



# **NYSRC Fall Forecast Update: 2021 Weather Normalization and 2022 IRM Forecast**

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**NYSRC – Installed Capacity Subcommittee**

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# Agenda

- **Summary of 2021 Weather Normalized Peaks**
- **2022 IRM Study Forecast**
- **Additional Forecast Tables**

# Summary of 2021 Weather Normalized Peaks

## Actual and 20-Year Normal Peak-Producing CTHI Statistics – 2002-2021

NYCA Coincident Peak-Producing CTHI									
Statistic	CE	CH	LI	N Grid	NYPA	NYSEG	OR	RGE	NYCA
Max	90.73	89.42	89.21	85.52	85.87	85.91	89.60	86.53	87.74
20 Yr Avg	85.43	85.38	84.76	82.35	82.11	82.51	84.74	82.95	83.77
Min	82.80	81.18	80.18	77.35	77.13	78.22	82.22	77.80	80.38
StDev	2.19	2.16	2.38	2.06	2.91	2.03	2.14	2.13	2.07
Percentile	CE	CH	LI	N Grid	NYPA	NYSEG	OR	RGE	NYCA
50th	85.43	85.38	84.76	82.35	82.11	82.51	84.74	82.95	83.77
57th	85.82	85.75	85.17	82.71	82.61	82.86	85.12	83.32	84.13
67th	86.38	86.31	85.78	83.23	83.36	83.38	85.66	83.87	84.66
90th	88.25	88.15	87.81	84.98	85.84	85.11	87.48	85.68	86.42
2021 Conditions	CE	CH	LI	N Grid	NYPA	NYSEG	OR	RGE	NYCA
CTHI	83.83	84.20	84.26	81.98	83.94	81.94	83.08	82.41	83.00
Percentile	23%	29%	42%	43%	74%	39%	22%	40%	35%
z	-0.73	-0.54	-0.21	-0.18	0.63	-0.28	-0.78	-0.25	-0.37
CTHI Delta (2021 - Avg)	-1.60	-1.18	-0.50	-0.37	1.83	-0.57	-1.66	-0.54	-0.77

Notes: Cumulative Temperature & Humidity Index (CTHI) is a three-day weighted average of maximum temperature and humidity  
 The NYCA design condition of the 57<sup>th</sup> percentile is based upon a load-weighted average of the TD design conditions.  
 The 2021 NYCA peak occurred on August 26, Hour Beginning 16.



# CTHI Calculation

- Step 1: Calculate hourly  $THI$  as a weighted average of the dry bulb temperature (DB) and the wet bulb temperature (WB). There are 24 values per day:

For any day  $d$ ,

$$(THI)_{di} = 0.6 \times (DB)_{di} + 0.4 \times (WB)_{di}$$

Where  $i = 0, 1, 2, \dots, 23$  indicate the hours of a day

- Step 2: Calculate the  $THI_{max}$  for a day. This is the maximum hourly THI value for that day:

$$(THI_{max})_d = \max((THI)_{di})$$

- Step 3: Calculate the daily CTHI using a weighted average of three days (the day for which the CTHI is being calculated and the two preceding days):

$$(CTHI)_d = 0.7 \times (THI_{max})_d + 0.2 \times (THI_{max})_{d-1} + 0.1 \times (THI_{max})_{d-2}$$

## Summary of 2021 Preliminary Transmission District Weather Normalization NYCA Coincident Peak

2021 Weather Normalized Load Summary									
(1)	(2)	(3)	(4)	(5) = (2) + (3) + (4)	(6)	(7) = (5) + (6)	(8)	(9) = (8) - (7)	(10) = (9) / (8) * 100%
Transmission District	2021 Actual MW, 8/26/2021 HB 16	Demand Response Estimate MW	Estimated Muni Self-Gen MW	2021 Actual MW, with Estimated DR and Muni Self Gen MW	Weather Adjustment MW	2021 Weather Normalized MW	2021 ICAP Forecast, Prior to BTM:NG Resources MW	TO Forecast, Over /Under MW	TO Forecast Delta, Percent Over /Under
Con Edison	11,588.1	0.0	0.0	11,588.1	624.3	12,212.4	12,705.8	493.4	3.88%
Cen Hudson	1,053.7	0.0	0.0	1,053.7	31.1	1,084.8	1,107.2	22.4	2.02%
LIPA	5,018.4	68.0	4.1	5,090.5	49.3	5,139.8	5,230.8	91.0	1.74%
Nat. Grid	6,701.3	210.5	38.4	6,950.2	49.6	6,999.8	7,001.8	2.0	0.03%
NYPA	357.3	0.0	0.0	357.3	-1.4	355.9	416.4	60.5	14.53%
NYSEG	2,991.9	46.0	0.0	3,037.9	37.2	3,075.1	3,225.2	150.1	4.65%
O&R	1,038.2	0.0	0.0	1,038.2	78.8	1,117.0	1,092.8	-24.2	-2.21%
RG&E	1,547.7	3.7	0.0	1,551.4	21.4	1,572.8	1,547.5	-25.3	-1.63%
<b>NYCA</b>	<b>30,296.6</b>	<b>328.2</b>	<b>42.5</b>	<b>30,667.3</b>	<b>890.3</b>	<b>31,557.6</b>	<b>32,327.5</b>	<b>769.9</b>	<b>2.38%</b>

