

2018 Final ICAP Forecast

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Load Forecasting Task Force

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Changes Since December 14th LFTF Meeting

- 1. Made minor updates to actual loads, resulting in small changes to NCP/CP ratios for G-to-J and Zone J Localities;**
- 2. Made minor updates to SCR generators in NYSEG, LIPA and Con-Ed Transmission Districts;**
- 3. Checked all calculations and rounded results to nearest 0.1 MW.**
- 4. Added table for the 2018 LCR Study, including impact of Behind the Meter Net Generators**

2017 Load Reconciliation	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	NYISO DSS Actual MW Data					Transmission Owner Load Data					
	Actual Load	BPS Losses	Muni Gen	Load + Losses	Percent Losses	Actual Load Less Losses	Actual Losses	Actual Load With Losses	Weather Adjustments	Demand Response	TOs' W/N MW With DR
7/19/2017, Hour Beginning 5 PM											
V3. 12/19/2017											
Consolidated Edison											
Con-Ed LSE Load						11,731.0	108.5	11,839.5	1,274.4	0.0	13,113.9
Transmission District Load Served						11,731.0	108.5	11,839.5	1,274.4	0.0	13,113.9
Deduction for BTM:NG						0.0	0.0	0.0			
Transmission District Total Load					0.9%	11,731.0	108.5	11,839.5			
Central Hudson											
Central Hudson LSE Load						968.6	31.1	999.7	89.3	0.0	1,089.0
Transmission District Load Served						968.6	31.1	999.7	89.3	0.0	1,089.0
Deduction for BTM:NG						0.0	0.0	0.0			
Transmission District Total Load					3.1%	968.6	31.1	999.7			
Long Island Power Authority											
LIPA LSE Load						4,745.7	62.7	4,808.4	336.8	0.0	5,145.2
NYPA Load & Greenport Load						84.3	1.1	85.4	6.0	0.0	91.4
Freeport & Rockville Centre Load			6.5			100.9	1.3	102.2	7.2	0.0	109.4
Transmission District Load Served						4,930.9	65.1	4,996.0	350.0	0.0	5,346.0
Deduction for BTM:NG						0.0	0.0	0.0			
Transmission District Total Load					1.3%	4,924.4	65.1	4,996.0			
National Grid											
National Grid LSE						5,576.5	319.9	5,896.4	742.9	0.0	6,639.3
NYPA Load						38.6	2.2	40.8	5.1	0.0	45.9
NYMPA Load						258.7	14.8	273.5	34.5	0.0	308.0
Jamestown Load			51.80			65.1	3.7	68.8	8.7	0.0	77.5
Green Island Load						5.3	0.3	5.6	0.7	0.0	6.3
Transmission District Load Served						5,944.2	340.9	6,285.1	791.9	0.0	7,077.0
Deduction for BTM:NG						0.0	0.0	0.0			
Transmission District Total Load					5.4%	5,892.40	340.90	6,285.10			

2017 Load Reconciliation		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
7/19/2017, Hour Beginning 5 PM		NYISO DSS Actual MW Data					Transmission Owner Load Data					
V3. 12/19/2017		Actual Load	BPS Losses	Muni Gen	Load + Losses	Percent Losses	Actual Load Less Losses	Actual Losses	Actual Load With Losses	Weather Adjustments	Demand Response	TOS' W/N MW With DR
New York Power Authority												
NYP&E LSE Load							236.0	2.6	238.6	0.0	0.0	238.6
NYM&P&A Load							76.7	0.8	77.5	4.0	0.0	81.5
Transmission District Load Served							312.7	3.4	316.1	4.0	0.0	320.1
Deduction for BTM:NG							0.0	0.0	0.0			
Transmission District Total Load		312.7	3.4		316.1	1.1%	312.7	3.4	316.1			
New York State Electric & Gas												
NYSEG LSE Load							2,711.2	59.6	2,770.8	369.2	0.1	3,140.1
NYP&E Load							38.2	0.8	39.0	5.2	0.0	44.2
NYM&P&A Load							65.2	1.4	66.6	8.9	0.0	75.5
Transmission District Load Served							2,814.6	61.8	2,876.4	383.3	0.1	3,259.8
Deduction for BTM:NG							0.0	0.0	0.0			
Transmission District Total Load		2,814.60	61.80		2,876.40	2.1%	2,814.6	61.8	2,876.4			
Orange & Rockland Utilities												
O&R LSE Load							967.2	7.7	974.9	153.3	0.0	1,128.2
Transmission District Load Served							967.2	7.7	974.9	153.3	0.0	1,128.2
Deduction for BTM:NG							0.0	0.0	0.0			
Transmission District Total Load		967.20	7.70		974.90	0.8%	967.2	7.7	974.9			
Rochester Gas & Electric												
RG&E LSE Load							1,386.1	16.3	1,402.4	173.7	5.3	1,581.4
NYM&P&A Load							10.7	0.1	10.8	1.3	0.0	12.1
Transmission District Load Served							1,396.8	16.4	1,413.2	175.0	5.3	1,593.5
Deduction for BTM:NG							0.0	0.0	0.0			
Transmission District Total Load		1,396.80	16.40		1,413.20	1.2%	1,396.8	16.4	1,413.2			
Totals		29,007.7	634.9	58.3	29,700.9	2.1%	29,066.0	634.9	29,700.9	3,221.2	5.4	32,927.5

