

# **Monthly Report**

**January 2019** 



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## Operations Performance Metrics Monthly Report









### January 2019 Report

## Operations & Reliability Department New York Independent System Operator



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### **January 2019 Operations Performance Highlights**

- Peak load of 24,728 MW occurred on 01/21/2019 HB 18
- All-time winter capability period peak load of 25,738 MW occurred on 1/7/2014 HB 18
- 0 hours of Thunder Storm Alerts were declared
- 36.23 hours of NERC TLR level 3 curtailment
- The following table identifies the estimated production cost savings associated with the Broader Regional Market initiatives.

	Current Month	Year-to-Date
	Value (\$M)	Value (\$M)
NY Savings from PJM-NY Congestion Coordination	\$3.49	\$3.49
NY Savings from PJM-NY Coordinated Transaction Scheduling	\$0.16	\$0.16
NY Savings from NE-NY Coordinated Transaction Scheduling	(\$0.04)	(\$0.04)
Total NY Savings	\$3.61	\$3.61
Regional Savings from PJM-NY Coordinated Transaction Scheduling	\$0.56	\$0.56
Regional Savings from NE-NY Coordinated Transaction Scheduling	\$0.11	\$0.11
Total Regional Savings	\$0.67	\$0.67

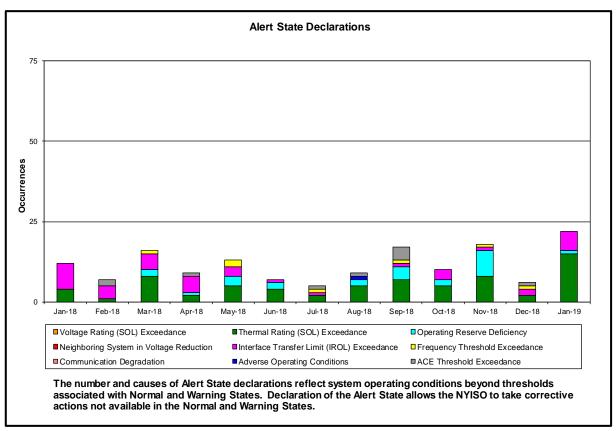
- Statewide uplift cost monthly average was (\$0.57)/MWh
- The following table identifies the Monthly ICAP spot market prices and the price delta.

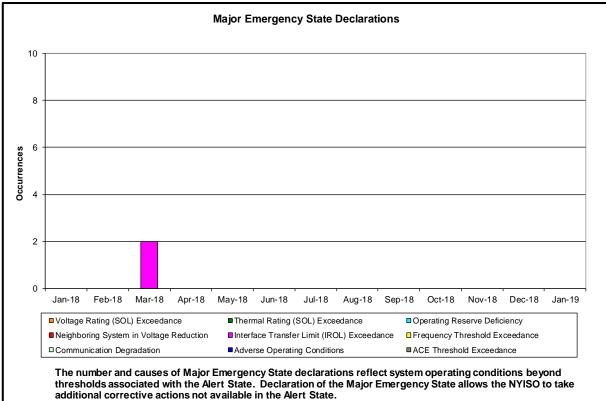
Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
February 2019 Spot Price	\$0.84	\$1.51	\$1.51	\$0.84
January 2019 Spot Price	\$0.13	\$1.52	\$1.52	\$0.43
Delta	\$0.71	(\$0.01)	(\$0.01)	\$0.41

- NYCA Price increase due to changes in gen UCAP offers and exports.
- LI Price was set by the NYCA price

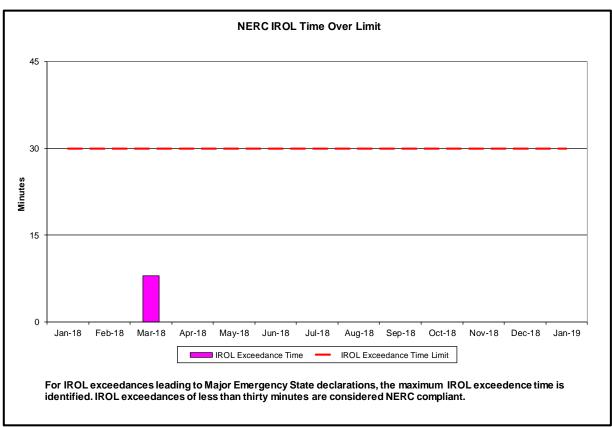


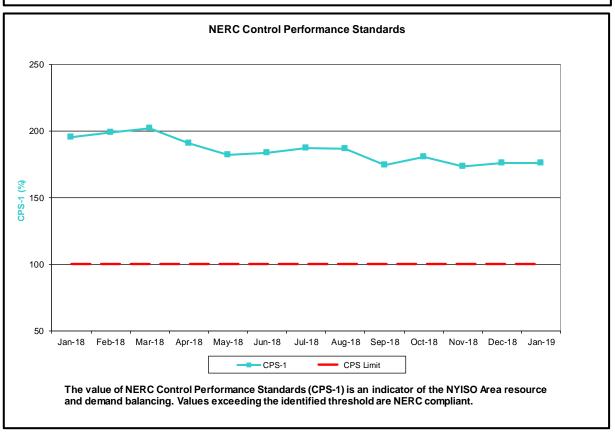
#### **Reliability Performance Metrics**



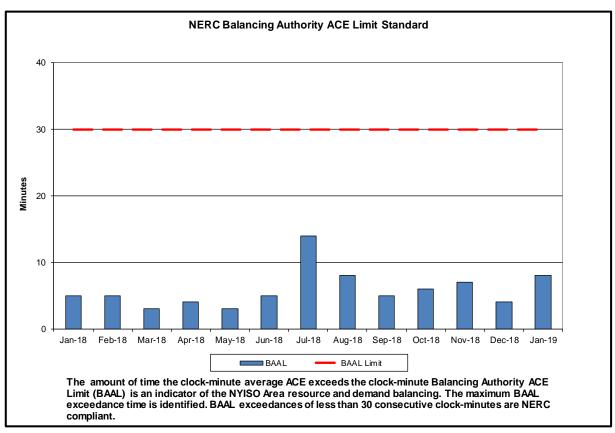


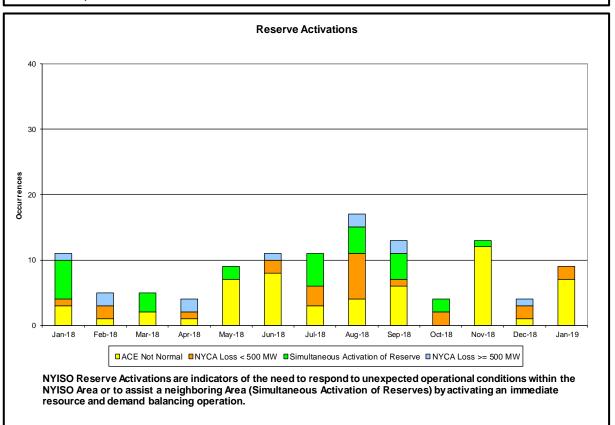




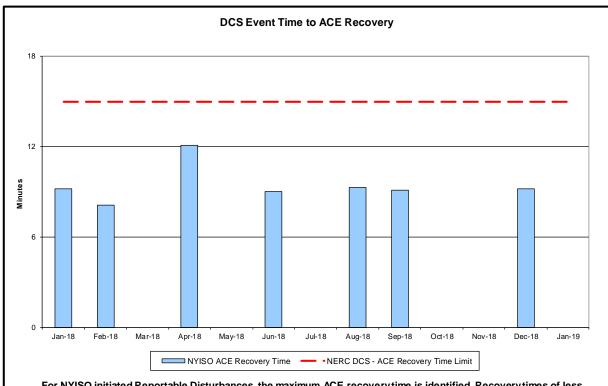




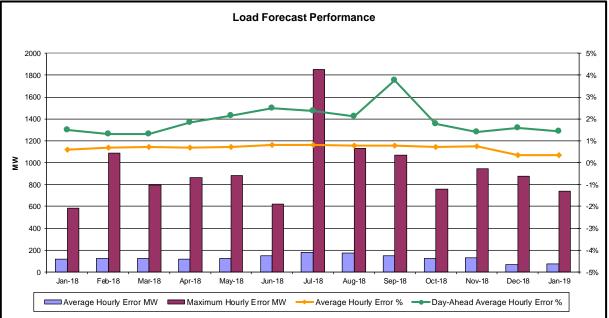








For NYISO initiated Reportable Disturbances, the maximum ACE recovery time is identified. Recovery times of less than 15 minutes are considered NERC compliant.

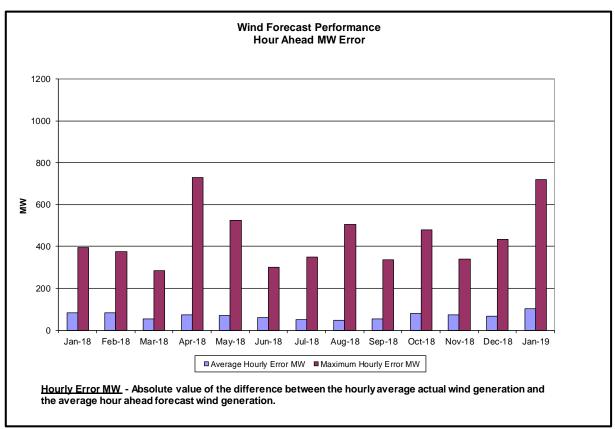


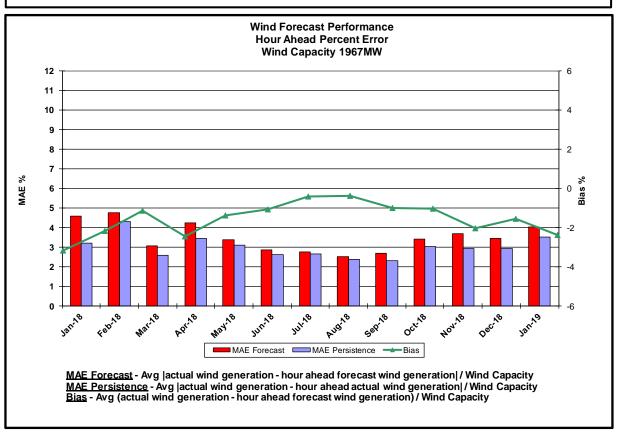
<u>Hourly Error MW</u> - Absolute value of the difference between the hourly average actual load demand and the average hour ahead forecast load demand.

<u>Average Hourly Error %</u> - Average value of the ratio of hourly average error magnitude to hourly average actual load demand.

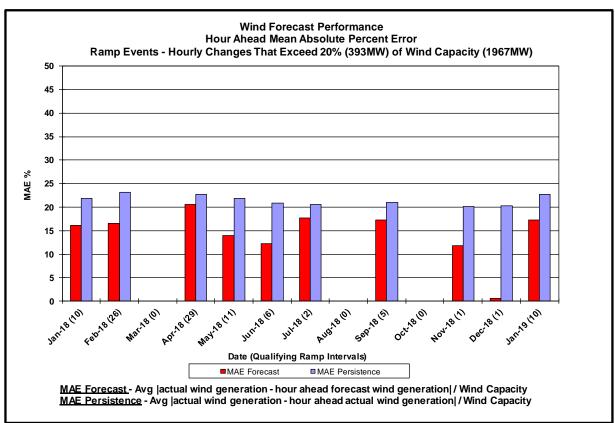
<u>Day-Ahead Average Hourly Error %</u> - Average across all hours of the month of the absolute value of the difference between actual load demand and the Day-Ahead forecast load demand, divided by the actual load demand.

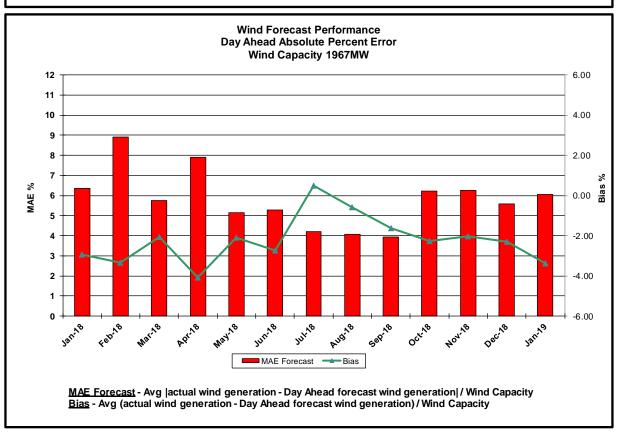




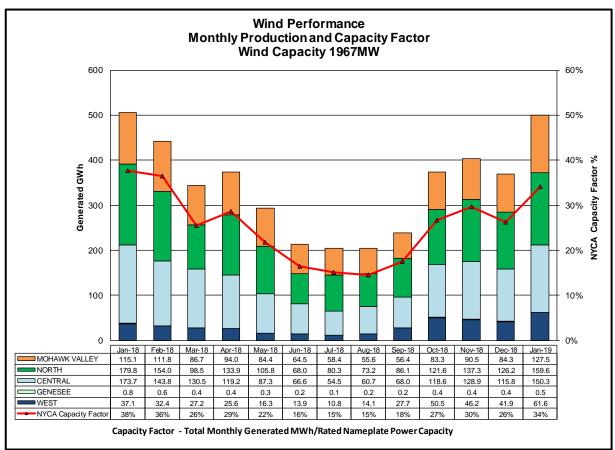


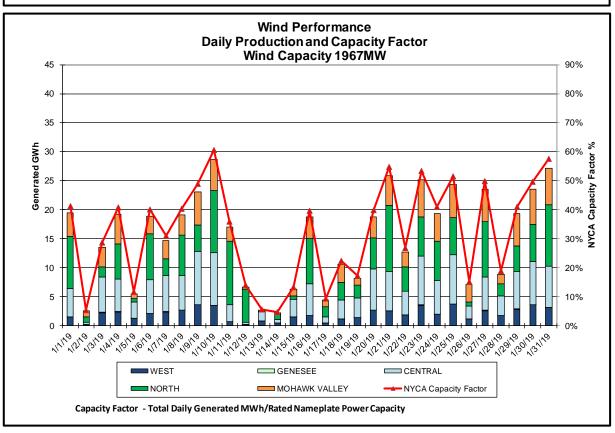




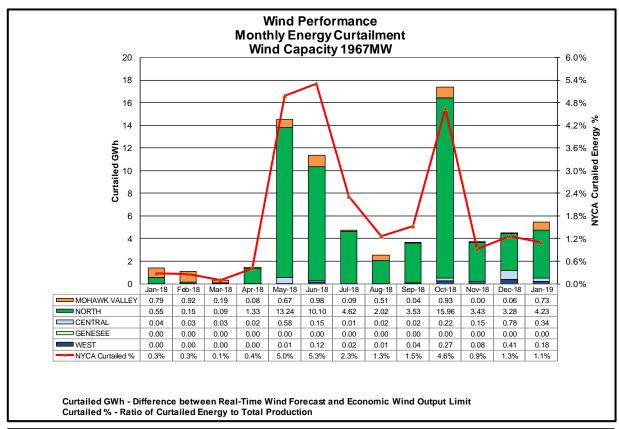


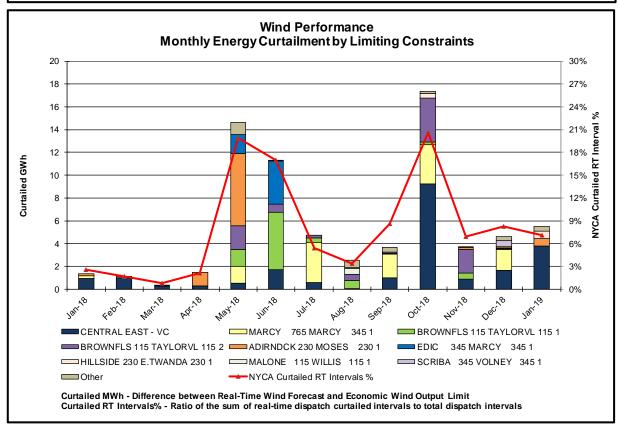




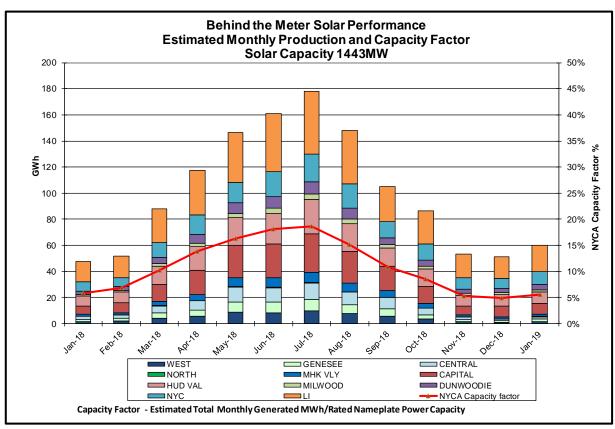


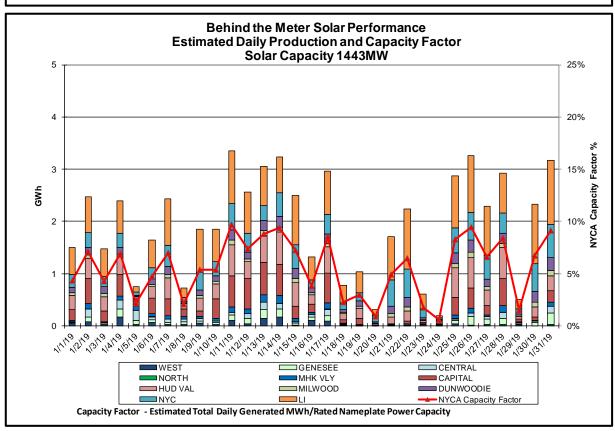




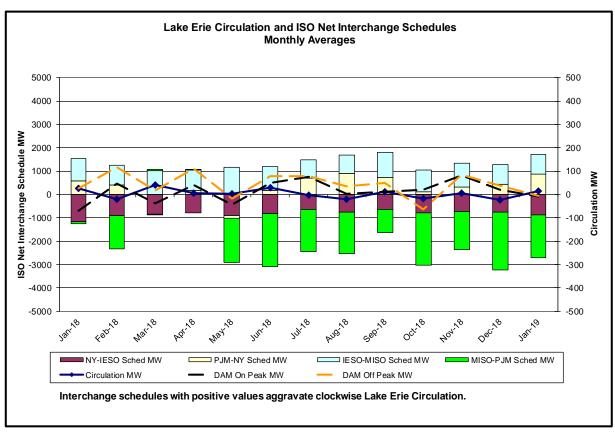


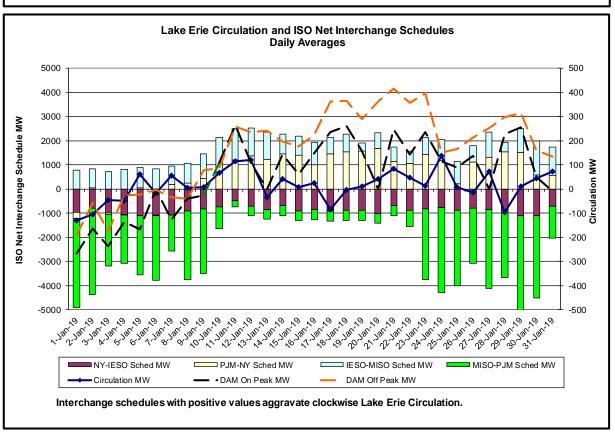






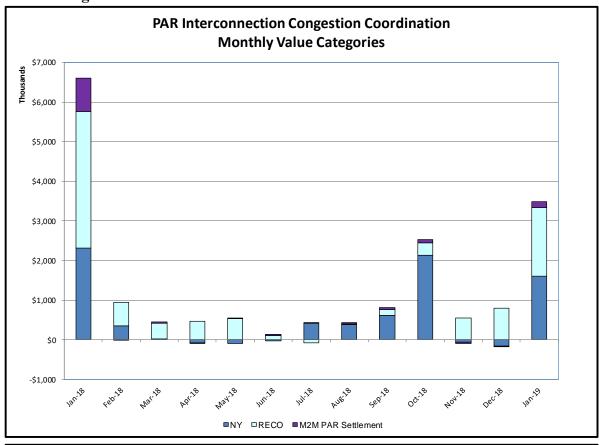


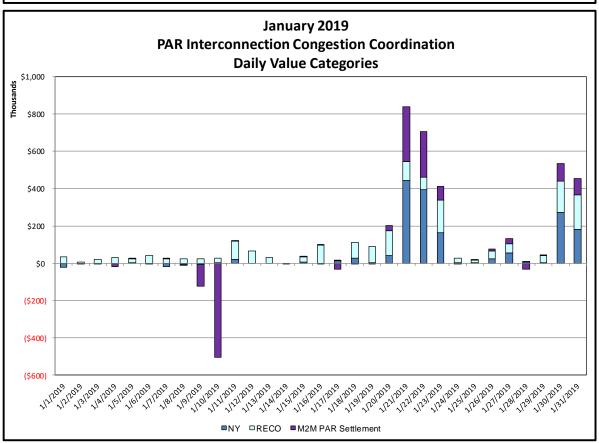






#### **Broader Regional Market Performance Metrics**







#### PAR Interconnection Congestion Coordination

<u>Category</u> <u>Description</u>

NY Represents the value NY realizes from Market-to-Market PAR Coordination when

experiencing congestion. This is the estimated savings to NY for additional deliveries into NY

RECO Represents the value of PJM's obligation to deliver 80% of service to RECO load over

Ramapo 5018. This is the estimated reduction in NYCA congestion due to the PJM delivery

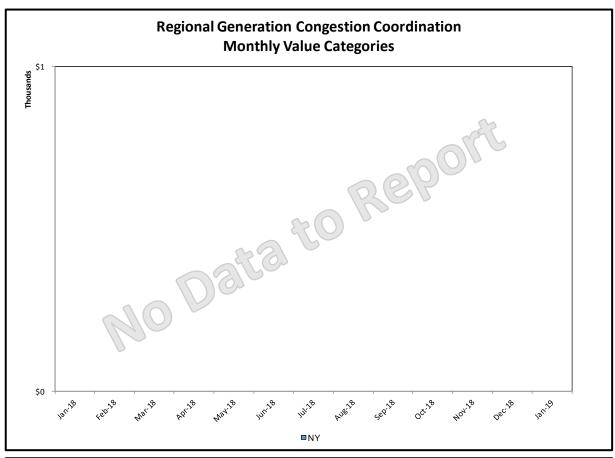
of RECO over Ramapo 5018.