Notes: Peak load hours are defined by measurements from the NYISO EMS system (PI Historian). Actual load data is from DSS.  
The Demand Response impacts are estimates.

# Summary of 2021 Preliminary Transmission District Weather Normalization Locality Peaks

2021 Weather Normalization Summary - Locality												
(1)	(2)	(3)	(4)	(5)	(6) = (3) + (4) + (5)	(7)	(8)	(9) = (7) * (8)	(10) = (9) - (6)	(11)	(12) = (11) - (9)	(13) (12) / (11) * 100%
2021 Locality Peak Information						2021 Locality Weather Normalization Calculation						
Locality	Locality Peak Date and Time	Actual Load at Locality Peak Date and Time MW	DR Estimate at Locality Peak Date and Time MW	Estimated Muni Self-Gen MW	2021 Actual MW, with Estimated DR and Muni Self Gen MW	2021 Weather Normalized Coincident Peak Demand MW	NCP to CP Ratio (15 year avg. with outliers removed)	2021 Locality Weather Normalized MW	Locality Weather Adjustment MW	2021 ICAP Market Forecast MW	Forecast Over /Under MW	Forecast Delta, Percent Over /Under
Zone J - NYC	8/27/2021 HB 14	10,046.1	0.0	0.0	10,046.1	10,577.4	1.0136	10,721.3	675.2	11,199.0	477.7	4.3%
Zone K - LIPA	8/27/2021 HB 16	5,130.6	32.4	4.1	5,167.1	5,139.8	1.0161	5,222.6	55.5	5,248.6	26.0	0.5%
Zones G-to-J	8/12/2021 HB 16	14,078.2	278.4	0.0	14,356.6	14,781.7	1.0107	14,940.0	583.4	15,411.3	471.3	3.1%

Notes: Peak load hours are defined by measurements from the NYISO EMS system (PI Historian). Actual load data is from DSS. The Demand Response impacts are estimates.

# NCP / CP Ratio – Locality J

Zone J Locality Peak Ratio									
Year	Zone J Date	J Hr Beg	NCP MW	NYCA Date	NYCA Hr Beg	CP MW	Delta	Ratio	Outlier
2007	8/8/2007	16	10,919	8/8/2007	16	10,919	0	1.0000	FALSE
2008	7/18/2008	16	10,476	7/18/2008	15	10,414	62	1.0060	FALSE
2009	8/21/2009	15	10,656	8/17/2009	15	10,387	269	1.0259	FALSE
2010	7/6/2010	16	11,213	7/6/2010	16	11,213	0	1.0000	FALSE
2011	7/22/2011	11	11,399	7/22/2011	15	11,319	80	1.0071	FALSE
2012	7/18/2012	12	11,138	7/17/2012	16	10,721	417	1.0389	FALSE
2013	7/19/2013	16	11,411	7/19/2013	16	11,411	0	1.0000	FALSE
2014	7/8/2014	16	10,094	7/1/2014	16	9,565	529	1.0553	TRUE
2015	7/20/2015	16	10,598	7/29/2015	16	10,386	212	1.0204	FALSE
2016	8/11/2016	16	10,966	8/11/2016	16	10,966	0	1.0000	FALSE
2017	7/20/2017	16	10,642	7/19/2017	17	10,224	418	1.0409	FALSE
2018	8/29/2018	16	10,878	8/29/2018	15	10,802	76	1.0070	FALSE
2019	7/17/2019	17	10,756	7/29/2019	16	10,199	557	1.0546	TRUE
2020	7/28/2020	14	10,106	7/27/2020	17	9,786	320	1.0327	FALSE
2021	8/27/2021	14	10,046	8/26/2021	16	10,021	25	1.0025	FALSE
Average			10,753			10,556	198	1.0187	
Std Dev								0.0198	
<b>Average (Excluding Outliers)</b>			<b>10,804</b>			<b>10,659</b>		<b>1.0136</b>	



