## NYISO CEO/COO Report

## **Bradley Jones**

President & Chief Executive Officer

## **Rick Gonzales**

Senior Vice President & Chief Operating Officer

### **Management Committee Meeting:**

August 30, 2017, Rensselaer, NY



## **NYISO CEO/COO Report**

## **CEO Report**

## **COO Report**

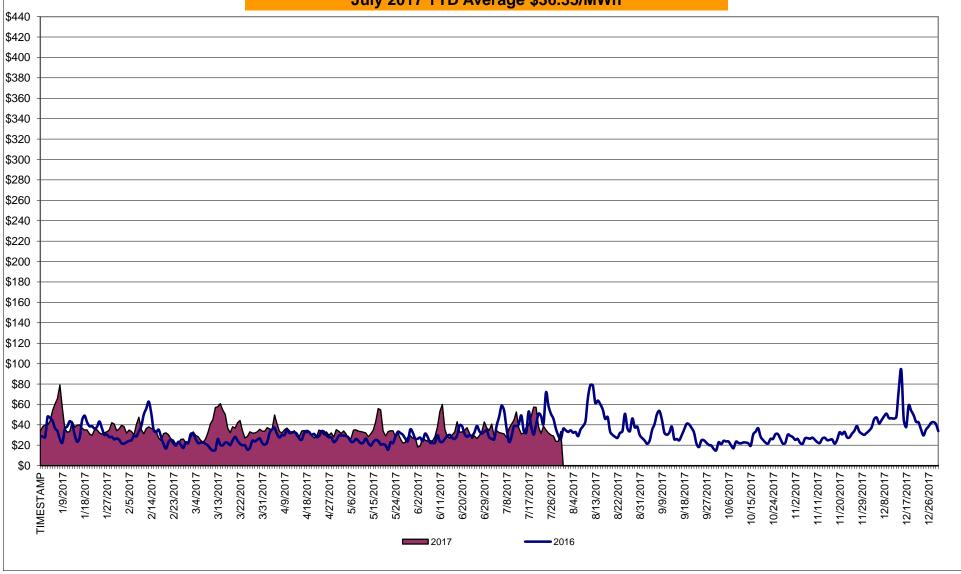
- Market Performance Highlights For Information Only
- Operations Performance Metrics Monthly Report



# Market Performance Highlights July 2017

- LBMP for July is \$35.84/MWh; higher than \$31.76/MWh in June 2017 and lower than \$40.01/MWh in July 2016.
  - Day Ahead Load Weighted LBMPs and Real Time Load Weighted LBMPs are higher compared to June.
- July 2017 average year-to-date monthly cost of \$36.35/MWh is a 12% increase from \$32.32/MWh in July 2016.
- Average daily sendout is 498 GWh/day in July; higher than 454 GWh/day in June 2017 and lower than 532 GWh/day in July 2016.
- Natural gas prices and distillate prices were higher compared to the previous month.
  - Natural Gas (Transco Z6 NY) was \$2.44/MMBtu, up from \$2.35/MMBtu in June.
  - Natural gas prices are up 13.1% year-over-year.
  - Jet Kerosene Gulf Coast was \$10.49/MMBtu, up from \$9.59/MMBtu in June.
  - Ultra Low Sulfur No.2 Diesel NY Harbor was \$10.85/MMBtu, up from \$10.14/MMBtu in June.
  - Distillate prices are up 11.1% year-over-year.
- Uplift per MWh is lower compared to the previous month.
  - Uplift (not including NYISO cost of operations) is (\$0.43)/MWh; lower than (\$0.37)/MWh in June.
    - Local Reliability Share is \$0.11/MWh, lower than \$0.15/MWh in June.
    - Statewide Share is (\$0.54)/MWh, lower than (\$0.52)/MWh in June.
  - TSA \$ per NYC MWh is \$0.42/MWh.
  - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are lower than June.

# Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\* 2016 Annual Average \$34.28/MWh July 2016 YTD Average \$32.32/MWh July 2017 YTD Average \$36.35/MWh

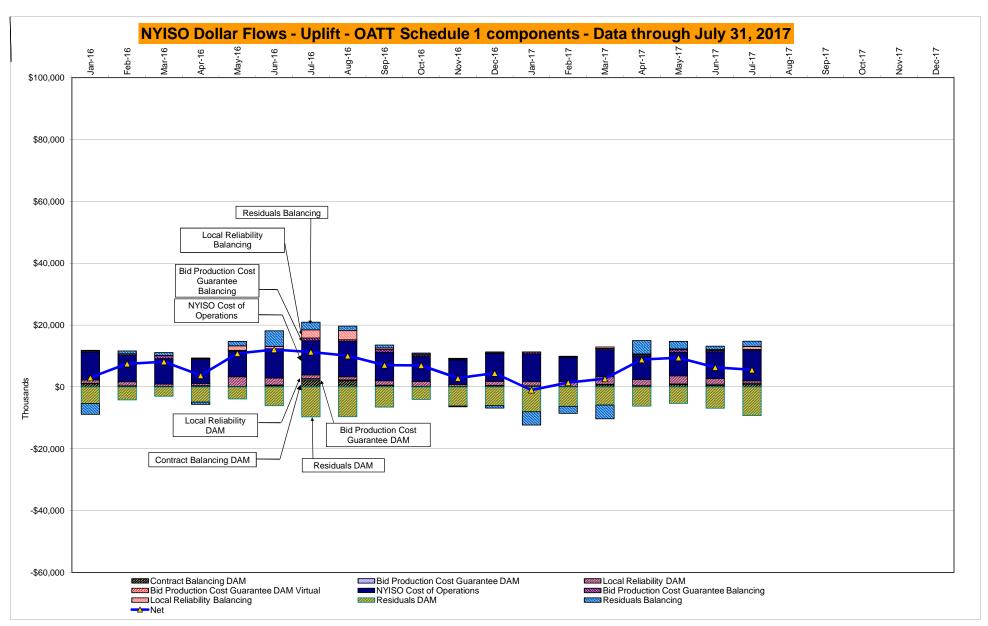


<sup>\*</sup> Excludes ICAP payments.

## NYISO Average Cost/MWh (Energy and Ancillary Services) \* from the LBMP Customer point of view

2017	lanuary	February	<u>March</u>	April	Mov	luno	luky	August	<u>September</u>	<u>October</u>	November	Docombor
LBMP	<u>January</u> 40.07	30.95	34.97	<u>April</u> 31.06	<u>May</u> 31.74	<u>June</u> 31.76	<u>July</u> 35.84	<u>August</u>	<u>September</u>	<u>October</u>	<u>inoverniber</u>	<u>December</u>
NTAC	0.66	1.11	0.86	1.05	0.79	0.62	0.87					
Reserve	0.70	0.67	0.74	0.70	0.73	0.55	0.48					
Regulation	0.14	0.07	0.74	0.70	0.01	0.33	0.40					
NYISO Cost of Operations	0.65	0.65	0.15	0.65	0.62	0.63	0.63					
FERC Fee Recovery	0.09	0.10	0.00	0.03	0.10	0.09	0.03					
Uplift	(0.73)	(0.54)	(0.46)	0.12	0.10	(0.37)	(0.43)					
Uplift: Local Reliability Share	0.10	0.13	0.21	0.20	0.24	0.15	0.11					
Uplift: Statewide Share	(0.83)	(0.67)	(0.67)	(0.08)	(0.13)	(0.52)	(0.54)					
Voltage Support and Black Start	0.37	0.37	0.38	0.38	0.38	0.38	0.38					
Avg Monthly Cost	41.96	33.44	37.38	34.26	34.52	33.80	37.94					
Avg monthly occi	11.00	00.11	07.00	01.20	01.02	00.00	07.01					
Avg YTD Cost	41.96	38.02	37.81	37.05	36.54	36.01	36.35					
TSA \$ per NYC MWh	0.00	0.00	0.00	0.08	0.12	0.56	0.42					
2016	January	February	<u>March</u>	Anril	<u>May</u>	<u>June</u>	lukz	<u>August</u>	<u>September</u>	<u>October</u>	November	<u>December</u>
LBMP	34.29	28.71	20.66	<u>April</u> 27.96	23.31	27.35	<u>July</u> 40.01	42.99	30.89	22.33	26.31	43.90
NTAC	0.59	0.78	0.62	1.14	1.10	0.93	0.78	0.54	0.55	0.86	0.79	0.97
Reserve	0.77	0.73	0.02	0.87	0.71	0.59	0.70	0.68	0.69	0.77	0.73	0.63
Regulation	0.12	0.73	0.73	0.12	0.11	0.12	0.10	0.10	0.10	0.15	0.13	0.17
NYISO Cost of Operations	0.64	0.65	0.65	0.64	0.65	0.66	0.65	0.65	0.64	0.64	0.64	0.64
FERC Fee Recovery	0.09	0.10	0.11	0.10	0.09	0.09	0.07	0.06	0.08	0.10	0.10	0.08
Uplift	(0.43)	(0.07)	(0.03)	(0.34)	0.19	0.20	(0.26)	(0.63)	(0.15)	(0.09)	(0.42)	(0.33)
Uplift: Local Reliability Share	0.09	0.11	0.06	0.07	0.35	0.21	0.23	0.22	0.14	0.15	0.07	0.10
Uplift: Statewide Share	(0.52)	(0.18)	(0.09)	(0.41)	(0.16)	(0.01)	(0.49)	(0.86)	(0.29)	(0.24)	(0.49)	(0.43)
Voltage Support and Black Start	0.35	0.36	0.36	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.35
Avg Monthly Cost	36.42	31.37	23.23	30.84	26.52	30.29	42.40	44.75	33.16	25.12	28.61	46.42
<b> </b>												
Avg YTD Cost	36.42	34.02	30.68	30.71	29.85	29.93	32.32	34.43	34.31	33.54	33.16	34.28
TSA \$ per NYC MWh	0.00	0.00	0.05	0.00	0.00	0.02	0.84	1.64	0.00	0.00	0.00	0.00
2015	January	February	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	August	September	<u>October</u>	November	December
LBMP	59.61	114.37	52.09	28.36	32.98	28.20	34.77	33.09	34.40	30.05	24.83	20.91
NTAC	0.32	0.35	0.41	0.64	0.56	0.80	0.54	0.60	0.63	0.53	0.68	1.05
Reserve	0.27	0.37	0.56	0.36	0.38	0.24	0.27	0.20	0.28	0.28	0.47	0.60
Regulation	0.10	0.18	0.11	0.12	0.10	0.13	0.12	0.12	0.10	0.12	0.13	0.13
NYISO Cost of Operations	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.69	0.70	0.69
Uplift	(0.48)	(1.08)	(0.68)	(0.15)	0.26	0.33	0.04	0.03	(0.15)	0.10	0.44	(0.07)
Uplift: Local Reliability Share	0.25	0.33	0.13	0.27	0.30	0.37	0.35	0.36	0.22	0.33	0.20	0.12
Uplift: Statewide Share	(0.73)	(1.41)	(0.81)	(0.42)	(0.05)	(0.04)	(0.30)	(0.33)	(0.37)	(0.23)	0.25	(0.18)
Voltage Support and Black Start _	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.38
Avg Monthly Cost	60.91	115.27	53.58	30.41	35.37	30.79	36.84	35.14	36.35	32.18	27.64	23.71
Avg YTD Cost	60.91	87.74	76.64	66.82	60.96	56.02	52.77	50.20	48.59	47.17	45.66	44.10
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.17	0.50	0.07	0.06	0.01	0.00	0.00	0.00

<sup>\*</sup> Excludes ICAP payments. Market Mitigation and Analysis Prepared: 8/8/2017 10:25 AM



DAM Contract Balancing amounts are for payments made to generating units to make them whole for being dispatched below their Day-Ahead schedule, as a result of out-of-merit dispatches.

DAM Bid Production Cost Guarantees for Virtual Transactions are included in the chart and are shown from the inception of Virtual Transactions. These values are small and cannot be identified on the chart.

DAM residuals consist of both energy and loss revenue collections and payments. By design, there is a net over collection of revenues due to the difference between the marginal losses paid to generation and the average losses charged to loads.

### **NYISO Markets Transactions**

<u>March</u>

<u>February</u>

<u>January</u>

<u>April</u>

<u>May</u>

<u>June</u>

<u>July</u>

August September

October November December

2017	<u>January</u>	<u>i Ebiuaiy</u>	<u>iviai Ci i</u>	<u> </u>	<u>iviay</u>	Julie	<u>July</u>	Augusi	<u>September</u>	<u>October</u>	HOVEITIBEI	December
Day Ahead Market MWh	14,135,019	12,565,206	13,983,865	12,061,475	12,966,981	14,406,180	16,505,801					
DAM LSE Internal LBMP Energy Sales	57%	57%	55%	54%	58%	60%	62%					
DAM External TC LBMP Energy Sales	2%	2%	1%	1%	1%	1%	1%					
DAM Bilateral - Internal Bilaterals	32%	32%	34%	35%	33%	31%	29%					
DAM Bilateral - Importl/Non-LBMP Market Bilaterals	5%	5%	5%	6%	4%	5%	4%					
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%	2%	2%	2%	2%	1%					
DAM Bilateral - Wheel Through Bilaterals	2%	2%	2%	2%	2%	2%	3%					
Balancing Energy Market MWh	-256,448	-407,284	-509,053	-466,426	-666,048	-564,312	-747,473					
Balancing Energy LSE Internal LBMP Energy Sales	-157%	-132%	-148%	-115%	-120%	-114%	-100%					
Balancing Energy External TC LBMP Energy Sales	64%	39%	44%	22%	28%	23%	18%					
Balancing Energy Bilateral - Internal Bilaterals	15%	8%	12%	5%	1%	4%	3%					
Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals	0%	4%	0%	0%	0%	0%	0%					
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	10%	7%	5%	4%	3%	3%	1%					
Balancing Energy Bilateral - Wheel Through Bilaterals	-32%	-26%	-13%	-15%	-12%	-16%	-22%					
Transactions Summary												
LBMP	58%	57%	55%	54%	58%	60%	62%					
Internal Bilaterals	33%	34%	36%	37%	34%	32%	30%					
Import Bilaterals	5%	5%	5%	6%	4%	5%	5%					
Export Bilaterals	2%	2%	2%	2%	2%	2%	2%					
Wheels Through	2%	2%	2%	2%	2%	1%	2%					
Market Share of Total Load						. , ,						
Day Ahead Market	101.8%	103.3%	103.8%	104.0%	105.4%	104.1%	104.7%					
Balancing Energy +	-1.8%	-3.3%	-3.8%	-4.0%	-5.4%	-4.1%	-4.7%					
Total MWH	13,878,571	12,157,922	13,474,812	11,595,049	12,300,933							
Average Daily Energy Sendout/Month GWh	431	418	419	377	383	454	498					
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2016	January	<u>February</u>	<u>March</u>	<u>April</u>	May	<u>June</u>	<u>July</u>		<u>September</u>	<u>October</u>	November	<u>December</u>
Day Ahead Market MWh	14,760,915		13,413,781	12,496,141	12,959,886	14,095,904	16,950,819	17,413,898	14,563,318	13,014,354	12,770,775	, ,
DAM LSE Internal LBMP Energy Sales	54%	55%	55%	57%	58%	60%	64%	63%	60%	56%	56%	58%
DAM External TC LBMP Energy Sales	4%	2%	1%	5%	2%	1%	1%	3%	3%	2%	2%	3%
DAM Bilateral - Internal Bilaterals	34%	34%	35%	28%	31%	30%	28%	27%	30%	33%	32%	31%
DAM Bilateral - Importl/Non-LBMP Market Bilaterals	5%	5%	5%	6%	5%	5%	4%	4%	5%	5%	5%	5%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	1%	2%	2%	2%	2%	1%	1%	1%	2%	2%	2%
DAM Bilateral - Wheel Through Bilaterals	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Balancing Energy Market MWh	-522,919	-580,900	-741,701	-303,313	-180,848	-143,015	-86,025	224,316		-477,109	-394,575	-127,836
Balancing Energy LSE Internal LBMP Energy Sales	-125%	-114%	-118%	-76%	-147%	-203%	-347%	42%	-139%	-111%	-102%	-269%
Balancing Energy External TC LBMP Energy Sales	12%	13%	19%	-13%	55%	77%	204%	56%	49%	21%	28%	138%
Balancing Energy Bilateral - Internal Bilaterals	19%	9%	4%	8%	27%	47%	62%	28%	18%	6%	9%	65%
Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	6%	5%	3%	5%	7%	10%	15%	5%	5%	4%	6%	27%
Balancing Energy Bilateral - Wheel Through Bilaterals	-12%	-12%	-8%	-24%	-42%	-32%	-34%	-31%	-32%	-21%	-40%	-66%
<u>Transactions Summary</u>												
LBMP	56%	56%	54%	62%	59%	61%	65%	66%	62%	57%	57%	60%
Internal Bilaterals	36%	36%	37%	29%	32%	31%	28%	27%	30%	35%	34%	32%
Import Bilaterals	5%	5%	6%	6%	5%	5%	4%	4%	5%	5%	6%	5%
Export Bilaterals	2%	2%	2%	2%	2%	2%	1%	1%	1%	2%	2%	2%
Wheels Through	1%	1%	1%	1%	2%	2%	1%	1%	2%	1%	2%	2%
Market Share of Total Load												
Day Ahead Market	103.7%	104.5%	105.9%	102.5%	101.4%	101.0%	100.5%	98.7%		103.8%	103.2%	100.9%
Balancing Energy +	-3.7%	-4.5%	-5.9%	-2.5%	-1.4%	-1.0%	-0.5%	1.3%	-1.8%	-3.8%	-3.2%	-0.9%
Total MWH	14,237,996	13,033,853	12,672,080	12,192,828		13,952,889		17,638,213		12,537,245	12,376,200	14,117,349
Average Daily Energy Sendout/Month GWh	439	436	397	385	397	456	532	548	458	391	398	433
												ue to rounding

**<sup>★</sup>** Balancing Energy: Load(MW) purchased at Real Time LBMP.

Notes: Percent totals may not equal 100% due to rounding.
Virtual Transactions are not reflected in this chart.

<u>2017</u>

<sup>\*</sup> The signs for the detail section intuitively reflect the direction of power flow eliminating the use of double negatives when Balancing Energy is negative.