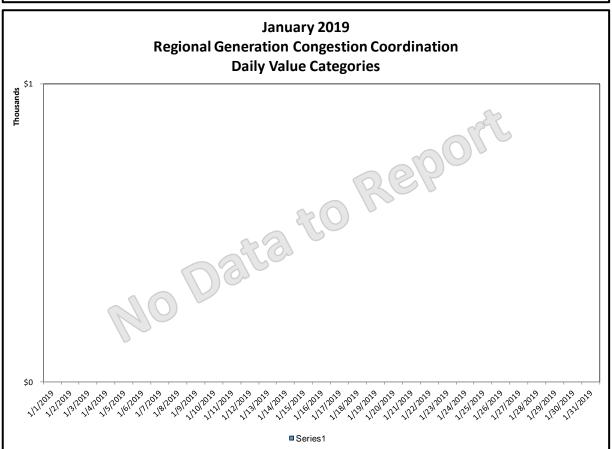
M2M PAR Settlement Market-to-Market PAR Coordination settlement on coordinated flowgates. Through April 2017

this value was included in the NY and RECO categories. The positive sign convention

indicates settlement to NY while the negative indicates settlement to PJM.







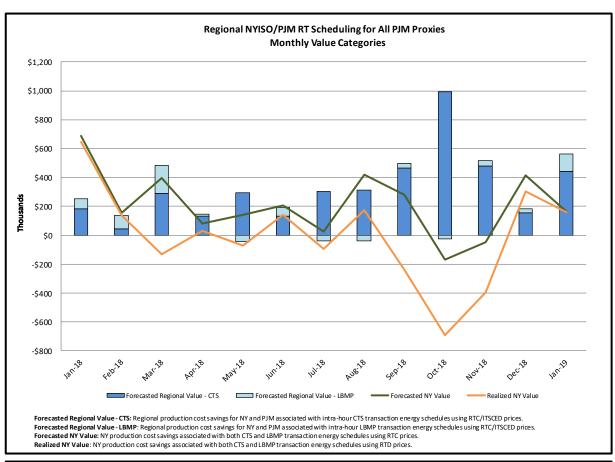


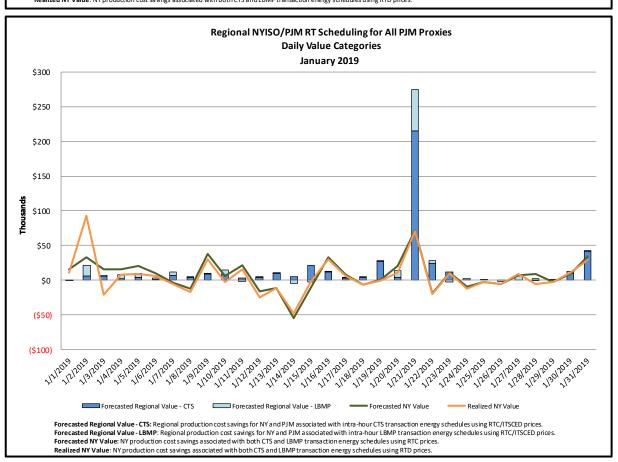
#### **Regional Generation Congestion Coordination**

<u>Category</u> NY

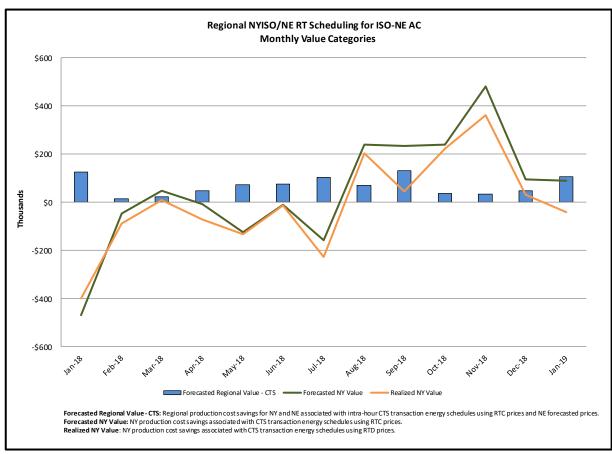
<u>Description</u>
NYISO savings that result from PJM payments to NYISO when PJM's transmission use (PJM's market flow) is greater than PJM's entitlement of the NY transmission system and NYISO is incurring Western or Central NY congestion. Additionally, NYISO savings may result from the more efficient regional utilization of PJM's generation resources to directly address Western or Central NY transmission congestion.

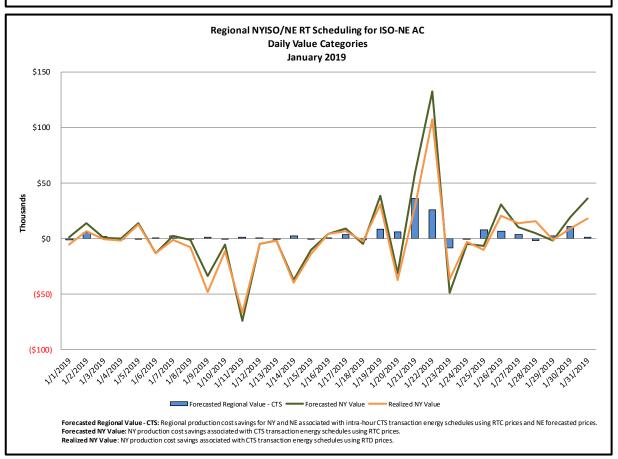






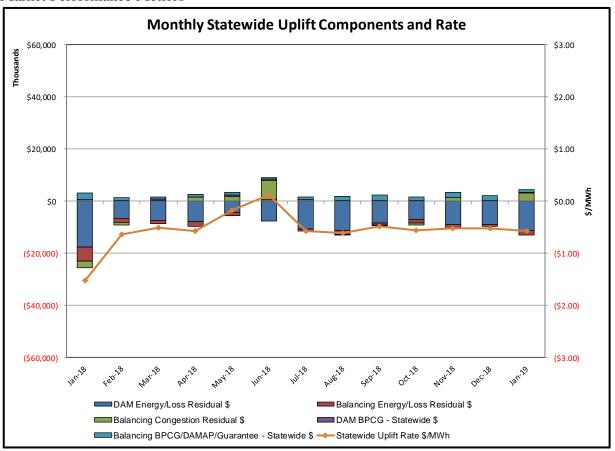




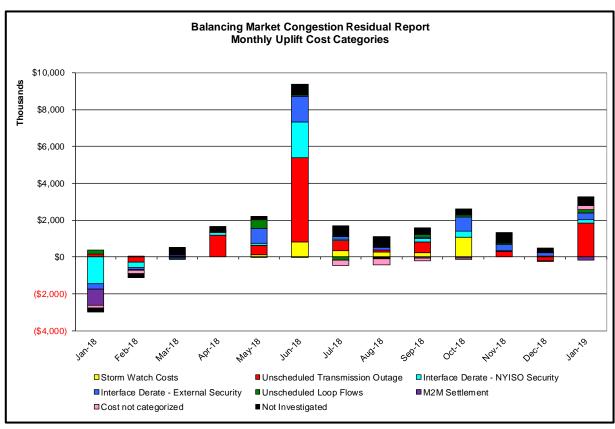


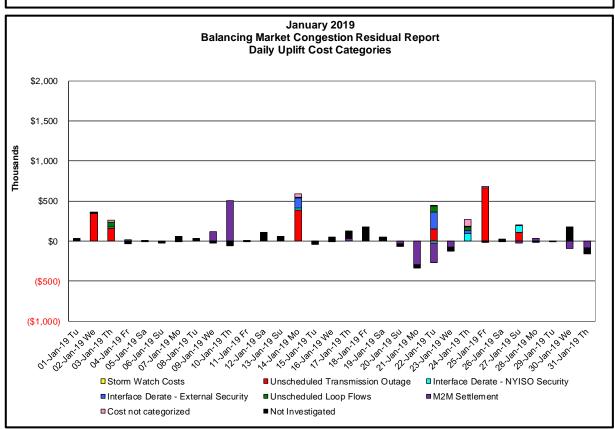


#### Market Performance Metrics











	tigated in January: 2		
Event ▼ Da	ate (yyyymmdd) 🍱	Hours	Description
	1/2/2019	8-13,15,17-19	Forced Outage Goethals 345kV Brk 3
	1/2/2019	15	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West 115kV
	1/3/2019	7-10,15,16,18	Forced Outage Goethals 345kV Brk 3
	1/3/2019	7	NYCA DNI Ramp Limit
	1/3/2019	18	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East
	1/3/2019		Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West 115kV
	1/14/2019		Extended outage of Beck-Packard 230kV (#BP76)
	1/14/2019	14	NYCA DNI Ramp Limit
	1/14/2019	11-14	HQ_CEDARS - NY Scheduling Limit
	1/14/2019	11-15	HQ_CHAT - NY Scheduling Limit
	1/14/2019	7	PJM_AC - NY Scheduling Limit
	1/14/2019	19	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West 115kV
	1/22/2019	2,9-13	Forced Outage Packard-Gardenville 115kV (#182)
	1/22/2019	3,9	NYCA DNI Ramp Limit
	1/22/2019	3,16,20	Uprate Central East
	1/22/2019	0,2,9-15	HQ_CEDARS - NY Scheduling Limit
	1/22/2019	0,2,10-15,22	HQ_CHAT - NY Scheduling Limit
	1/22/2019	2,4,6	NE_AC DNI Ramp Limit
	1/22/2019	15,16	PJM_AC - NY Scheduling Limit
	1/22/2019	3,4	PJM_AC DNI Ramp Limit
	1/22/2019	0,1,3,16,22	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East
	1/24/2019	9,10,15,19-21	NYCA DNI Ramp Limit
	1/24/2019	0	Uprate Central East
	1/24/2019	10,15	PJM_AC-NY Scheduling Limit
	1/24/2019	20	PJM_AC DNI Ramp Limit
	1/24/2019	12,13,20,21	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East
	1/24/2019	12,13,20,21	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West 115kV
	1/25/2019	9-20,23	Forced Outage West 49th St-Sprainbrook 345kV (#M51)
	1/25/2019	5	NE_AC DNI Ramp Limit
	1/27/2019	14-16	Forced Outage West 49th St-Sprainbrook 345kV (#M51)
	1/27/2019	14-16	Forced Outage Huntley-Gardenville 115kV (#39)
	1/27/2019	3-6	Derate Central East

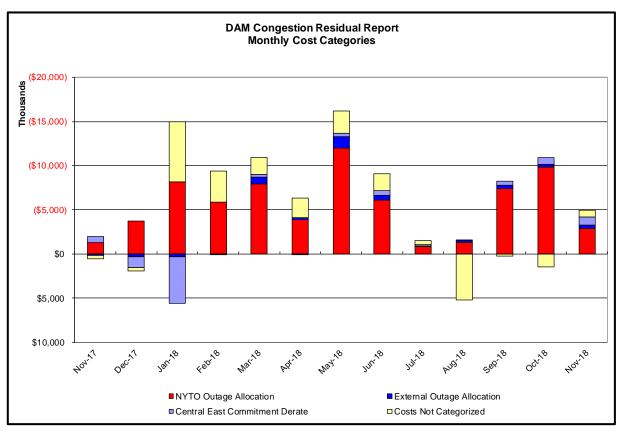


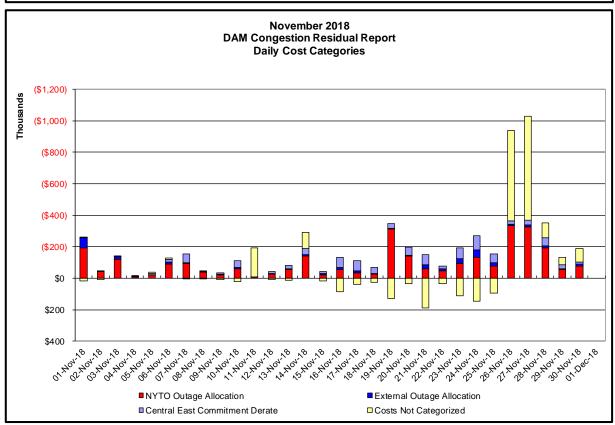
Category Cost Assignment Events Types Event Examples Storm Watch Zone J Thunderstorm Alert (TSA) **TSA Activations** Unscheduled Transmission Outage Market-wide Reduction in DAM to RTM transfers Forced Line Outage, Unit AVR Outages related to unscheduled transmission outage Interface Derate - NYISO Security Market-wide Reduction in DAM to RTM transfers Interface Derates due to not related to transmission outage RTM voltages Interface Derate - External Security Market-wide Reduction in DAM to RTM transfers TLR Events, External Transaction related to External Control Area **Security Events** Curtailments Unscheduled Loop Flows Market-wide DAM to RTM Lake Erie Changes in DAM to RTM unscheduled loop flows impacting Loop Flows exceeding +/-NYISO Interface transmission 125 MW constraints **M2M Settlement** Market-wide Settlement result inclusive of coordinated redispatch and Ramapo flowgates

#### Monthly Balancing Market Congestion Report Assumptions/Notes

- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100 K/HR, shortfall of \$200 K/Day or more, or surplus of \$100 K/Day or more are investigated.
- $3) \, Up lift \, costs \, associated \, with \, multiple \, event \, types \, are \, apportioned \, equally \, by \, hour \, apportunity \, for all the properties of th$



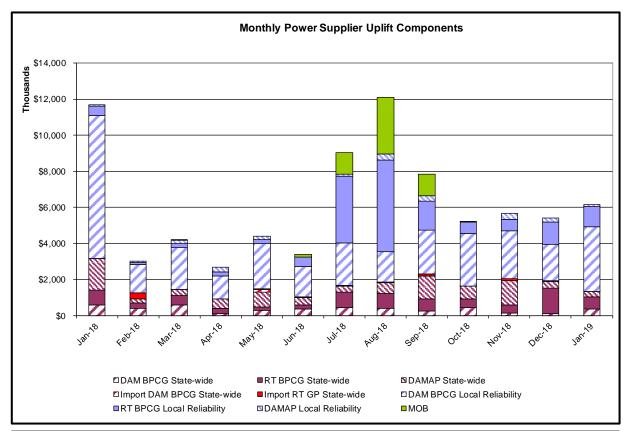


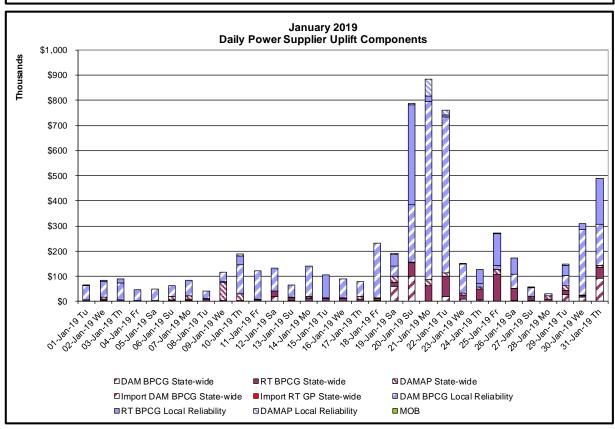




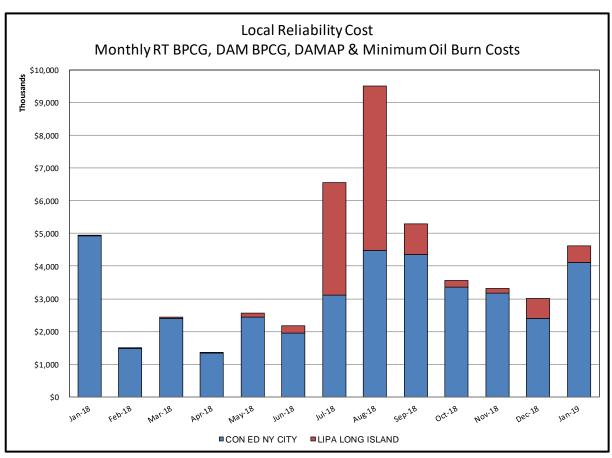
<u>Day</u> -	-Ahead Market Co	ngestion Residual Categories	
<u>Category</u> NYTO Outage Allocation	<u>Cost Assignment</u> Responsible TO	Events Types Direct allocation to NYTO's responsible for transmission equipment status change.	Event Examples  DAM scheduled outage for equipment modeled inservice for the TCC Auction.
External Outage Allocation	All TO by Monthly Allocation Factor	Direct allocation to transmission equipment status change caused by change in status of external equipment.	Tie line required out-of- service by TO of neighboring control area.
Central East Commitment Derate	All TO by Monthly Allocation Factor	Reductions in the DAM Central East_VC limit as compared to the TCC Auction limit, which are not associated with transmission line outages.	