2017 Load Reconciliation	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	7/19/2017, Hour Beginning 5 PM V3. 12/19/2017	Reallocation of Losses				Proportional Allocation of Losses	Adj. W/N Load Less Losses	2017 Adjusted Actual Load (MW)	2017 (1 +WNF)	2017 Adj Load Prior to Loss Adjustment
		TOs' W/N MW With DR	W/N Losses	Station Power	Adj. W/N Load Less Losses					
Consolidated Edison										
Con-Ed LSE Load	13,113.9	120.2		12,993.7	40.35%	285.9	12,993.7	13,279.6		
Transmission District Load Served	13,113.9	120.2		12,993.7	40.35%	285.9	12,993.7	13,279.6	1.1320	13,113.9
Deduction for BTM:NG										
Transmission District Total Load										
Central Hudson										
Central Hudson LSE Load	1,089.0	33.9		1,055.1	3.28%	23.2	1,055.1	1,078.3		
Transmission District Load Served	1,089.0	33.9		1,055.1	3.28%	23.2	1,055.1	1,078.3	1.1133	1,089.0
Deduction for BTM:NG										
Transmission District Total Load										
Long Island Power Authority										
LIPA LSE Load	5,145.2	67.1		5,078.1	15.77%	111.70	5,078.10	5,189.8		
NYPA Load & Greenport Load	91.4	1.2		90.2	0.28%	2.00	90.20	92.2		
Freeport & Rockville Centre Load	109.4	1.4		108.0	0.34%	2.40	108.00	110.4		
Transmission District Load Served	5,346.0	69.7		5,276.3	16.38%	116.1	5,276.3	5,392.4	1.0936	5,346.0
Deduction for BTM:NG										
Transmission District Total Load										
National Grid										
National Grid LSE	6,639.3	360.2	13.7	6,265.4	19.45%	137.8	6,265.4	6,403.2		
NYPA Load	45.9	2.5		43.4	0.13%	0.9	43.4	44.3		
NYMPA Load	308.0	16.7		291.3	0.90%	6.4	291.3	297.7		
Jamestown Load	77.5	4.2		73.3	0.23%	1.6	73.3	74.9		
Green Island Load	6.3	0.3		6.0	0.02%	0.1	6.0	6.1		
Transmission District Load Served	7,077.0	383.9	13.7	6,679.4	20.74%	146.8	6,679.4	6,826.2	1.1484	7,063.3
Deduction for BTM:NG										
Transmission District Total Load										