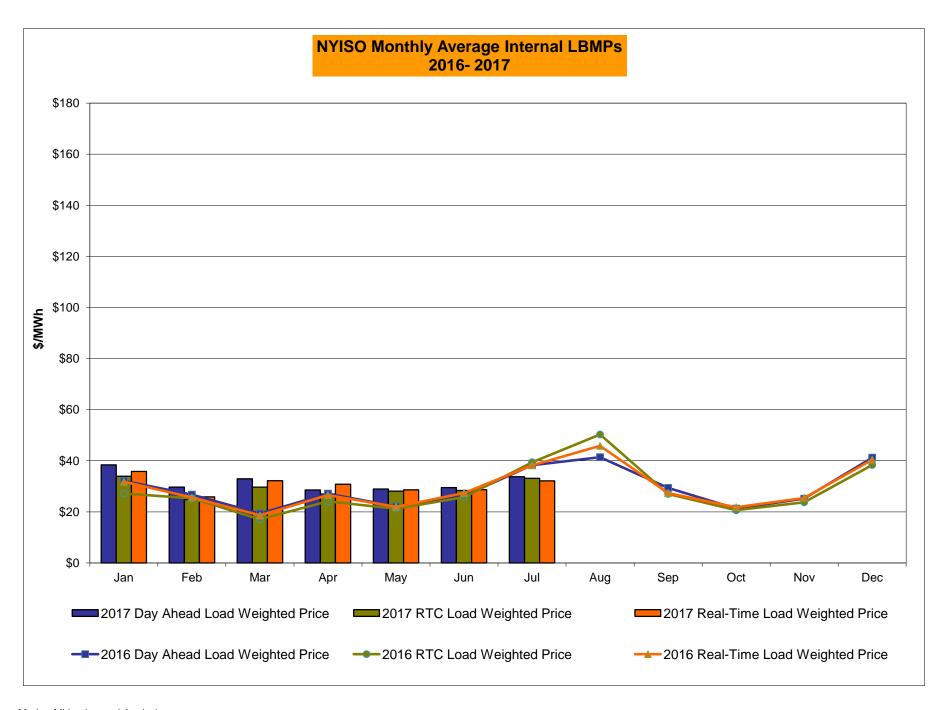
### NYISO Markets 2017 Energy Statistics

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	August September	October November December
DAY AHEAD LBMP									
Price *	\$37.22	\$28.84	\$32.04	\$27.70	\$27.66	\$27.37	\$31.64		
Standard Deviation	\$13.20	\$7.97	\$11.95	\$7.66	\$9.47	\$12.37	\$13.51		
Load Weighted Price **	\$38.42	\$29.66	\$32.96	\$28.56	\$28.95	\$29.52	\$33.78		
RTC LBMP									
Price *	\$32.87	\$24.09	\$28.86	\$26.19	\$26.19	\$26.40	\$30.84		
Standard Deviation	\$14.57	\$9.52	\$13.70	\$10.36	\$21.29	\$14.76	\$18.14		
Load Weighted Price **	\$33.96	\$24.81	\$29.67	\$26.98	\$28.10	\$28.39	\$33.13		
REAL TIME LBMP									
Price *	\$34.61	\$25.14	\$31.21	\$29.61	\$26.56	\$26.16	\$29.47		
Standard Deviation	\$18.20	\$14.21	\$25.02	\$39.82	\$26.11	\$19.00	\$20.25		
Load Weighted Price **	\$35.80	\$25.84	\$32.21	\$30.81	\$28.64	\$28.67	\$32.11		
Average Daily Energy Sendout/Month GWh	431	418	419	377	383	454	498		

### **NYISO Markets 2016 Energy Statistics**

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	October	November [	<u>December</u>
DAY AHEAD LBMP												
Price *	\$31.01	\$25.76	\$18.63	\$26.39	\$21.07	\$24.83	\$35.24	\$38.25	\$27.15	\$20.37	\$24.35	\$39.83
Standard Deviation	\$10.86	\$12.46	\$6.99	\$6.95	\$7.04	\$9.21	\$18.37	\$20.59	\$13.55	\$7.48	\$7.32	\$15.08
Load Weighted Price **	\$32.13	\$26.75	\$19.37	\$27.14	\$22.12	\$26.30	\$38.29	\$41.41	\$29.38	\$21.29	\$25.15	\$41.22
RTC LBMP												
Price *	\$26.12	\$24.10	\$16.41	\$23.41	\$19.96	\$24.29	\$36.22	\$45.03	\$24.70	\$19.76	\$23.02	\$37.08
Standard Deviation	\$16.06	\$17.89	\$11.32	\$9.09	\$11.44	\$16.58	\$38.04	\$70.57	\$17.46	\$8.96	\$9.49	\$16.72
Load Weighted Price **	\$27.16	\$25.29	\$17.11	\$24.10	\$21.23	\$25.73	\$39.42	\$50.28	\$26.97	\$20.64	\$23.73	\$38.35
REAL TIME LBMP												
Price *	\$30.15	\$24.28	\$17.84	\$25.71	\$20.67	\$25.87	\$34.40	\$40.87	\$24.90	\$20.91	\$24.72	\$39.00
Standard Deviation	\$60.09	\$18.19	\$15.06	\$16.59	\$12.84	\$19.27	\$38.56	\$52.85	\$20.70	\$12.15	\$12.71	\$20.92
Load Weighted Price **	\$31.80	\$25.61	\$18.64	\$26.57	\$21.99	\$27.39	\$38.20	\$45.82	\$27.38	\$21.81	\$25.45	\$40.42
Average Daily Energy Sendout/Month GWh	439	436	397	385	397	456	532	548	458	391	398	433

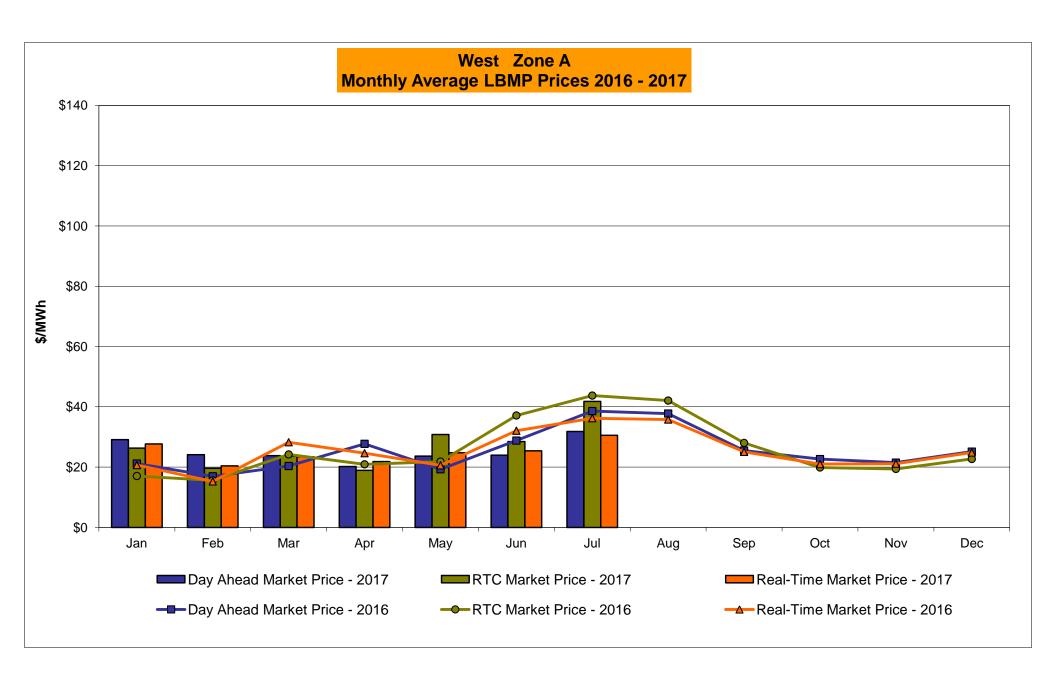
<sup>\*</sup> Average zonal load weighted prices.
\*\* Average zonal load weighted prices, load weighted in each hour.

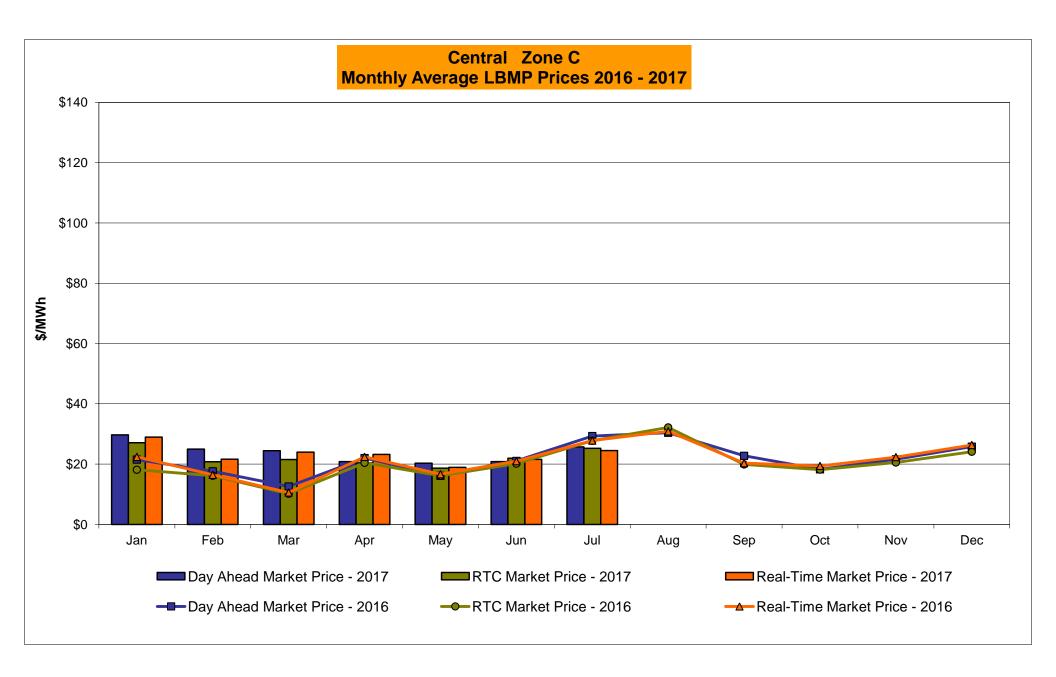


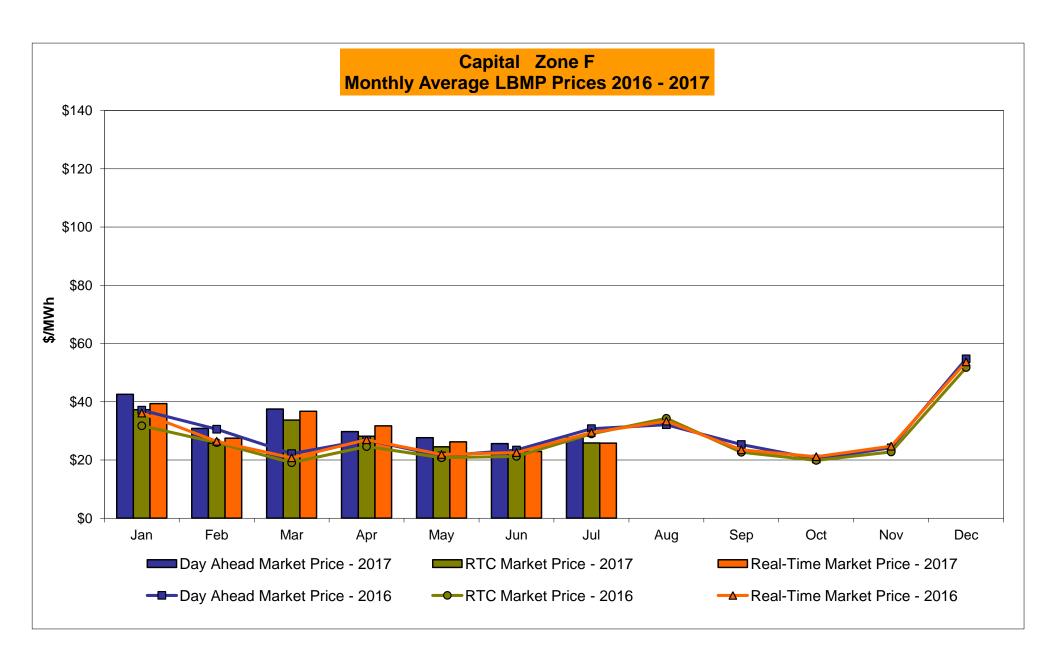
## July 2017 Zonal LBMP Statistics for NYISO (\$/MWh)

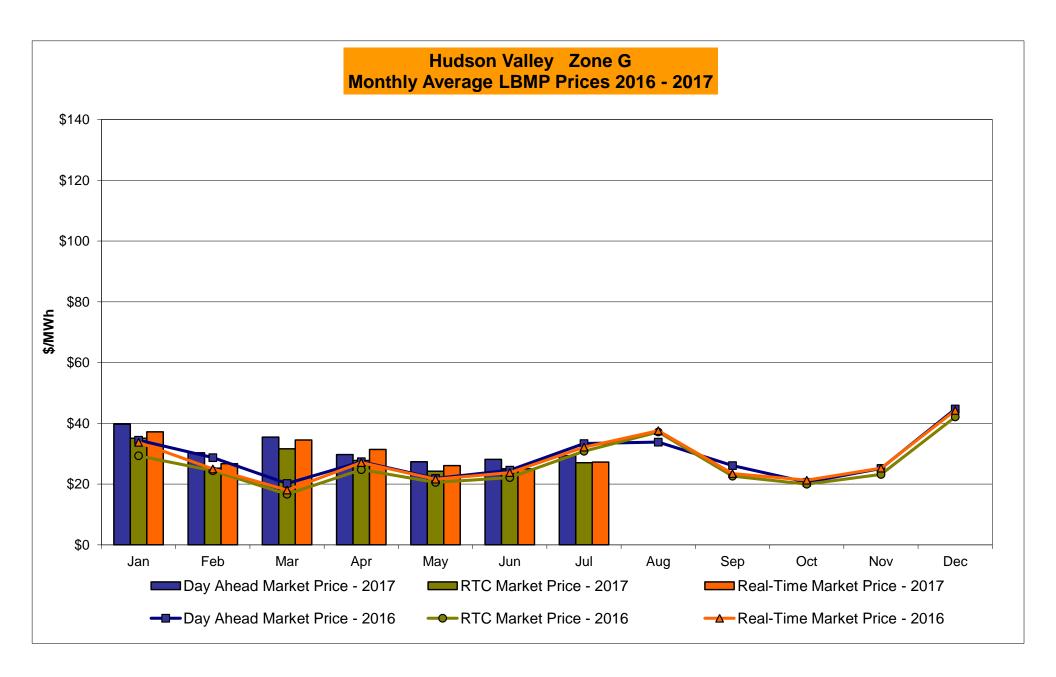
	WEST	GENESEE	NORTH	CENTRAL	MOHAWK VALLEY	CAPITAL	HUDSON VALLEY	MILLWOOD	DUNWOODIE	NEW YORK CITY	LONG ISLAND
	Zone A	Zone B	Zone D	Zone C	Zone E	Zone F	Zone G	Zone H	Zone I	Zone J	Zone K
DAY AHEAD LBMP											
Unweighted Price *	31.83	24.77	22.48	25.74	25.46	27.65	29.35	30.00	30.04	33.57	38.55
Standard Deviation	18.76	9.15	8.88	9.93	9.42	9.14	11.04	12.23	12.25	13.39	21.82
RTC LBMP											
Unweighted Price *	41.81	23.44	19.79	25.26	23.82	25.83	27.01	27.26	27.49	29.79	40.57
Standard Deviation	70.47	11.76	24.09	13.55	12.46	11.21	12.39	12.75	13.49	15.58	43.71
REAL TIME LBMP											
Unweighted Price *	30.53	23.45	20.62	24.52	23.96	25.77	27.24	27.57	27.77	30.79	36.22
Standard Deviation	39.97	15.08	18.16	15.84	16.13	15.20	17.38	18.05	18.47	22.06	35.79
		HVDDA	HVDDO			CDOCC					
	ONTARIO	HYDRO	HYDRO		NEW	CROSS	NODTUDODT				
	ONTARIO	QUEBEC	QUEBEC	P.IM	NEW ENGLAND	SOUND	NORTHPORT-	NEPTLINE	I INDEN VET	HUDSON	Dennison
	ONTARIO IESO	QUEBEC		РЈМ	NEW ENGLAND	SOUND CABLE	NORWALK	NEPTUNE Controllable	LINDEN VFT	HUDSON	Dennison Controllable
		QUEBEC	QUEBEC	PJM <u>Zone P</u>		SOUND		NEPTUNE Controllable Line	LINDEN VFT Controllable Line	HUDSON Controllable Line	Dennison Controllable Line
DAY AHEAD LBMP	IESO	QUEBEC (Wheel)	QUEBEC (Import/Export)		ENGLAND	SOUND CABLE Controllable	NORWALK Controllable	Controllable	<u>Controllable</u>	<u>Controllable</u>	Controllable
<b>DAY AHEAD LBMP</b> Unweighted Price *	IESO	QUEBEC (Wheel)	QUEBEC (Import/Export)		ENGLAND	SOUND CABLE Controllable	NORWALK Controllable	Controllable	<u>Controllable</u>	<u>Controllable</u>	Controllable
	IESO Zone O	QUEBEC (Wheel) Zone M	QUEBEC (Import/Export) Zone M	Zone P	ENGLAND  Zone N	SOUND CABLE Controllable Line	NORWALK Controllable Line	Controllable Line	Controllable Line	Controllable Line	Controllable Line
Unweighted Price *	<b>Zone O</b> 22.24	QUEBEC (Wheel)  Zone M  20.45	QUEBEC (Import/Export)  Zone M  20.45	<u>Zone P</u> 27.80	ENGLAND  Zone N  28.45	SOUND CABLE Controllable Line	NORWALK Controllable Line 31.40	Controllable Line 35.61	Controllable Line 32.11	Controllable Line 32.37	Controllable Line 19.44
Unweighted Price * Standard Deviation	<b>Zone O</b> 22.24	QUEBEC (Wheel)  Zone M  20.45	QUEBEC (Import/Export)  Zone M  20.45	<u>Zone P</u> 27.80	ENGLAND  Zone N  28.45	SOUND CABLE Controllable Line	NORWALK Controllable Line 31.40	Controllable Line 35.61	Controllable Line 32.11	Controllable Line 32.37	Controllable Line 19.44
Unweighted Price * Standard Deviation  RTC LBMP	Zone O  22.24 6.82	QUEBEC (Wheel) Zone M 20.45 8.88	QUEBEC (Import/Export)  Zone M  20.45 8.88	<b>Zone P</b> 27.80 10.78	<b>Zone N</b> 28.45 10.05	SOUND CABLE Controllable Line 36.26 19.90	NORWALK Controllable Line 31.40 11.54	Controllable Line 35.61 20.06	Controllable Line 32.11 11.56	Controllable Line 32.37 12.47	Controllable Line 19.44 8.11
Unweighted Price * Standard Deviation  RTC LBMP Unweighted Price * Standard Deviation  REAL TIME LBMP	22.24 6.82 17.38 19.70	QUEBEC (Wheel)  Zone M  20.45 8.88  17.46 14.67	QUEBEC (Import/Export)  Zone M  20.45 8.88  17.46 14.67	27.80 10.78 26.64 13.87	<b>Zone N</b> 28.45 10.05  26.30 12.19	SOUND CABLE Controllable Line 36.26 19.90 37.36 40.34	NORWALK <u>Controllable</u> <u>Line</u> 31.40 11.54 35.01 36.50	20.06 35.61 20.06 34.77 35.98	27.52 12.29	27.88 13.33	19.44 8.11 15.05 44.91
Unweighted Price * Standard Deviation  RTC LBMP  Unweighted Price * Standard Deviation	Zone O 22.24 6.82	QUEBEC (Wheel)  Zone M  20.45 8.88	QUEBEC (Import/Export)  Zone M  20.45 8.88	<b>Zone P</b> 27.80 10.78	<b>ENGLAND Zone N</b> 28.45 10.05	SOUND CABLE Controllable Line 36.26 19.90	NORWALK Controllable Line 31.40 11.54	20.06 Controllable	27.52	27.88	200 Controllable Line 19.44 8.11 15.05