# NCP / CP Ratio – Locality K

Zone K Locality Peak Ratio									
Year	Zone K Date	K Hr Beg	NCP MW	NYCA Date	NYCA Hr Beg	CP MW	Delta	Ratio	Outlier
2007	8/8/2007	17	5,384	8/8/2007	16	5,363	21	1.0039	FALSE
2008	7/18/2008	16	5,201	7/18/2008	15	5,181	20	1.0039	FALSE
2009	8/21/2009	15	5,191	8/17/2009	15	5,060	131	1.0259	FALSE
2010	7/6/2010	16	5,822	7/6/2010	16	5,822	0	1.0000	FALSE
2011	7/22/2011	15	5,914	7/22/2011	15	5,914	0	1.0000	FALSE
2012	7/18/2012	13	5,456	7/17/2012	16	5,111	345	1.0675	TRUE
2013	7/18/2013	16	5,764	7/19/2013	16	5,673	91	1.0160	FALSE
2014	7/3/2014	16	4,868	7/1/2014	16	4,579	289	1.0632	TRUE
2015	7/20/2015	16	5,247	7/29/2015	16	5,136	111	1.0216	FALSE
2016	8/12/2016	16	5,411	8/11/2016	16	5,190	221	1.0426	FALSE
2017	7/20/2017	16	5,137	7/19/2017	17	4,989	148	1.0297	FALSE
2018	8/29/2018	16	5,411	8/29/2018	15	5,359	52	1.0097	FALSE
2019	7/17/2019	16	5,057	7/29/2019	16	4,947	110	1.0222	FALSE
2020	7/20/2020	17	5,433	7/27/2020	17	5,344	89	1.0167	FALSE
2021	8/13/2021	17	5,138	8/26/2021	16	5,018	119	1.0237	FALSE
Average			5,362			5,246	117	1.0222	
Std Dev								0.0201	
<b>Average (Excluding Outliers)</b>			<b>5,393</b>			<b>5,307</b>		<b>1.0161</b>	

# NCP / CP Ratio – Locality G-to-J

G-to-J Peak Ratio									
Year	G-to-J Date	G-to-J Hr Beg	NCP MW	NYCA Date	NYCA Hr Beg	CP MW	Delta	Ratio	Outlier
2007	8/8/2007	16	15,253	8/8/2007	16	15,253	0	1.0000	FALSE
2008	7/18/2008	16	14,603	7/18/2008	15	14,538	65	1.0045	FALSE
2009	8/21/2009	14	14,585	8/17/2009	15	14,388	197	1.0137	FALSE
2010	7/6/2010	16	15,809	7/6/2010	16	15,809	0	1.0000	FALSE
2011	7/22/2011	15	15,972	7/22/2011	15	15,972	0	1.0000	FALSE
2012	7/18/2012	13	15,420	7/17/2012	16	14,993	427	1.0285	FALSE
2013	7/19/2013	16	15,981	7/19/2013	16	15,981	0	1.0000	FALSE
2014	7/8/2014	16	13,959	7/1/2014	16	13,374	585	1.0437	TRUE
2015	7/20/2015	16	14,708	7/29/2015	16	14,440	268	1.0186	FALSE
2016	8/11/2016	16	15,067	8/11/2016	16	15,067	0	1.0000	FALSE
2017	7/20/2017	16	14,678	7/19/2017	17	14,163	515	1.0364	FALSE
2018	8/29/2018	16	15,033	8/29/2018	15	14,943	90	1.0060	FALSE
2019	7/17/2019	15	14,602	7/29/2019	16	14,157	445	1.0314	FALSE
2020	7/28/2020	14	14,077	7/27/2020	17	13,911	166	1.0119	FALSE
2021	8/12/2021	16	14,078	8/26/2021	16	14,034	44	1.0032	FALSE
Average			14,922			14,735	187	1.0127	
Std Dev								0.0145	
Average (Excluding Outliers)			14,990			14,832		1.0107	