2017 Load Reconciliation	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	7/19/2017, Hour Beginning 5 PM V3.12/19/2017	TOs' W/N MW With DR	Reallocation of Losses			Proportional Allocation of Losses	Adj. W/N Load Less Losses	2017 Adjusted Actual Load (MW)	2017 (1 +WNF)	2017 Adj Load Prior to Loss Adjustment
			W/N Losses	Station Power	Adj. W/N Load Less Losses					
New York Power Authority										
NYPALSE Load	238.6	2.6		236.0	0.73%	5.2	236.0	241.2		
NYMPA Load	81.5	0.8		80.7	0.25%	1.8	80.7	82.5		
Transmission District Load Served	320.1	3.4		316.7	0.98%	7.0	316.7	323.7	1.0352	320.1
Deduction for BTM:NG										
Transmission District Total Load										
New York State Electric & Gas										
NYSEG LSE Load	3,140.1	67.5		3,072.6	9.54%	67.6	3,072.6	3,140.2		
NYPALSE Load	44.2	0.9		43.3	0.13%	0.9	43.3	44.2		
NYMPA Load	75.5	1.6		73.9	0.23%	1.6	73.9	75.5		
Transmission District Load Served	3,259.8	70.0		3,189.8	9.90%	70.1	3,189.8	3,259.9	1.1582	3,259.8
Deduction for BTM:NG										
Transmission District Total Load										
Orange & Rockland Utilities										
O&R LSE Load	1,128.2	8.9		1,119.3	3.48%	24.7	1,119.3	1,144.0		
Transmission District Load Served	1,128.2	8.9		1,119.3	3.48%	24.7	1,119.3	1,144.0	1.1828	1,128.2
Deduction for BTM:NG										
Transmission District Total Load										
Rochester Gas & Electric										
RG&E LSE Load	1,581.4	18.4		1,563.0	4.85%	34.4	1,563.0	1,597.4		
NYMPA Load	12.1	0.1		12.0	0.04%	0.3	12.0	12.3		
Transmission District Load Served	1,593.5	18.5		1,575.0	4.89%	34.7	1,575.0	1,609.7	1.1524	1,593.5
Deduction for BTM:NG										
Transmission District Total Load										
Totals	32,927.5	708.50	13.7	32,205.30	100.00%	708.50	32,205.30	32,913.8	1.1324	32,913.8

2018 New York Control Area Peak Load Forecast (MW)

Draft Final 12/19/2017	Transmission Districts	2017 Weather Normalized MW Load + Losses MW	(1 + Regional Load Growth Factor)	2018 Load At Time of NYCA Peak	2018 Deductions	2018 ICAP Market Forecast	2018 Locality Forecasts		
							J Locality	K Locality	G-J Locality
Consolidated Edison		13,279.6	1.00226	13,309.6	0.0	13,309.6	11,538.7		13,271.2
Central Hudson		1,078.3	0.99200	1,069.7	0.0	1,069.7			1,087.4
Long Island Power Authority		5,189.8	0.99550	5,166.4	0.0	5,166.4			
NYPA & Greenport		92.2	0.99550	91.8	0.0	91.8			
Freeport & Rockville Centre		110.4	0.99550	109.9	0.0	109.9			
LIPA Total		5,392.4	0.99550	5,368.1	0.0	5,368.1		5,375.7	
National Grid		6,403.2	1.00100	6,409.6	0.0	6,409.6			
NYPA		44.3	1.00100	44.3	0.0	44.3			
NYMPA		297.7	1.00100	298.0	0.0	298.0			
Jamestown		74.9	1.00100	75.0	0.0	75.0			
Green Island Power Authority		6.1	1.00100	6.1	0.0	6.1			
National Grid Total		6,826.2	1.00100	6,833.0	0.0	6,833.0			
New York Power Authority		241.2	1.00000	241.2	0.0	241.2			
NYMPA		82.5	1.04730	86.4	0.0	86.4			
NYPA Total		323.7	1.01205	327.6	0.0	327.6			
New York State Electric & Gas		3,140.2	0.99820	3,134.5	0.0	3,134.5			417.7
NYPA		44.2	0.99820	44.1	0.0	44.1			
NYMPA		75.5	0.99820	75.4	0.0	75.4			
NYSEG Total		3,259.9	0.99820	3,254.0	0.0	3,254.0			
Orange & Rockland Utilities		1,144.0	1.00190	1,146.2	0.0	1,146.2			1,141.3
Rochester Gas & Electric		1,597.4	0.99040	1,582.1	0.0	1,582.1			
NYMPA		12.3	0.99040	12.2	0.0	12.2			
RG&E Total		1,609.7	0.99040	1,594.3	0.0	1,594.3			
Total Load in NYCA or Locality		32,913.8	0.99966	32,902.5	0.0	32,902.5	11,538.7	5,375.7	15,917.6

(1) 2017 Actual Coincident Peak in G to J Locality

July 20, 2017, HB 16

(1)	(2)	(3)	(4)	(5)	(6)
Transmission District	G	H	I	J	G-to-J Total
Con Edison		256.9	1,311.0	10,271.6	11,839.5
Cen Hudson	996.7				996.7
LIPA					
Nat. Grid					
NYPA					
NYSEG	21.6	330.4			352.0
O&R	974.9				974.9
RG&E					
Grand Total	1,993	587	1,311	10,272	14,163.1