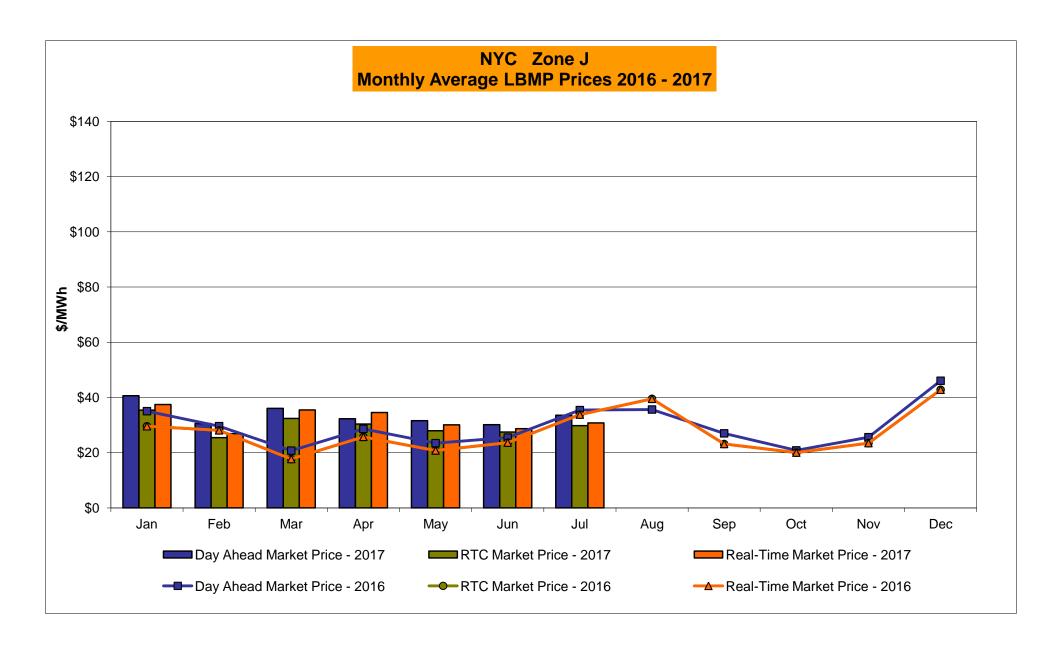
<sup>\*</sup> Straight LBMP averages

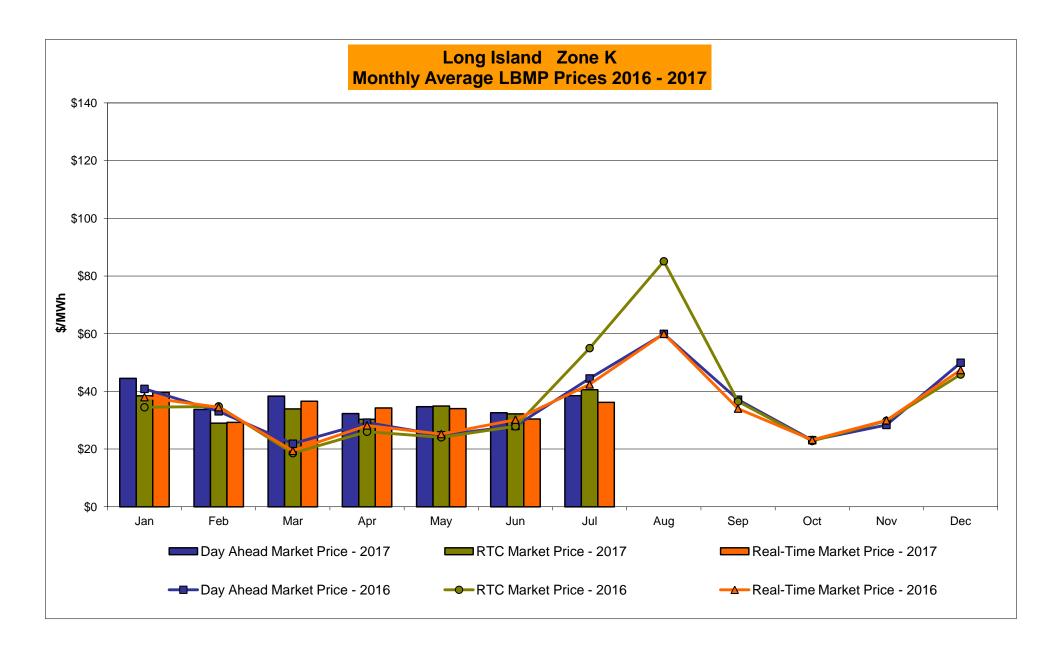


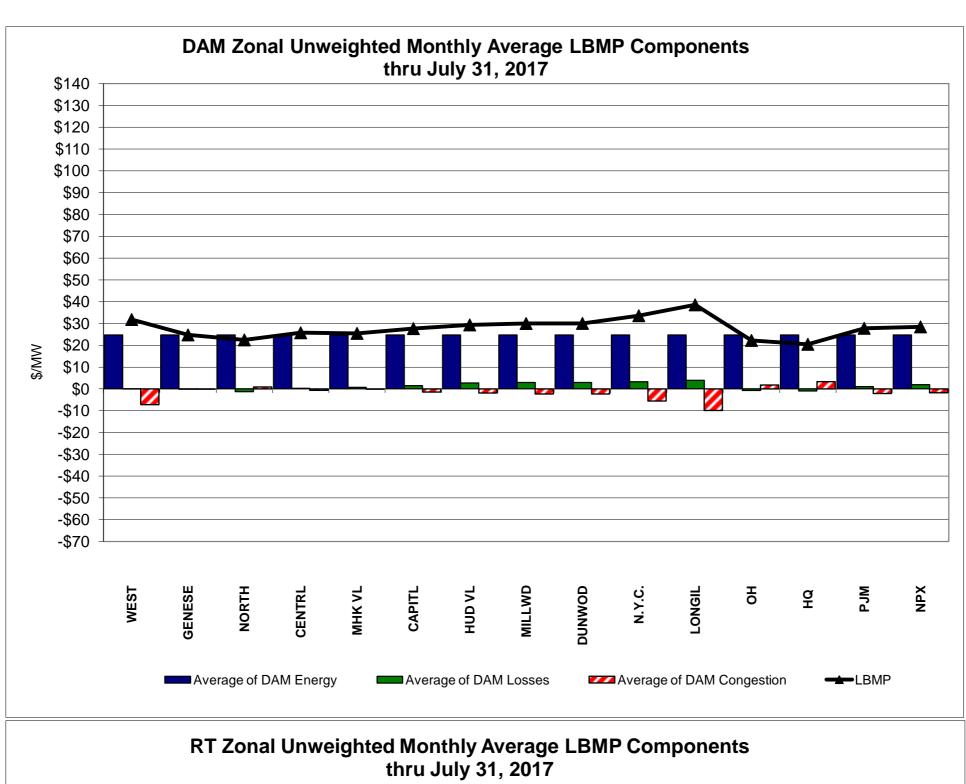


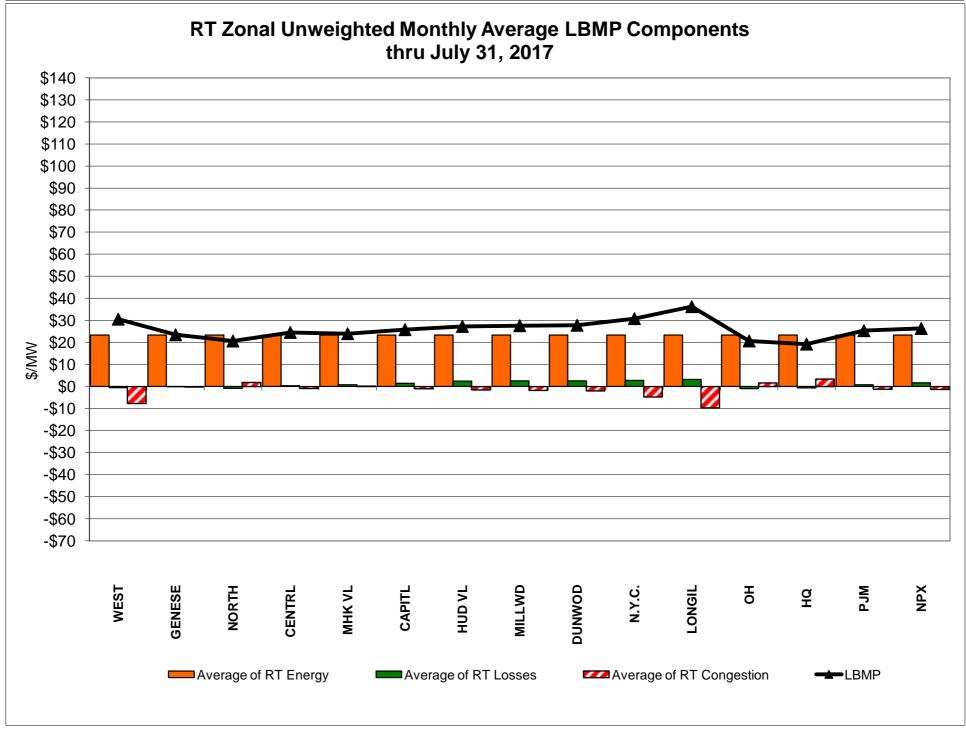




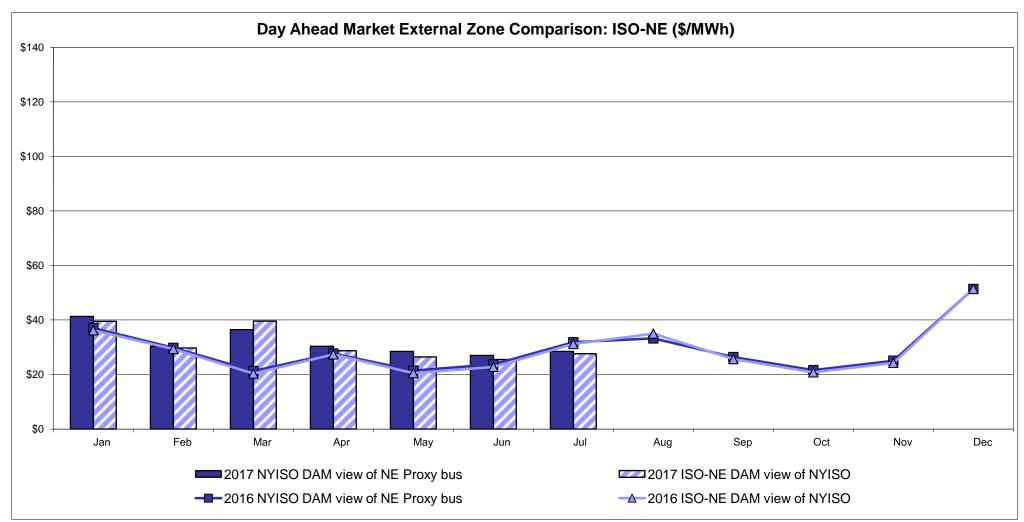


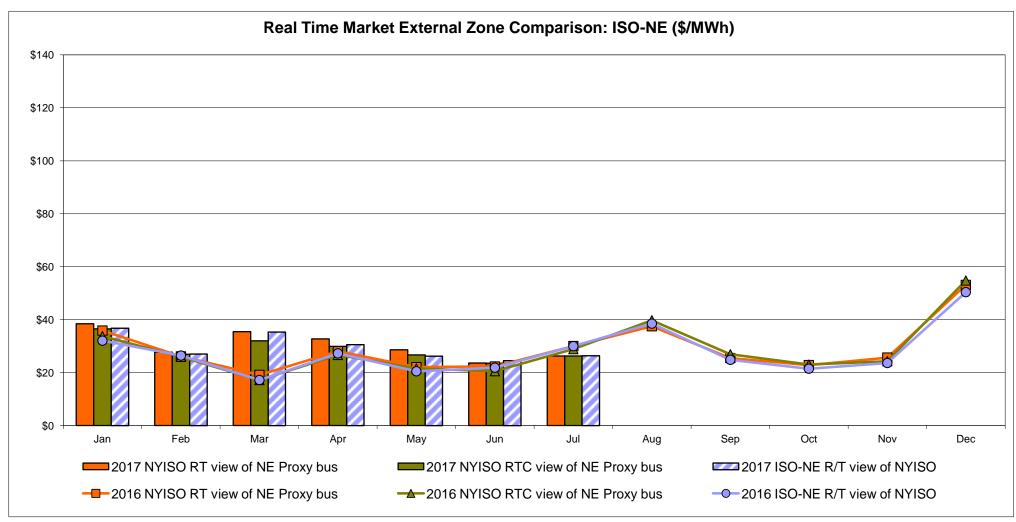




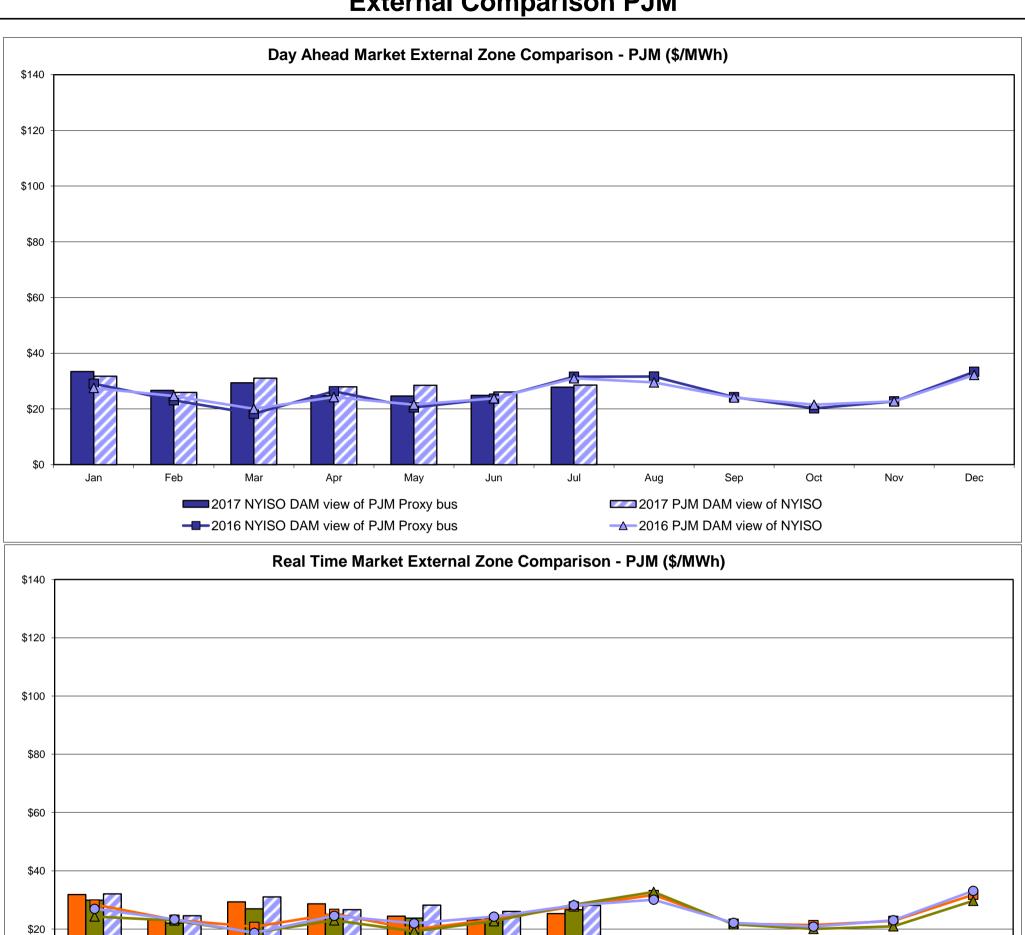


## **External Comparison ISO-New England**





## **External Comparison PJM**



■2017 NYISO RT view of PJM Proxy bus

----2016 NYISO RT view of PJM Proxy bus

\$0

Jun

2017 NYISO RTC view of PJM Proxy bus

2016 NYISO RTC view of PJM Proxy bus

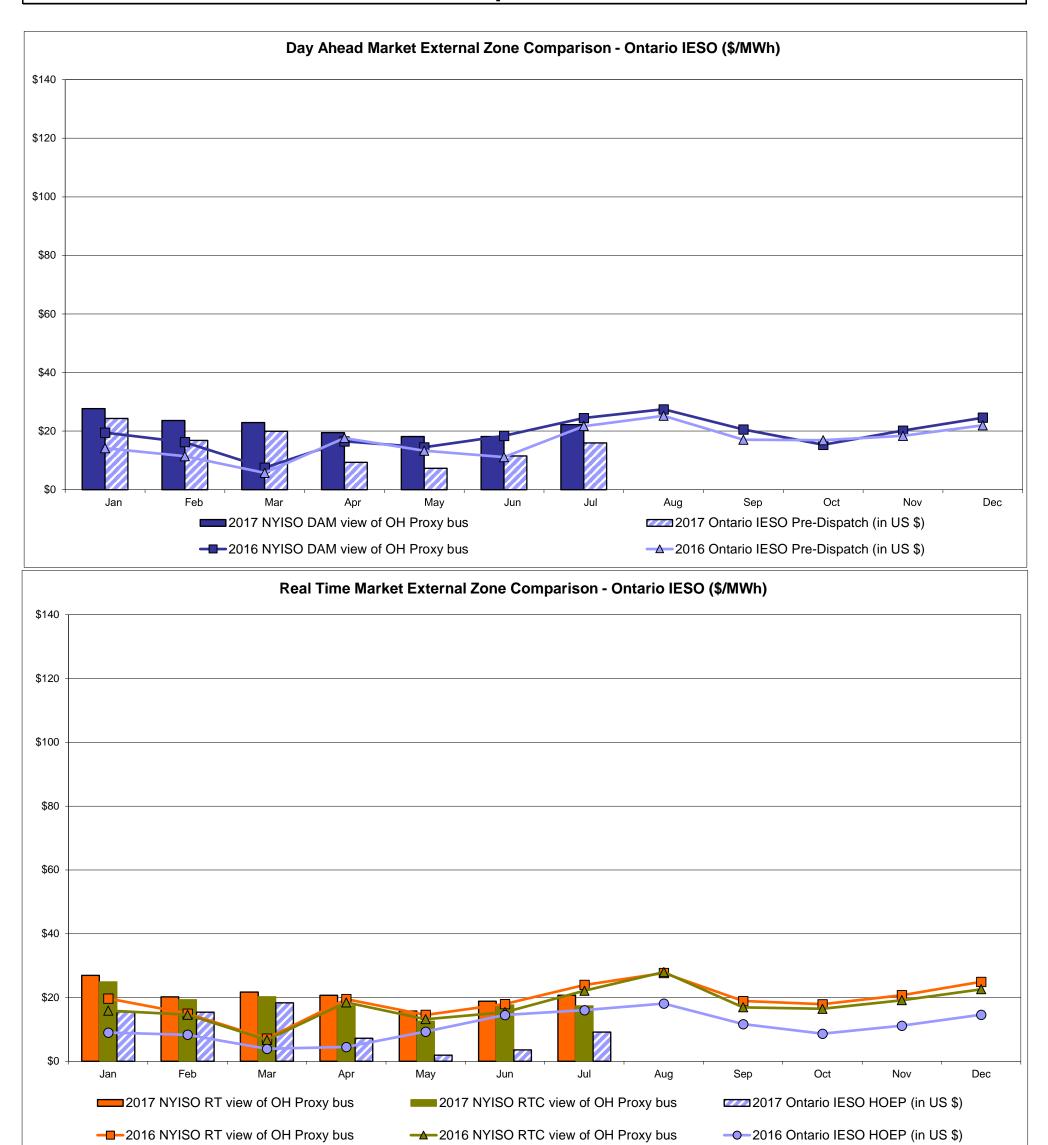
Sep

2017 PJM R/T view of NYISO

-0-2016 PJM R/T view of NYISO

May

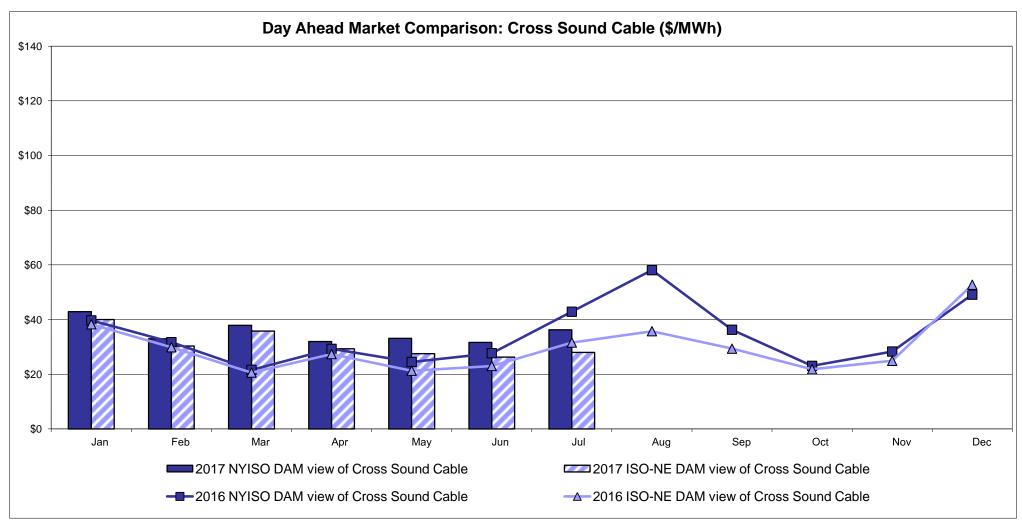
## **External Comparison Ontario IESO**

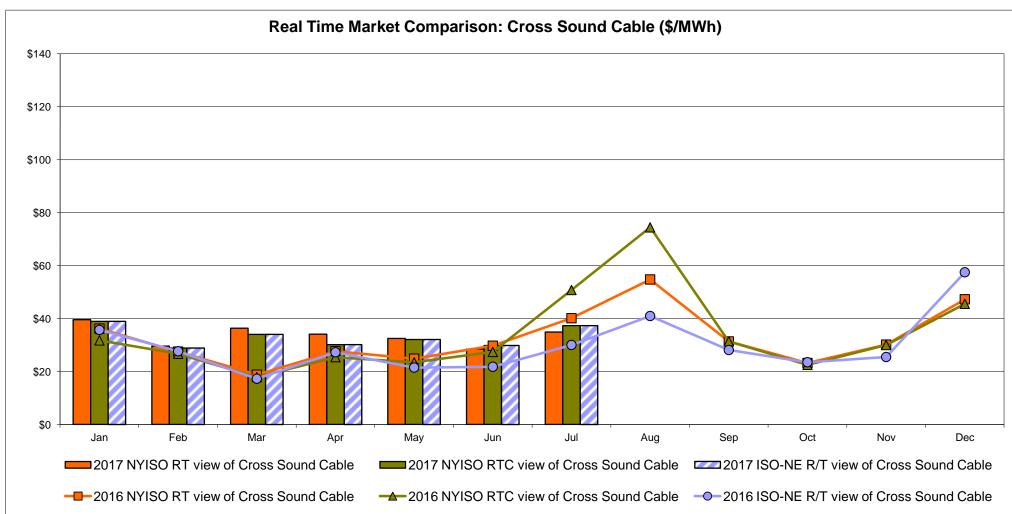


Notes: Exchange factor used for July 2017 was 0.787339580 to US

HOEP: Hourly Ontario Energy Price Pre-Dispatch: Projected Energy Price