# 2022 IRM Study Forecast

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2022 IRM Forecast									
(1)	(2)	(3)	(4) = (2) + (3)	(5)	(6) = (4) * (5)	(7)	(8) = (6) + (7)	(9)	(10) = (8) + (9)
Transmission District	2021 Actual MW, 8/26/2021 HB 16	Total Adjustment (Demand Response + Self Gen + Muni + Wthr Adjustment) MW	2021 Weather Normalized MW	Regional Load Growth Factor	2022 Forecast, Before Adjustments MW	Large Load Forecast MW	2022 IRM Forecast, With Large Load Forecast, Before BTM:NG Adjustment MW	BTM:NG Forecast MW	TO Forecast, With Large Load and BTM:NG Forecast MW
Con Edison	11,588.1	624.3	12,212.4	1.0187	12,440.4	0.0	12,440.4	22.1	12,462.5
Cen Hudson	1,053.7	31.1	1,084.8	0.9950	1,079.4	0.0	1,079.4	0.0	1,079.4
LIPA	5,018.4	121.4	5,139.8	0.9800	5,037.0	0.0	5,037.0	39.8	5,076.8
Nat. Grid	6,701.3	298.5	6,999.8	1.0000	6,999.8	55.0	7,054.8	1.7	7,056.5
NYPA	357.3	-1.4	355.9	1.2897	459.0	0.0	459.0	0.0	459.0
NYSEG	2,991.9	83.2	3,075.1	1.0020	3,081.3	140.0	3,221.3	42.1	3,263.4
O&R	1,038.2	78.8	1,117.0	1.0045	1,122.0	0.0	1,122.0	0.0	1,122.0
RG&E	1,547.7	25.1	1,572.8	0.9960	1,566.5	0.0	1,566.5	52.5	1,619.0
NYCA	30,296.6	1,261.0	31,557.6		31,785.4	195.0	31,980.4	158.2	32,138.6
2022 Forecast from 2021 Gold Book							32,178.0		
Change from 2021 Gold Book							-197.6		

# 2022 IRM Forecast - Localities

2022 IRM Forecast - Locality										
(1)	(2)	(3)	(4)	(5) = (3) * (4)	(6)	(7) = (5) + (6)	(8)	(9) = (7) - (8)	(10)	(11) = (7) + (10)
Locality	2021 Locality Peak MW	2021 Weather Normalized Locality Peak MW	Regional Load Growth Factor	2022 Locality Peak Forecast, Before Adjustments MW	Large Load Forecast MW	2022 IRM Locality Peak Forecast, With Large Load Forecast, Before BTM:NG Adjustments MW	2022 Forecast from 2021 Gold Book MW	Change from Gold Book Forecast	BTM:NG Forecast MW	Locality Peak Forecast, With Large Load and BTM:NG Forecast MW
Zone J - NYC	10,046.1	10,721.3	1.0187	10,921.3	0.0	10,921.3	11,268.0	-346.7	22.4	10,943.7
Zone K - LIPA	5,130.6	5,222.6	0.9800	5,118.0	0.0	5,118.0	5,153.0	-35.0	40.4	5,158.5
Zones G-to-J	14,078.2	14,940.0	1.0155	15,171.1	0.0	15,171.1	15,435.0	-263.9	22.3	15,193.4

# 2021 G-to-J Locality Peak Weather Normalization

2021 Actual Coincident Peak in G-to-J Locality (8/26/2021 HB 16)					
(1)	(2)	(3)	(4)	(5)	(7)
	G	H	I	J	G-to-J Total
Con Ed	36.0	248.6	1,282.7	10,020.8	11,588.1
Cen Hud	1,047.7	0.0	0.0	0.0	1,047.7
LIPA	0.0	0.0	0.0	0.0	0.0
Nat Grid	0.0	0.0	0.0	0.0	0.0
NYPA	0.0	0.0	0.0	0.0	0.0
NYSEG	18.1	341.6	0.0	0.0	359.7
O&R	1,038.2	0.0	0.0	0.0	1,038.2
RG&E	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>2,140.0</b>	<b>590.2</b>	<b>1,282.7</b>	<b>10,020.8</b>	<b>14,033.7</b>

2021 Weather-Adjusted Coincident Peak in G-to-J Locality					
(1)	(2)	(3)	(4)	(5)	(7)
	G	H	I	J	G-to-J Total
Con Ed	0.0	270.5	1,364.5	10,577.4	12,212.4
Cen Hud	1,081.5	0.0	0.0	0.0	1,081.5
LIPA	0.0	0.0	0.0	0.0	0.0
Nat Grid	0.0	0.0	0.0	0.0	0.0
NYPA	0.0	0.0	0.0	0.0	0.0
NYSEG	21.2	349.6	0.0	0.0	370.8
O&R	1,117.0	0.0	0.0	0.0	1,117.0
RG&E	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>2,219.7</b>	<b>620.1</b>	<b>1,364.5</b>	<b>10,577.4</b>	<b>14,781.7</b>