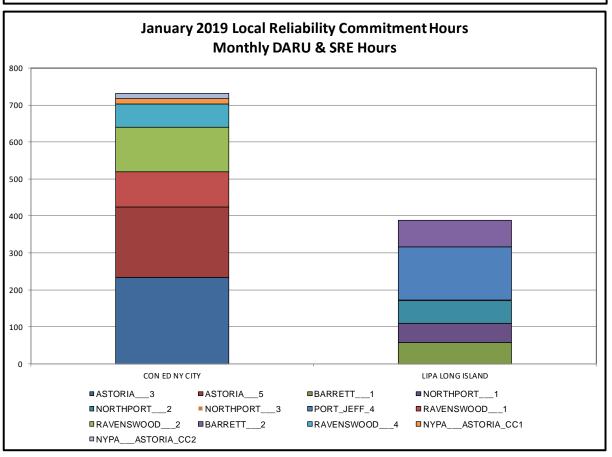




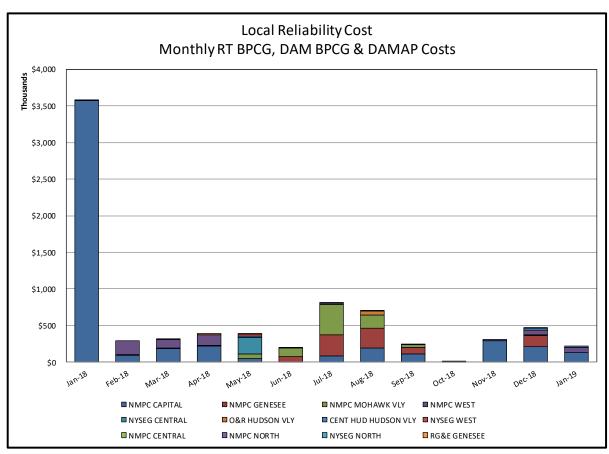


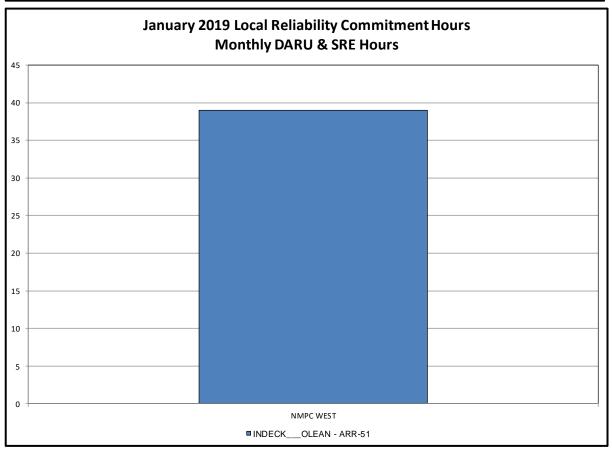




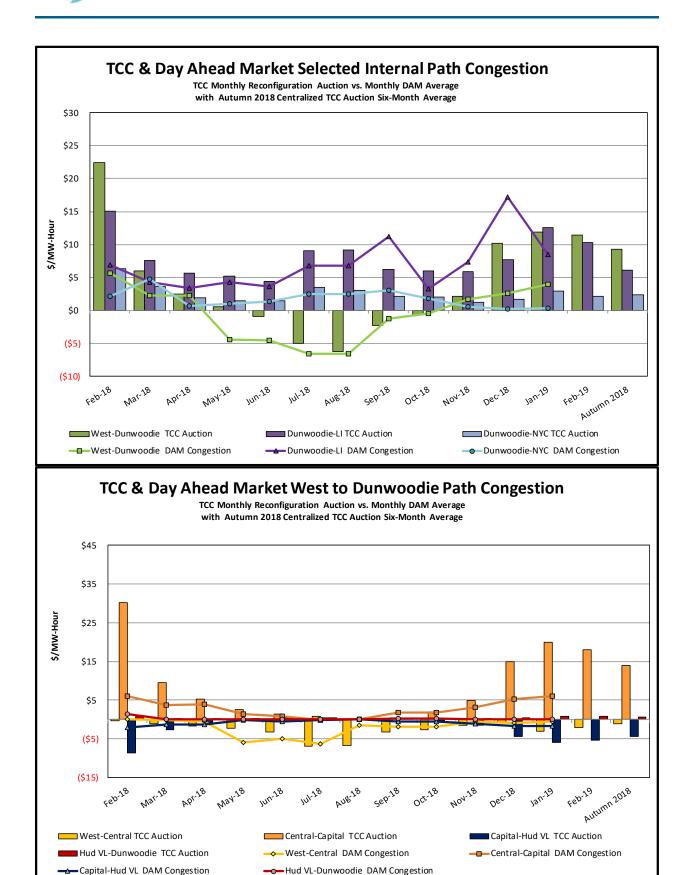




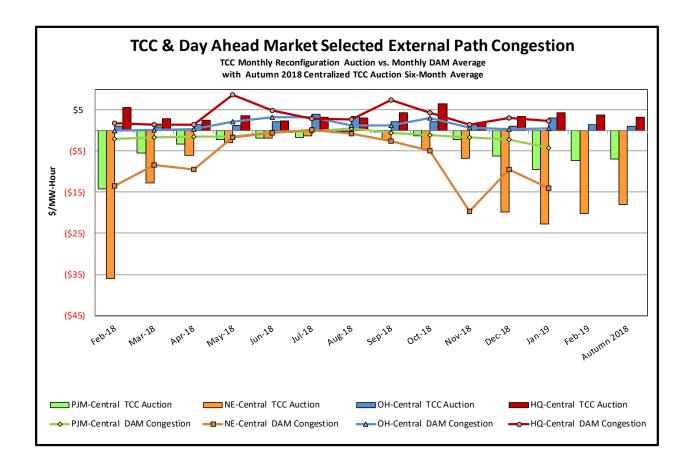




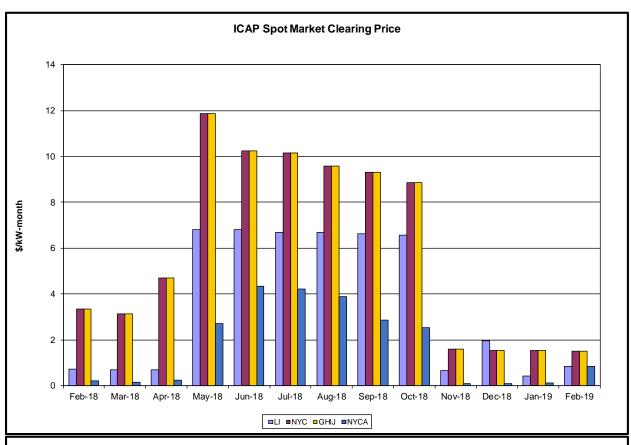


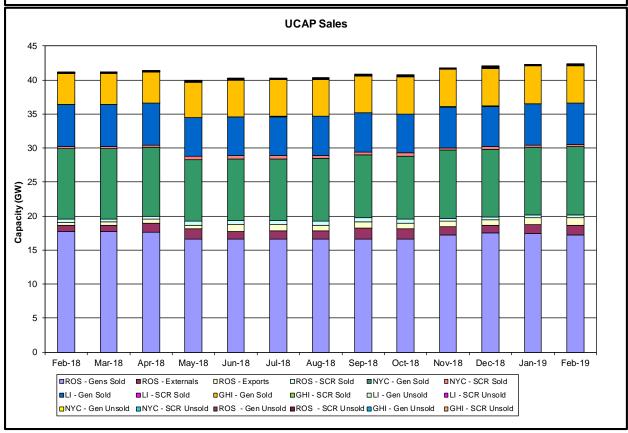








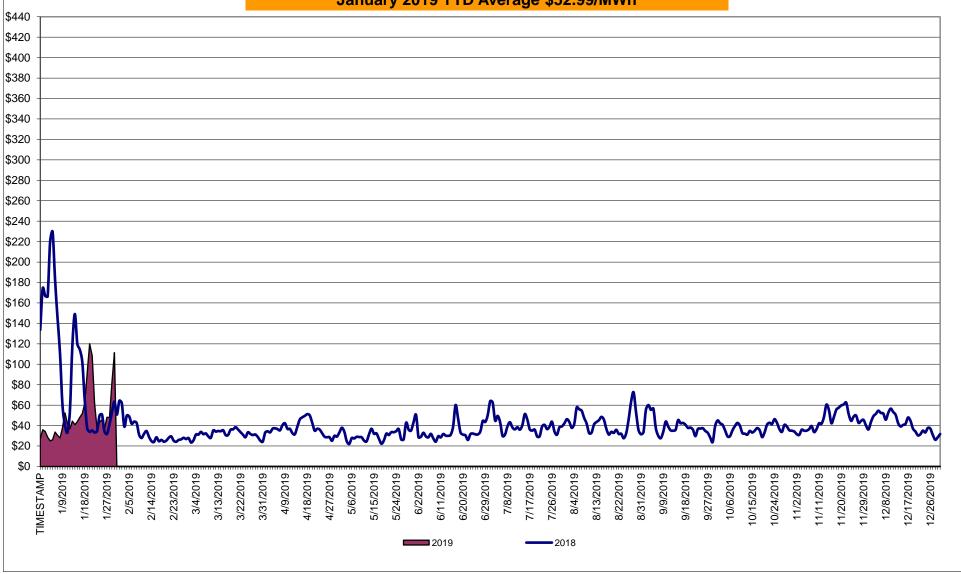




## Market Performance Highlights January 2019

- LBMP for January is \$50.93/MWh; higher than \$40.31/MWh in December 2018 and lower than \$99.55/MWh in January 2018.
  - Day Ahead and Real Time Load Weighted LBMPs are higher compared to December.
- January 2019 average year-to-date monthly cost of \$52.99/MWh is a 48% decrease from \$101.54/MWh in January 2018.
- Average daily sendout is 449 GWh/day in January; higher than 425 GWh/day in December 2018 and lower than 463 GWh/day in January 2018.
- Natural gas and distillate prices were higher compared to the previous month.
  - Natural Gas (Transco Z6 NY) was \$6.11/MMBtu, up from \$4.10/MMBtu in December.
  - Natural gas prices are down 65.9% year-over-year.
  - Jet Kerosene Gulf Coast was \$13.25/MMBtu, up from \$12.54/MMBtu in December.
  - Ultra Low Sulfur No.2 Diesel NY Harbor was \$13.20/MMBtu, up from \$12.84/MMBtu in December.
  - Distillate prices are down 9.7% year-over-year.
- Uplift per MWh is higher compared to the previous month.
  - Uplift (not including NYISO cost of operations) is (\$0.25)/MWh; higher than (\$0.29)/MWh in December.
    - Local Reliability Share is \$0.32/MWh, higher than \$0.23/MWh in December.
    - Statewide Share is (\$0.57)/MWh, lower than (\$0.52)/MWh in December.
  - TSA \$ per NYC MWh is \$0.00/MWh.
  - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are higher than December.

## Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\* 2018 Annual Average \$44.92/MWh January 2018 YTD Average \$101.54/MWh January 2019 YTD Average \$52.99/MWh

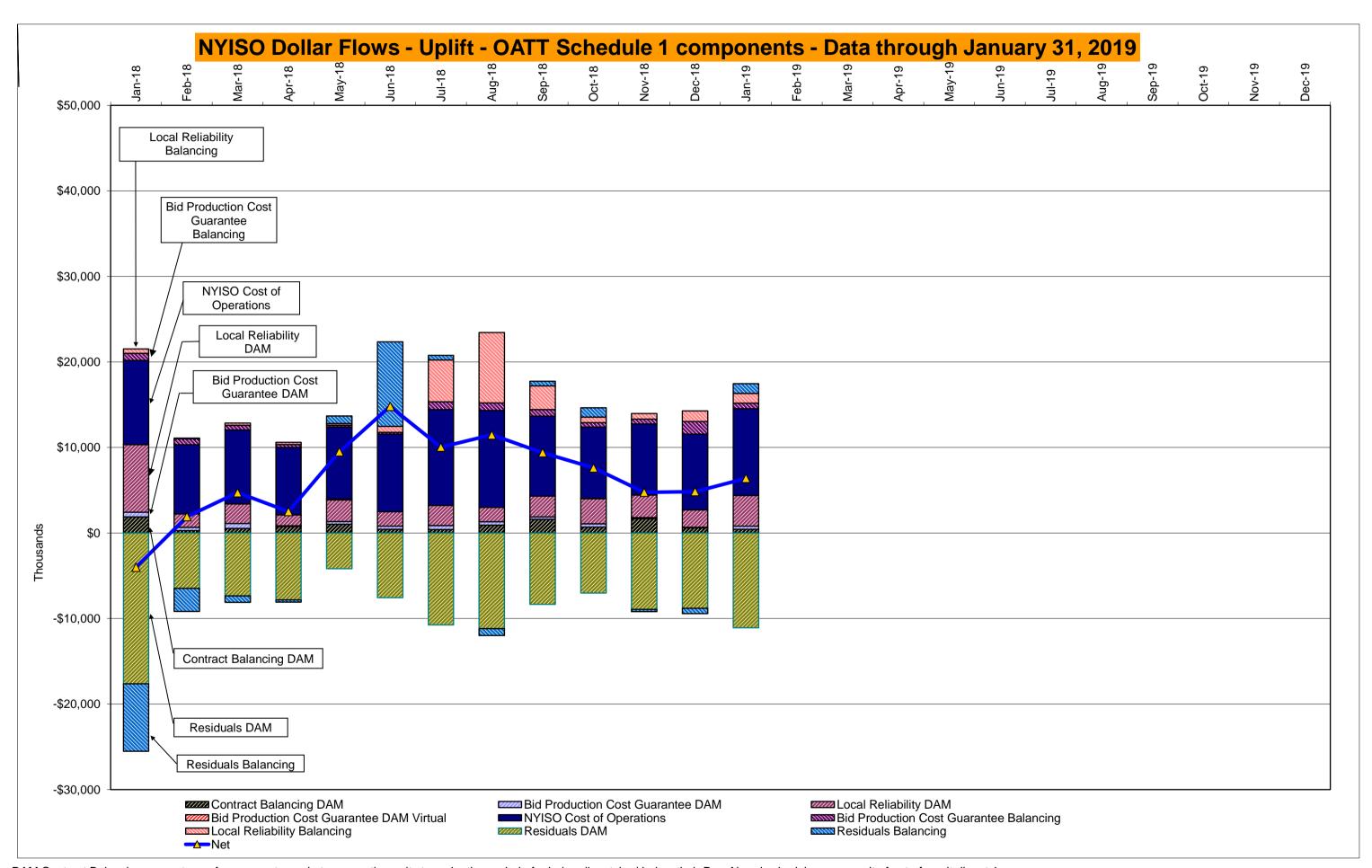


<sup>\*</sup> Excludes ICAP payments.

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

2019	<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>	<u>October</u>	November	<u>December</u>
LBMP	50.93											
NTAC	0.51											
Reserve	0.54											
Regulation	0.13											
NYISO Cost of Operations	0.68											
FERC Fee Recovery	0.08											
Uplift	(0.25)											
Uplift: Local Reliability Share	0.32											
Uplift: Statewide Share	(0.57)											
Voltage Support and Black Start	0.37											
Avg Monthly Cost	52.99											
Avg YTD Cost	52.99											
Avg 110 00st	32.33											
TSA \$ per NYC MWh	0.00											
2018	<u>January</u>	<u>February</u>	March	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	November	December
	<u>January</u>	<u>i Cordary</u>	<u>iviai cri</u>	<u> 7 (P111</u>	iviay	<u>ouric</u>	<u>oury</u>	<u>rtugust</u>	<u>Ocpterriber</u>	October	INOVCITIOCI	DCCCITIDCI
IRMP	99 55	33 83	29 91	35 00	28 78	32 53	39 58	42 56	38.70	35.85	<i>4</i> 3 15	<i>4</i> 0 31
LBMP NTAC:	99.55 0.71	33.83 0.58	29.91 0.88	35.00 1.09	28.78 0.88	32.53	39.58 0.93	42.56 0.72	38.70 0.40	35.85 0.36	43.15 1.18	40.31 0.93
NTAC	0.71	0.58	0.88	1.09	0.88	1.00	0.93	0.72	0.40	0.36	1.18	0.93
NTAC Reserve	0.71 0.92	0.58 0.65	0.88 0.64	1.09 0.81	0.88 0.68	1.00 0.57	0.93 0.49	0.72 0.51	0.40 0.52	0.36 0.80	1.18 0.66	0.93 0.54
NTAC Reserve Regulation	0.71 0.92 0.15	0.58 0.65 0.15	0.88 0.64 0.16	1.09 0.81 0.12	0.88 0.68 0.14	1.00 0.57 0.16	0.93 0.49 0.09	0.72 0.51 0.09	0.40 0.52 0.09	0.36 0.80 0.16	1.18 0.66 0.17	0.93 0.54 0.17
NTAC Reserve Regulation NYISO Cost of Operations	0.71 0.92 0.15 0.65	0.58 0.65 0.15 0.65	0.88 0.64 0.16 0.66	1.09 0.81 0.12 0.65	0.88 0.68 0.14 0.66	1.00 0.57 0.16 0.67	0.93 0.49 0.09 0.67	0.72 0.51 0.09 0.66	0.40 0.52 0.09 0.66	0.36 0.80 0.16 0.63	1.18 0.66 0.17 0.63	0.93 0.54 0.17 0.63
NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery	0.71 0.92 0.15 0.65 0.08	0.58 0.65 0.15 0.65 0.10	0.88 0.64 0.16 0.66 0.09	1.09 0.81 0.12 0.65 0.10	0.88 0.68 0.14 0.66 0.09	1.00 0.57 0.16 0.67 0.09	0.93 0.49 0.09 0.67 0.06	0.72 0.51 0.09 0.66 0.06	0.40 0.52 0.09 0.66 0.08	0.36 0.80 0.16 0.63 0.09	1.18 0.66 0.17 0.63 0.09	0.93 0.54 0.17 0.63 0.08
NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift	0.71 0.92 0.15 0.65 0.08 (0.92)	0.58 0.65 0.15 0.65 0.10 (0.50)	0.88 0.64 0.16 0.66 0.09 (0.31)	1.09 0.81 0.12 0.65 0.10 (0.45)	0.88 0.68 0.14 0.66 0.09 0.05	1.00 0.57 0.16 0.67 0.09 0.30	0.93 0.49 0.09 0.67 0.06 (0.13)	0.72 0.51 0.09 0.66 0.06 (0.02)	0.40 0.52 0.09 0.66	0.36 0.80 0.16 0.63 0.09 (0.30)	1.18 0.66 0.17 0.63 0.09 (0.27)	0.93 0.54 0.17 0.63 0.08 (0.29)
NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift Uplift: Local Reliability Share	0.71 0.92 0.15 0.65 0.08 (0.92) 0.59	0.58 0.65 0.15 0.65 0.10 (0.50) 0.14	0.88 0.64 0.16 0.66 0.09 (0.31) 0.19	1.09 0.81 0.12 0.65 0.10 (0.45) 0.12	0.88 0.68 0.14 0.66 0.09 0.05 0.22	1.00 0.57 0.16 0.67 0.09 0.30 0.18	0.93 0.49 0.09 0.67 0.06 (0.13) 0.44	0.72 0.51 0.09 0.66 0.06 (0.02) 0.59	0.40 0.52 0.09 0.66 0.08 (0.11) 0.37	0.36 0.80 0.16 0.63 0.09 (0.30) 0.27	1.18 0.66 0.17 0.63 0.09 (0.27) 0.25	0.93 0.54 0.17 0.63 0.08 (0.29) 0.23
NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift Uplift: Local Reliability Share Uplift: Statewide Share	0.71 0.92 0.15 0.65 0.08 (0.92) 0.59 (1.52)	0.58 0.65 0.15 0.65 0.10 (0.50) 0.14 (0.64)	0.88 0.64 0.16 0.66 0.09 (0.31) 0.19 (0.51)	1.09 0.81 0.12 0.65 0.10 (0.45)	0.88 0.68 0.14 0.66 0.09 0.05 0.22 (0.17)	1.00 0.57 0.16 0.67 0.09 0.30 0.18 0.12	0.93 0.49 0.09 0.67 0.06 (0.13) 0.44 (0.57)	0.72 0.51 0.09 0.66 0.06 (0.02) 0.59 (0.61)	0.40 0.52 0.09 0.66 0.08 (0.11) 0.37 (0.48)	0.36 0.80 0.16 0.63 0.09 (0.30)	1.18 0.66 0.17 0.63 0.09 (0.27) 0.25 (0.52)	0.93 0.54 0.17 0.63 0.08 (0.29) 0.23 (0.52)
NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift Uplift: Local Reliability Share	0.71 0.92 0.15 0.65 0.08 (0.92) 0.59	0.58 0.65 0.15 0.65 0.10 (0.50) 0.14	0.88 0.64 0.16 0.66 0.09 (0.31) 0.19	1.09 0.81 0.12 0.65 0.10 (0.45) 0.12 (0.57)	0.88 0.68 0.14 0.66 0.09 0.05 0.22	1.00 0.57 0.16 0.67 0.09 0.30 0.18	0.93 0.49 0.09 0.67 0.06 (0.13) 0.44	0.72 0.51 0.09 0.66 0.06 (0.02) 0.59	0.40 0.52 0.09 0.66 0.08 (0.11) 0.37	0.36 0.80 0.16 0.63 0.09 (0.30) 0.27 (0.56)	1.18 0.66 0.17 0.63 0.09 (0.27) 0.25	0.93 0.54 0.17 0.63 0.08 (0.29) 0.23
NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift Uplift: Local Reliability Share Uplift: Statewide Share Voltage Support and Black Start	0.71 0.92 0.15 0.65 0.08 (0.92) 0.59 (1.52) 0.40	0.58 0.65 0.15 0.65 0.10 (0.50) 0.14 (0.64) 0.41	0.88 0.64 0.16 0.66 0.09 (0.31) 0.19 (0.51) 0.42	1.09 0.81 0.12 0.65 0.10 (0.45) 0.12 (0.57) 0.41	0.88 0.68 0.14 0.66 0.09 0.05 0.22 (0.17) 0.42	1.00 0.57 0.16 0.67 0.09 0.30 0.18 0.12 0.42	0.93 0.49 0.09 0.67 0.06 (0.13) 0.44 (0.57) 0.42	0.72 0.51 0.09 0.66 0.06 (0.02) 0.59 (0.61) 0.42	0.40 0.52 0.09 0.66 0.08 (0.11) 0.37 (0.48) 0.42	0.36 0.80 0.16 0.63 0.09 (0.30) 0.27 (0.56) 0.40	1.18 0.66 0.17 0.63 0.09 (0.27) 0.25 (0.52) 0.40	0.93 0.54 0.17 0.63 0.08 (0.29) 0.23 (0.52) 0.40
NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift Uplift: Local Reliability Share Uplift: Statewide Share Voltage Support and Black Start Avg Monthly Cost	0.71 0.92 0.15 0.65 0.08 (0.92) 0.59 (1.52) 0.40	0.58 0.65 0.15 0.65 0.10 (0.50) 0.14 (0.64) 0.41	0.88 0.64 0.16 0.66 0.09 (0.31) 0.19 (0.51) 0.42 32.45	1.09 0.81 0.12 0.65 0.10 (0.45) 0.12 (0.57) 0.41 37.74	0.88 0.68 0.14 0.66 0.09 0.05 0.22 (0.17) 0.42 31.70	1.00 0.57 0.16 0.67 0.09 0.30 0.18 0.12 0.42 35.73	0.93 0.49 0.09 0.67 0.06 (0.13) 0.44 (0.57) 0.42 42.12	0.72 0.51 0.09 0.66 0.06 (0.02) 0.59 (0.61) 0.42 45.01	0.40 0.52 0.09 0.66 0.08 (0.11) 0.37 (0.48) 0.42 40.76	0.36 0.80 0.16 0.63 0.09 (0.30) 0.27 (0.56) 0.40 38.00	1.18 0.66 0.17 0.63 0.09 (0.27) 0.25 (0.52) 0.40 46.01	0.93 0.54 0.17 0.63 0.08 (0.29) 0.23 (0.52) 0.40 42.78