## External Controllable Line: Cross Sound Cable (New England)





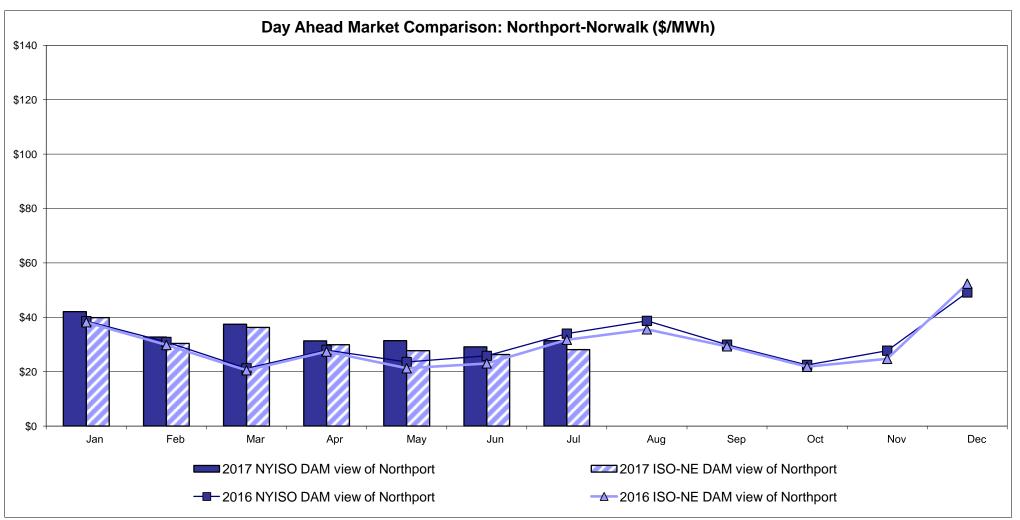
#### Note:

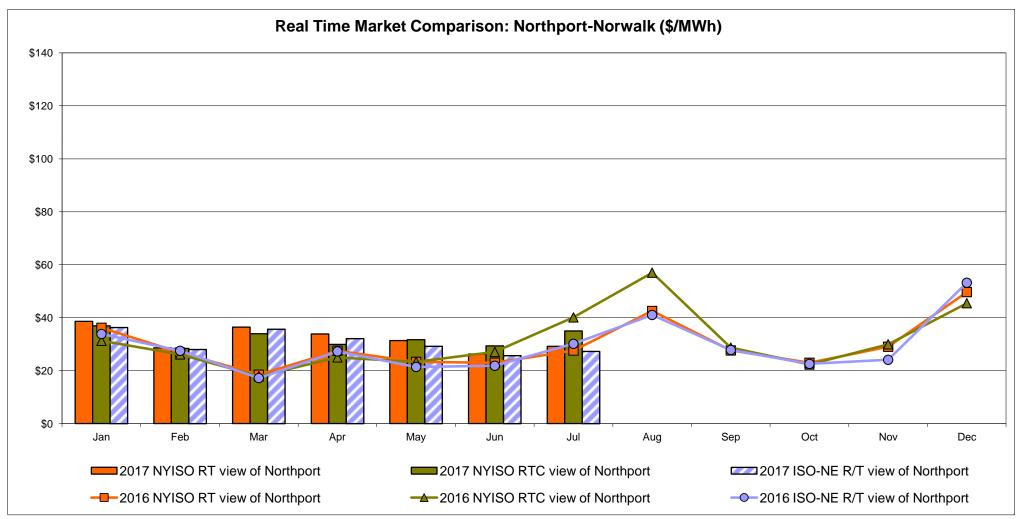
ISO-NE Forecast is an advisory posting @ 18:00 day before.

The DAM and R/T prices at the Shorham 13899 interface are used for ISO-NE.

The DAM and R/T prices at the CSC interface are used for NYISO.

## **External Controllable Line: Northport - Norwalk (New England)**





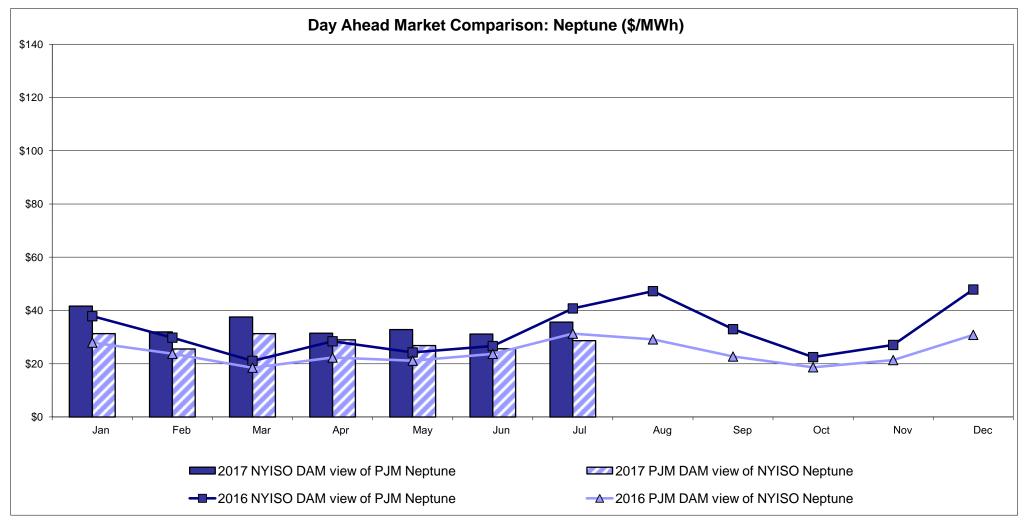
#### Note:

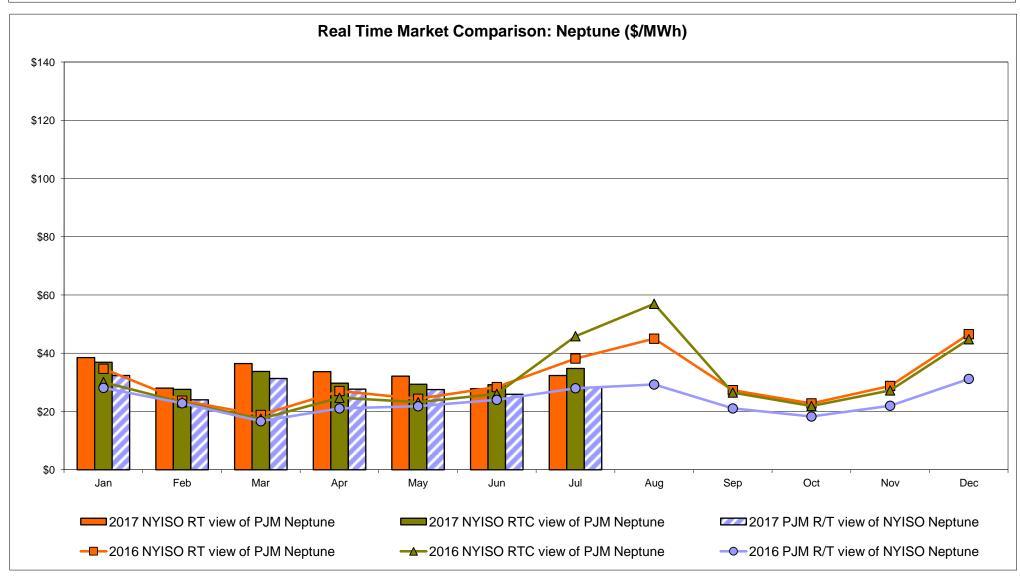
ISO-NE Forecast is an advisory posting @ 18:00 day before.

The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.

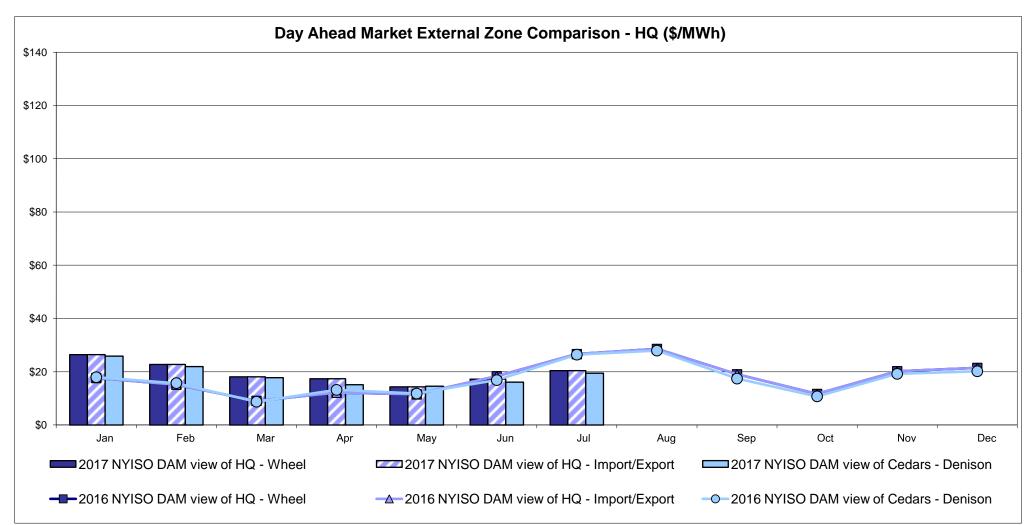
The DAM and R/T prices at the 1385 interface are used for NYISO.

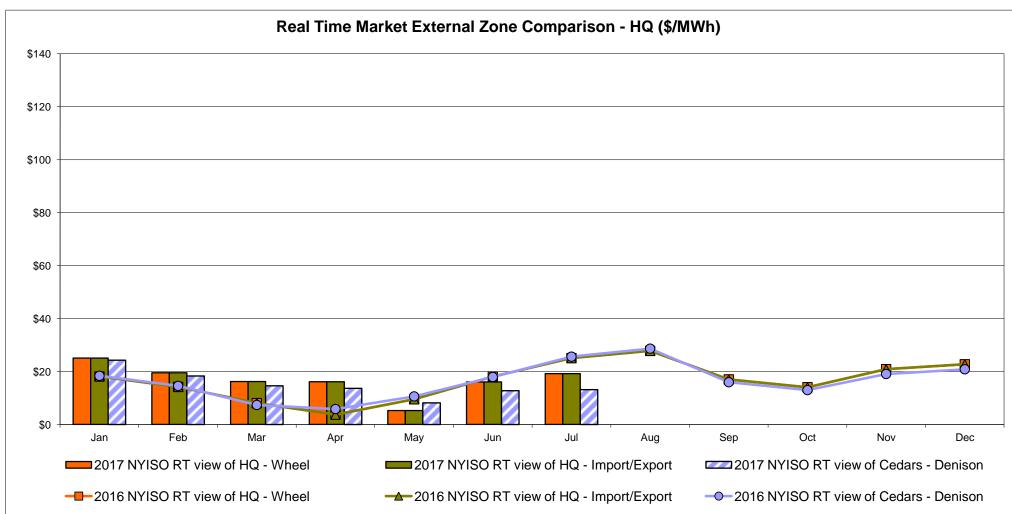
## **External Controllable Line: Neptune (PJM)**





## **External Comparison Hydro-Quebec**

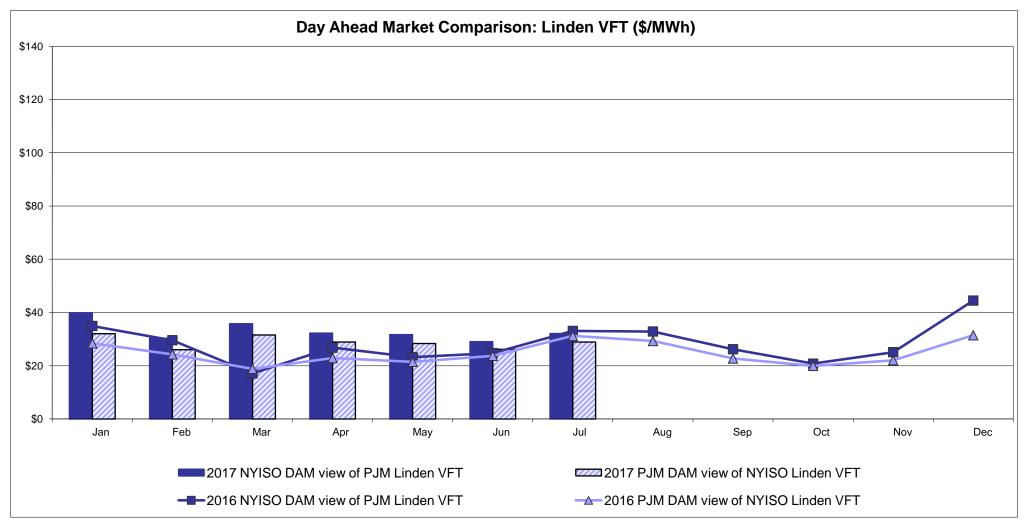


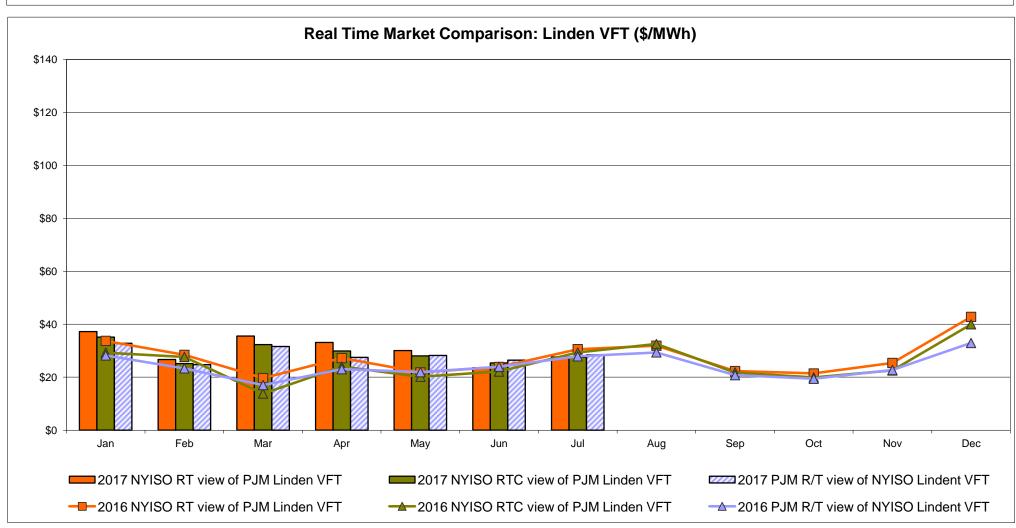


Note:

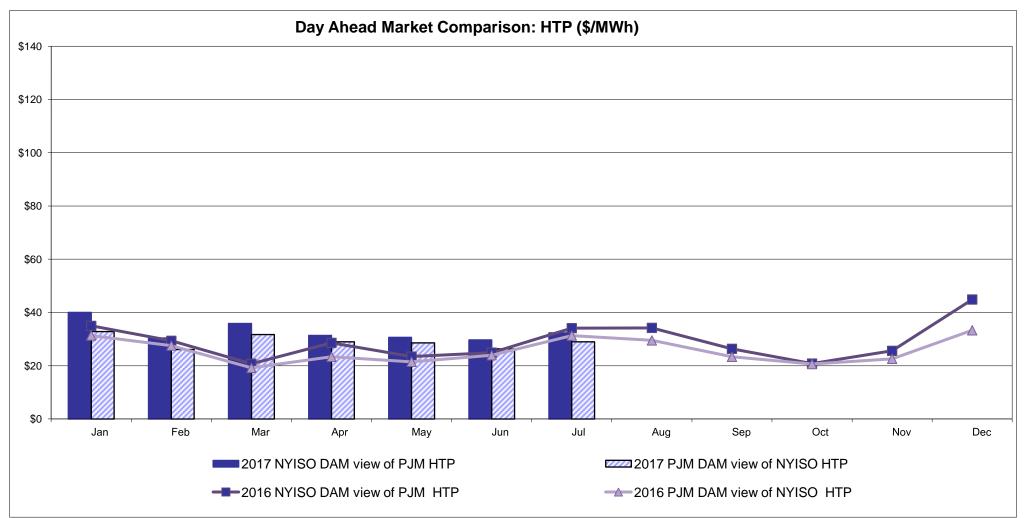
Hydro-Quebec Prices are unavailable.