# 2022 IRM Forecast – G-to-J Locality

2021 Weather-Adjusted Locality Peak in G-to-J Locality					
(1)	(2)	(3)	(4)	(5)	(7)
	G	H	I	J	G-to-J Total
Con Ed	0.0	273.4	1,379.1	10,690.6	12,343.1
Cen Hud	1,093.1	0.0	0.0	0.0	1,093.1
LIPA	0.0	0.0	0.0	0.0	0.0
Nat Grid	0.0	0.0	0.0	0.0	0.0
NYPA	0.0	0.0	0.0	0.0	0.0
NYSEG	21.4	353.4	0.0	0.0	374.8
O&R	1,129.0	0.0	0.0	0.0	1,129.0
RG&E	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>2,243.5</b>	<b>626.8</b>	<b>1,379.1</b>	<b>10,690.6</b>	<b>14,940.0</b>
<i>NCP / CP</i>	<i>1.0107</i>	<i>1.0107</i>	<i>1.0107</i>	<i>1.0107</i>	

2022 Peak Forecast for G-to-J Locality								
(1)	(2)	(3)	(4)	(5)	(7)	(8)	(9)	(10)
	G	H	I	J	G-to-J Total w/o Adjustments	RLGF	Large Load Forecast	BTM:NG Forecast
Con Ed	0.0	278.5	1,404.9	10,890.5	12,573.9	1.0187	0.0	22.3
Cen Hud	1,087.6	0.0	0.0	0.0	1,087.6	0.9950	0.0	0.0
LIPA	0.0	0.0	0.0	0.0	0.0	0.9800	0.0	0.0
Nat Grid	0.0	0.0	0.0	0.0	0.0	1.0000	0.0	0.0
NYPA	0.0	0.0	0.0	0.0	0.0	1.2897	0.0	0.0
NYSEG	21.4	354.1	0.0	0.0	375.5	1.0020	0.0	0.0
O&R	1,134.1	0.0	0.0	0.0	1,134.1	1.0045	0.0	0.0
RG&E	0.0	0.0	0.0	0.0	0.0	0.9960	0.0	0.0
<b>Total</b>	<b>2,243.1</b>	<b>632.6</b>	<b>1,404.9</b>	<b>10,890.5</b>	<b>15,171.1</b>	<b>1.0155</b>	<b>0.0</b>	<b>22.3</b>



# Additional Tables



# 2021 Actual NYCA Coincident Peak

2021 DSS Data for NYCA CP 8/26/2021 HB 16												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	248.6	1,282.7	10,056.8	0.0	11,588.1
Cen Hud	0.0	0.0	0.0	0.0	6.0	0.0	1,047.7	0.0	0.0	0.0	0.0	1,053.7
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,018.4	5,018.4
Nat Grid	1,890.5	438.9	1,367.8	91.3	881.7	2,031.1	0.0	0.0	0.0	0.0	0.0	6,701.3
NYPA	0.0	0.0	0.0	357.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	357.3
NYSEG	694.1	0.0	1,289.5	101.4	387.1	160.1	18.1	341.6	0.0	0.0	0.0	2,991.9
O&R	0.0	0.0	0.0	0.0	0.0	0.0	1,038.2	0.0	0.0	0.0	0.0	1,038.2
RG&E	0.0	1,547.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,547.7
<b>Total</b>	<b>2,584.6</b>	<b>1,986.6</b>	<b>2,657.3</b>	<b>550.0</b>	<b>1,274.8</b>	<b>2,191.2</b>	<b>2,104.0</b>	<b>590.2</b>	<b>1,282.7</b>	<b>10,056.8</b>	<b>5,018.4</b>	<b>30,296.6</b>