<sup>\*</sup> Excludes ICAP payments. Market Mitigation and Analysis Prepared: 2/8/2019 11:12 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>2019</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>	<u>October</u>	November	<u>December</u>
Day Ahead Market MWh	15,299,458											
DAM LSE Internal LBMP Energy Sales	57%											
DAM External TC LBMP Energy Sales	6%											
DAM Bilateral - Internal Bilaterals	29%											
DAM Bilateral - Importl/Non-LBMP Market Bilaterals	5%											
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%											
DAM Bilateral - Wheel Through Bilaterals	2%											
Balancing Energy Market MWh	-322,442											
Balancing Energy LSE Internal LBMP Energy Sales	-120%											
Balancing Energy External TC LBMP Energy Sales	65%											
Balancing Energy Bilateral - Internal Bilaterals	-4%											
Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals	0%											
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	3%											
Balancing Energy Bilateral - Wheel Through Bilaterals	-45%											
Transactions Summary												
LBMP	63%											
Internal Bilaterals	29%											
Import Bilaterals	5%											
Export Bilaterals	1%											
Wheels Through	1%											
Market Share of Total Load												
Day Ahead Market	102.2%											
Balancing Energy +	-2.2%											
Total MWH	14,977,016											
Average Daily Energy Sendout/Month GWh	449											
0040	L	<b>5</b> .1	N. J 1	A	N.4			Δ	0 ( 1	0.1.1	NI.	Daniel
<u>2018</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>	September	<u>October</u>	November	<u>December</u>
Day Ahead Market MWh	15,153,751	12,643,854	13,521,386	12,158,686	12,721,073	13,983,384	16,839,994	17,195,447	14,432,632	13,548,828	13,506,134	14,450,460
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales	15,153,751 59%	12,643,854 57%	13,521,386 58%	12,158,686 60%	12,721,073 61%	13,983,384 61%	16,839,994 65%	17,195,447 65%	14,432,632 61%	13,548,828 57%	13,506,134 58%	14,450,460 56%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales	15,153,751 59% 4%	12,643,854	13,521,386 58% 2%	12,158,686 60% 2%	12,721,073 61% 2%	13,983,384 61% 1%	16,839,994 65% 1%	17,195,447	14,432,632	13,548,828	13,506,134	14,450,460 56% 6%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals	15,153,751 59% 4% 29%	12,643,854 57% 3% 31%	13,521,386 58%	12,158,686 60%	12,721,073 61% 2% 29%	13,983,384 61% 1% 30%	16,839,994 65% 1% 26%	17,195,447 65%	14,432,632 61%	13,548,828 57%	13,506,134 58%	14,450,460 56% 6% 30%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals	15,153,751 59% 4%	12,643,854 57% 3%	13,521,386 58% 2%	12,158,686 60% 2%	12,721,073 61% 2%	13,983,384 61% 1%	16,839,994 65% 1%	17,195,447 65% 2%	14,432,632 61% 3%	13,548,828 57% 6%	13,506,134 58% 6%	14,450,460 56% 6% 30% 5%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals	15,153,751 59% 4% 29%	12,643,854 57% 3% 31%	13,521,386 58% 2% 32%	12,158,686 60% 2% 30% 5% 2%	12,721,073 61% 2% 29%	13,983,384 61% 1% 30%	16,839,994 65% 1% 26%	17,195,447 65% 2% 25%	14,432,632 61% 3% 28%	13,548,828 57% 6% 29%	13,506,134 58% 6% 30%	14,450,460 56% 6% 30% 5% 2%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals	15,153,751 59% 4% 29% 5%	12,643,854 57% 3% 31% 5%	13,521,386 58% 2% 32% 5%	12,158,686 60% 2% 30% 5%	12,721,073 61% 2% 29% 5%	13,983,384 61% 1% 30% 5%	16,839,994 65% 1% 26% 4%	17,195,447 65% 2% 25% 4%	14,432,632 61% 3% 28% 5%	13,548,828 57% 6% 29% 5%	13,506,134 58% 6% 30% 2%	14,450,460 56% 6% 30% 5%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals	15,153,751 59% 4% 29% 5% 2%	12,643,854 57% 3% 31% 5% 2%	13,521,386 58% 2% 32% 5% 2%	12,158,686 60% 2% 30% 5% 2%	12,721,073 61% 2% 29% 5% 2%	13,983,384 61% 1% 30% 5% 1%	16,839,994 65% 1% 26% 4% 1%	17,195,447 65% 2% 25% 4% 1%	14,432,632 61% 3% 28% 5% 1%	13,548,828 57% 6% 29% 5% 2%	13,506,134 58% 6% 30% 2% 2%	14,450,460 56% 6% 30% 5% 2%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals	15,153,751 59% 4% 29% 5% 2% 1%	12,643,854 57% 3% 31% 5% 2% 2%	13,521,386 58% 2% 32% 5% 2% 2%	12,158,686 60% 2% 30% 5% 2% 2%	12,721,073 61% 2% 29% 5% 2% 2%	13,983,384 61% 1% 30% 5% 1% 2%	16,839,994 65% 1% 26% 4% 1% 2%	17,195,447 65% 2% 25% 4% 1% 2%	14,432,632 61% 3% 28% 5% 1% 2%	13,548,828 57% 6% 29% 5% 2% 1%	13,506,134 58% 6% 30% 2% 2% 1%	14,450,460 56% 6% 30% 5% 2% 2%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh	15,153,751 59% 4% 29% 5% 2% 1% -149,619	12,643,854 57% 3% 31% 5% 2% 2% -299,377	13,521,386 58% 2% 32% 5% 2% 2% -386,811	12,158,686 60% 2% 30% 5% 2% 2% -72,862	12,721,073 61% 2% 29% 5% 2% 2% -29,539	13,983,384 61% 1% 30% 5% 1% 2% -354,112	16,839,994 65% 1% 26% 4% 1% 2% -80,438	17,195,447 65% 2% 25% 4% 1% 2% -44,732	14,432,632 61% 3% 28% 5% 1% 2% -210,436	13,548,828 57% 6% 29% 5% 2% 1% -314,885	13,506,134 58% 6% 30% 2% 2% 1% -304,277	14,450,460 56% 6% 30% 5% 2% 2% -428,748
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208%	12,721,073 61% 2% 29% 5% 2% 2% -29,539 -458%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75%	14,432,632 61% 3% 28% 5% 1% 2% -210,436 -82%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189%	12,721,073 61% 2% 29% 5% 2% 2% -29,539 -458% 564%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209%	14,432,632 61% 3% 28% 5% 1% 2% -210,436 -82% 14%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11%	12,721,073 61% 2% 29% 5% 2% 2% -29,539 -458% 564% 29%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23%	14,432,632 61% 3% 28% 5% 1% 2% -210,436 -82% 14% 7%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales DAM External TC LBMP Energy Sales DAM Bilateral - Internal Bilaterals DAM Bilateral - Importl/Non-LBMP Market Bilaterals DAM Bilateral - Export/Non-LBMP Market Bilaterals DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales Balancing Energy External TC LBMP Energy Sales Balancing Energy Bilateral - Internal Bilaterals Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 0%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0%	12,721,073 61% 2% 29% 5% 2% 2% -29,539 -458% 564% 29% 0%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0%	14,432,632 61% 3% 28% 5% 1% 22% -210,436 -82% 14% 7% 0%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Wheel Through Bilaterals	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 0% 6%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34%	12,721,073 61% 2% 29% 5% 2% 2% -29,539 -458% 564% 29% 0% 51%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25%	14,432,632 61% 3% 28% 5% 1% 2% -210,436 -82% 14% 7% 0% 3%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales DAM External TC LBMP Energy Sales DAM Bilateral - Internal Bilaterals DAM Bilateral - Importl/Non-LBMP Market Bilaterals DAM Bilateral - Export/Non-LBMP Market Bilaterals DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales Balancing Energy External TC LBMP Energy Sales Balancing Energy Bilateral - Internal Bilaterals Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103%	12,721,073 61% 2% 29% 5% 2% 2% -29,539 -458% 564% 29% 0% 51% -287%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281%	14,432,632 61% 3% 28% 5% 1% 2% -210,436 -82% 14% 7% 0% 3% -42%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals  Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 0% 6%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34%	12,721,073 61% 2% 29% 5% 2% 2% -29,539 -458% 564% 29% 0% 51% -287%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281%	14,432,632 61% 3% 28% 5% 1% 22% -210,436 -82% 14% 7% 0% 3% -42%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary  LBMP  Internal Bilaterals	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36% 59% 32%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103%	12,721,073 61% 2% 29% 5% 2% 2% -29,539 -458% 564% 29% 0% 51% -287%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23% 61% 31%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281%	14,432,632 61% 3% 28% 5% 1% 2% -210,436 -82% 14% 7% 0% 3% -42%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27% 63% 30%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary  LBMP  Internal Bilaterals  Import Bilaterals	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36% 59% 32% 5%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15% 59% 33% 6%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103% 62% 30% 5%	12,721,073 61% 29% 5% 29% 5% 2% -29,539 -458% 564% 29% 0% 51% -287%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23% 61% 31% 5%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281%	14,432,632 61% 3% 28% 5% 1% 22% -210,436 -82% 14% 7% 0% 3% -42%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27% 63%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36% 61% 31% 5%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Importl/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals  Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary  LBMP  Internal Bilaterals  Import Bilaterals  Export Bilaterals	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36% 59% 32% 5% 2%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15% 59% 33% 6% 2%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103% 62% 30% 5% 2%	12,721,073 61% 29% 5% 29% 2% 2% -29,539 -458% 564% 29% 0% 51% -287% 63% 29% 5% 29%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23% 61% 31% 5% 1%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281% 68% 25% 4%	14,432,632 61% 3% 28% 5% 1% 22% -210,436 -82% 14% 7% 0% 3% -42% 64% 28% 5%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27% 63% 30% 5%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31% 64% 31% 3%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36% 61% 31% 5% 2%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales DAM External TC LBMP Energy Sales DAM Bilateral - Internal Bilaterals DAM Bilateral - Importl/Non-LBMP Market Bilaterals DAM Bilateral - Export/Non-LBMP Market Bilaterals DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales Balancing Energy External TC LBMP Energy Sales Balancing Energy Bilateral - Internal Bilaterals Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals Balancing Energy Bilateral - Wheel Through Bilaterals Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary  LBMP Internal Bilaterals Import Bilaterals Export Bilaterals Export Bilaterals Wheels Through	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58% 63% 30% 5% 2%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36% 59% 32% 5%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15% 59% 33% 6%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103% 62% 30% 5%	12,721,073 61% 29% 5% 29% 5% 2% -29,539 -458% 564% 29% 0% 51% -287%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23% 61% 31% 5%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138% 66% 27% 4% 1%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281% 68% 25% 4% 1%	14,432,632 61% 3% 28% 5% 1% 22% -210,436 -82% 14% 7% 0% 3% -42% 64% 28% 5% 1%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27% 63% 30% 5% 2%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31% 64% 31% 3% 2%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36% 61% 31% 5%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales DAM External TC LBMP Energy Sales DAM Bilateral - Internal Bilaterals DAM Bilateral - Importl/Non-LBMP Market Bilaterals DAM Bilateral - Export/Non-LBMP Market Bilaterals DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales Balancing Energy External TC LBMP Energy Sales Balancing Energy Bilateral - Internal Bilaterals Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary LBMP Internal Bilaterals Import Bilaterals Export Bilaterals Export Bilaterals Mheels Through  Market Share of Total Load	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58% 63% 30% 5% 2% 1%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36% 59% 32% 5% 2% 1%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15% 59% 33% 6% 2% 1%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103% 62% 30% 5% 2% 1%	12,721,073 61% 29% 5% 29% -29,539 -458% 564% 29% 0% 51% -287% 63% 29% 5% 2% 1%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23% 61% 31% 5% 1% 2%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138% 66% 27% 4% 1%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281% 68% 25% 4% 1% 1%	14,432,632 61% 3% 28% 5% 1% 22% -210,436 -82% 14% 7% 0% 3% -42% 64% 28% 5% 1% 2%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27% 63% 30% 5% 2% 1%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31% 64% 31% 3% 2% 1%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36% 61% 31% 5% 2% 1%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals  Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary  LBMP  Internal Bilaterals  Import Bilaterals  Export Bilaterals  Export Bilaterals  Export Bilaterals  Mheels Through  Market Share of Total Load  Day Ahead Market	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58% 63% 30% 5% 2% 1%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36% 59% 32% 5% 2% 1%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15% 59% 33% 6% 2% 1%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103% 62% 30% 5% 2% 1%	12,721,073 61% 29% 5% 29% 2% 22% -29,539 -458% 564% 29% 0% 51% -287% 63% 29% 5% 2% 1%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23% 61% 31% 5% 1% 2%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138% 66% 27% 4% 1% 1%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281% 68% 25% 4% 1% 1% 1%	14,432,632 61% 3% 28% 5% 1% 2% -210,436 -82% 14% 7% 0% 3% -42% 64% 28% 5% 1% 2%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27% 63% 30% 5% 2% 1%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31% 64% 31% 3% 2% 1%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36% 61% 31% 5% 2% 1%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals  Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary  LBMP  Internal Bilaterals  Import Bilaterals  Export Bilaterals  Export Bilaterals  Export Bilaterals  Mheels Through  Market Share of Total Load  Day Ahead Market  Balancing Energy +	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58% 63% 30% 5% 2% 1%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36% 59% 32% 5% 2% 1% 102.4% -2.4%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15% 59% 33% 6% 2% 1% 102.9% -2.9%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103% 62% 30% 5% 2% 1% 100.6% -0.6%	12,721,073 61% 29% 5% 29% -29,539 -458% 564% 29% 0% 51% -287% 63% 29% 5% 2% 1%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23% 61% 31% 5% 1% 2%  102.6% -2.6%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138% 66% 27% 4% 1% 1% 1% 100.5% -0.5%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281% 68% 25% 4% 1% 1% 1% 100.3% -0.3%	14,432,632 61% 3% 28% 5% 1% 22% -210,436 -82% 14% 7% 0% 3% -42% 64% 28% 5% 1% 2%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27% 63% 30% 5% 2% 1% 102.4% -2.4%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31% 64% 31% 3% 2% 1% 102.3% -2.3%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% -36% 61% 31% 5% 2% 1%
Day Ahead Market MWh  DAM LSE Internal LBMP Energy Sales  DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales  Balancing Energy External TC LBMP Energy Sales  Balancing Energy Bilateral - Internal Bilaterals  Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals  Balancing Energy Bilateral - Wheel Through Bilaterals  Transactions Summary  LBMP  Internal Bilaterals  Import Bilaterals  Export Bilaterals  Export Bilaterals  Export Bilaterals  Mheels Through  Market Share of Total Load  Day Ahead Market	15,153,751 59% 4% 29% 5% 2% 1% -149,619 -147% 74% 9% 0% 22% -58% 63% 30% 5% 2% 1%	12,643,854 57% 3% 31% 5% 2% 2% -299,377 -101% 24% 5% 0% 9% -36% 59% 32% 5% 2% 1%	13,521,386 58% 2% 32% 5% 2% 2% -386,811 -128% 37% 0% 6% -15% 59% 33% 6% 2% 1%	12,158,686 60% 2% 30% 5% 2% 2% -72,862 -208% 189% -11% 0% 34% -103% 62% 30% 5% 2% 1%	12,721,073 61% 29% 5% 29% 2% 22% -29,539 -458% 564% 29% 0% 51% -287% 63% 29% 5% 2% 1%	13,983,384 61% 1% 30% 5% 1% 2% -354,112 -113% 29% 5% 0% 3% -23% 61% 31% 5% 1% 2%	16,839,994 65% 1% 26% 4% 1% 2% -80,438 -123% 129% 18% 0% 14% -138% 66% 27% 4% 1% 1%	17,195,447 65% 2% 25% 4% 1% 2% -44,732 -75% 209% 23% 0% 25% -281% 68% 25% 4% 1% 1% 1%	14,432,632 61% 3% 28% 5% 1% 22% -210,436 -82% 14% 7% 0% 3% -42% 64% 28% 5% 1% 2%	13,548,828 57% 6% 29% 5% 2% 1% -314,885 -105% 30% 2% 0% 0% -27% 63% 30% 5% 2% 1%	13,506,134 58% 6% 30% 2% 2% 1% -304,277 -100% 18% 3% 10% 0% -31% 64% 31% 3% 2% 1%	14,450,460 56% 6% 30% 5% 2% 2% -428,748 -94% 27% 3% 0% 0% -36% 61% 31% 5% 2% 1%

<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.