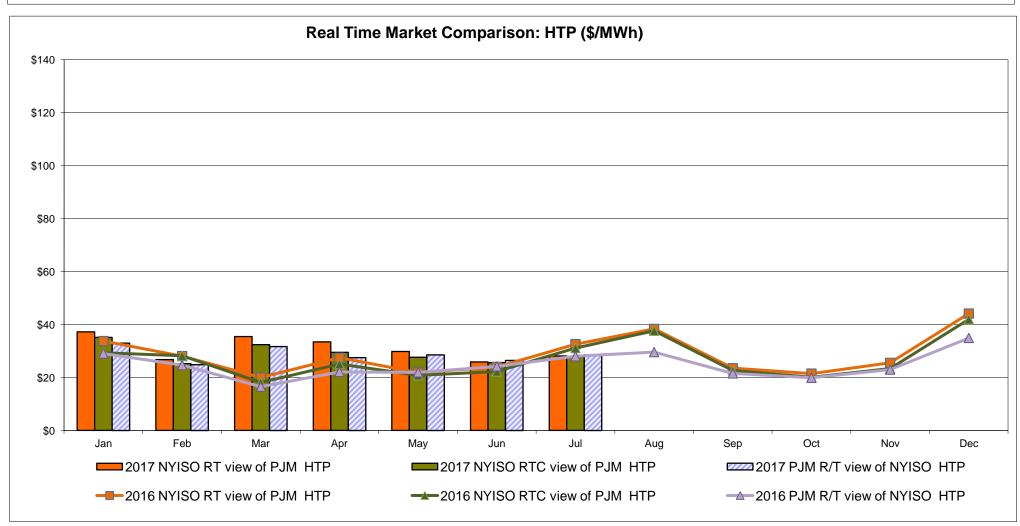
## **External Controllable Line: Linden VFT (PJM)**





## **External Controllable Line: Hudson (PJM)**

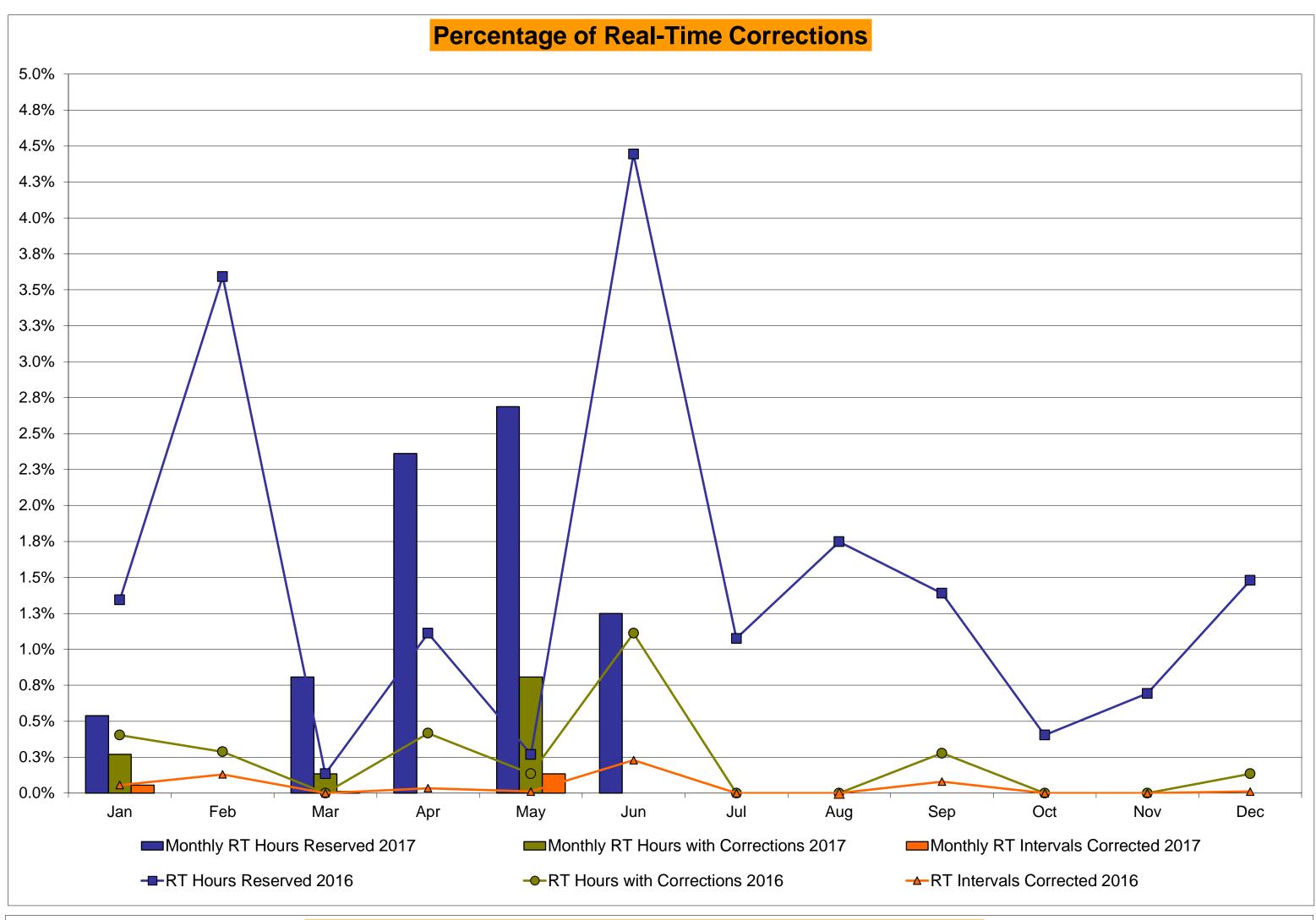


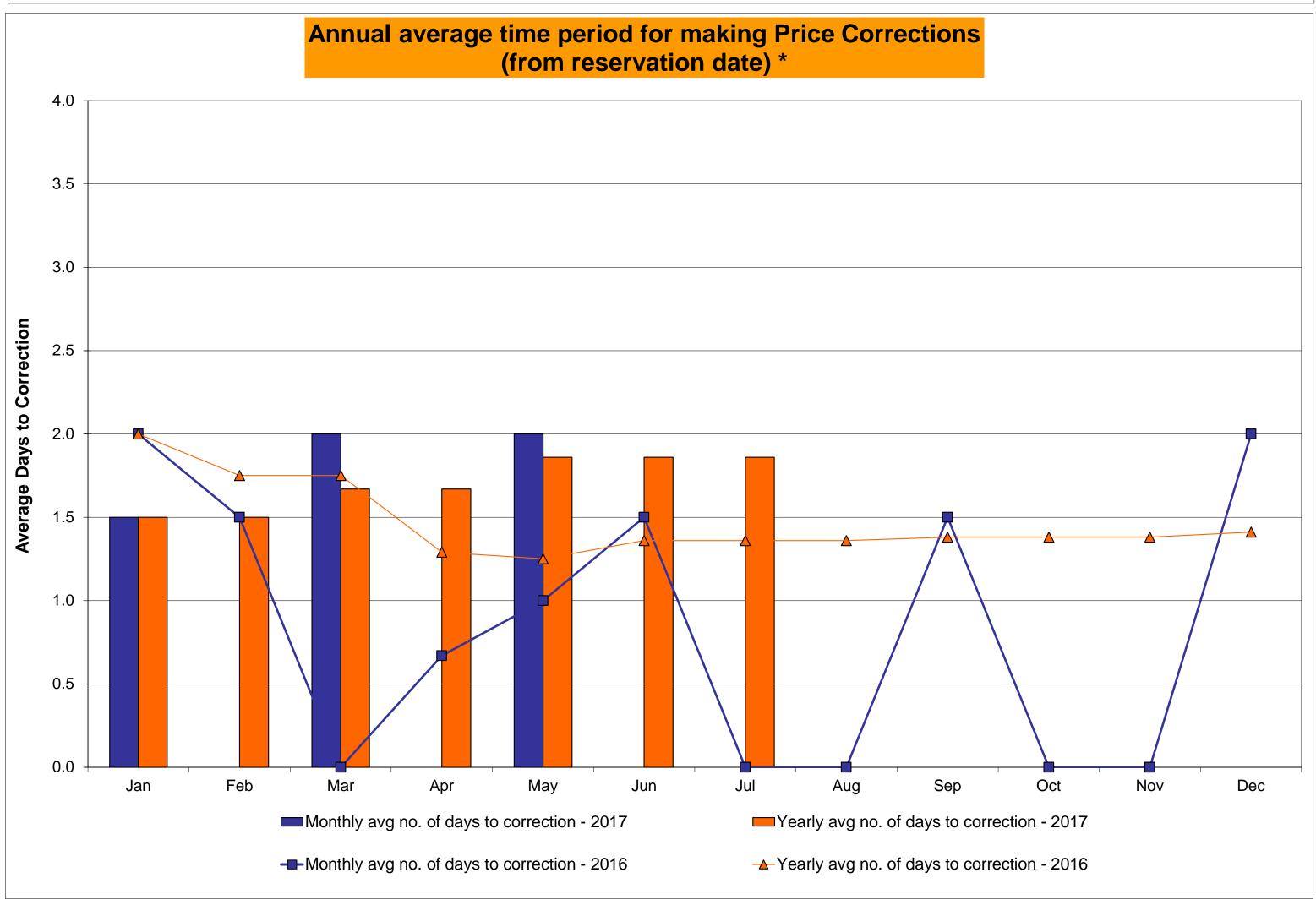


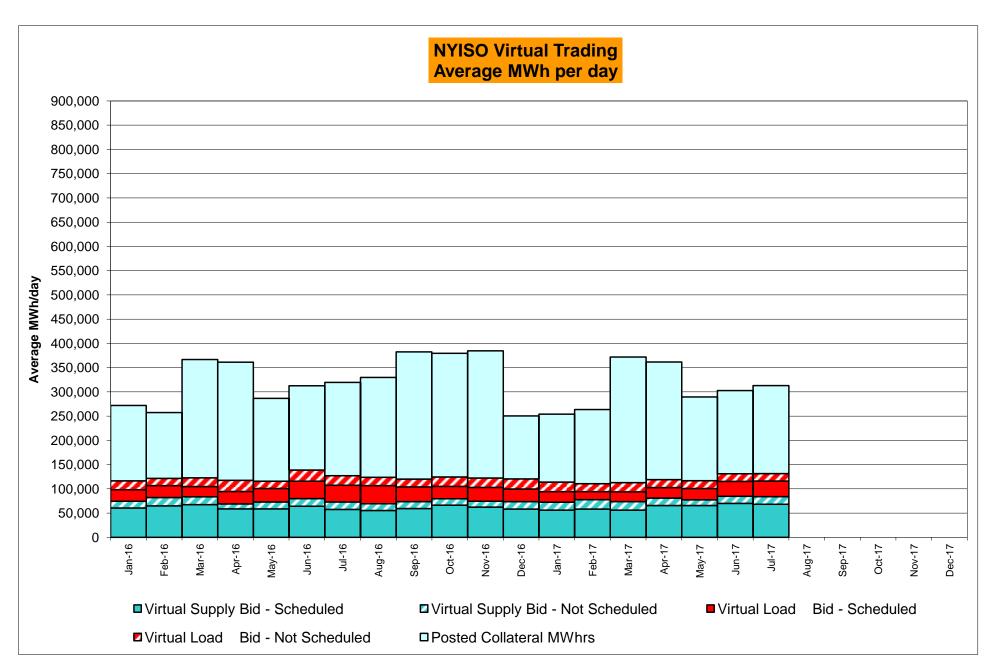
## **NYISO Real Time Price Correction Statistics**

