

# Upstate Non-Coincident/Coincident Ratio Data used in 2021 ICAP and LCR Forecast

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January 13, 2021  
Load Forecasting Task Force

# Zonal NCP/CP Ratios

# Updated NCP to CP Ratio Calculation Methodology

- Previously, Locality and Zonal Non-Coincident Peak (NCP) to Coincident Peak (CP) ratios were typically calculated using a ten-year historical average of non-coincident actual peak load to NYCA-coincident actual peak load.
- Through discussion at Load Forecasting Task Force (LFTF), New York State Reliability Council Installed Capacity Subcommittee (ICS) and with Transmission Owners, it has been determined that there are certain limitations to using this approach.
- The updated methodology uses an average ratio over the past 15 years. Outlier years are taken out of the ratio calculation. Outlier years are defined as those that have a NCP to CP ratio of over 1.65 standard deviations above the historical average, representing the upper 5% tail of the distribution.
- This updated methodology should provide more consistent ratios due to the larger dataset and removal of outlier points. Additionally, these ratios are generally closer to the median historical ratios. The outlier years contain coincident peak loads that often do not represent peak-producing design conditions, such as during last year's Saturday NYCA peak.
- Ratio calculations for the Localities were presented during the 11/9/2020 LFTF. The following slides show the calculation data used for the remaining Zones (A through I).

**Zone A NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	2,772	2,716	56	1.0207	
2007	2,717	2,567	151	1.0586	
2008	2,584	2,584	-	1.0000	
2009	2,578	2,565	13	1.0052	
2010	2,746	2,633	113	1.0430	
2011	2,914	2,528	386	1.1529	
2012	2,755	2,752	3	1.0011	
2013	2,828	2,538	290	1.1144	
2014	2,606	2,185	420	1.1924	Yes
2015	2,704	2,621	83	1.0315	
2016	2,773	2,645	128	1.0485	
2017	2,486	2,430	56	1.0230	
2018	2,763	2,404	359	1.1495	
2019	2,620	2,392	228	1.0954	
2020	2,653	2,424	229	1.0944	
<b>Average</b>	<b>2,700</b>	<b>2,532</b>		<b>1.0664</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0592</b>	<b>1.0485</b>
<b>Adj Avg</b>	<b>2,707</b>	<b>2,557</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0587</b>	

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**Zone B NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	2,160	2,104	56	1.0267	
2007	2,062	1,909	153	1.0804	
2008	2,019	2,019	-	1.0000	
2009	1,972	1,972	-	1.0000	
2010	2,088	2,004	85	1.0423	
2011	2,209	2,048	161	1.0787	
2012	2,131	2,121	10	1.0045	
2013	2,118	2,057	61	1.0297	
2014	1,915	1,667	248	1.1490	Yes
2015	1,972	1,938	35	1.0178	
2016	2,037	2,022	15	1.0075	
2017	1,832	1,799	32	1.0179	
2018	2,088	1,964	125	1.0635	
2019	1,944	1,860	84	1.0454	
2020	2,031	1,818	214	1.1176	Yes
<b>Average</b>	<b>2,039</b>	<b>1,953</b>		<b>1.0440</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0432</b>	<b>1.0297</b>
<b>Adj Avg</b>	<b>2,049</b>	<b>1,986</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0317</b>	

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**Zone C NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	3,062	3,055	7	1.0022	
2007	2,851	2,737	113	1.0414	
2008	2,912	2,912	-	1.0000	
2009	2,802	2,750	53	1.0191	
2010	2,922	2,833	89	1.0316	
2011	3,029	2,866	163	1.0570	
2012	2,894	2,894	-	1.0000	
2013	2,964	2,886	78	1.0270	
2014	2,819	2,586	233	1.0902	Yes
2015	2,820	2,725	95	1.0350	
2016	2,821	2,803	18	1.0065	
2017	2,646	2,533	113	1.0447	
2018	2,919	2,705	214	1.0790	Yes
2019	2,713	2,597	116	1.0446	
2020	2,747	2,719	27	1.0101	
<b>Average</b>	<b>2,861</b>	<b>2,773</b>		<b>1.0317</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0269</b>	<b>1.0316</b>
<b>Adj Avg</b>	<b>2,860</b>	<b>2,793</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0240</b>	

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**Zone D NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	774	766	8	1.0103	
2007	832	795	37	1.0469	
2008	789	778	10	1.0134	
2009	522	516	6	1.0110	
2010	547	534	13	1.0237	
2011	769	761	8	1.0104	
2012	790	757	33	1.0440	
2013	798	791	7	1.0085	
2014	532	502	30	1.0598	Yes
2015	548	528	19	1.0366	
2016	530	520	10	1.0188	
2017	516	492	24	1.0490	
2018	579	555	24	1.0439	
2019	567	556	12	1.0213	
2020	612	612	-	1.0000	
<b>Average</b>	<b>647</b>	<b>631</b>		<b>1.0254</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0179</b>	<b>1.0213</b>
<b>Adj Avg</b>	<b>655</b>	<b>640</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0234</b>	