<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.

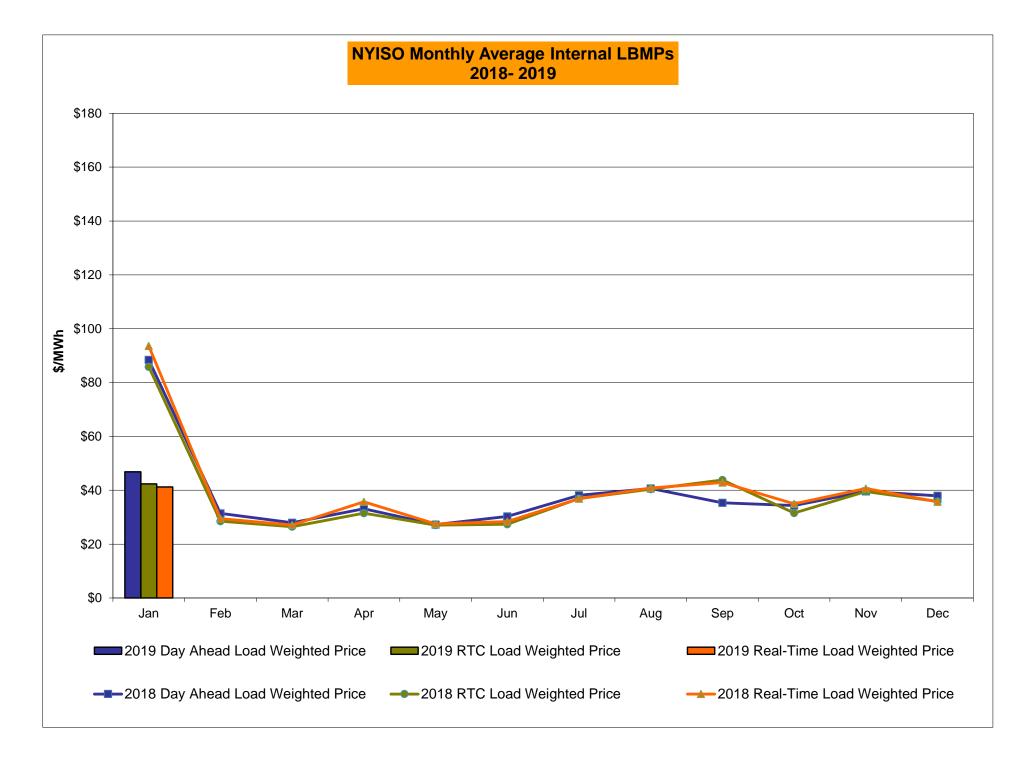
## **NYISO Markets 2019 Energy Statistics**

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	August Septen	ber Octobe	r November Dece	<u>mber</u>
DAY AHEAD LBMP											
Price *	\$45.01										
Standard Deviation	\$25.67										
Load Weighted Price **	\$46.88										
RTC LBMP											
Price *	\$40.86										
Standard Deviation	\$23.02										
Load Weighted Price **	\$42.39										
REAL TIME LBMP											
Price *	\$39.54										
Standard Deviation	\$26.03										
Load Weighted Price **	\$41.24										
Average Daily Energy Sendout/Month GWh	449										

## NYISO Markets 2018 Energy Statistics

	January	February	March	<u>April</u>	May	<u>June</u>	<u>July</u>	August	September	October	November I	December
DAY AHEAD LBMP					<u></u>		<del></del>					
Price *	\$83.53	\$30.37	\$27.37	\$32.40	\$25.97	\$28.41	\$35.73	\$38.00	\$33.28	\$33.27	\$38.36	\$36.88
Standard Deviation	\$58.94	\$12.38	\$6.34	\$9.06	\$9.22	\$11.42	\$15.25	\$16.51	\$12.01	\$9.24	\$11.36	\$11.61
Load Weighted Price **	\$88.42	\$31.44	\$27.95	\$33.14	\$27.26	\$30.27	\$38.14	\$40.64	\$35.33	\$34.33	\$39.55	\$37.96
RTC LBMP												
Price *	\$81.65	\$27.73	\$25.99	\$30.80	\$25.40	\$26.06	\$34.65	\$38.13	\$39.52	\$30.92	\$38.37	\$35.01
Standard Deviation	\$60.83	\$11.96	\$8.99	\$14.30	\$20.37	\$12.78	\$17.44	\$20.05	\$61.50	\$13.43	\$17.24	\$12.27
Load Weighted Price **	\$85.85	\$28.54	\$26.46	\$31.47	\$27.08	\$27.35	\$36.93	\$40.40	\$43.83	\$31.55	\$39.53	\$35.84
REAL TIME LBMP												
Price *	\$87.94	\$28.50	\$26.49	\$34.53	\$25.57	\$26.31	\$34.34	\$38.07	\$38.15	\$33.88	\$39.18	\$34.74
Standard Deviation	\$87.41	\$17.36	\$12.25	\$26.57	\$23.49	\$24.34	\$18.44	\$27.21	\$46.81	\$37.42	\$26.15	\$17.44
Load Weighted Price **	\$93.59	\$29.49	\$27.09	\$35.72	\$27.47	\$28.38	\$36.84	\$40.87	\$42.87	\$34.94	\$40.63	\$35.70
Average Daily Energy Sendout/Month GWh	463	426	413	390	397	445	529	537	458	399	411	425

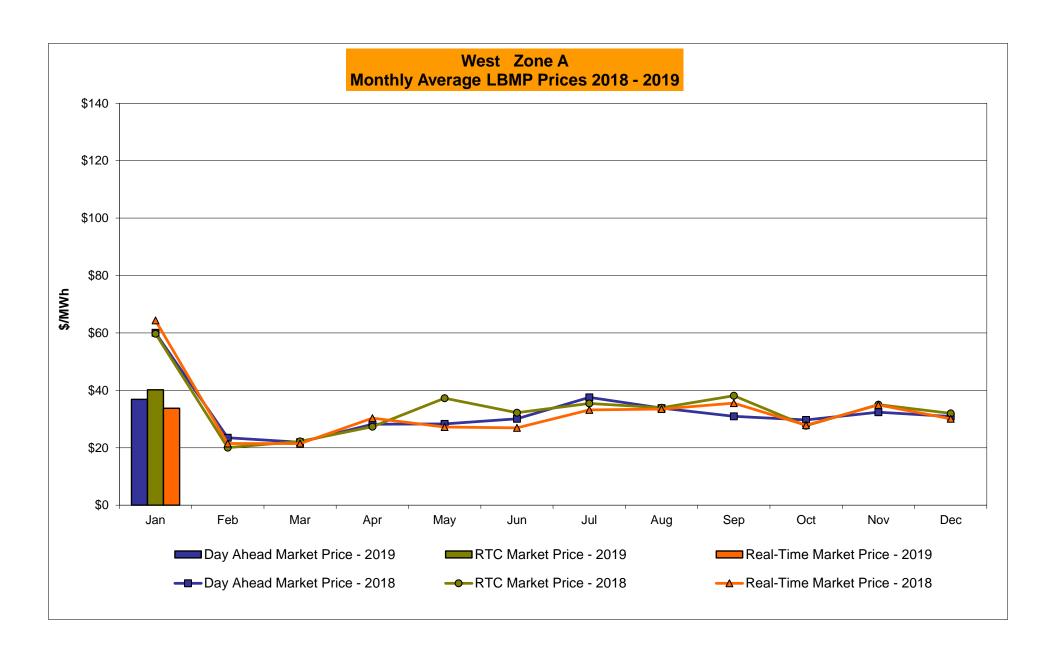
<sup>\*</sup> Average zonal load weighted prices.
\*\* Average zonal load weighted prices, load weighted in each hour.

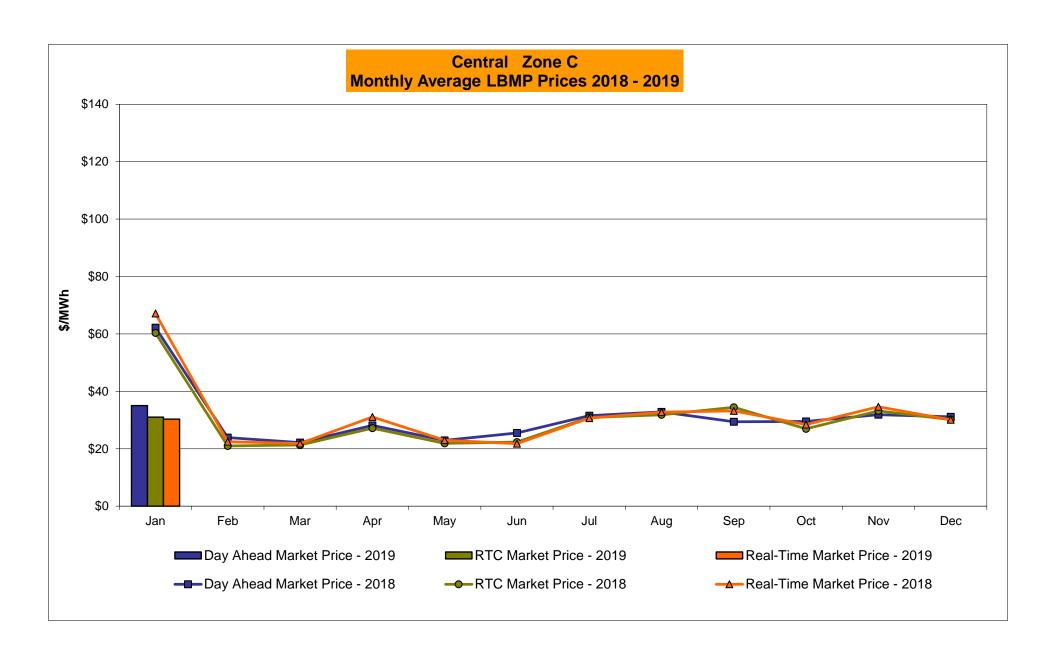


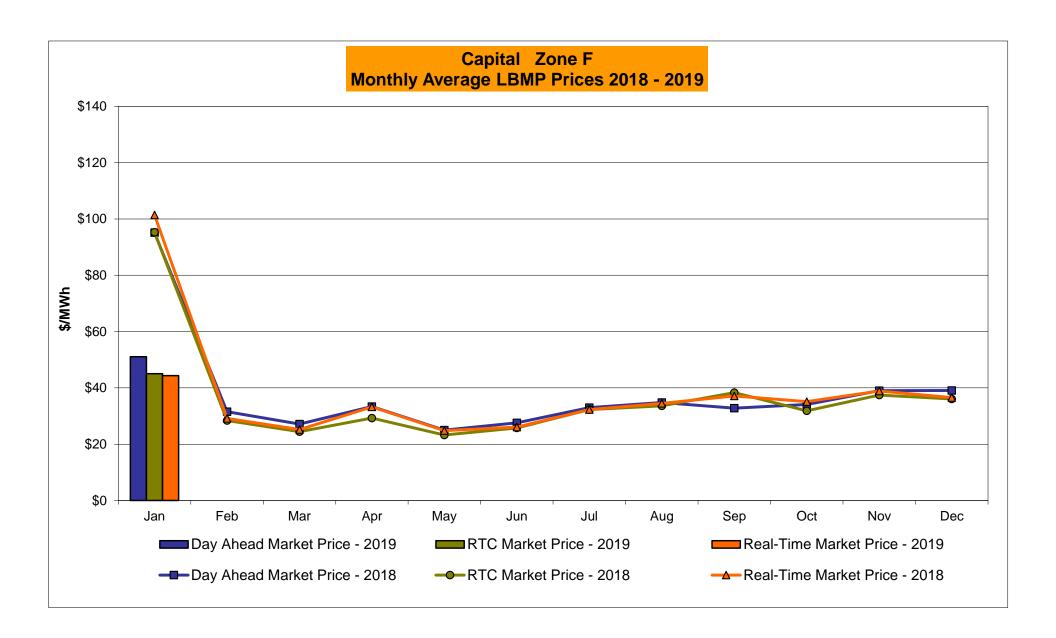
## January 2019 Zonal LBMP Statistics for NYISO (\$/MWh)

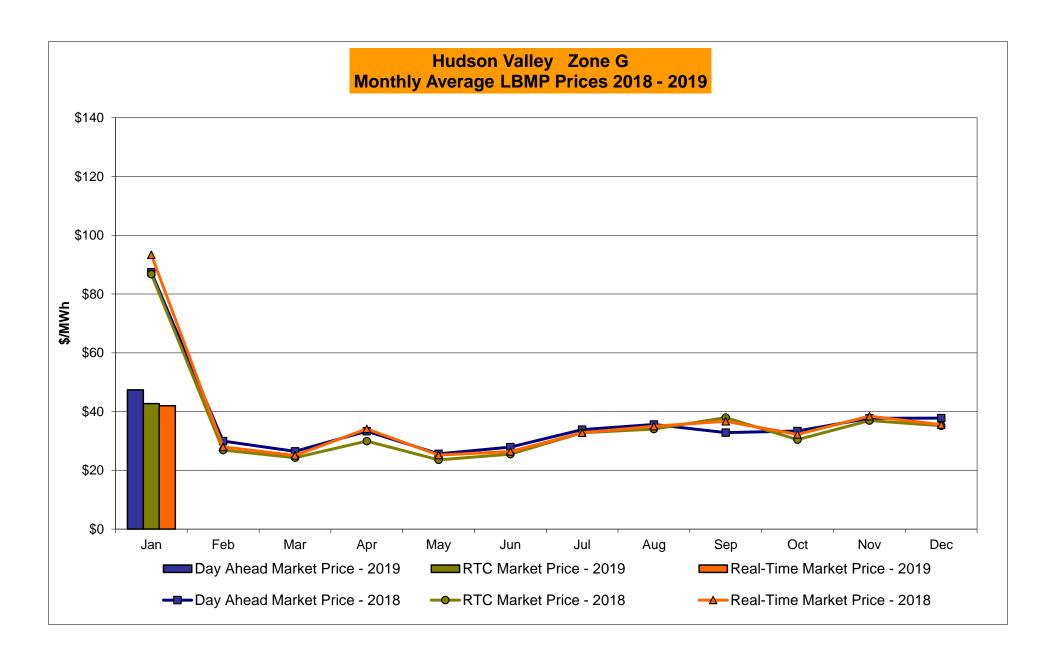
	WEST	GENESEE	NORTH	CENTRAL	MOHAWK VALLEY	CAPITAL	HUDSON VALLEY	MILLWOOD	DUNWOODIE	NEW YORK CITY	LONG ISLAND
	Zone A	Zone B	Zone D	Zone C	Zone E	Zone F	Zone G	Zone H	Zone I	Zone J	Zone K
DAY AHEAD LBMP											
Unweighted Price *	36.84	33.08	31.06	35.02	35.99	51.03	47.38	47.79	47.76	49.20	56.48
Standard Deviation	21.65	19.36	20.46	20.49	21.55	29.17	26.99	27.23	27.19	29.44	31.54
RTC LBMP											
Unweighted Price *	40.22	28.83	28.44	31.02	32.21	45.02	42.72	43.08	42.96	44.02	50.32
Standard Deviation	39.68	17.66	19.80	18.92	19.89	27.93	25.33	25.84	25.67	25.72	34.17
REAL TIME LBMP											
Unweighted Price *	33.74	28.35	27.94	30.34	31.59	44.37	42.01	42.37	42.26	43.78	48.25
Standard Deviation	29.03	21.71	23.76	22.68	23.94	31.19	28.71	29.20	29.03	31.00	32.55
		LIVDDO	HVDDA			CDOCC					
	ONTADIO	HYDRO	HYDRO		NEW	CROSS	NODTUDODT				
	ONTARIO IESO	QUEBEC	HYDRO QUEBEC mport/Export)	РЈМ	NEW ENGLAND		NORTHPORT- NORWALK	NEPTUNE	LINDEN VFT	HUDSON	Dennison
		QUEBEC	QUEBEC	РЈМ		SOUND		NEPTUNE Controllable	LINDEN VFT Controllable	HUDSON Controllable	Dennison Controllable
		QUEBEC	QUEBEC	PJM <u>Zone P</u>		SOUND CABLE	NORWALK				
DAY AHEAD LBMP	IESO	QUEBEC (Wheel) (I	QUEBEC mport/Export)		ENGLAND	SOUND CABLE Controllable	NORWALK Controllable	Controllable	Controllable	<u>Controllable</u>	Controllable
Unweighted Price *	<b>Zone O</b> 32.55	QUEBEC (Wheel) (I Zone M 31.48	QUEBEC mport/Export)  Zone M  31.47	<b>Zone P</b> 39.91	<b>Zone N</b> 51.59	SOUND CABLE Controllable Line 55.11	NORWALK Controllable Line 54.71	Controllable Line 52.25	Controllable Line 48.26	Controllable Line 48.78	Controllable Line 30.48
	IESO Zone O	QUEBEC (Wheel) (I Zone M	QUEBEC mport/Export) <u>Zone M</u>	Zone P	ENGLAND  Zone N	SOUND CABLE Controllable Line	NORWALK Controllable Line	Controllable Line	Controllable Line	Controllable Line	Controllable Line
Unweighted Price * Standard Deviation  RTC LBMP	Zone O  32.55 18.82	QUEBEC (Wheel) (I Zone M 31.48 20.25	QUEBEC mport/Export)  Zone M  31.47 20.25	<b>Zone P</b> 39.91 21.83	<b>Zone N</b> 51.59 28.15	SOUND CABLE Controllable Line 55.11 31.32	NORWALK Controllable Line 54.71 30.17	Controllable Line 52.25 30.31	Controllable Line 48.26 28.79	Controllable Line 48.78 28.88	Controllable Line 30.48 20.20
Unweighted Price * Standard Deviation  RTC LBMP Unweighted Price *	Zone O  32.55 18.82	QUEBEC (Wheel) (I  Zone M  31.48 20.25	QUEBEC mport/Export)  Zone M  31.47 20.25	Zone P 39.91 21.83	<b>ENGLAND Zone N</b> 51.59 28.15	SOUND CABLE Controllable Line 55.11 31.32	NORWALK Controllable Line 54.71 30.17	<u>Line</u> 52.25 30.31	Controllable Line 48.26 28.79	Controllable Line 48.78 28.88 44.02	27.92
Unweighted Price * Standard Deviation  RTC LBMP	Zone O  32.55 18.82	QUEBEC (Wheel) (I Zone M 31.48 20.25	QUEBEC mport/Export)  Zone M  31.47 20.25	<b>Zone P</b> 39.91 21.83	<b>Zone N</b> 51.59 28.15	SOUND CABLE Controllable Line 55.11 31.32	NORWALK Controllable Line 54.71 30.17	Controllable Line 52.25 30.31	Controllable Line 48.26 28.79	Controllable Line 48.78 28.88	Controllable Line 30.48 20.20
Unweighted Price * Standard Deviation  RTC LBMP Unweighted Price * Standard Deviation  REAL TIME LBMP	26.89 16.21	QUEBEC (Wheel) (I  Zone M  31.48 20.25  22.73 21.58	QUEBEC mport/Export)  Zone M  31.47 20.25  22.73 21.58	Zone P 39.91 21.83 35.67 21.60	<b>Zone N</b> 51.59 28.15 50.95 29.95	SOUND CABLE Controllable Line 55.11 31.32 50.65 37.10	NORWALK Controllable Line 54.71 30.17 49.16 32.13	52.25 30.31 47.60 31.62	Controllable Line 48.26 28.79 42.78 26.22	48.78 28.88 44.02 25.71	27.92 19.55
Unweighted Price * Standard Deviation  RTC LBMP  Unweighted Price * Standard Deviation	Zone O 32.55 18.82 26.89	QUEBEC (Wheel) (I  Zone M  31.48 20.25	QUEBEC mport/Export)  Zone M  31.47 20.25	Zone P 39.91 21.83	<b>ENGLAND Zone N</b> 51.59 28.15	SOUND CABLE Controllable Line 55.11 31.32	NORWALK Controllable Line 54.71 30.17	<u>Line</u> 52.25 30.31	Controllable Line 48.26 28.79	Controllable Line 48.78 28.88 44.02	27.92