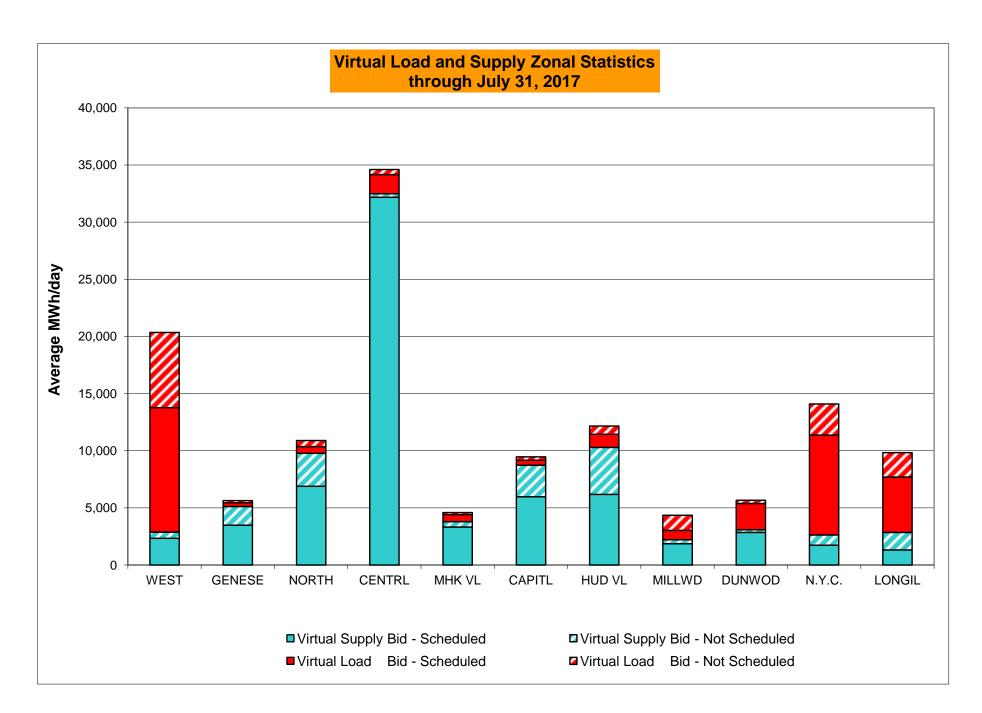
2017 Hour Corrections		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	September	October	November	<u>December</u>
Number of hours with corrections	in the month	2	0	1	0	6	0	0					
Number of hours	in the month	744	672	743	720	744	720	744					
% of hours with corrections	in the month	0.27%	0.00%	0.13%	0.00%	0.81%	0.00%	0.00%					
% of hours with corrections	year-to-date	0.27%	0.14%	0.14%	0.10%	0.25%	0.21%	0.18%					
Interval Corrections	your to date	0.27 70	0.1170	0.1170	0.1070	0.2070	0.2170	0.1070					
Number of intervals corrected	in the month	5	0	1	0	12	0	0					
Number of intervals	in the month	8,983	8,101	9,026	8,745	9,004	8,712	8,968					
% of intervals corrected	in the month	0.06%	0.00%	0.01%	0.00%	0.13%	0.00%	0.00%					
% of intervals corrected	year-to-date	0.06%	0.03%	0.02%	0.02%	0.04%	0.03%	0.03%					
Hours Reserved	: 41 41-	4	0	0	47	20	0	0					
Number of hours reserved	in the month	4	0	6	17	20	9	0 744					
Number of hours	in the month	744	672	743	720	744	720	744					
% of hours reserved	in the month	0.54%	0.00%	0.81%	2.36%	2.69%	1.25%	0.00%					
% of hours reserved	year-to-date	0.54%	0.28%	0.46%	0.94%	1.30%	1.29%	1.10%					
Days to Correction *													_
Avg. number of days to correction	in the month	1.50	0.00	2.00	0.00	2.00	0.00	0.00					
Avg. number of days to correction	year-to-date	1.50	1.50	1.67	1.67	1.86	1.86	1.86					
<b>Days Without Corrections</b>													<u> </u>
Days without corrections	in the month	29	28	30	30	27	30	31					
Days without corrections	year-to-date	29	57	87	117	144	174	205					
2016		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	August	September	<u>October</u>	November	December
2016 Hour Corrections		<u>January</u>	<u>February</u>	March	<u>April</u>	May	<u>June</u>	<u>July</u>	<u>August</u>	September	October	November	<u>December</u>
	in the month	<u>January</u> 3	February 2	March 0	<u>April</u> 3	<u>May</u> 1	<u>June</u> 8	<u>July</u> 0	August 0	September 2	October 0	November 0	<u>December</u>
Hour Corrections	in the month in the month	<del></del> -	<del></del>		<del></del>	<u>May</u> 1 744							December 1 744
Hour Corrections  Number of hours with corrections		3	2	0	3	1	8	0	0	2	0	0	1
Hour Corrections  Number of hours with corrections  Number of hours  % of hours with corrections  % of hours with corrections	in the month	3 744	2 696	0 743	3 720	1 744	8 720	0 744	0 744	2 720	0 744	0 721	1 744
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections Interval Corrections	in the month in the month	3 744 0.40%	2 696 0.29%	0 743 0.00%	3 720 0.42%	1 744 0.13%	8 720 1.11%	0 744 0.00%	0 744 0.00%	2 720 0.28%	0 744 0.00%	0 721 0.00%	1 744 0.13%
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections Interval Corrections Number of intervals corrected	in the month in the month	3 744 0.40% 0.40%	2 696 0.29% 0.35%	0 743 0.00% 0.23%	3 720 0.42% 0.28%	1 744 0.13% 0.25%	8 720 1.11% 0.39%	0 744 0.00% 0.33%	0 744 0.00% 0.29%	2 720 0.28% 0.29%	0 744 0.00% 0.26%	0 721 0.00% 0.24%	1 744 0.13% 0.23%
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections Interval Corrections	in the month in the month year-to-date	3 744 0.40% 0.40% 5 9,000	2 696 0.29% 0.35% 11 8,440	0 743 0.00% 0.23% 0 8,995	3 720 0.42% 0.28% 3 8,724	1 744 0.13% 0.25% 1 8,987	8 720 1.11% 0.39% 20 8,725	0 744 0.00% 0.33% 0 9,038	0 744 0.00% 0.29% 0 9,048	2 720 0.28% 0.29% 7 8,713	0 744 0.00% 0.26% 0 8,960	0 721 0.00% 0.24% 0 8,724	1 744 0.13% 0.23% 1 9,034
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections Interval Corrections Number of intervals corrected	in the month in the month year-to-date in the month	3 744 0.40% 0.40%	2 696 0.29% 0.35%	0 743 0.00% 0.23%	3 720 0.42% 0.28%	1 744 0.13% 0.25%	8 720 1.11% 0.39%	0 744 0.00% 0.33%	0 744 0.00% 0.29%	2 720 0.28% 0.29%	0 744 0.00% 0.26%	0 721 0.00% 0.24%	1 744 0.13% 0.23%
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected	in the month in the month year-to-date in the month in the month	3 744 0.40% 0.40% 5 9,000	2 696 0.29% 0.35% 11 8,440	0 743 0.00% 0.23% 0 8,995	3 720 0.42% 0.28% 3 8,724	1 744 0.13% 0.25% 1 8,987	8 720 1.11% 0.39% 20 8,725	0 744 0.00% 0.33% 0 9,038	0 744 0.00% 0.29% 0 9,048	2 720 0.28% 0.29% 7 8,713	0 744 0.00% 0.26% 0 8,960	0 721 0.00% 0.24% 0 8,724	1 744 0.13% 0.23% 1 9,034
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected Hours Reserved	in the month in the month year-to-date  in the month in the month in the month year-to-date	3 744 0.40% 0.40% 5 9,000 0.06% 0.06%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09%	0 743 0.00% 0.23% 0 8,995 0.00%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05%
Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Wors Reserved Number of hours reserved	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month	3 744 0.40% 0.40% 5 9,000 0.06% 0.06%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09%	0 743 0.00% 0.23% 0 8,995 0.00% 0.06%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05%
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Hours Reserved Number of hours reserved Number of hours	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month year-to-date	3 744 0.40% 0.40% 5 9,000 0.06% 0.06%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09%	0 743 0.00% 0.23% 0 8,995 0.00% 0.06%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05%
Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Wors Reserved Number of hours reserved	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month	3 744 0.40% 0.40% 5 9,000 0.06% 0.06%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09%	0 743 0.00% 0.23% 0 8,995 0.00% 0.06%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05%
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Hours Reserved Number of hours reserved Number of hours % of hours reserved % of hours reserved	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month year-to-date	3 744 0.40% 0.40% 5 9,000 0.06% 0.06%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09%	0 743 0.00% 0.23% 0 8,995 0.00% 0.06%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05%
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Hours Reserved Number of hours reserved Number of hours % of hours reserved % of hours reserved  Days to Correction *	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month	3 744 0.40% 0.40% 5 9,000 0.06% 0.06% 10 744 1.34% 1.34%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09% 25 696 3.59% 2.43%	0 743 0.00% 0.23% 0 8,995 0.00% 0.06% 1 743 0.13% 1.65%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05% 8 720 1.11% 1.52%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05% 2 744 0.27% 1.26%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08% 32 720 4.44% 1.79%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06% 8 744 1.08% 1.68%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06% 13 744 1.75% 1.69%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06% 10 720 1.39% 1.66%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05% 3 744 0.40% 1.53%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05% 5 721 0.69% 1.46%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05% 11 744 1.48% 1.46%
Hour Corrections  Number of hours with corrections  Number of hours  % of hours with corrections  % of hours with corrections  Interval Corrections  Number of intervals corrected  Number of intervals  % of intervals corrected  % of intervals corrected  Hours Reserved  Number of hours reserved  Number of hours  % of hours reserved  % of hours reserved  Avg. number of days to correction	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month year-to-date	3 744 0.40% 0.40% 5 9,000 0.06% 0.06% 10 744 1.34% 1.34%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09% 25 696 3.59% 2.43%	0 743 0.00% 0.23% 0 8,995 0.00% 0.06% 1 743 0.13% 1.65%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05% 8 720 1.11% 1.52%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05% 2 744 0.27% 1.26%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08% 32 720 4.44% 1.79%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06% 8 744 1.08% 1.68%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06% 13 744 1.75% 1.69%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06% 10 720 1.39% 1.66%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05% 3 744 0.40% 1.53%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05% 5 721 0.69% 1.46%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05% 11 744 1.48% 1.46%
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Hours Reserved Number of hours reserved Number of hours % of hours reserved % of hours reserved  Norrection % of hours reserved Avg. number of days to correction Avg. number of days to correction	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month year-to-date	3 744 0.40% 0.40% 5 9,000 0.06% 0.06% 10 744 1.34% 1.34%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09% 25 696 3.59% 2.43%	0 743 0.00% 0.23% 0 8,995 0.00% 0.06% 1 743 0.13% 1.65%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05% 8 720 1.11% 1.52%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05% 2 744 0.27% 1.26%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08% 32 720 4.44% 1.79%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06% 8 744 1.08% 1.68%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06% 13 744 1.75% 1.69%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06% 10 720 1.39% 1.66%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05% 3 744 0.40% 1.53%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05% 5 721 0.69% 1.46%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05% 11 744 1.48% 1.46%
Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Mumber of intervals Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Mumber of hours reserved Number of hours reserved Number of hours % of hours reserved Days to Correction Avg. number of days to correction Avg. number of days to correction Days Without Corrections	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month year-to-date  in the month year-to-date	3 744 0.40% 0.40% 5 9,000 0.06% 0.06% 10 744 1.34% 1.34% 2.00 2.00	2 696 0.29% 0.35% 11 8,440 0.13% 0.09% 25 696 3.59% 2.43% 1.50 1.75	0 743 0.00% 0.23% 0 8,995 0.00% 0.06% 1 743 0.13% 1.65% 0.00 1.75	3 720 0.42% 0.28% 3 8,724 0.03% 0.05% 8 720 1.11% 1.52% 0.67 1.29	1 744 0.13% 0.25% 1 8,987 0.01% 0.05% 2 744 0.27% 1.26% 1.00 1.25	8 720 1.11% 0.39% 20 8,725 0.23% 0.08% 32 720 4.44% 1.79%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06% 8 744 1.08% 1.68%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06% 13 744 1.75% 1.69% 0.00 1.36	2 720 0.28% 0.29% 7 8,713 0.08% 0.06% 10 720 1.39% 1.66%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05% 3 744 0.40% 1.53%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05% 5 721 0.69% 1.46% 0.00 1.38	1 744 0.13% 0.23% 1 9,034 0.01% 0.05% 11 744 1.48% 1.46% 2.00 1.41
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Hours Reserved Number of hours reserved Number of hours % of hours reserved % of hours reserved  Norrection % of hours reserved Avg. number of days to correction Avg. number of days to correction	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month year-to-date	3 744 0.40% 0.40% 5 9,000 0.06% 0.06% 10 744 1.34% 1.34%	2 696 0.29% 0.35% 11 8,440 0.13% 0.09% 25 696 3.59% 2.43%	0 743 0.00% 0.23% 0 8,995 0.00% 0.06% 1 743 0.13% 1.65%	3 720 0.42% 0.28% 3 8,724 0.03% 0.05% 8 720 1.11% 1.52%	1 744 0.13% 0.25% 1 8,987 0.01% 0.05% 2 744 0.27% 1.26%	8 720 1.11% 0.39% 20 8,725 0.23% 0.08% 32 720 4.44% 1.79%	0 744 0.00% 0.33% 0 9,038 0.00% 0.06% 8 744 1.08% 1.68%	0 744 0.00% 0.29% 0 9,048 0.00% 0.06% 13 744 1.75% 1.69%	2 720 0.28% 0.29% 7 8,713 0.08% 0.06% 10 720 1.39% 1.66%	0 744 0.00% 0.26% 0 8,960 0.00% 0.05% 3 744 0.40% 1.53%	0 721 0.00% 0.24% 0 8,724 0.00% 0.05% 5 721 0.69% 1.46%	1 744 0.13% 0.23% 1 9,034 0.01% 0.05% 11 744 1.48% 1.46%

<sup>\*</sup> Calendar days from reservation date.









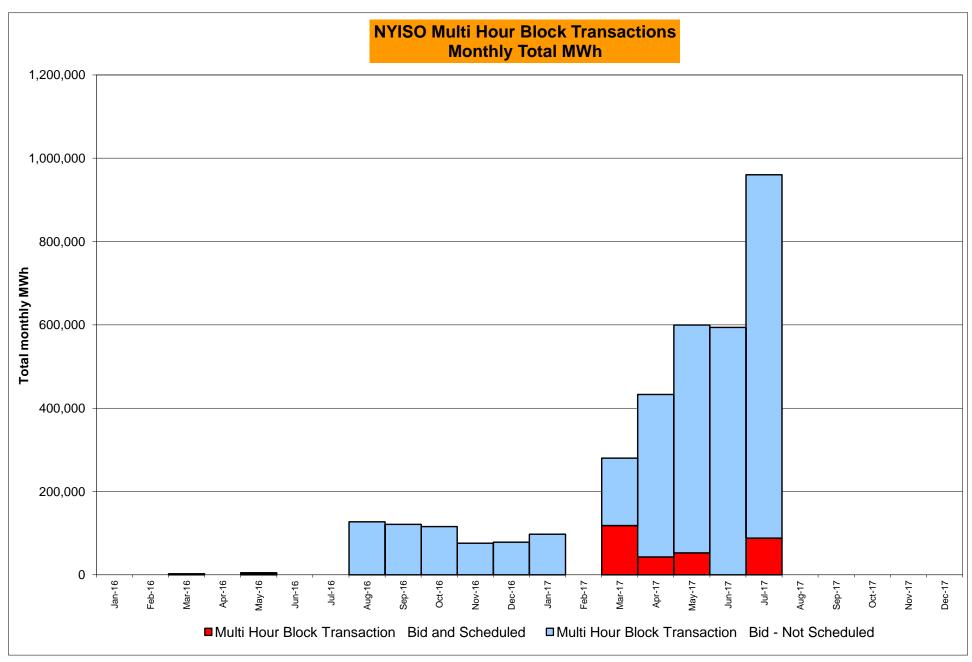
#### Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2017 Virtual Load Bid **Virtual Supply Bid Virtual Load Bid Virtual Supply Bid** Virtual Load Bid **Virtual Supply Bid** Not Not Not Not Not Not Date Scheduled Scheduled Scheduled Scheduled Date Scheduled Scheduled Scheduled Scheduled Zone Date Scheduled Scheduled Scheduled Scheduled Zone Zone MHK VL DUNWOD **WEST** 337 Jan-17 6,094 5,795 2,019 Jan-17 566 202 2,022 131 Jan-17 304 832 5,708 389 Feb-17 3,771 4,772 3,346 567 Feb-17 422 100 2,459 293 Feb-17 193 585 5,966 424 Mar-17 6,522 4,960 2,386 616 Mar-17 407 186 3,594 378 Mar-17 436 763 4.871 439 6,956 5,390 1,934 457 102 2,856 430 1,097 406 3,517 232 Apr-17 699 Apr-17 Apr-17 8,468 1,261 532 2,786 276 May-17 5,775 546 May-17 105 401 May-17 1,215 155 1,863 Jun-17 10,776 5,128 1,497 512 Jun-17 516 149 2,492 586 Jun-17 1,117 287 3,281 383 Jul-17 10,883 6,588 2,341 538 Jul-17 625 174 3,324 468 Jul-17 2,287 281 2,848 246 Aug-17 Aug-17 Aug-17 Sep-17 Sep-17 Sep-17 Oct-17 Oct-17 Oct-17 Nov-17 Nov-17 Nov-17 Dec-17 Dec-17 Dec-17 GENESE 1,282 2,482 CAPITL N.Y.C. Jan-17 654 3,652 Jan-17 1,291 666 3,990 3,861 Jan-17 5,761 5,474 1,543 1,008 Feb-17 276 600 3.782 3.206 Feb-17 1.115 409 3.432 3.798 Feb-17 4,622 5.309 1,712 1.219 3,419 Mar-17 480 838 3,806 Mar-17 528 5,186 Mar-17 4,052 1,058 1,409 2,484 5,826 1,561 Apr-17 353 4,074 2,880 Apr-17 549 1,973 Apr-17 4,331 656 1,160 5,589 4,374 1,161 529 May-17 393 128 4,096 2,027 May-17 1,232 454 5,697 1,635 May-17 3,357 4,679 1,434 569 2,920 Jun-17 516 169 2,119 Jun-17 779 372 6,479 1,916 Jun-17 8,293 4,163 1,050 608 Jul-17 335 190 3,494 1,622 Jul-17 450 290 5,972 2,754 Jul-17 8,732 2,726 1,728 902 Aug-17 Aug-17 Aug-17 Sep-17 Sep-17 Sep-17 Oct-17 Oct-17 Oct-17 Nov-17 Nov-17 Nov-17 Dec-17 Dec-17 Dec-17 NORTH HUD VL LONGIL Jan-17 655 316 6,415 3,473 Jan-17 817 5.317 3.064 Jan-17 3,559 3,788 1,354 1,367 911 Feb-17 465 338 7,504 4,006 Feb-17 1,292 1,653 1,667 915 6,266 3,873 Feb-17 3,341 3,127 Mar-17 426 311 7,227 4,576 Mar-17 659 1,048 5,427 2,652 Mar-17 4,133 3,779 1,958 1,463 3,706 1,748 Apr-17 138 Apr-17 1,575 2,333 Apr-17 3,309 1,232 414 7,520 4,435 871 5,708 555 280 7,848 2,436 May-17 1,202 1,006 2,378 1,740 998 May-17 6,608 May-17 4,232 2,893 Jun-17 552 468 6,955 2,920 Jun-17 836 823 6,861 3,317 Jun-17 4,848 2,532 1,402 1,398 Jul-17 586 533 6,883 2,889 Jul-17 1,140 726 6,184 4,114 Jul-17 4,846 2,137 1,320 1,535 Aug-17 Aug-17 Aug-17 Sep-17 Sep-17 Sep-17 Oct-17 Oct-17 Oct-17 Nov-17 Nov-17 Nov-17 Dec-17 Dec-17 Dec-17 CENTRL Jan-17 1,482 455 22,561 196 MILLWD Jan-17 435 91 1,422 128 **NYISO** Jan-17 21,713 19,719 56,001 16,436 Feb-17 707 177 20,639 320 Feb-17 202 74 1,555 164 Feb-17 16,405 16,406 58,312 19,537 979 Mar-17 605 18,610 518 Mar-17 454 157 1,452 158 Mar-17 19,956 19,002 56,078 17,759 1.079 30,148 595 328 Apr-17 505 519 Apr-17 1,228 149 Apr-17 21,767 16.586 65.484 15.41 May-17 1,472 492 30,724 312 May-17 662 255 1,474 195 May-17 23,320 16,222 65,531 11,774 Jun-17 1,839 672 35,205 380 Jun-17 663 1,057 2,019 340 Jun-17 30,736 15,820 70,160 14,480 Jul-17 1,687 435 32,177 303 Jul-17 809 1,865 361 Jul-17 32,377 15,396 68,136 15,732 1,316 Aug-17 Aug-17 Aug-17 Sep-17 Sep-17 Sep-17 Oct-17 Oct-17 Oct-17