# Five Year Average Load by Zone and TD

Average Subzonal Load - Top Five Summer NYCA Hours over Five Years (2017 - 2021)												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	260.9	1,315.8	10,201.1	0.0	11,777.8
Cen Hud	0.0	0.0	0.0	0.0	3.2	0.0	1,074.3	0.0	0.0	0.0	0.0	1,077.5
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,145.0	5,145.0
Nat Grid	1,821.2	408.5	1,287.2	86.6	905.0	2,128.8	0.0	0.0	0.0	0.0	0.0	6,637.3
NYPA	0.0	0.0	0.0	362.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	362.5
NYSEG	662.6	0.0	1,360.1	105.0	408.0	148.3	21.0	347.0	0.0	0.0	0.0	3,052.1
O&R	0.0	0.0	0.0	0.0	0.0	0.0	1,014.3	0.0	0.0	0.0	0.0	1,014.3
RG&E	0.0	1,467.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,467.1
<b>Total</b>	<b>2,483.9</b>	<b>1,875.6</b>	<b>2,647.3</b>	<b>554.1</b>	<b>1,316.3</b>	<b>2,277.1</b>	<b>2,109.6</b>	<b>607.9</b>	<b>1,315.8</b>	<b>10,201.1</b>	<b>5,145.0</b>	<b>30,533.6</b>

# Zonal Load Shares for Transmission Districts

Zonal Load Shares for each TD												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0222	0.1117	0.8661	0.0000	1.0000
Cen Hud	0.0000	0.0000	0.0000	0.0000	0.0030	0.0000	0.9970	0.0000	0.0000	0.0000	0.0000	1.0000
LIPA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000
Nat Grid	0.2746	0.0615	0.1939	0.0130	0.1363	0.3206	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
NYPA	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
NYSEG	0.2171	0.0000	0.4455	0.0344	0.1338	0.0486	0.0069	0.1137	0.0000	0.0000	0.0000	1.0000
O&R	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	1.0000
RG&E	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

# Demand Response & Municipal Generation – 2021 NYCA Coincident Peak Hour

Demand Response & Municipal Generation - NYCA Coincident Peak Hour (8/26/2021 HB 16)												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cen Hud	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.1	72.1
Nat Grid	96.3	12.9	40.8	2.7	28.7	67.5	0.0	0.0	0.0	0.0	0.0	248.9
NYPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NYSEG	10.0	0.0	20.5	1.6	6.2	2.2	0.3	5.2	0.0	0.0	0.0	46.0
O&R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RG&E	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
<b>Total</b>	<b>106.3</b>	<b>16.6</b>	<b>61.3</b>	<b>4.3</b>	<b>34.9</b>	<b>69.7</b>	<b>0.3</b>	<b>5.2</b>	<b>0.0</b>	<b>0.0</b>	<b>72.1</b>	<b>370.7</b>

# 2021 Weather Adjustment on Coincident Peak Day

2021 Weather Adjustment on Coincident Peak Day												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8	69.8	540.7	0.0	624.3
Cen Hud	0.0	0.0	0.0	0.0	0.1	0.0	31.0	0.0	0.0	0.0	0.0	31.1
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.3	49.3
Nat Grid	13.6	3.1	9.6	0.6	6.8	15.9	0.0	0.0	0.0	0.0	0.0	49.6
NYPA	0.0	0.0	0.0	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4
NYSEG	8.1	0.0	16.5	1.3	5.0	1.8	0.3	4.2	0.0	0.0	0.0	37.2
O&R	0.0	0.0	0.0	0.0	0.0	0.0	78.8	0.0	0.0	0.0	0.0	78.8
RG&E	0.0	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4
<b>Total</b>	<b>21.7</b>	<b>24.5</b>	<b>26.1</b>	<b>0.5</b>	<b>11.9</b>	<b>17.7</b>	<b>110.1</b>	<b>18.0</b>	<b>69.8</b>	<b>540.7</b>	<b>49.3</b>	<b>890.3</b>

# 2021 Weather Adjusted Coincident Peak

2021 Weather-Adjusted Coincident Peak												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	262.4	1,352.5	10,597.5	0.0	12,212.4
Cen Hud	0.0	0.0	0.0	0.0	6.1	0.0	1,078.7	0.0	0.0	0.0	0.0	1,084.8
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,139.8	5,139.8
Nat Grid	2,000.4	454.9	1,418.2	94.6	917.2	2,114.5	0.0	0.0	0.0	0.0	0.0	6,999.8
NYPA	0.0	0.0	0.0	355.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	355.9
NYSEG	712.2	0.0	1,326.5	104.3	398.3	164.1	18.7	351.0	0.0	0.0	0.0	3,075.1
O&R	0.0	0.0	0.0	0.0	0.0	0.0	1,117.0	0.0	0.0	0.0	0.0	1,117.0
RG&E	0.0	1,572.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,572.8
<b>Total</b>	<b>2,712.6</b>	<b>2,027.7</b>	<b>2,744.7</b>	<b>554.8</b>	<b>1,321.6</b>	<b>2,278.6</b>	<b>2,214.4</b>	<b>613.4</b>	<b>1,352.5</b>	<b>10,597.5</b>	<b>5,139.8</b>	<b>31,557.6</b>