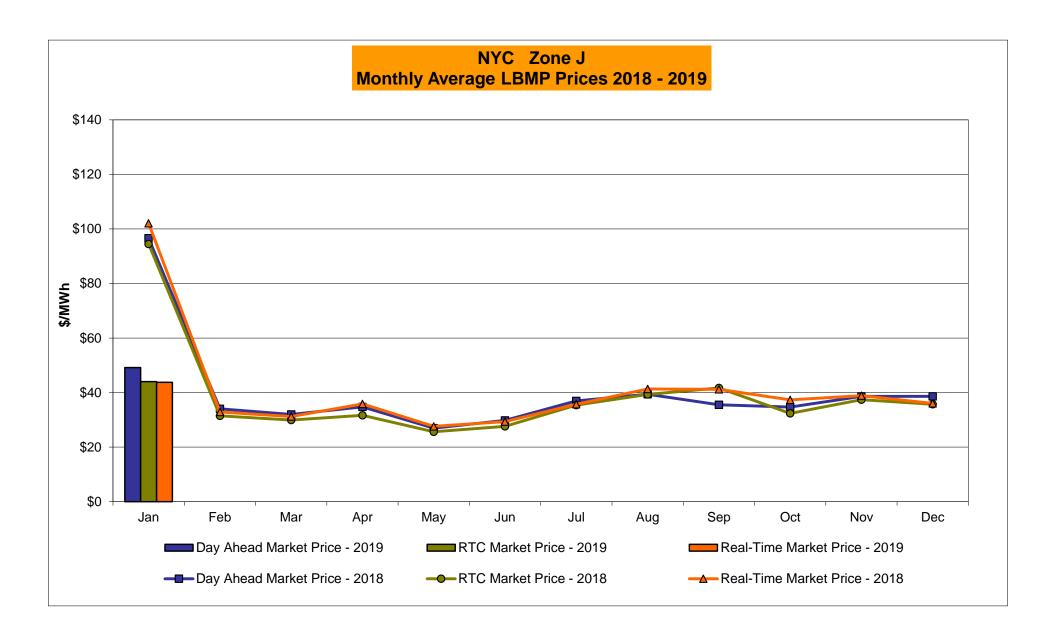
<sup>\*</sup> Straight LBMP averages

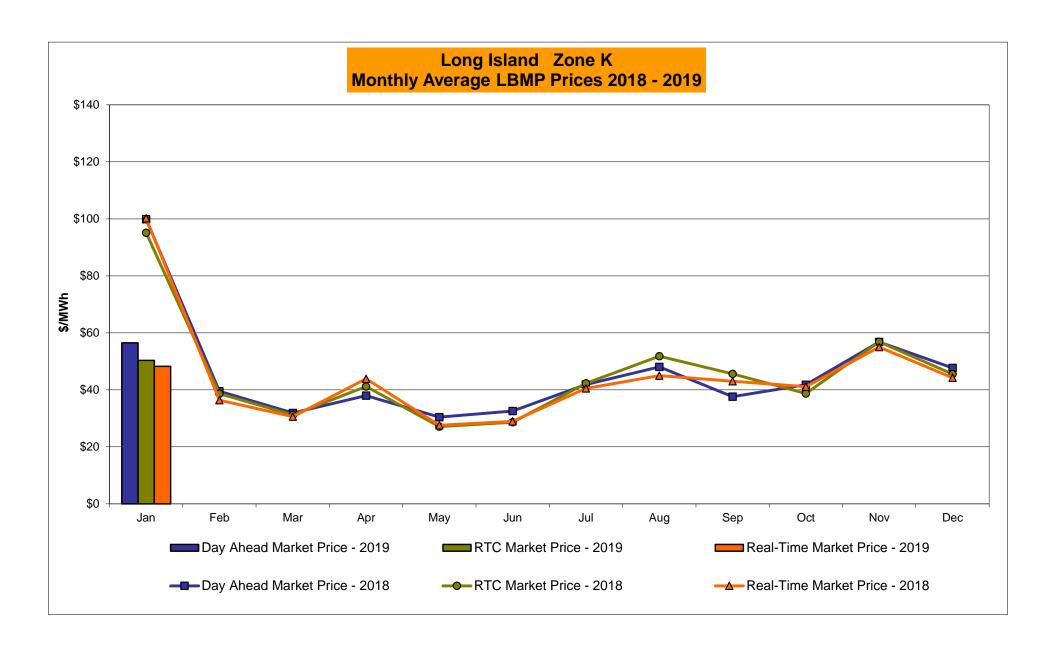


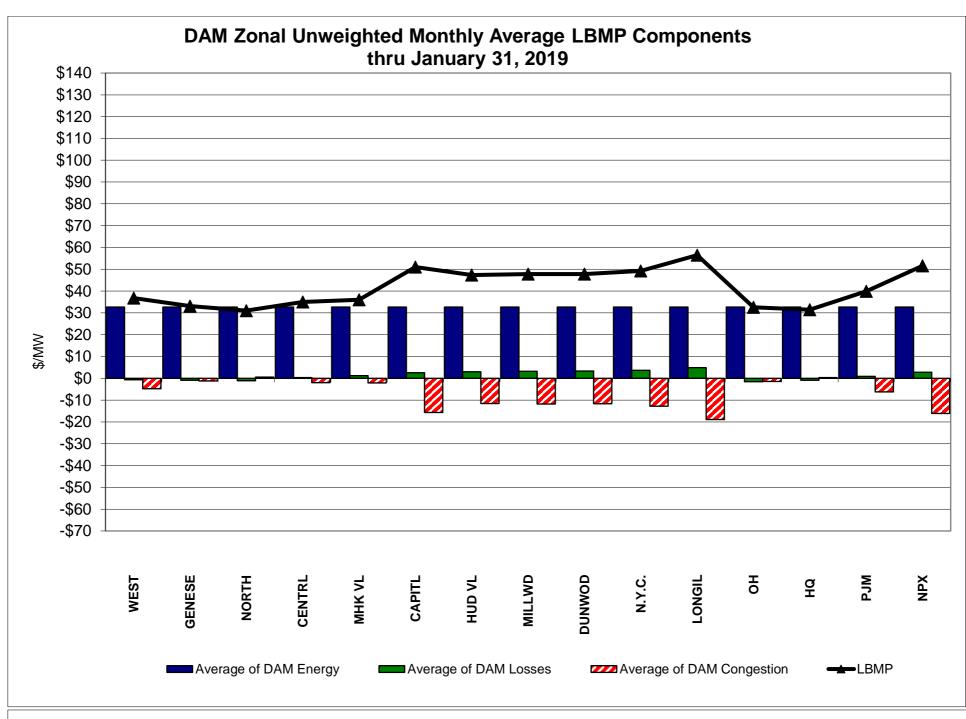


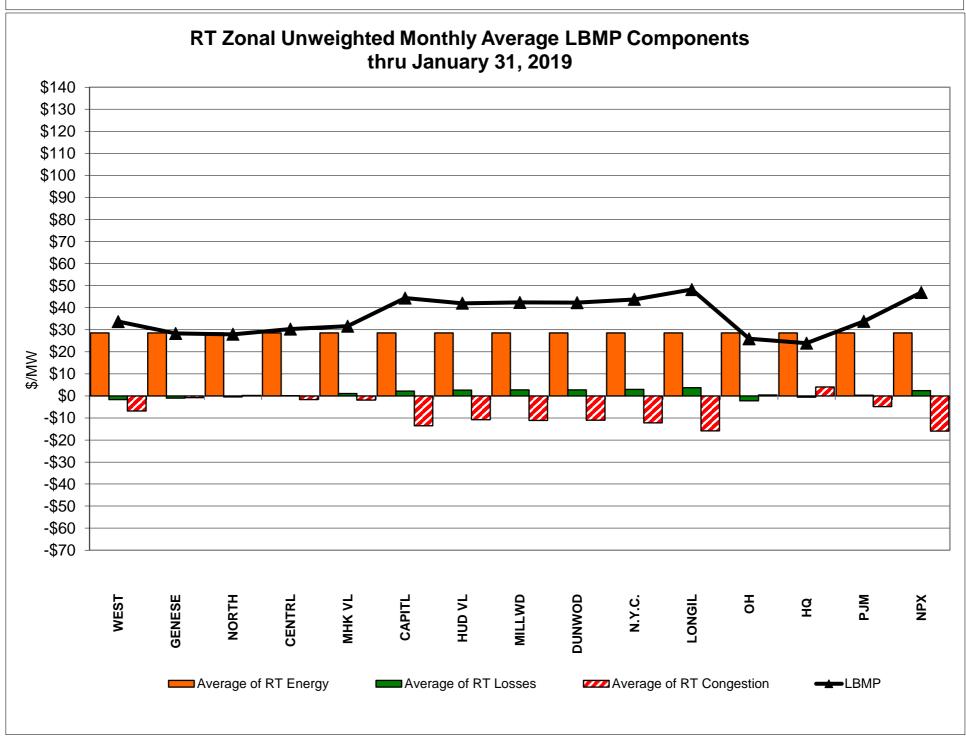




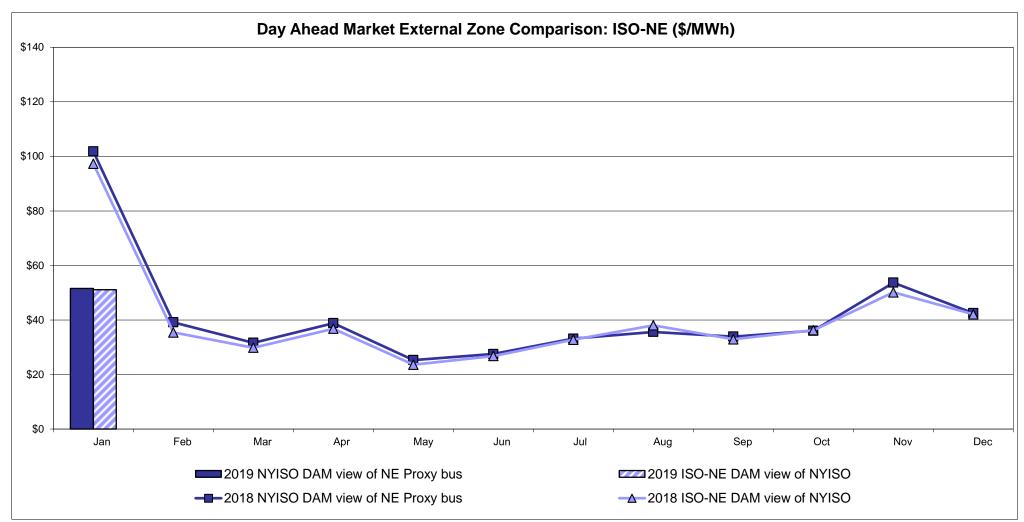


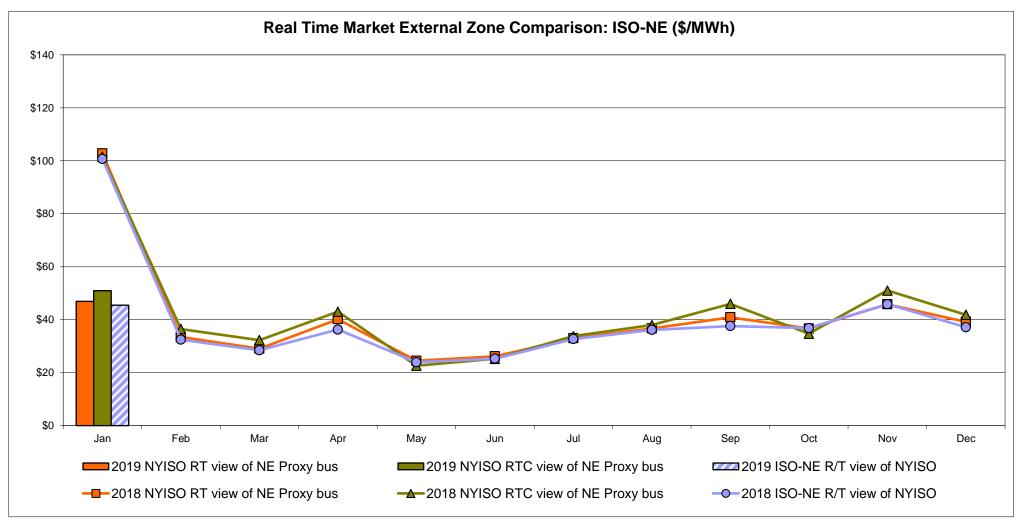




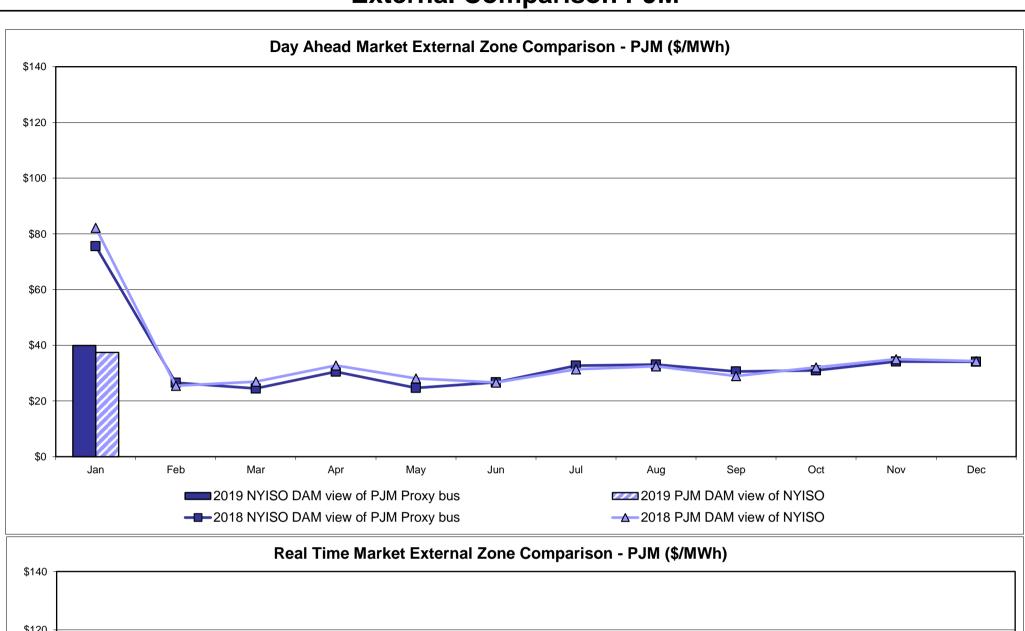


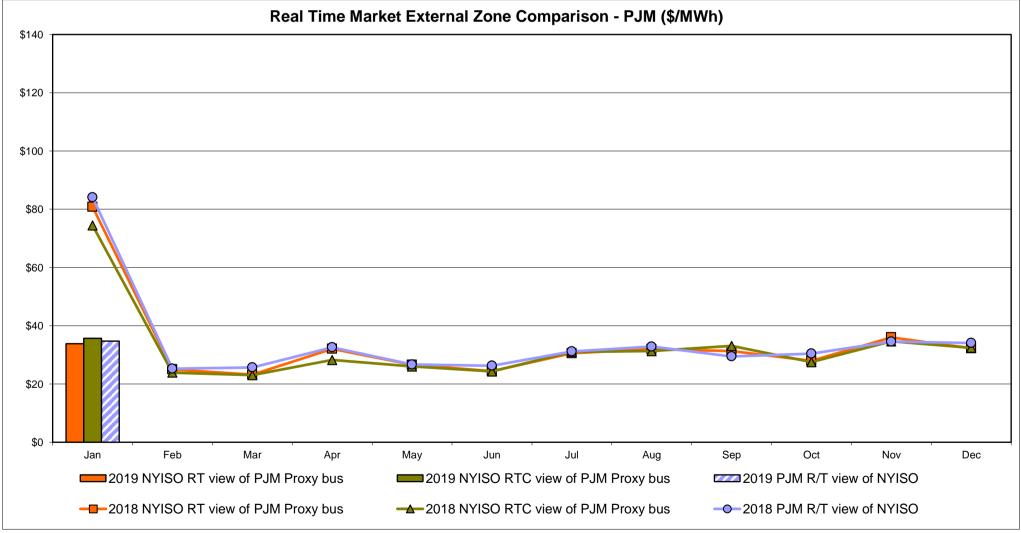
## **External Comparison ISO-New England**