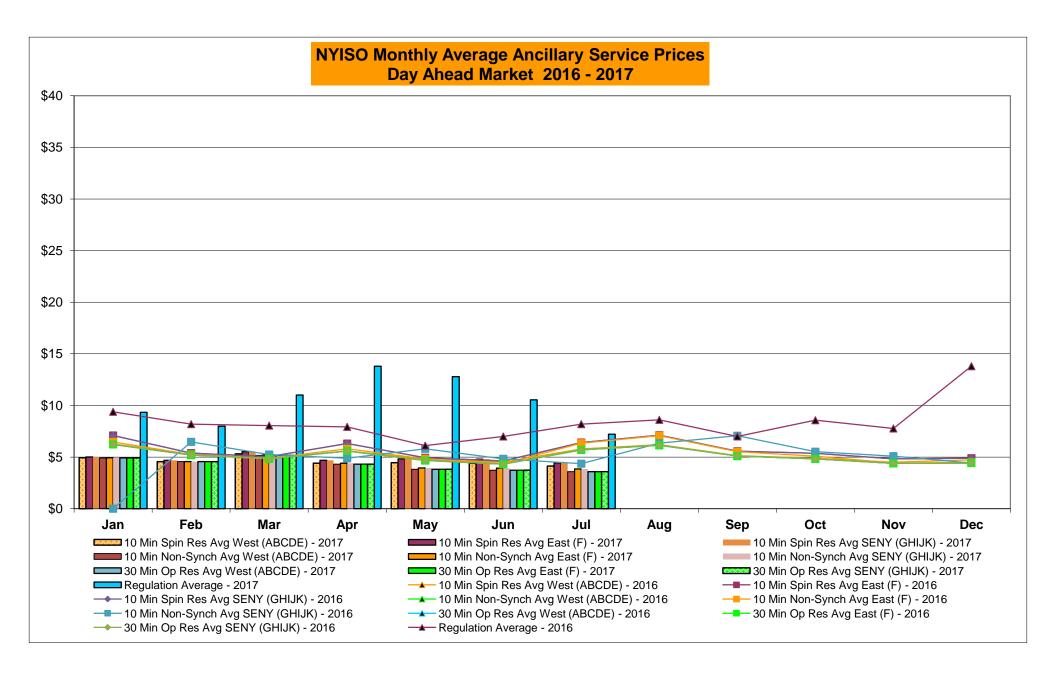
Nov-17 Dec-17 Nov-17

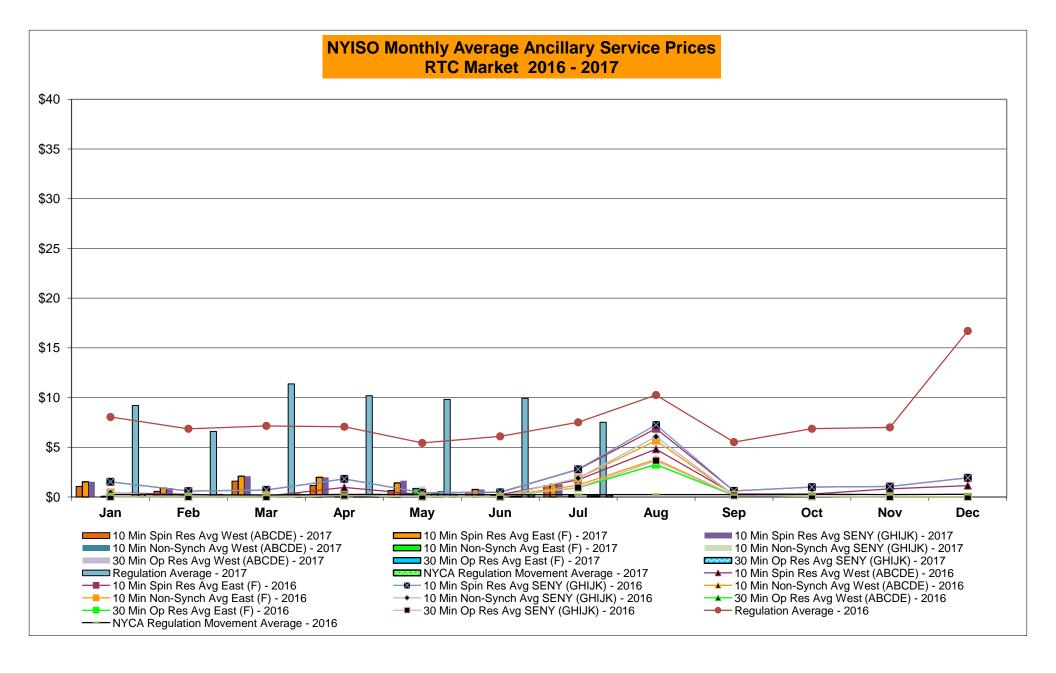
Dec-17

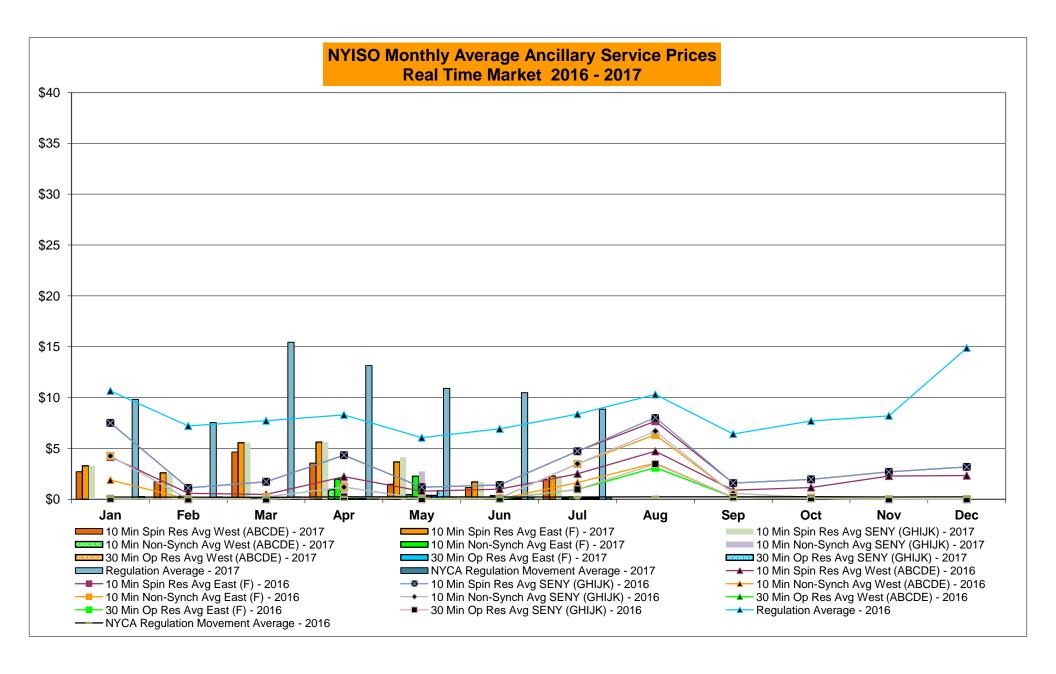
Nov-17

Dec-17



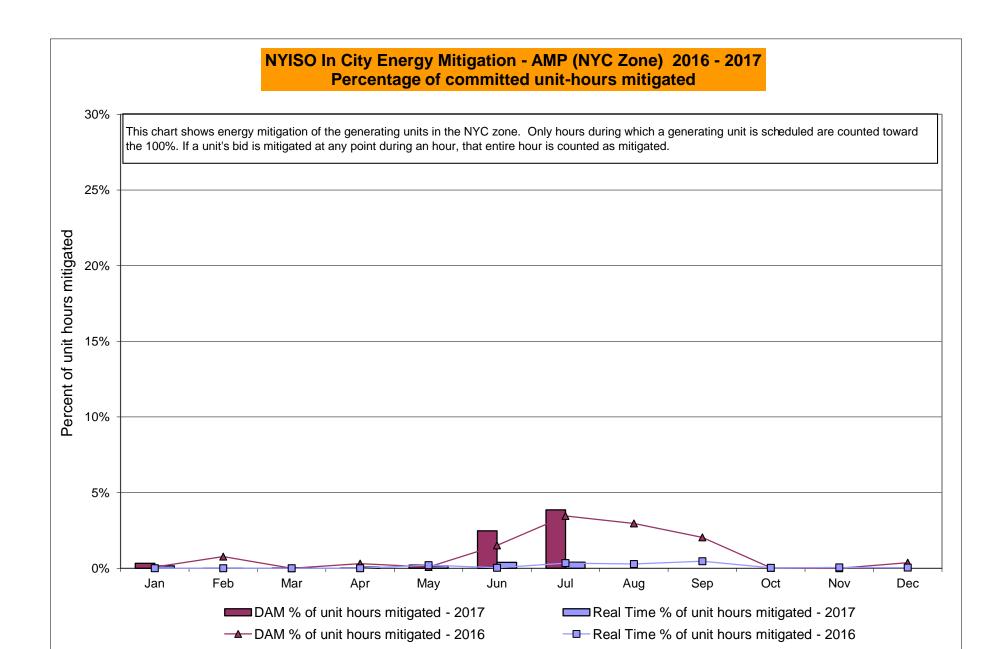


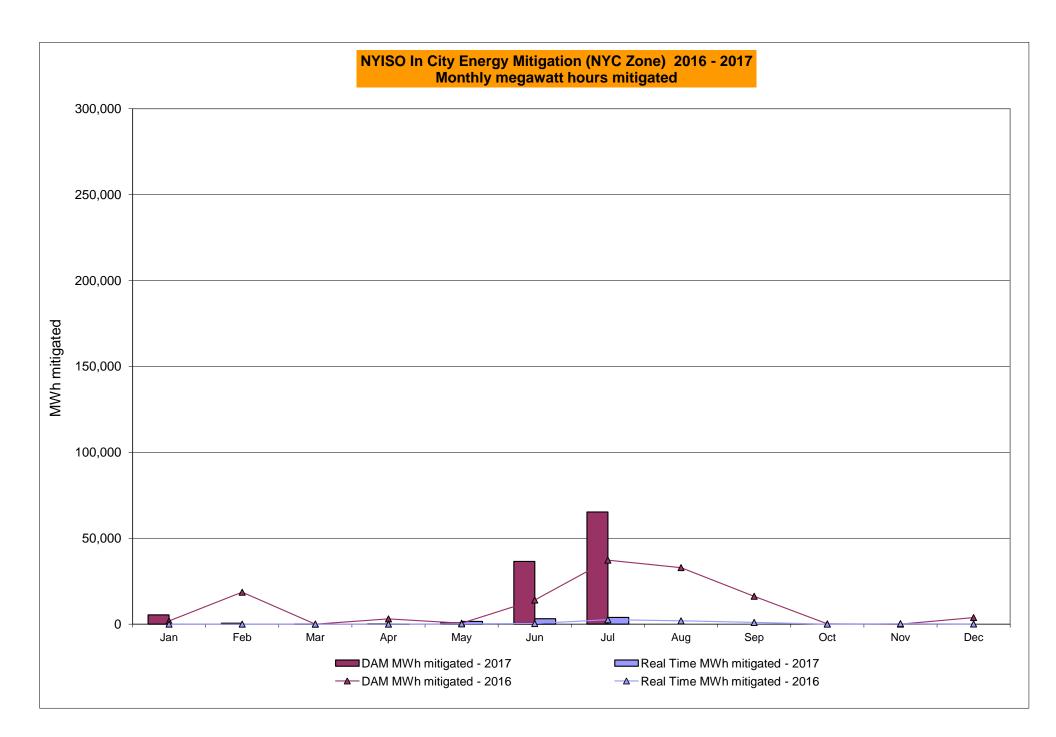


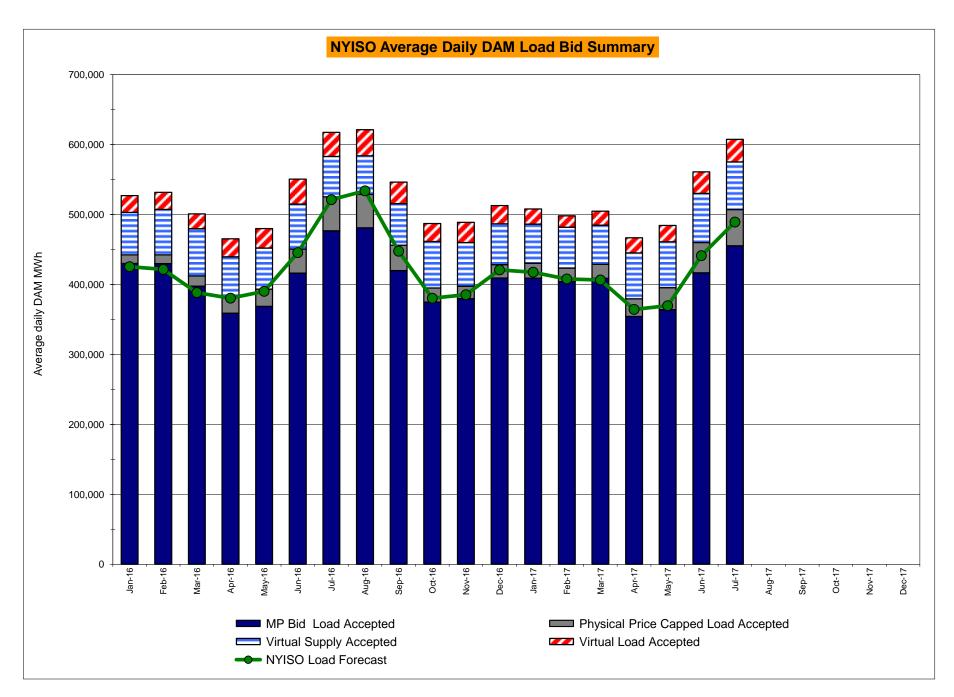


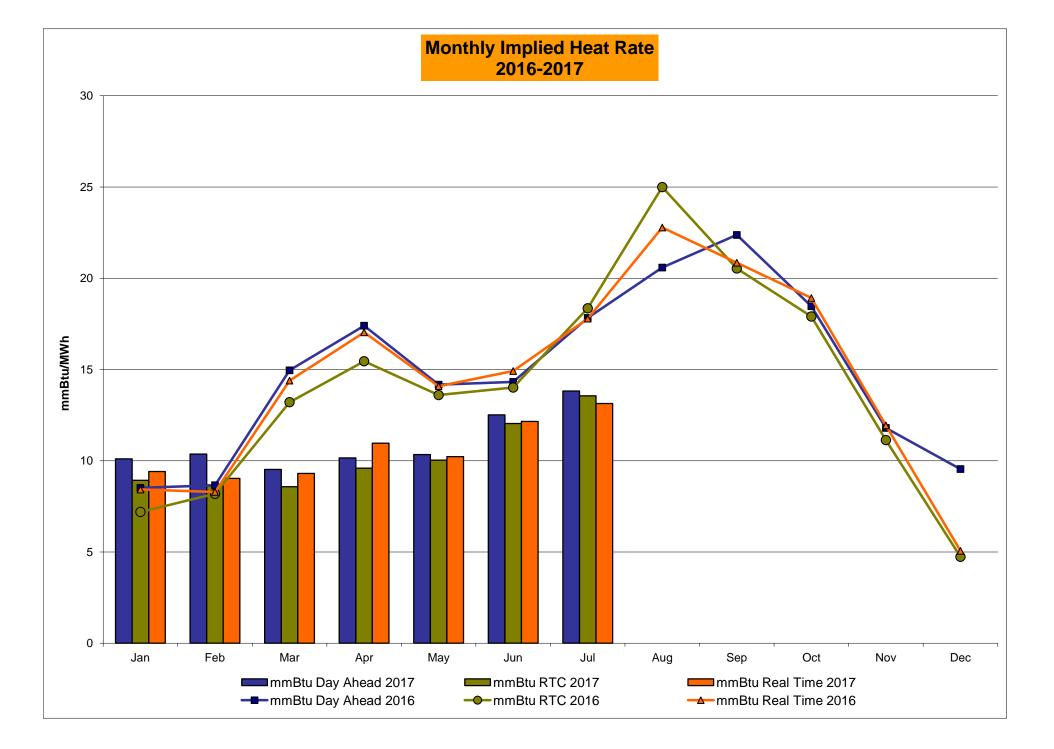
## NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)