(3) 2017 Weather-Adjusted Locality Peak for G-to-J

(1)	(2)	(3)	(4)	(5)	(6)
Transmission District	G	H	I	J	G-to-J Total
Con Edison		287.4	1,466.2	11,487.7	13,241.3
Cen Hudson	1,096.2				1,096.2
LIPA					
Nat. Grid					
NYPA					
NYSEG	25.6	392.8			418.4
O&R	1,139.1				1,139.1
RG&E					
Grand Total	2,261	680	1,466	11,488	15,895.0
NCP/CP ratio	1.0097	1.0097	1.0097	1.0097	

(2) 2017 Weather-Adjusted Coincident Peak in G to J Locality

(1)	(2)	(3)	(4)	(5)	(6)
Transmission District	G	H	I	J	G-to-J Total
Con Edison		284.6	1,452.1	11,377.3	13,114.0
Cen Hudson	1,085.7				1,085.7
LIPA					
Nat. Grid					
NYPA					
NYSEG	25.4	389.0			414.4
O&R	1,128.2				1,128.2
RG&E					
Grand Total	2,239	674	1,452	11,377	15,742.3

(4) 2018 Peak Forecast for G-to-J Locality

(1)	(8)	(9)	(10)	(11)	(12)	
Transmission District	G	H	I	J	G-to-J Total	RLGF
Con Edison		288.0	1,469.5	11,513.7	13,271.2	1.00226
Cen Hudson	1,087.4				1,087.4	0.99200
LIPA						
Nat. Grid						
NYPA						
NYSEG	25.6	392.1			417.7	0.99820
O&R	1,141.3				1,141.3	1.00190
RG&E						
Grand Total	2,254	680	1,470	11,514	15,917.6	1.00142

Zone J and Zone K Locality Peaks

Locality	2017 Actual Load	Municipal Generation	Weather Adjustment	Demand Response	2017 Weather Adjusted Load	Regional Load Growth Factor	2018 Locality Forecast
Zone J Locality	10695.7	0.0	816.5	0.5	11512.7	1.00226	11538.7
Zone K Locality	5134.0	8.9	252.0	5.1	5400.0	0.99550	5375.7

NYCA Coincident Peak Dates & Times & Zonal MW

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	NYCA Peak Date	Hr Beg	Zone G	Zones H+I	Zone J	G-to-J CP
2008	6/9/2008	17	2,277	2,056	10,979	15,311
2009	8/17/2009	16	2,159	1,875	10,366	14,400
2010	7/6/2010	17	2,399	2,187	11,600	16,186
2011	7/22/2011	16	2,482	2,239	11,826	16,546
2012	7/17/2012	14	2,282	2,082	11,405	15,769
2013	7/19/2013	17	2,384	2,253	11,736	16,373
2014	9/2/2014	16	2,036	1,917	10,567	14,520
2015	7/29/2015	16	2,070	1,930	10,455	14,455
2016	8/11/2016	16	2,069	1,993	11,006	15,068
2017	7/19/2017	17	1,993	1,898	10,272	14,163
Average						15,279

NYCA Coincident Peak Dates & Times & Zonal MW

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	NYCA Peak Date	Hr Beg	Zone G	Zones H+I	Zone J	G-to-J CP
2008	6/9/2008	17	2,277	2,056	10,979	15,311
2009	8/17/2009	16	2,159	1,875	10,366	14,400
2010	7/6/2010	17	2,399	2,187	11,600	16,186
2011	7/22/2011	16	2,482	2,239	11,826	16,546
2012	7/17/2012	14	2,282	2,082	11,405	15,769
2013	7/19/2013	17	2,384	2,253	11,736	16,373
2014	9/2/2014	16	2,036	1,917	10,567	14,520
2015	7/29/2015	16	2,070	1,930	10,455	14,455
2016	8/11/2016	16	2,069	1,993	11,006	15,068
2017	7/19/2017	17	1,993	1,898	10,272	14,163
Average					11,021	

G-to-J Locality Peak Dates & Times & Zonal MW

(8)	(9)	(10)	(11)	(12)	(13)	(14)
Year	G-to-J Peak Date	Hr Beg	Zone G	Zones H+I	Zone J	G-J NCP
2008	6/10/2008	17	2,338	2,101	11,262	15,701
2009	8/21/2009	15	2,117	1,879	10,661	14,657
2010	7/6/2010	17	2,399	2,187	11,600	16,186
2011	7/22/2011	16	2,482	2,239	11,826	16,546
2012	7/18/2012	13	2,288	2,071	11,424	15,783
2013	7/19/2013	17	2,384	2,253	11,736	16,373
2014	9/2/2014	17	2,046	1,933	10,572	14,551
2015	7/20/2015	16	2,059	1,996	10,675	14,730
2016	8/11/2016	16	2,069	1,993	11,006	15,068
2017	7/20/2017	16	2,046	1,936	10,696	14,678
Average						15,427