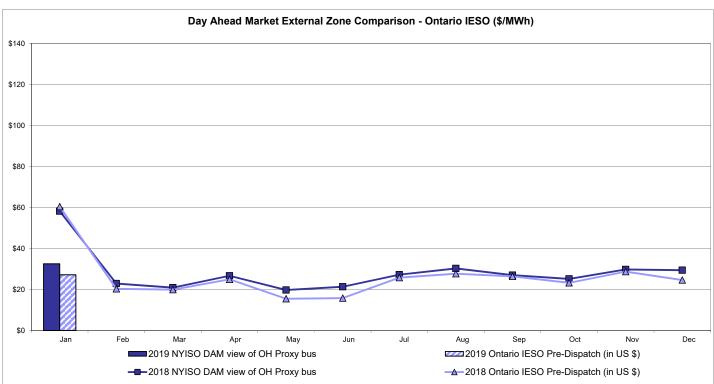


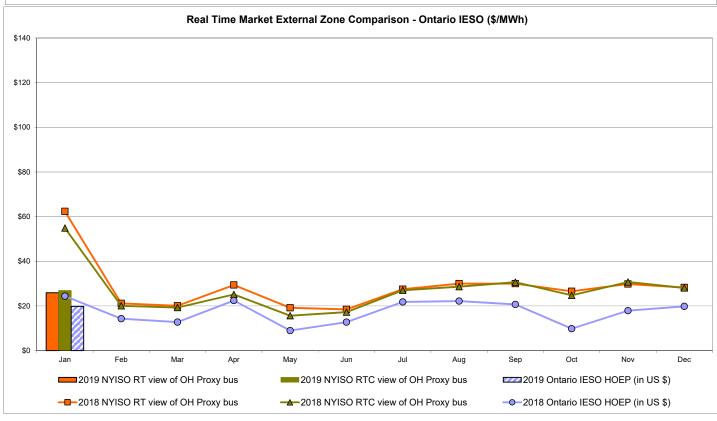
## **External Comparison PJM**





#### **External Comparison Ontario IESO**

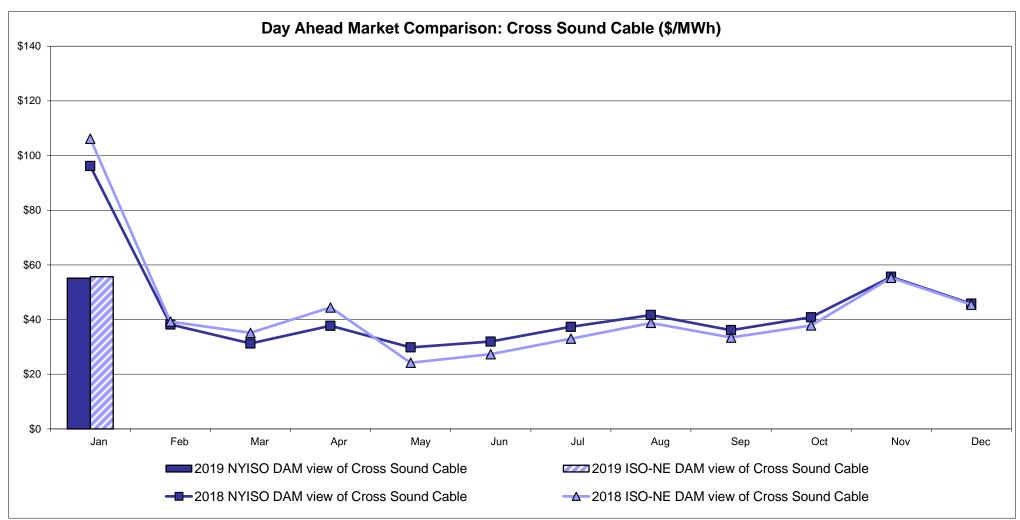


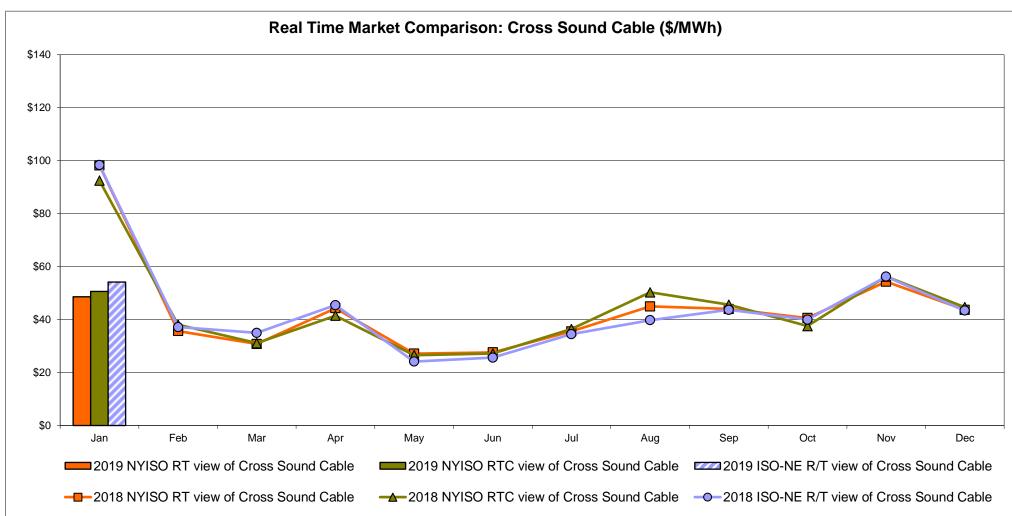


Notes: Exchange factor used for January 2019 was 0.75187969924812 to US

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

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





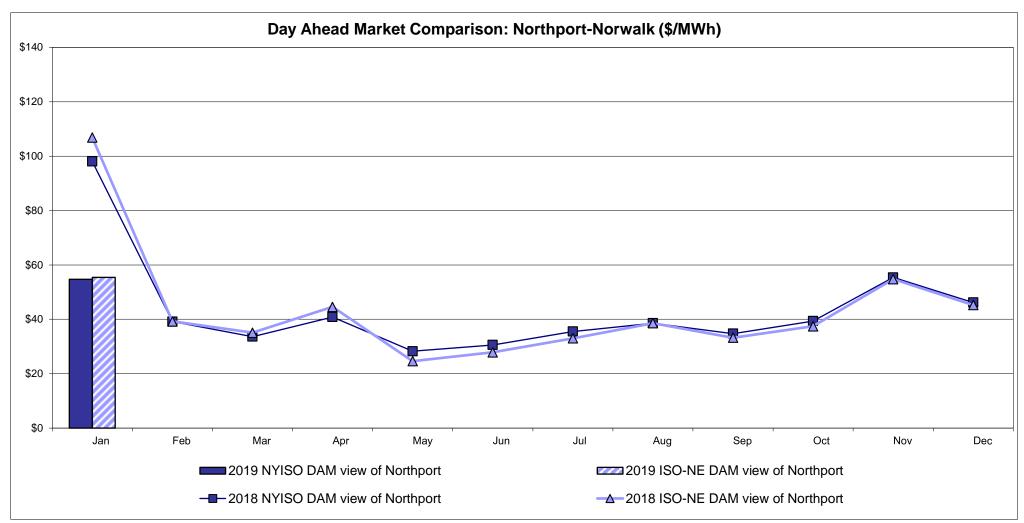
#### Note:

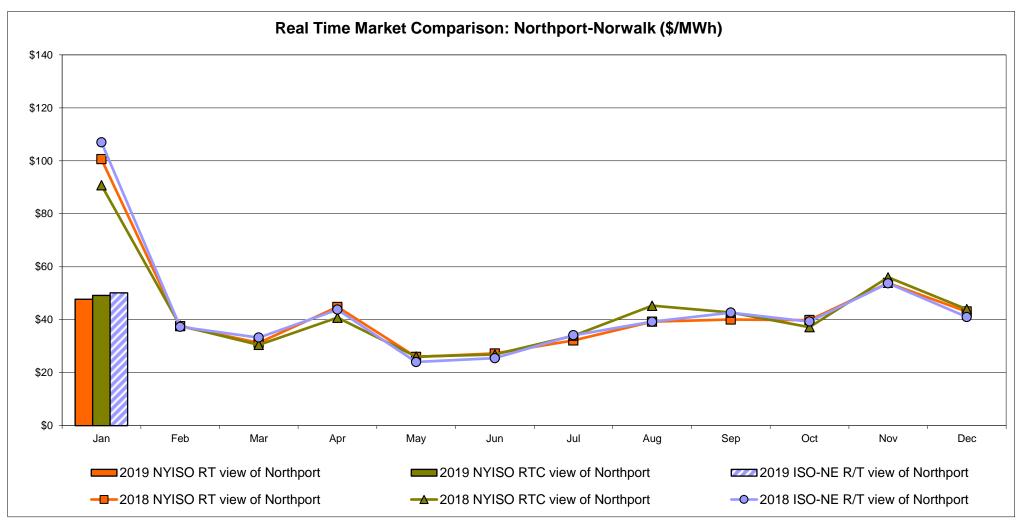
ISO-NE Forecast is an advisory posting @ 18:00 day before.

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)**





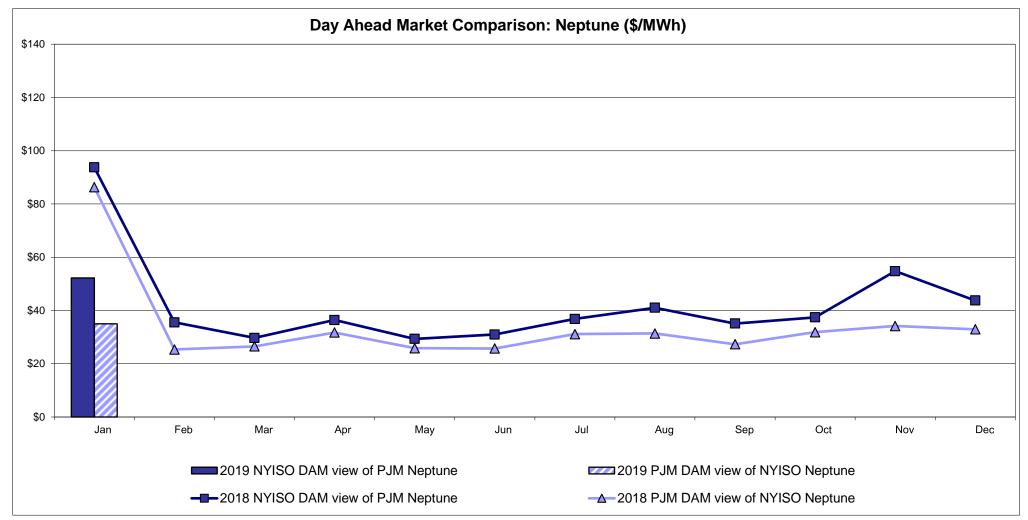
#### Note:

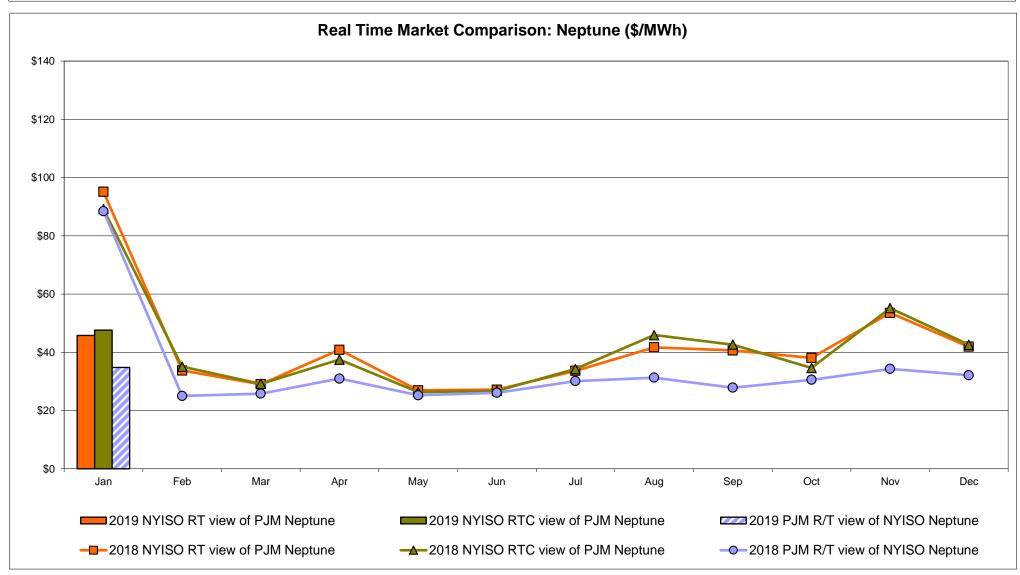
ISO-NE Forecast is an advisory posting @ 18:00 day before.

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

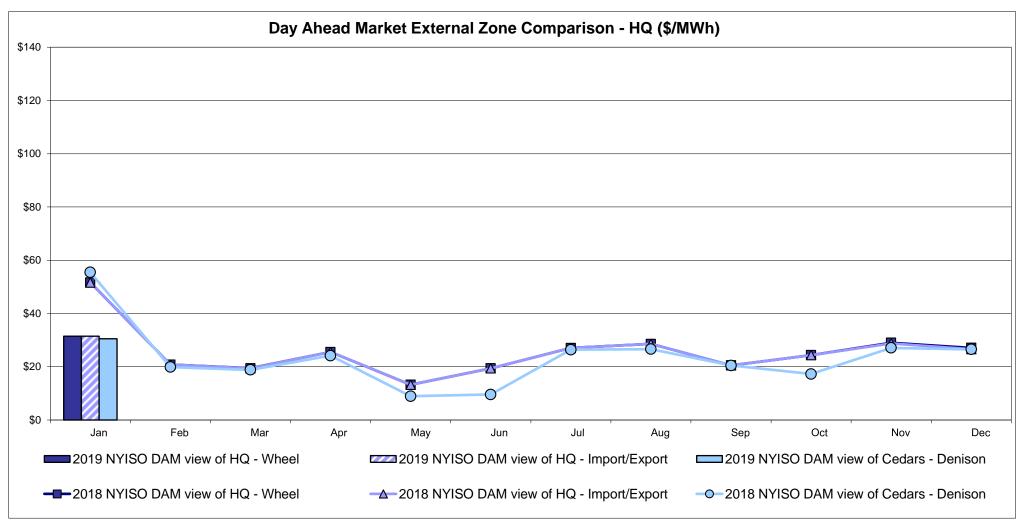
The DAM and R/T prices at the 1385 interface are used for NYISO.

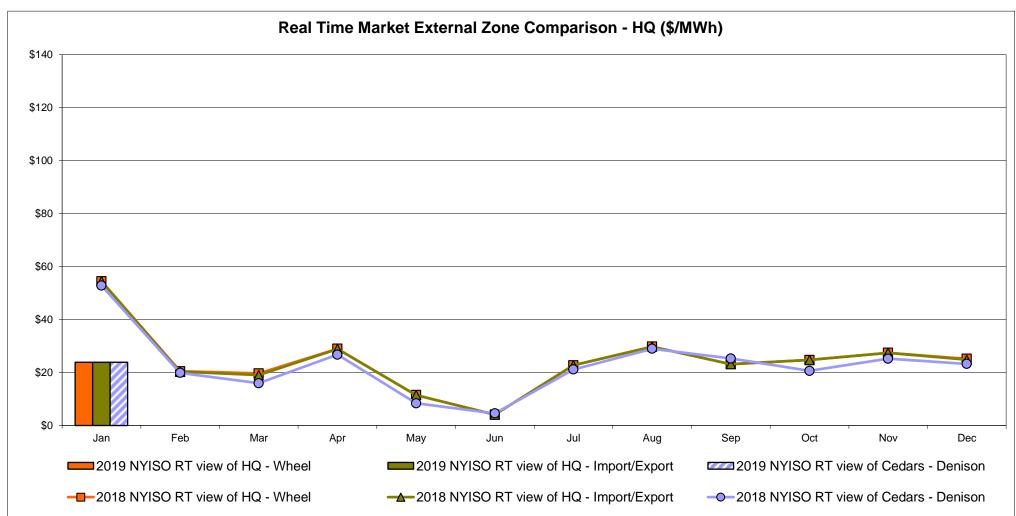
## **External Controllable Line: Neptune (PJM)**





## **External Comparison Hydro-Quebec**

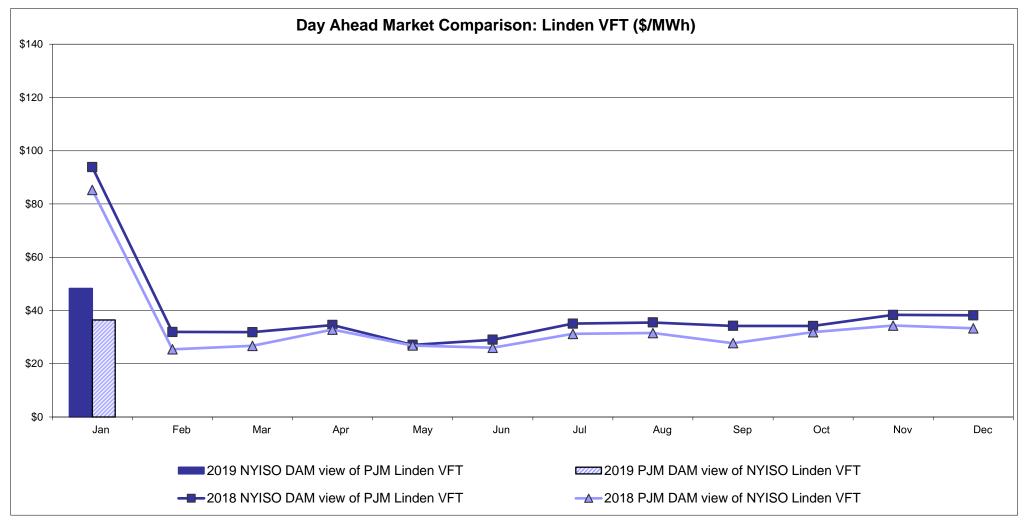


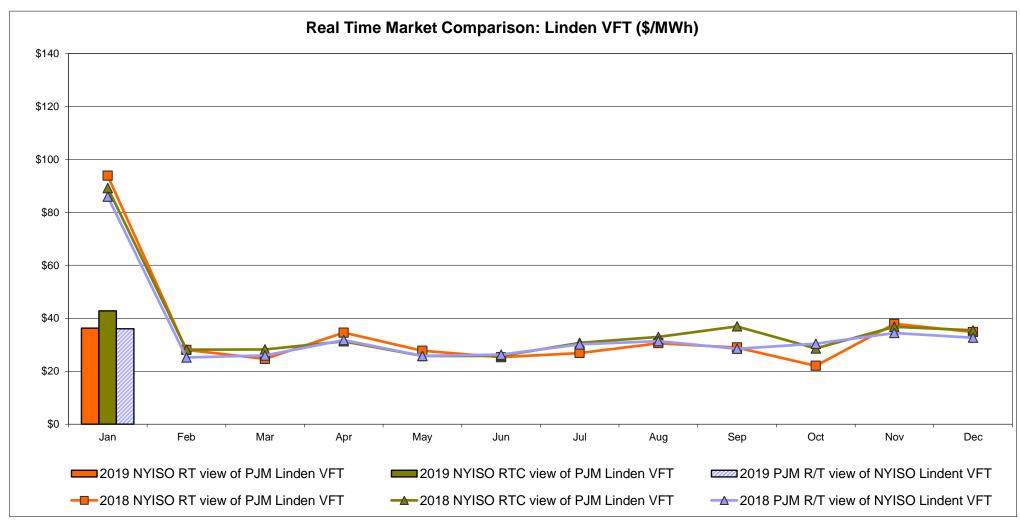


Note:

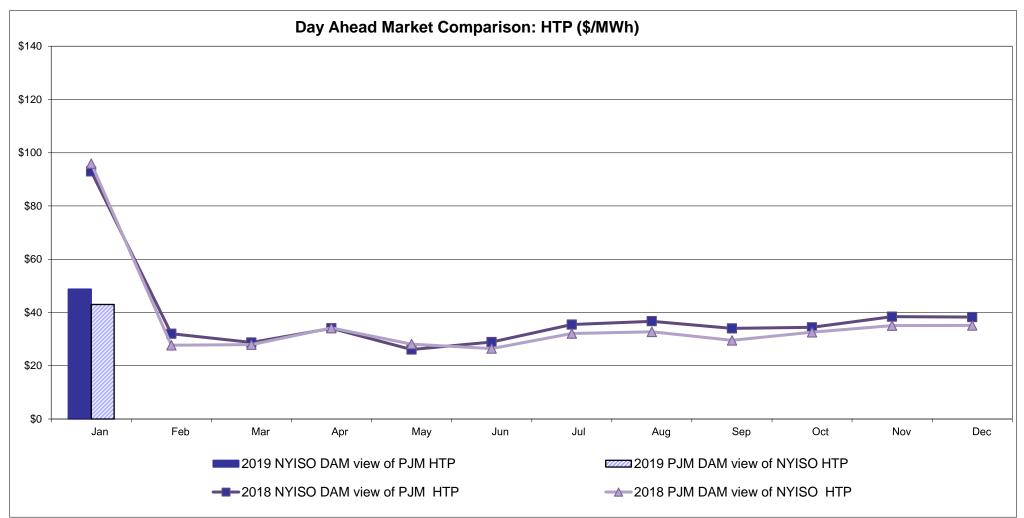
Hydro-Quebec Prices are unavailable.