	<u> </u>	iarkets Ai	nciliary S	services a	Statistic	s - Unwe	<u>igntea F</u>	<u> </u>	IVI VV 🗖 )			
<u>2017</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	October	November	<u>December</u>
Day Ahead Market	<u>oanaary</u>	<u>1 00.00.y</u>	<u> </u>	<u> </u>	<u>may</u>	<u> </u>	<u> </u>	<u>/tagaot</u>	<u>coptomicor</u>	<u> </u>	11010111001	<u> </u>
10 Min Spin SENY (GHIJK)	5.01	4.68	5.53	4.68	4.82	4.79	4.44					
10 Min Spin East (F)	5.01	4.68	5.53	4.68	4.82	4.79	4.44					
10 Min Spin West (ABCDE)	4.94	4.56	5.31	4.41	4.45	4.39	4.13					
10 Min Non Synch SENY (GHIJK)	4.94	4.57	5.20	4.41	3.95	3.92	3.85					
10 Min Non Synch East (F)	4.94	4.57	5.20	4.41	3.95	3.92	3.85					
10 Min Non Synch West (ABCDE)	4.92	4.56	5.17	4.31	3.82	3.73	3.59					
30 Min SENY (GHIJK)	4.92	4.56	5.17	4.31	3.82	3.73	3.59					
30 Min East (F)	4.92	4.56	5.17	4.31	3.82	3.73	3.59					
30 Min West (ABCDE)	4.92	4.56	5.17	4.31	3.82	3.73	3.59					
Regulation	9.34	7.99	11.01	13.80	12.79	10.55	7.22					
•	3.04	7.55	11.01	13.00	12.75	10.55	1.22					
RTC Market												
10 Min Spin SENY (GHIJK)	1.53	0.89	2.08	1.97	1.64	0.75	1.28					
10 Min Spin East (F)	1.53	0.89	2.08	1.97	1.41	0.75	1.28					
10 Min Spin West (ABCDE)	1.06	0.55	1.58	1.16	0.65	0.47	1.13					
10 Min Non Synch SENY (GHIJK)	0.06	0.06	0.10	0.14	1.08	0.13	0.13					
10 Min Non Synch East (F)	0.06	0.06	0.10	0.14	0.85	0.13	0.13					
10 Min Non Synch West (ABCDE)	0.00	0.00	0.10	0.07	0.31	0.05	0.11					
30 Min SENY (GHIJK)	0.00	0.00	0.10	0.03	0.50	0.05	0.11					
30 Min East (F)	0.00	0.00	0.10	0.03	0.27	0.05	0.11					
30 Min West (ABCDE)	0.00	0.00	0.10	0.03	0.27	0.05	0.11					
Regulation	9.21	6.59	11.37	10.18	9.82	9.92	7.51					
NYCA Regulation Movement	0.27	0.24	0.25	0.22	0.24	0.21	0.19					
Real Time Market												
	2.20	0.64	F FC	F 60	4.4.4	4 74	2.20					
10 Min Spin SENY (GHIJK)	3.29	2.61	5.56	5.62	4.14	1.71	2.29					
10 Min Spin East (F)	3.29	2.61	5.56	5.62	3.67	1.71	2.29					
10 Min Spin West (ABCDE)	2.71	1.71	4.65	3.56	1.48	1.15	1.98					
10 Min Non Synch SENY (GHIJK)	0.00	0.31	0.17	1.99	2.75	0.36	0.23					
10 Min Non Synch East (F)	0.00	0.31	0.17	1.99	2.28	0.36	0.23					
10 Min Non Synch West (ABCDE)	0.00	0.00	0.13	0.95	0.44	0.10	0.13					
30 Min SENY (GHIJK)	0.00	0.00	0.12	0.06	0.85	0.10	0.13					
30 Min East (F)	0.00	0.00	0.12	0.06	0.38	0.10	0.13					
30 Min West (ABCDE)	0.00	0.00	0.12	0.06	0.38	0.10	0.13					
Regulation	9.83	7.54	15.44	13.15	10.91	10.48	8.87					
NYCA Regulation Movement	0.27	0.24	0.25	0.20	0.22	0.19	0.19					
•								A	O and a sale as	Outstan	Necessarian	Describes
<u>2016</u>	0.27 <u>January</u>	0.24 <u>February</u>	0.25 <u>March</u>	0.20 <u>April</u>	0.22 <u>May</u>	0.19 <u>June</u>	0.19 <u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	November	<u>December</u>
2016 Day Ahead Market	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>					
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)	<u>January</u> 7.09	February 5.38	<u>March</u> 5.04	<u>April</u> 6.31	<u>May</u> 4.93	<u>June</u> 4.62	<u>July</u> 6.41	7.12	5.57	5.37	4.83	4.89
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)	<u>January</u> 7.09 7.09	<u>February</u> 5.38 5.38	<u>March</u> 5.04 5.04	<u>April</u> 6.31 6.31	<u>May</u> 4.93 4.93	<u>June</u> 4.62 4.62	<u>July</u> 6.41 6.41	7.12 7.12	5.57 5.57	5.37 5.37	4.83 4.83	4.89 4.89
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)	<u>January</u> 7.09 7.09 6.28	February 5.38 5.38 5.25	<u>March</u> 5.04 5.04 4.84	<u>April</u> 6.31 6.31 5.60	May 4.93 4.93 4.77	June 4.62 4.62 4.52	<u>July</u> 6.41 6.41 5.78	7.12 7.12 6.20	5.57 5.57 5.14	5.37 5.37 4.89	4.83 4.83 4.50	4.89 4.89 4.73
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)	January 7.09 7.09 6.28 6.47	February 5.38 5.38 5.25 5.25	5.04 5.04 4.84 4.88	<u>April</u> 6.31 6.31 5.60 5.80	May 4.93 4.93 4.77 4.83	June 4.62 4.62 4.52 4.36	July 6.41 6.41 5.78 6.34	7.12 7.12 6.20 7.07	5.57 5.57 5.14 5.52	5.37 5.37 4.89 5.09	4.83 4.83 4.50 4.43	4.89 4.89 4.73 4.49
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)	January 7.09 7.09 6.28 6.47 6.47	5.38 5.38 5.25 5.25 5.25	5.04 5.04 4.84 4.88 4.88	April 6.31 6.31 5.60 5.80 5.80	May 4.93 4.93 4.77 4.83 4.83	June 4.62 4.62 4.52 4.36 4.36	July 6.41 6.41 5.78 6.34 6.34	7.12 7.12 6.20 7.07 7.07	5.57 5.57 5.14 5.52 5.52	5.37 5.37 4.89 5.09 5.09	4.83 4.83 4.50 4.43 4.43	4.89 4.89 4.73 4.49 4.49
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)	January 7.09 7.09 6.28 6.47 6.47 6.23	5.38 5.38 5.25 5.25 5.25 5.25 5.25	5.04 5.04 4.84 4.88 4.88 4.88	April 6.31 6.31 5.60 5.80 5.80 5.58	May 4.93 4.93 4.77 4.83 4.83 4.68	June 4.62 4.62 4.52 4.36 4.36 4.32	July 6.41 6.41 5.78 6.34 6.34 5.72	7.12 7.12 6.20 7.07 7.07 6.15	5.57 5.57 5.14 5.52 5.52 5.10	5.37 5.37 4.89 5.09 5.09 4.82	4.83 4.83 4.50 4.43 4.43	4.89 4.89 4.73 4.49 4.49
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)	January 7.09 7.09 6.28 6.47 6.47 6.23 6.23	5.38 5.38 5.25 5.25 5.25 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84	April 6.31 6.31 5.60 5.80 5.80 5.58	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70	7.12 7.12 6.20 7.07 7.07 6.15 6.15	5.57 5.57 5.14 5.52 5.52 5.10 5.10	5.37 5.37 4.89 5.09 5.09 4.82 4.82	4.83 4.83 4.50 4.43 4.43 4.39 4.39	4.89 4.89 4.73 4.49 4.43 4.43
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70	7.12 7.12 6.20 7.07 7.07 6.15 6.15	5.57 5.57 5.14 5.52 5.52 5.10 5.10	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82	4.83 4.83 4.50 4.43 4.43 4.39 4.39	4.89 4.89 4.73 4.49 4.43 4.43 4.43
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 6.23	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84	April 6.31 6.31 5.60 5.80 5.58 5.58 5.58 5.58	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70	7.12 7.12 6.20 7.07 7.07 6.15 6.15	5.57 5.57 5.14 5.52 5.52 5.10 5.10	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82	4.83 4.83 4.50 4.43 4.43 4.39 4.39	4.89 4.89 4.73 4.49 4.43 4.43 4.43
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 6.23	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84	April 6.31 6.31 5.60 5.80 5.58 5.58 5.58 5.58	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 6.23	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84	April 6.31 6.31 5.60 5.80 5.58 5.58 5.58 5.58	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05	April 6.31 6.31 5.60 5.80 5.58 5.58 5.58 5.58 7.93	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 8.19	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 8.57	4.83 4.83 4.50 4.43 4.39 4.39 4.39 4.39 7.77	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05	April 6.31 6.31 5.60 5.80 5.58 5.58 5.58 7.93	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 8.61	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 8.57	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 6.23 1.53	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05	April 6.31 6.31 5.60 5.80 5.58 5.58 5.58 7.93	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 4.67 6.11	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 0.99	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 6.23 1.53 1.53 0.42	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 9.05	April 6.31 6.31 5.60 5.80 5.58 5.58 5.58 7.93 1.81 1.81 0.95	May 4.93 4.93 4.77 4.83 4.68 4.67 4.67 4.67 6.11  0.43 0.43 0.23	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 2.79 2.77 1.72	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 9.57	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80 1.92 1.92 1.14 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Spin West (ABCDE)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19 0.59 0.59 0.26 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05 0.71 0.71 0.08 0.17 0.17	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93 1.81 1.81 0.95 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 8.57 0.99 0.29 0.09 0.09	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80 1.92 1.92 1.14 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.59 0.26 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05 0.71 0.71 0.08 0.17 0.17 0.00	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67 3.80	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.16	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 9.57 0.99 0.99 0.29 0.09 0.09 0.09	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80 1.92 1.92 1.14 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 6.23 6.23 6.24 0.45 0.45 0.04 0.01	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.04	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67 3.80 3.65	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.16 0.15	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 9.57 0.99 0.99 0.29 0.09 0.09 0.08	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80 1.92 1.92 1.14 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.04 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.16 0.15	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 9.57 0.99 0.99 0.29 0.09 0.09 0.08 0.08	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min East (F)	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.04 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.16 0.15 0.15	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 9.57 0.99 0.99 0.29 0.09 0.09 0.08 0.08	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80 1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min East (F)  30 Min West (ABCDE)  Regulation	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 8.04	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.15 0.15 0.15 5.52	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 9.57 0.99 0.99 0.29 0.09 0.09 0.08 0.08 0.08 0.08 6.86	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 7.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80 1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.04 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.16 0.15 0.15	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 9.57 0.99 0.99 0.29 0.09 0.09 0.08 0.08	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min SENY (GHIJK)  Regulation  NYCA Regulation Movement  Real Time Market	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 8.04 0.23	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.68 4.67 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.16 0.15 0.15 5.52 0.24	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.09 0.08 0.08 0.08 0.08 6.86 0.26	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 8.04 0.23	5.38 5.38 5.25 5.25 5.20 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 1.43	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 8.61 7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.16 0.15 0.15 5.52 0.24	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.09 0.08 0.08 0.08 0.08 0.08 6.86 0.26	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.45 0.04 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51	5.38 5.38 5.25 5.25 5.20 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 1.43 1.43 1.40	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.16 0.15 0.15 5.52 0.24	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.09 0.08 0.08 0.08 0.08 0.08 1.96 1.96	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin SENY (GHIJK)  10 Min Spin SENY (GHIJK)	7.09 7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51 4.17	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 1.43 1.40 1.00	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.16 0.15 0.15 5.52 0.24	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.09 0.08 0.08 0.08 0.08 0.08 1.96 1.96 1.16	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin SENY (GHIJK)  10 Min Spin SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51 4.17 4.26	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48 0.22	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79 0.06	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51 3.49	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72 6.70	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.15 0.15 5.52 0.24 1.59 1.59 0.90 0.59	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.09 0.08 0.08 0.08 0.08 0.08 6.86 0.26 1.96 1.16 0.18	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Spin West (ABCDE)  10 Min Spin West (ABCDE)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51 4.17 4.26 4.26	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48 0.22 0.22	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79 0.06 0.06	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51 3.49 3.48	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72 6.70 6.34	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.15 0.15 5.52 0.24 1.59 1.59 0.90 0.59 0.59	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 4.82 4.82 4.82 6.99 6.99 6.09 6.09 6.09 6.08 6.08 6.08 6.26 1.96 1.16 6.18 6.18	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.45 0.04 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51 4.17 4.26 4.26 1.89	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48 0.22 0.22 0.00	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79 0.06 0.06 0.03	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51 3.49 3.48 1.65	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72 6.70 6.34 3.56	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.15 0.15 0.15 5.52 0.24 1.59 1.59 0.90 0.59 0.21	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.09 0.08 0.08 0.08 0.08 0.08 0.08 1.96 1.16 0.18 0.18 0.11	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 0.01 0.01 4.04 0.23  7.51 7.51 4.17 4.26 4.26 1.89 0.06	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48 0.22 0.22 0.00 0.00 0.00	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79 0.06 0.06 0.03 0.03	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 1.43 1.40 1.00 0.15 0.11 0.04 0.07	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51 3.49 3.48 1.65 0.98	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72 6.70 6.34 3.56 3.48	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.15 0.15 0.15 5.52 0.24 1.59 1.59 0.59 0.59 0.21 0.21	5.37 5.37 4.89 5.09 5.09 5.09 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.09 0.08 0.08 0.08 0.08 0.08 0.08 1.96 1.16 0.18 0.11 0.11	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51 4.17 4.26 4.26 1.89 0.06 0.06	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79 0.06 0.06 0.03 0.03 0.03	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51 3.49 3.48 1.65 0.98 0.97	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72 6.70 6.34 3.56 3.48 3.12	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.15 0.15 0.15 5.52 0.24 1.59 1.59 0.90 0.59 0.21 0.21 0.21 0.21	5.37 5.37 4.89 5.09 5.09 5.09 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.08 0.08 0.08 0.08 0.08 1.96 1.96 1.16 0.18 0.11 0.11	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51 4.17 4.26 4.26 1.89 0.06 0.06 0.06	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79 0.06 0.06 0.03 0.03 0.03 0.03	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51 3.49 3.48 1.65 0.98 0.97 0.97	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72 6.70 6.34 3.56 3.48 3.12 3.12	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.15 0.15 5.52 0.24 1.59 1.59 0.90 0.59 0.21 0.21 0.21 0.21 0.21 0.21 0.21	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.08 0.08 0.08 0.08 0.08 6.86 0.26 1.96 1.16 0.18 0.11 0.11 0.11	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch East (F)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51 4.17 4.26 4.26 1.89 0.06 0.06 0.06 10.66	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 5.20	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79 0.06 0.06 0.03 0.03 0.03 0.03 0.03 0.03	June  4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51 3.49 3.48 1.65 0.98 0.97 0.97 8.37	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72 6.70 6.34 3.56 3.48 3.12 3.12 10.31	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.15 0.15 5.52 0.24 1.59 1.59 0.59 0.59 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	5.37 5.37 4.89 5.09 5.09 5.09 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.08 0.08 0.08 0.08 0.08 0.10 1.96 1.16 0.18 0.11 0.11 0.11 0.11 0.11 0.11	4.83 4.83 4.50 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00
2016  Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  RTC Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch SENY (GHIJK)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)	7.09 7.09 6.28 6.47 6.47 6.23 6.23 6.23 6.23 9.39  1.53 1.53 0.42 0.45 0.45 0.04 0.01 0.01 0.01 0.01 8.04 0.23  7.51 7.51 4.17 4.26 4.26 1.89 0.06 0.06 0.06	5.38 5.38 5.25 5.25 5.25 5.20 5.20 5.20 5.20 8.19  0.59 0.59 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.04 5.04 4.84 4.88 4.88 4.84 4.84 4.84 8.05  0.71 0.71 0.08 0.17 0.17 0.00 0.00 0.00 0.00 7.15 0.20  1.73 1.73 0.48 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	April 6.31 6.31 5.60 5.80 5.80 5.58 5.58 5.58 7.93  1.81 1.81 0.95 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	May 4.93 4.93 4.77 4.83 4.83 4.68 4.67 4.67 6.11  0.43 0.43 0.23 0.05 0.05 0.04 0.04 0.04 0.04 5.43 0.25  1.19 1.19 0.79 0.06 0.06 0.03 0.03 0.03 0.03	June 4.62 4.62 4.52 4.36 4.36 4.32 4.32 4.32 4.32 7.00  0.49 0.46 0.24 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	July 6.41 6.41 5.78 6.34 6.34 5.72 5.70 5.70 5.70 8.19  2.79 2.77 1.72 1.89 1.87 1.18 0.94 0.93 0.93 7.51 0.23  4.73 4.72 2.51 3.49 3.48 1.65 0.98 0.97 0.97	7.12 7.12 6.20 7.07 7.07 6.15 6.15 6.15 6.15 6.15 8.61  7.26 6.88 4.80 6.06 5.67 3.80 3.65 3.27 3.27 10.25 0.24  8.04 7.68 4.72 6.70 6.34 3.56 3.48 3.12 3.12	5.57 5.57 5.14 5.52 5.52 5.10 5.10 5.10 5.10 7.00 0.61 0.61 0.30 0.21 0.21 0.15 0.15 5.52 0.24 1.59 1.59 0.90 0.59 0.21 0.21 0.21 0.21 0.21 0.21 0.21	5.37 5.37 4.89 5.09 5.09 4.82 4.82 4.82 4.82 4.82 4.82 8.57 0.99 0.99 0.09 0.09 0.08 0.08 0.08 0.08 0.08 6.86 0.26 1.96 1.16 0.18 0.11 0.11 0.11	4.83 4.83 4.50 4.43 4.43 4.39 4.39 4.39 7.77 1.05 1.05 0.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4.89 4.89 4.73 4.49 4.43 4.43 4.43 4.43 13.80  1.92 1.92 1.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00

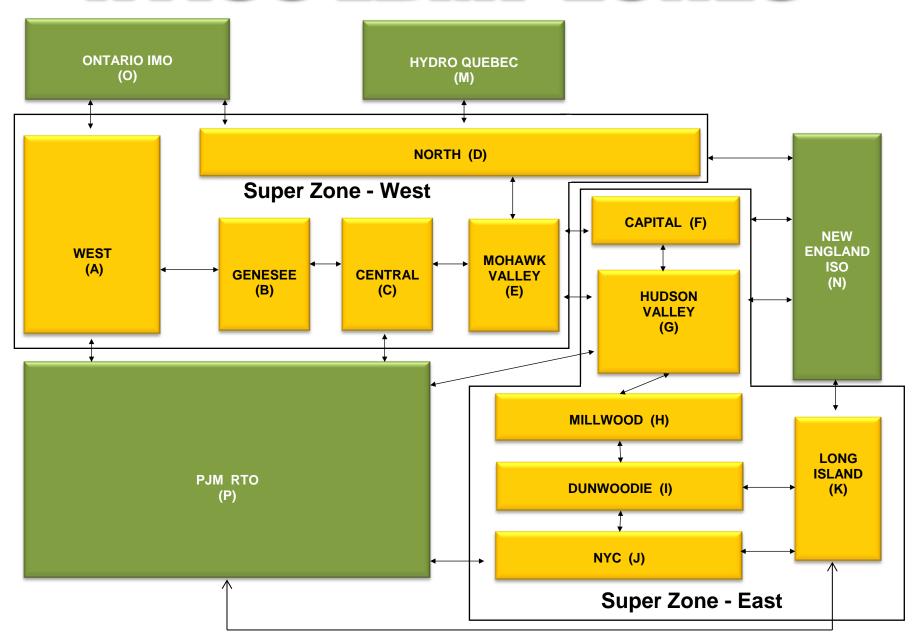








# NYISO LBMP ZONES



#### **Billing Codes for Chart C**

Chart - C Category Name	<b>Billing Code</b>	Billing Category Name
Bid Production Cost Guarantee Balancing	81203	Balancing NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee Balancing	81204	Balancing NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee Balancing	81205	Balancing NYISO Bid Production Cost Guarantee Expenditure due to Curtailed Imports
Bid Production Cost Guarantee Balancing	81208	Balancing NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee Balancing	81209	Balancing NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee Balancing	81213	Balancing NYISO Bid Production Cost Guarantee Expenditure due to Curtailed Imports
Bid Production Cost Guarantee DAM	81201	DAM NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee DAM	84001	EDRP/SCR Demand Response - Local
Bid Production Cost Guarantee DAM	84101	EDRP/SCR Demand Response - NYISO Wide
Bid Production Cost Guarantee DAM	81401	DAM Price Responsive Load Program
Bid Production Cost Guarantee DAM	81202	DAM NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee DAM	81206	DAM NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee DAM	81207	DAM NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee DAM Virtual	81501	DAM Virtual Bid Production Cost Guarantee
DAM Contract Balancing	81315	DAM Contract Balancing
DAM Contract Balancing	81317	DAM Contract Balancing
Local Reliability Balancing	81002	Balancing Local Reliability Bid Production Cost Guarantee
Local Reliability Balancing	83901	Margin Restoration (MOB) Revenue
Local Reliability DAM	81001	DAM Local Reliability Bid Production Cost Guarantee
NYISO Cost of Operations	80901	NYISO Cost Of Operations
NYISO Cost of Operations	80902	NYISO Cost Of Operations
NYISO Cost of Operations	83501	NYISO Cost Of Operations
NYISO Cost of Operations	83502	NYISO Cost Of Operations
Residuals Balancing	81302	Balancing Market Energy Residual
Residuals Balancing	81304	Balancing Market Loss Residual
Residuals Balancing	81305	Balancing Market Congestion Balancing
Residuals Balancing	81306	Emergency Energy Purchases
Residuals Balancing	81307	Emergency Energy Sales
Residuals Balancing	81309	Balancing Market Energy Residual
Residuals Balancing	81311	Balancing Market Loss Residual
Residuals Balancing	81312	Balancing Market Congestion Balancing
Residuals Balancing	81313	Emergency Energy Purchases
Residuals Balancing	81314	Emergency Energy Sales
Residuals DAM	81301	Day Ahead Market Energy Residual
Residuals DAM	81303	Day Ahead Market Loss Residual
Residuals DAM	81308	Day Ahead Market Energy Residual
Residuals DAM	81310	Day Ahead Market Loss Residual

Market Mitigation and Analysis Prepared: 8/8/2017 10:22 AM

# 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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## Summary Description of Upcoming Regulatory Compliance Filings, Recently Submitted Filings and Issued Orders on NYISO Matters

**Upcoming Compliance Filings** 

_	Upcoming Compliance Filings (Description)	Docket Number

**Recently Issued Orders** 

Filing	Filing Summary	Docket	Order	Order
Date	(Order Issued)	Number	Date	Summary
05/19/2017	NYISO filing on behalf of Niagara Mohawk Power Corporation of a proposed new OATT Section 6.17 - Schedule 17 – Rate Mechanism for the Recovery of the Western New York Facilities Charge for Non-Bulk Transmission Facilities ("WNY-FC")	ER17-1629-000	07/20/2017 07/22/2017	07/20/17 FERC order accepted the new rate schedule effective 07/18/2017, as requested 07/22/2017 Errata to 07/20/2017 Order
05/22/2017	NYISO amendment filing re: to properly locate the proposed new OATT Section 6.17 - Schedule 17 - Rate Mechanism for the Recovery of the Western New York Facilities Charge for Non-Bulk Transmission Facilities ("WNY-FC") in the NYISO OATT	ER17-1629-001	07/20/2017 07/22/2017	07/20/17 FERC order accepted the new rate schedule effective 07/18/2017, as requested 07/22/2017 Errata to 07/20/2017 Order
05/30/2017	NYISO and Niagara Mohawk Power Corporation ("NMPC") joint filing re: large generator interconnection agreement (SA 2334) among the NYISO, NMPC and Copenhagen Wind Farm, LLC	ER17-1703-000	07/24/2017	FERC order accepted the agreement, effective 05/15/2017, as requested
06/14/2017	NYISO 205 filing re: notice of cancellation of a small generator interconnection agreement (SA 2090) among the NYISO, NYSEG and Monticello Hills Wind LLC	ER17-1816-000	08/04/2017	FERC order accepted the notice of cancellation effective 08/14/2017, as requested
06/20/2017	NYISO and Niagara Mohawk Power Corporation ("NMPC") joint 205 filing re: large generator interconnection agreement (SA 2341) among the NYISO, NMPC, and PSEG Power New York, LLC	ER17-1872-000	08/02/2017	FERC order accepted the LGIA effective 06/07/2017, as requested

#### **FINAL**

07/05/2017	NYISO filing re: answer to the Green Power request for rehearing of FERC's order accepting a Notice of Cancellation of Green Power's SGIA	ER17-1624-001	07/10/2017	FERC notice denied the Green Power request for rehearing and rejected NYISO's answer to the extent it responded to the request for rehearing
07/19/2017	NYISO 205 filing re: eliminate bond funds from cash collateral investment options and clarify language regarding treatment of defaulting customer funds	ER17-2108-000	08/15/2017	FERC order accepted revisions effective 9/18/17, as requested

**Recently Submitted Filings** 

Filing		Docket
Date	Filing Summary	Number
07/18/2017	NYISO compliance filing re: notice of effective date re: tariff revisions to implement balance-of-period TCC auctions	ER17-1167-002
07/19/2017	NYISO 205 filing re: eliminate bond funds from cash collateral investment options and clarify language regarding treatment of defaulting customer funds	ER17-2108-000
07/19/2017	NYISO filing re: second quarter 2017 EQR report	ER02-2001-000
07/24/2017	NYISO filing re: motion to intervene and comment concerning the NRG request for waiver of a procedural deadline, which would allow NYISO to act on NRG's request for a Competitive Entry Exemption under the buyer side market mitigation rules	ER17-2049-000
07/26/2017	NYISO 205 filing re: an executed large generator interconnection agreement (SA 2344) among the NYISO, LIPA and Shoreham Solar Commons LLC	ER17-2151-000
07/31/2017	NYISO filing re: comments on the operational, reliability, resource adequacy, and regional markets ramifications of maintaining in service Hudson Transmission Partner's merchant transmission facility	ER17-2073-000
08/04/2017	NYISO 205 filing re: OATT Rate Schedule 1 amendments to remove the cost recovery mechanism for the Bunce Creek Phase Angle Regulators	ER17-2240-000
08/09/2017	NYISO 205 filing re: black start and system restoration service revisions	ER17-2271-000
08/11/2017	NYISO 205 filing re: tariff revisions addressing the testing of automated fuel swap capability	ER17-2286-000
08/11/2017	NYISO filing re: correction to its 06/21/2017 filing concerning cost recovery for the installation of PARs at the Ramapo Substation	ER17-1879-001
08/18/2017	NYISO 205 filing re: OATT revisions to establish a mechanism for the recovery of the costs of any regulated transmission project that is eligible for cost allocation and recovery in the NYISO's Comprehensive System Planning Process	ER17-2327-000
08/18/2017	NYISO and Niagara Mohawk Power Corporation ("NMPC") joint 205 filing re: large generator interconnection agreement (SA 2356) among the NYISO, NMPC, and Arkwright Summit Wind Farm LLC	ER17-2334-000