# 2022 IRM Coincident Peak Forecast by Transmission District and Zone, Before Large Load and BTM:NG Adjustments

2022 IRM Coincident Peak Forecast by Transmission District and Zone, Without Large Loads, Before BTM:NG Adjustments												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	275.6	1,390.0	10,774.8	0.0	12,440.4
Cen Hud	0.0	0.0	0.0	0.0	3.3	0.0	1,076.1	0.0	0.0	0.0	0.0	1,079.4
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,037.0	5,037.0
Nat Grid	1,950.2	428.2	1,349.8	90.7	948.9	2,232.0	0.0	0.0	0.0	0.0	0.0	6,999.8
NYPA	0.0	0.0	0.0	459.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	459.0
NYSEG	669.0	0.0	1,372.9	106.0	412.2	149.7	21.2	350.3	0.0	0.0	0.0	3,081.3
O&R	0.0	0.0	0.0	0.0	0.0	0.0	1,122.0	0.0	0.0	0.0	0.0	1,122.0
RG&E	0.0	1,566.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,566.5
<b>Total</b>	<b>2,619.2</b>	<b>1,994.7</b>	<b>2,722.7</b>	<b>655.7</b>	<b>1,364.4</b>	<b>2,381.7</b>	<b>2,219.3</b>	<b>625.9</b>	<b>1,390.0</b>	<b>10,774.8</b>	<b>5,037.0</b>	<b>31,785.4</b>

# 2022 Large Load Forecast

Large Load Forecast by Transmission District and Zone												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cen Hud	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nat Grid	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0
NYPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NYSEG	90.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	140.0
O&R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RG&E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>145.0</b>	<b>0.0</b>	<b>50.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>195.0</b>



# 2022 IRM Coincident Peak Forecast by Transmission District and Zone, With Large Load, Before BTM:NG Adjustments

2022 IRM Coincident Peak Forecast by Transmission District and Zone, With Large Loads, Before BTM:NG Adjustments												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	275.6	1,390.0	10,774.8	0.0	12,440.4
Cen Hud	0.0	0.0	0.0	0.0	3.3	0.0	1,076.1	0.0	0.0	0.0	0.0	1,079.4
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,037.0	5,037.0
Nat Grid	2,005.2	428.2	1,349.8	90.7	948.9	2,232.0	0.0	0.0	0.0	0.0	0.0	7,054.8
NYPA	0.0	0.0	0.0	459.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	459.0
NYSEG	759.0	0.0	1,422.9	106.0	412.2	149.7	21.2	350.3	0.0	0.0	0.0	3,221.3
O&R	0.0	0.0	0.0	0.0	0.0	0.0	1,122.0	0.0	0.0	0.0	0.0	1,122.0
RG&E	0.0	1,566.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,566.5
<b>Total</b>	<b>2,764.2</b>	<b>1,994.7</b>	<b>2,772.7</b>	<b>655.7</b>	<b>1,364.4</b>	<b>2,381.7</b>	<b>2,219.3</b>	<b>625.9</b>	<b>1,390.0</b>	<b>10,774.8</b>	<b>5,037.0</b>	<b>31,980.4</b>

# 2022 BTM:NG – Coincident Peak Forecast

2022 IRM BTM:NG Adjustments to Load												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1	0.0	22.1
Cen Hud	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.8	39.8
Nat Grid	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	1.7
NYPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NYSEG	0.0	0.0	42.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.1
O&R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RG&E	0.0	52.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5
<b>Total</b>	<b>0.0</b>	<b>52.5</b>	<b>42.1</b>	<b>0.0</b>	<b>1.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>22.1</b>	<b>39.8</b>	<b>158.2</b>

Note: BTM:NG loads are increased in each locality by their respective NCP/CP ratios