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**Zone E NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	1,431	1,431	-	1.0000	
2007	1,351	1,260	91	1.0719	
2008	1,420	1,282	138	1.1078	
2009	1,391	1,336	55	1.0413	
2010	1,459	1,423	36	1.0251	
2011	1,528	1,446	82	1.0566	
2012	1,432	1,415	16	1.0115	
2013	1,568	1,550	18	1.0117	
2014	1,390	1,253	137	1.1096	
2015	1,391	1,337	54	1.0401	
2016	1,395	1,386	9	1.0064	
2017	1,340	1,158	183	1.1579	Yes
2018	1,412	1,313	100	1.0759	
2019	1,396	1,312	84	1.0641	
2020	1,384	1,375	8	1.0060	
<b>Average</b>	<b>1,419</b>	<b>1,352</b>		<b>1.0496</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0447</b>	<b>1.0413</b>
<b>Adj Avg</b>	<b>1,425</b>	<b>1,366</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0432</b>	

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**Zone F NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	2,405	2,405	-	1.0000	
2007	2,298	2,207	92	1.0415	
2008	2,316	2,276	40	1.0176	
2009	2,186	2,175	11	1.0049	
2010	2,396	2,374	22	1.0094	
2011	2,464	2,259	204	1.0904	Yes
2012	2,420	2,420	-	1.0000	
2013	2,453	2,426	27	1.0111	
2014	2,340	2,085	255	1.1221	Yes
2015	2,341	2,339	3	1.0011	
2016	2,376	2,358	18	1.0076	
2017	2,239	2,078	162	1.0779	
2018	2,441	2,401	40	1.0167	
2019	2,335	2,262	73	1.0322	
2020	2,401	2,395	6	1.0023	
<b>Average</b>	<b>2,361</b>	<b>2,297</b>		<b>1.0279</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0367</b>	<b>1.0111</b>
<b>Adj Avg</b>	<b>2,354</b>	<b>2,317</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0160</b>	

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**Zone G NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	2,544	2,478	66	1.0267	
2007	2,297	2,297	-	1.0000	
2008	2,507	2,303	204	1.0885	Yes
2009	2,142	2,124	17	1.0082	
2010	2,442	2,442	-	1.0000	
2011	2,460	2,444	16	1.0064	
2012	2,303	2,256	47	1.0206	
2013	2,390	2,373	17	1.0073	
2014	2,085	2,037	48	1.0235	
2015	2,128	2,125	3	1.0015	
2016	2,177	2,109	67	1.0319	
2017	2,099	2,040	59	1.0289	
2018	2,255	2,189	66	1.0300	
2019	2,254	2,199	55	1.0250	
2020	2,229	2,177	52	1.0239	
<b>Average</b>	<b>2,287</b>	<b>2,240</b>		<b>1.0210</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0211</b>	<b>1.0235</b>
<b>Adj Avg</b>	<b>2,272</b>	<b>2,235</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0166</b>	

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**Zone H NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	679	647	32	1.0501	Yes
2007	637	628	8	1.0135	
2008	681	664	17	1.0261	
2009	614	610	5	1.0076	
2010	699	699	-	1.0000	
2011	714	714	-	1.0000	
2012	680	650	30	1.0463	
2013	713	713	-	1.0000	
2014	599	580	19	1.0329	
2015	620	599	21	1.0356	
2016	637	615	21	1.0343	
2017	597	587	10	1.0166	
2018	612	611	1	1.0017	
2019	636	623	14	1.0218	
2020	629	629	-	1.0000	
<b>Average</b>	<b>650</b>	<b>638</b>		<b>1.0188</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0171</b>	<b>1.0166</b>
<b>Adj Avg</b>	<b>648</b>	<b>637</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0173</b>	

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**Zone I NCP to CP Ratio**

<b>Year</b>	<b>NCP MW</b>	<b>CP MW</b>	<b>Delta</b>	<b>Ratio</b>	<b>Outlier</b>
2006	1,507	1,470	37	1.0250	
2007	1,409	1,409	-	1.0000	
2008	1,455	1,415	41	1.0288	
2009	1,299	1,267	33	1.0259	
2010	1,455	1,455	-	1.0000	
2011	1,495	1,495	-	1.0000	
2012	1,391	1,365	26	1.0187	
2013	1,485	1,485	-	1.0000	
2014	1,331	1,312	19	1.0147	
2015	1,382	1,332	50	1.0377	
2016	1,377	1,377	-	1.0000	
2017	1,372	1,311	61	1.0462	Yes
2018	1,376	1,356	21	1.0153	
2019	1,351	1,312	39	1.0295	
2020	1,337	1,318	19	1.0146	
<b>Average</b>	<b>1,401</b>	<b>1,378</b>		<b>1.0167</b>	<b>Median</b>
<b>Std Dev</b>				<b>0.0146</b>	<b>1.0153</b>
<b>Adj Avg</b>	<b>1,404</b>	<b>1,383</b>			
<b>Final NCP to CP Ratio</b>				<b>1.0152</b>	

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