	NA	NA	NA	129,241	98,329	110,600	111,259	139,904	147,644	146,371	147,642	154,228	157,013	163,860	166,327	165,147	163,726	163,524	162,922	162,920	164,309
	MRO	30,809	33,224	32,769	34,371	44,620	46,959	44,987	47,343	46,422	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	PJM	NA	NA	NA	NA	NA	NA	NA	NA	NA	167,647	170,077	184,185	188,684	181,680	177,336	184,877	184,422	196,474	206,460	217,291	225,677	227,999	228,503	228,503	228,503	228,503	228,503
	RFC[5]	NA	NA	NA	NA	229,000	220,930	212,257	215,477	215,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SERC	169,580	174,925	179,810	186,784	224,652	231,917	229,627	234,797	255,527	207,558	212,063	209,755	212,265	168,633	162,143	174,923	172,210	174,049	176,735	176,648	176,406	176,723	178,194	179,371	181,945	184,071	184,077
Eastern Interconnection	SPP	45,290	46,833	45,989	49,681	47,578	47,199	50,223	48,226	50,097	61,888	59,276	70,919	73,621	64,571	64,656	64,512	68,163	67,638	68,020	68,082	67,127	66,579	66,219	66,302	65,837	65,235	65,302
ERCOT	TRE	72,644	73,335	77,111	71,902	61,003	71,451	75,504	73,910	69,490	77,660	69,202	74,107	76,811	76,811	77,714	78,160	84,269	91,772	102,581	105,234	106,790	106,790	106,413	106,413	106,413	106,413	106,413
Western Interconnection	WECC	119,254	132,278	152,158	149,360	152,211	166,362	167,770	167,312	151,022	156,413	150,091	154,380	150,805	151,805	157,723	154,500	149,754	150,656	151,393	150,891	151,100	150,536	150,270	148,992	147,834	145,836	148,698
All Interconnections	Contiguous U.S.	790,966	832,358	877,397	884,776	884,206	917,824	913,650	919,736	920,002	935,262	893,206	947,156	956,984	928,477	920,599	935,447	943,133	970,895	1,003,067	1,024,188	1,035,168	1,038,200	1,037,758	1,038,260	1,038,835	1,038,598	1,042,922

Table 4.B Winter net internal demand, capacity resources, and capacity margins by North American Electric Reliability Corporation Region, 2001/2002-2016/2017 actual, 2017-2028 projected

megawatts and percent

Interconnection	NERC Regional Assesment Area	Capacity Margin (percent)[3][4] -- Winter																										
		Actual																Projected										
		2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018E	2018/ 2019E	2019/ 2020E	2020/ 2021E	2021/ 2022E	2022/ 2023E	2023/ 2024E	2024/ 2025E	2025/ 2026E	2026/ 2027E	2027/ 2028E
	FRCC	10.5	9.1	27.6	19.0	13.4	19.2	19.9	15.5	2.0	19.9	29.3	19.3	32.7	26.4	30.9	30.2	39.8	37.4	40.8	39.2	38.9	42.5	41.1	41.5	40.8	40.0	40.0
	NPCC	35.8	33.3	34.6	35.6	39.1	36.4	39.0	40.6	43.2	37.4	39.8	41.9	39.8	43.5	43.0	41.0	42.9	43.2	45.2	46.7	46.4	47.0	47.2	47.3	47.4	47.5	47.5
	Balance of Eastern Region	30.2	29.5	32.0	31.0	31.2	29.5	28.5	29.6	29.7	32.1	29.2	29.9	31.8	23.7	30.2	29.7	27.9	29.8	31.1	32.3	33.0	32.9	32.5	32.2	32.0	31.7	31.4
	ECAR	28.5	31.5	33.3	30.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAAC	38.0	30.2	33.0	34.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAIN	39.2	40.1	42.0	38.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MAPP	NA	NA	NA	NA	NA	NA	NA	NA	NA	29.7	10.4	11.6	23.7	24.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MISO	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.9	14.6	30.1	1.7	25.2	35.0	32.3	48.6	54.3	54.9	59.9	61.1	59.1	56.8	55.5	53.9	52.9	53.3
	MRO	30.0	30.5	26.6	28.9	26.4	26.4	23.6	27.0	26.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	PJM	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.9	14.6	28.2	25.5	21.2	26.8	29.1	39.4	47.7	55.7	71.5	77.9	79.4	79.0	79.1	78.4	77.6	76.6
	RFC[5]	NA	NA	NA	NA	33.8	33.1	33.5	33.9	33.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SERC	23.2	21.4	25.9	25.3	28.8	25.4	23.0	25.4	26.2	28.7	30.5	28.0	48.2	17.8	24.3	26.1	25.4	24.8	25.4	24.9	24.3	23.8	23.9	23.7	24.2	24.4	23.7
Eastern Interconnection	SPP	36.9	37.8	39.5	41.4	35.1	35.4	37.4	32.9	34.6	34.5	34.8	41.8	46.8	42.8	43.2	35.6	67.1	67.0	66.6	64.4	61.5	60.2	57.0	56.8	54.5	52.4	49.7
ERCOT	TRE	39.6	39.0	45.5	38.8	23.0	35.6	39.0	36.8	19.1	28.0	27.6	26.6	25.5	23.9	23.8	23.7	60.5	71.4	91.6	93.7	94.6	92.6	90.0	88.0	86.2	84.4	80.6
Western Interconnection	WECC	20.0	28.5	34.1	32.4	30.6	35.3	32.3	33.7	29.6	36.4	28.3	29.4	26.6	31.4	30.9	32.2	26.3	26.1	26.3	35.4	25.3	24.4	23.7	22.6	21.6	20.1	21.1
All Interconnections	Contiguous U.S.	28.9	29.4	33.5	31.6	30.2	30.9	30.4	31.0	28.5	32.1	29.8	29.9	31.2	26.8	30.9	30.6	29.8	31.2	33.1	35.3	34.3	34.1	33.7	33.3	33.0	32.6	32.3

[1] Net Internal Demand represent the system demand that is planned for by the electric power industry's reliability authority and is equal to Internal Demand less Direct Control Load Management and Interruptible Demand.

[2] Capacity Resources: Utility and nonutility-owned generating capacity that is existing or in various stages of planning or construction, less inoperable capacity, plus planned capacity purchases from other resources, less planned capacity sales.

[3] Capacity Margin is the amount of unused available capability of an electric power system at peak load as a percentage of capacity resources. Margins may be less straightforward than in previous decades due to increases in demand-side resource availability and renewable capacity.

[4] Prior to 2015, capacity margins were roughly calculated internally using net internal demand and capacity resource figures provided to EIA. Beginning in 2015, capacity margins were sent from NERC. Balance of Eastern Region and Contiguous U.S. are calculated internaly using the figures for those areas and is not intended to be a precise measurement.

Notes: • NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/

• Projected data are updated annually.

• Peak load represents an hour of a day during the associated peak period.

• The Summer peak period begins on June1 and extends through September 30. • The Winter peak period begins October 1 and extends through May 31.

• Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to to provide a consistent trend of the Eastern interconnection.

• ECAR, MAAC, and MAIN dissolved at the end-of-2005. Many of the former utility members joined RFC. ReliabilityFirst Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.

• MAPP was absorbed into MISO, SPP and WECC in 2015.

• E - Estimate; NA - Not Available

Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."