Ratio of G-to-J Locality Peak to G-to-J Coincident Peak

(15) = (14-7)
G-to-J Delta
390
257
-
-
14
-
32
275
-
514
148

1.0097

Zone J Locality Peak Dates & Times & Zonal MW

(8)	(9)	(10)	(11)	(12)	(13)	(14)
Year	Zone J Peak Date	Hr Beg	Zone G	Zones H+I	Zone J	G-to-J, Coin. with J
2008	6/10/2008	17	2,338	2,101	11,262	15,701
2009	8/21/2009	15	2,117	1,879	10,661	14,657
2010	7/6/2010	17	2,399	2,187	11,600	16,186
2011	7/22/2011	12	2,375	2,107	11,876	16,358
2012	7/18/2012	15	2,115	2,002	11,438	15,554
2013	7/19/2013	17	2,384	2,253	11,736	16,373
2014	9/2/2014	17	2,046	1,933	10,572	14,551
2015	7/20/2015	16	2,059	1,996	10,675	14,730
2016	8/11/2016	16	2,069	1,993	11,006	15,068
2017	7/20/2017	16	2,046	1,936	10,696	14,678
Average					11,152	

Ratio of J Locality Peak to J Coincident Peak

(15) = (13-6)
Zone J Delta
283
294
-
50
33
-
5
220
-
424
131

1.0119

2017 Transmission District Summary of Actual BTM:NG Resources

	(a)	(a1)	(a2)	(a3)	(a4)
	Transmission District	Load @ NYCA Peak	Load @ J Locality Peak	Load @ K Locality Peak	Load @ G-J Locality Peak
Row		9/19/2017 HB 17	9/20/2017 HB 16	9/20/2017 HB 16	9/20/2017 HB 16
1	Central Hudson				
2	Con-Ed				
3	LIPA	0.0	0.0	0.0	0.0
4	NYPA				
5	NYSEG				
6	National Grid				
7	O&R				
8	RG&E				
	Total	0.0	0.0	0.0	0.0

2018 Transmission District Forecast of BTM:NG Resources

	Transmission District	2017 Peak Proxy Load	(1 + WNF)	(1 + RLGf)	2018 Average Coincident Host Load
Row	(a)	(b)	(c)	(d)	(e)=(b)*(c)*(d)
1	Con-Ed				
2	Central Hudson				
3	LIPA	36.93	1.0936	0.9955	40.2
4	National Grid				
5	NYPA				
6	NYSEG				
7	O&R				
8	RG&E				
	Total	36.9			40.2

Coincident and Non-Coincident Peak Loads by Transmission District and Zone for 2018 LCR Study, Including BTM:NG Resources

Coincident Peaks - MW												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Transmission District	A	B	C	D	E	F	G	H	I	J	K	NYCA
Con Edison								285.2	1,455.4	11,403.0		13,143.6
Cen Hudson					3.3		1,077.0					1,080.3
LIPA											5,362.1	5,362.1
Nat. Grid	2,088.9	435.4	1,397.9	89.5	878.6	2,180.1						7,070.4
NYPA				323.9								323.9
NYSEG	712.2		1,443.1	107.8	425.7	151.5	25.4	388.3				3,254.0
O&R							1,130.3					1,130.3
RG&E		1,578.2										1,578.2
NYCA	2,801.1	2,013.6	2,841.0	521.2	1,307.6	2,331.6	2,232.7	673.5	1,455.4	11,403.0	5,362.1	32,942.8

BTMNG & Load Modifiers											40.2	40.2
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G-to-J Locality Peaks - MW												
G-to-J Peaks												
							2,254.3	680.1	1,469.5	11,513.7		15,917.6

Non-Coincident Zonal Peaks - MW												
NC Peaks	2,952.0	2,084.0	2,911.7	562.2	1,362.9	2,389.8	2,256.9	681.8	1,473.0	11,538.7	5,415.9	

The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits 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 policy makers, stakeholders and investors in the power system



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