# 2022 IRM Coincident Peak Forecast by Transmission District and Zone, With Large Load and BTM:NG Forecast

2022 IRM Coincident Peak Forecast by Transmission District and Zone, With Large Loads, Before BTM:NG Adjustments												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	A	B	C	D	E	F	G	H	I	J	K	Total
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	275.6	1,390.0	10,796.9	0.0	12,462.5
Cen Hud	0.0	0.0	0.0	0.0	3.3	0.0	1,076.1	0.0	0.0	0.0	0.0	1,079.4
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,076.8	5,076.8
Nat Grid	2,005.2	428.2	1,349.8	90.7	950.6	2,232.0	0.0	0.0	0.0	0.0	0.0	7,056.5
NYPA	0.0	0.0	0.0	459.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	459.0
NYSEG	759.0	0.0	1,465.0	106.0	412.2	149.7	21.2	350.3	0.0	0.0	0.0	3,263.4
O&R	0.0	0.0	0.0	0.0	0.0	0.0	1,122.0	0.0	0.0	0.0	0.0	1,122.0
RG&E	0.0	1,619.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,619.0
<b>Total</b>	<b>2,764.2</b>	<b>2,047.2</b>	<b>2,814.8</b>	<b>655.7</b>	<b>1,366.1</b>	<b>2,381.7</b>	<b>2,219.3</b>	<b>625.9</b>	<b>1,390.0</b>	<b>10,796.9</b>	<b>5,076.8</b>	<b>32,138.6</b>

## 2022 IRM Non-Coincident Peak Forecast by Transmission District and Zone, Before Large Load and BTM:NG Adjustments

2022 IRM Non-Coincident Peak Forecast by Transmission District and Zone, Before Large Load and BTM:NG Adjustments											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	A	B	C	D	E	F	G	H	I	J	K
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	279.3	1,408.9	10,921.3	0.0
Cen Hud	0.0	0.0	0.0	0.0	3.4	0.0	1,094.0	0.0	0.0	0.0	0.0
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,118.1
Nat Grid	2,064.7	441.8	1,382.2	92.8	989.9	2,267.7	0.0	0.0	0.0	0.0	0.0
NYPA	0.0	0.0	0.0	469.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NYSEG	708.3	0.0	1,405.8	108.5	430.0	152.1	21.6	355.1	0.0	0.0	0.0
O&R	0.0	0.0	0.0	0.0	0.0	0.0	1,140.6	0.0	0.0	0.0	0.0
RG&E	0.0	1,616.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>2,772.9</b>	<b>2,057.9</b>	<b>2,788.0</b>	<b>671.0</b>	<b>1,423.3</b>	<b>2,419.8</b>	<b>2,256.1</b>	<b>634.4</b>	<b>1,408.9</b>	<b>10,921.3</b>	<b>5,118.1</b>
<b>NCP/CP Ratio</b>	<b>1.0587</b>	<b>1.0317</b>	<b>1.0240</b>	<b>1.0234</b>	<b>1.0432</b>	<b>1.0160</b>	<b>1.0166</b>	<b>1.0136</b>	<b>1.0136</b>	<b>1.0136</b>	<b>1.0161</b>

## 2022 IRM Non-Coincident Peak Forecast by Transmission District and Zone, With Large Load and BTM:NG Forecast

2022 IRM Non-Coincident Peak Forecast by Transmission District and Zone, With Large Load and BTM:NG Forecast											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	A	B	C	D	E	F	G	H	I	J	K
Con Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	279.3	1,408.9	10,943.7	0.0
Cen Hud	0.0	0.0	0.0	0.0	3.4	0.0	1,094.0	0.0	0.0	0.0	0.0
LIPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,158.5
Nat Grid	2,119.7	441.8	1,382.2	92.8	991.7	2,267.7	0.0	0.0	0.0	0.0	0.0
NYPA	0.0	0.0	0.0	469.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NYSEG	798.3	0.0	1,499.0	108.5	430.0	152.1	21.6	355.1	0.0	0.0	0.0
O&R	0.0	0.0	0.0	0.0	0.0	0.0	1,140.6	0.0	0.0	0.0	0.0
RG&E	0.0	1,670.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>2,917.9</b>	<b>2,112.1</b>	<b>2,881.2</b>	<b>671.0</b>	<b>1,425.1</b>	<b>2,419.8</b>	<b>2,256.1</b>	<b>634.4</b>	<b>1,408.9</b>	<b>10,943.7</b>	<b>5,158.5</b>
<i>Large Load Adjustment</i>	<i>145.0</i>	<i>0.0</i>	<i>50.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
<i>BTM:NG NCP Adjustment</i>	<i>0.0</i>	<i>54.2</i>	<i>43.1</i>	<i>0.0</i>	<i>1.8</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>22.4</i>	<i>40.4</i>

## Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