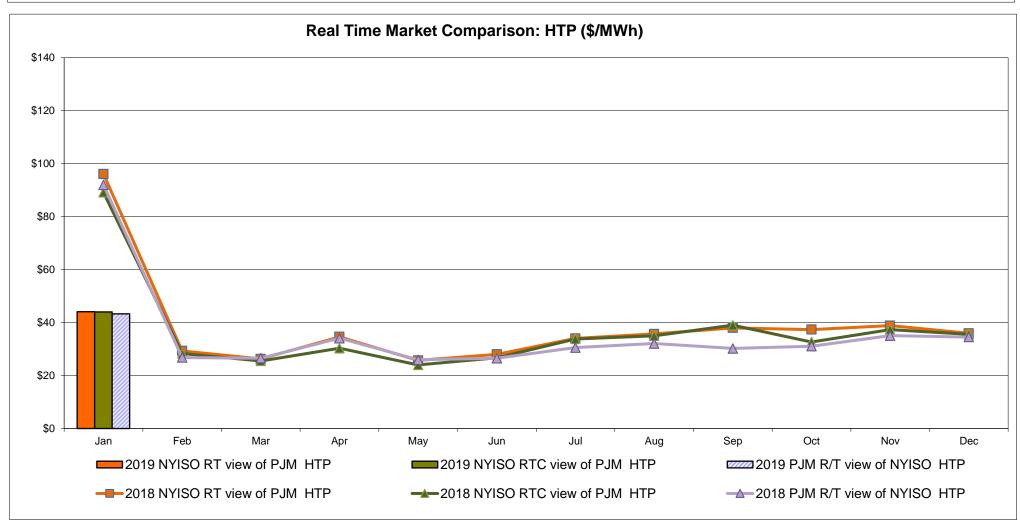
## **External Controllable Line: Linden VFT (PJM)**





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

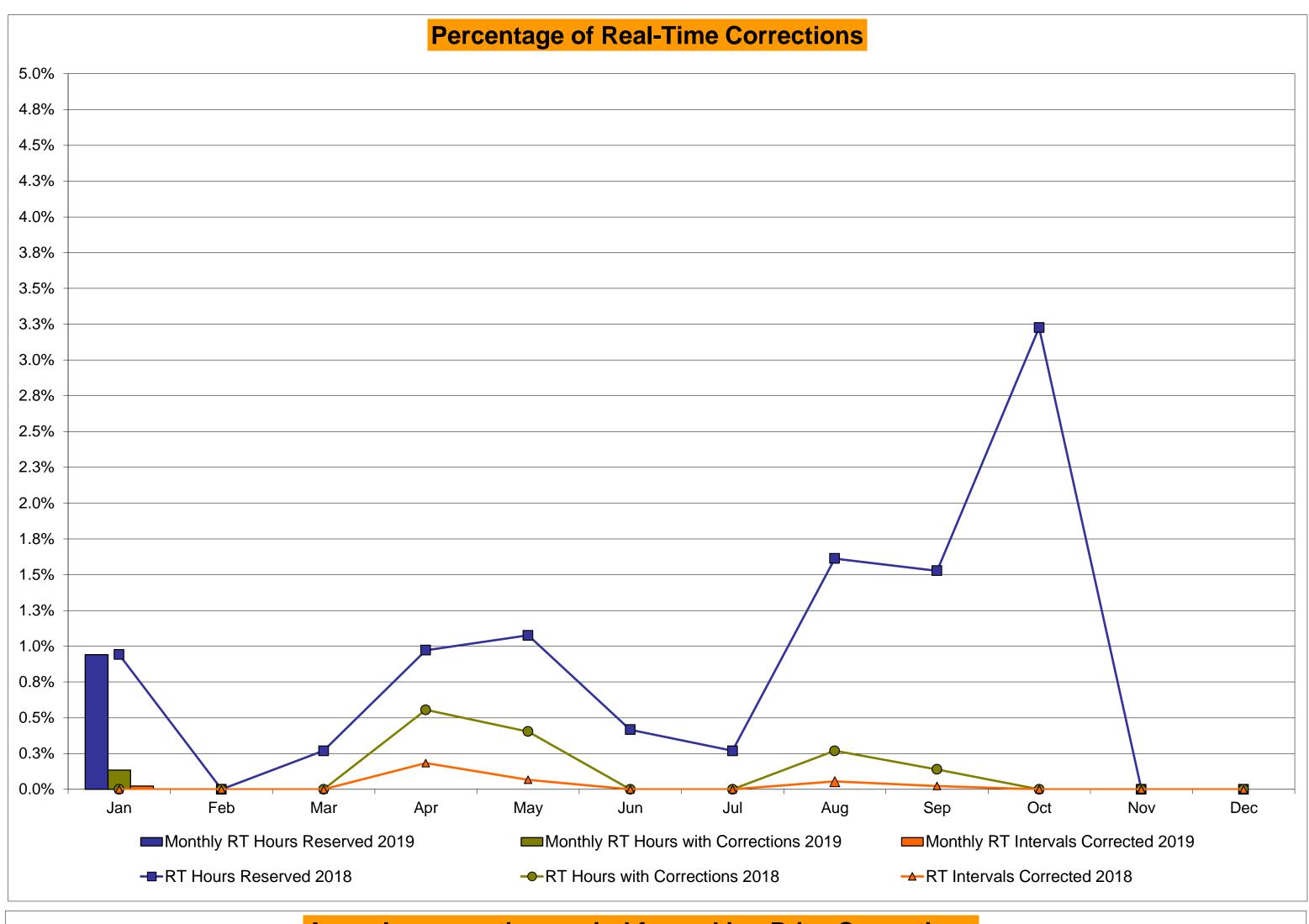


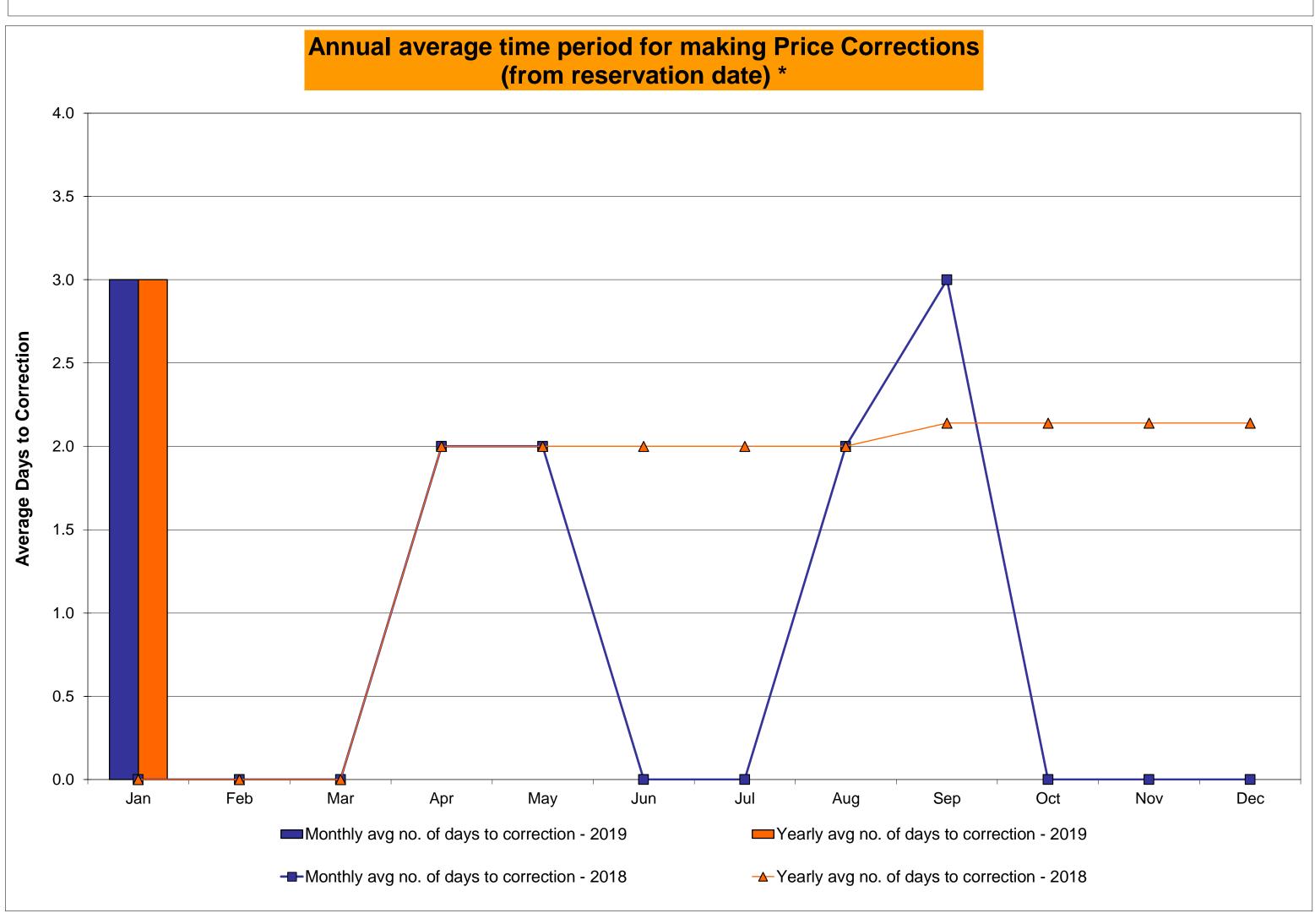


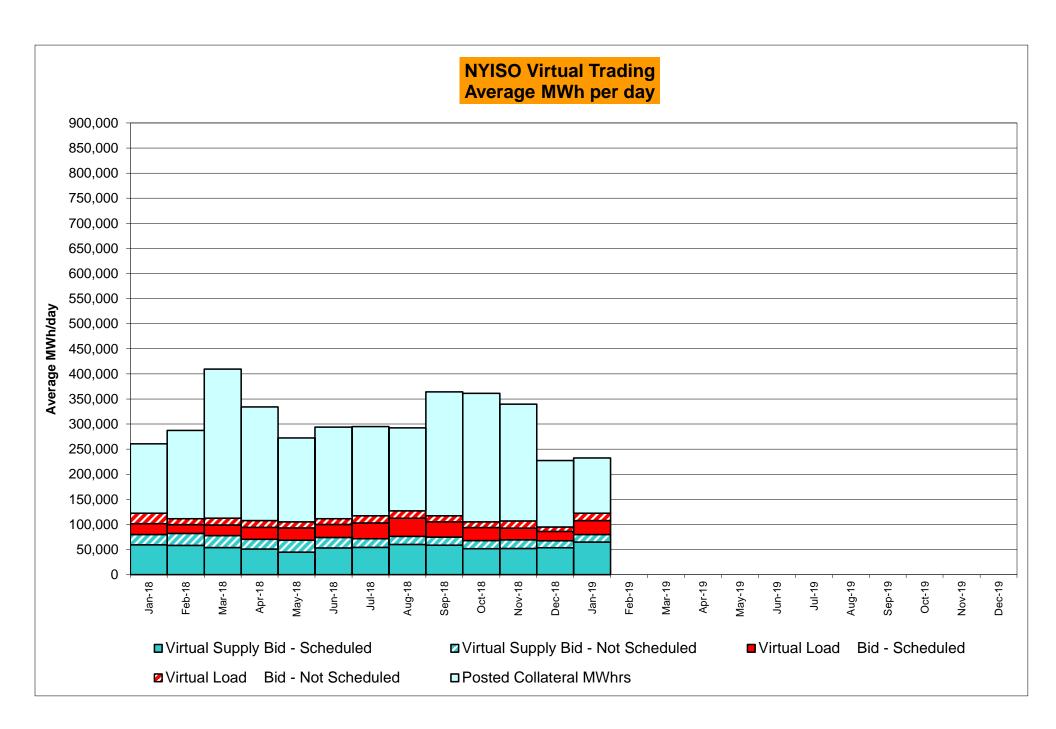
## **NYISO Real Time Price Correction Statistics**

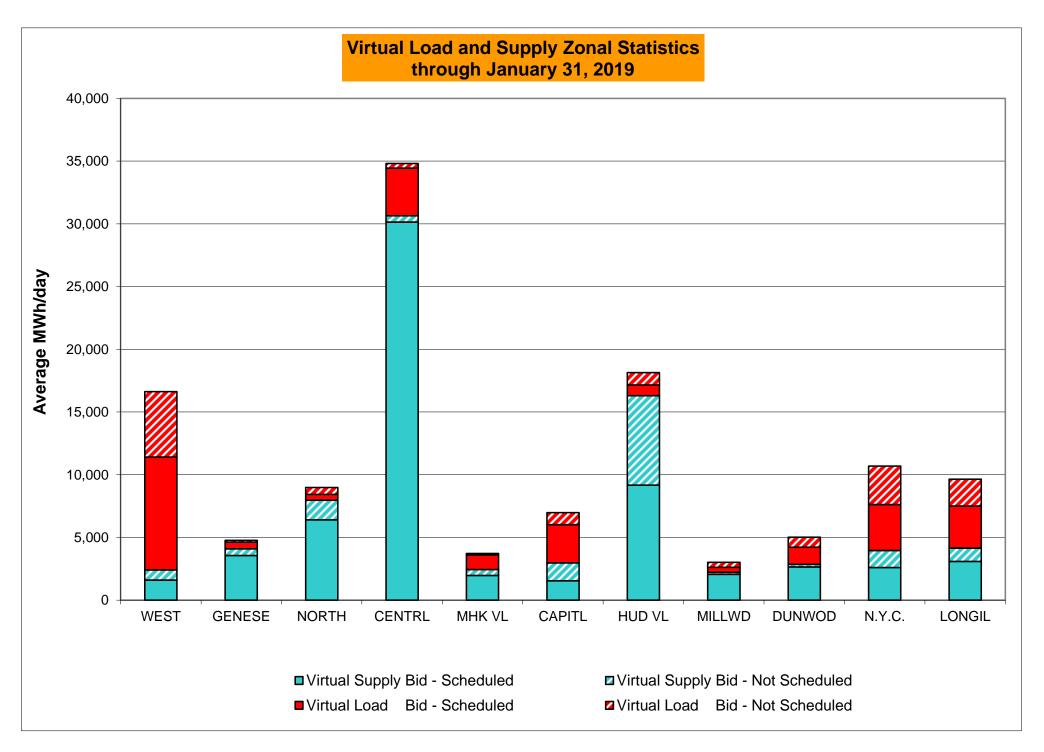
<u>2019</u>		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	November	<u>December</u>
<b>Hour Corrections</b>													
Number of hours with corrections	in the month	1											
Number of hours	in the month	744											
% of hours with corrections	in the month	0.13%											
% of hours with corrections	year-to-date	0.13%											
Interval Corrections													
Number of intervals corrected	in the month	2											
Number of intervals	in the month	9,071											
% of intervals corrected	in the month	0.02%											
% of intervals corrected	year-to-date	0.02%											
Hours Reserved	your to date	0.0270											
Number of hours reserved	in the month	7											
Number of hours	in the month	744											
% of hours reserved	in the month	0.94%											
% of hours reserved	year-to-date	0.94%											
Days to Correction *		0.00											
Avg. number of days to correction	in the month	3.00											
Avg. number of days to correction	year-to-date	3.00											
Days Without Corrections	to discount	00											
Days without corrections	in the month	30											
Days without corrections	year-to-date	30											
2018		Januarv	February	March	April	Mav	June	Julv	August	September	October	November	December
2018 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	<u>October</u>	November	December
<b>Hour Corrections</b>	in the month				<u>April</u> 4					September 1			
Hour Corrections  Number of hours with corrections	in the month	0	0	0	4	3	0	0	2	1	0	0	0
Hour Corrections  Number of hours with corrections  Number of hours	in the month	0 744	0 672	0 743	4 720	3 744	0 720	0 744	2 744	1 720	0 744	0 721	0 744
Hour Corrections  Number of hours with corrections  Number of hours  % of hours with corrections	in the month in the month	0 744 0.00%	0 672 0.00%	0 743 0.00%	4 720 0.56%	3 744 0.40%	0 720 0.00%	0 744 0.00%	2 744 0.27%	1 720 0.14%	0 744 0.00%	0 721 0.00%	0 744 0.00%
Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections	in the month	0 744	0 672	0 743	4 720	3 744	0 720	0 744	2 744	1 720	0 744	0 721	0 744
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 year-to-date	0 744 0.00% 0.00%	0 672 0.00% 0.00%	0 743 0.00% 0.00%	4 720 0.56% 0.14%	3 744 0.40% 0.19%	0 720 0.00% 0.16%	0 744 0.00% 0.14%	2 744 0.27% 0.15%	1 720 0.14% 0.15%	0 744 0.00% 0.14%	0 721 0.00% 0.12%	0 744 0.00%
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	0 744 0.00% 0.00%	0 672 0.00% 0.00%	0 743 0.00% 0.00%	4 720 0.56% 0.14%	3 744 0.40% 0.19%	0 720 0.00% 0.16%	0 744 0.00% 0.14%	2 744 0.27% 0.15%	1 720 0.14% 0.15%	0 744 0.00% 0.14%	0 721 0.00% 0.12%	0 744 0.00% 0.11%
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	in the month in the month year-to-date in the month in the month	0 744 0.00% 0.00% 0 9,021	0 672 0.00% 0.00%	0 743 0.00% 0.00% 0 9,002	4 720 0.56% 0.14% 16 8,717	3 744 0.40% 0.19% 6 9,033	0 720 0.00% 0.16% 0 8,723	0 744 0.00% 0.14% 0 9,021	2 744 0.27% 0.15% 5 9,071	1 720 0.14% 0.15% 2 8,723	0 744 0.00% 0.14% 0 8,990	0 721 0.00% 0.12% 0 8,763	0 744 0.00% 0.11% 0 8,993
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	0 744 0.00% 0.00%	0 672 0.00% 0.00%	0 743 0.00% 0.00%	4 720 0.56% 0.14%	3 744 0.40% 0.19%	0 720 0.00% 0.16%	0 744 0.00% 0.14%	2 744 0.27% 0.15%	1 720 0.14% 0.15%	0 744 0.00% 0.14%	0 721 0.00% 0.12%	0 744 0.00% 0.11%
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	in the month in the month year-to-date in the month in the month	0 744 0.00% 0.00% 0 9,021	0 672 0.00% 0.00%	0 743 0.00% 0.00% 0 9,002	4 720 0.56% 0.14% 16 8,717	3 744 0.40% 0.19% 6 9,033	0 720 0.00% 0.16% 0 8,723	0 744 0.00% 0.14% 0 9,021	2 744 0.27% 0.15% 5 9,071	1 720 0.14% 0.15% 2 8,723	0 744 0.00% 0.14% 0 8,990	0 721 0.00% 0.12% 0 8,763	0 744 0.00% 0.11% 0 8,993
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	0 744 0.00% 0.00% 0 9,021 0.00%	0 672 0.00% 0.00% 0 8,112 0.00%	0 743 0.00% 0.00% 0 9,002 0.00%	4 720 0.56% 0.14% 16 8,717 0.18%	3 744 0.40% 0.19% 6 9,033 0.07%	0 720 0.00% 0.16% 0 8,723 0.00%	0 744 0.00% 0.14% 0 9,021 0.00%	2 744 0.27% 0.15% 5 9,071 0.06%	1 720 0.14% 0.15% 2 8,723 0.02%	0 744 0.00% 0.14% 0 8,990 0.00%	0 721 0.00% 0.12% 0 8,763 0.00%	0 744 0.00% 0.11% 0 8,993 0.00%
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	in the month in the month year-to-date  in the month in the month in the month	0 744 0.00% 0.00% 0 9,021 0.00%	0 672 0.00% 0.00% 0 8,112 0.00%	0 743 0.00% 0.00% 0 9,002 0.00%	4 720 0.56% 0.14% 16 8,717 0.18%	3 744 0.40% 0.19% 6 9,033 0.07%	0 720 0.00% 0.16% 0 8,723 0.00%	0 744 0.00% 0.14% 0 9,021 0.00%	2 744 0.27% 0.15% 5 9,071 0.06%	1 720 0.14% 0.15% 2 8,723 0.02%	0 744 0.00% 0.14% 0 8,990 0.00%	0 721 0.00% 0.12% 0 8,763 0.00%	0 744 0.00% 0.11% 0 8,993 0.00%
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	0 744 0.00% 0.00% 0 9,021 0.00%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00%	4 720 0.56% 0.14% 16 8,717 0.18% 0.05%	3 744 0.40% 0.19% 6 9,033 0.07% 0.05%	0 720 0.00% 0.16% 0 8,723 0.00% 0.04%	0 744 0.00% 0.14% 0 9,021 0.00% 0.04%	2 744 0.27% 0.15% 5 9,071 0.06% 0.04%	1 720 0.14% 0.15% 2 8,723 0.02% 0.04%	0 744 0.00% 0.14% 0 8,990 0.00% 0.03% 24 744	0 721 0.00% 0.12% 0 8,763 0.00% 0.03%	0 744 0.00% 0.11% 0 8,993 0.00% 0.03%
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	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month	0 744 0.00% 0.00% 0 9,021 0.00% 0.00%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00%	4 720 0.56% 0.14% 16 8,717 0.18% 0.05%	3 744 0.40% 0.19% 6 9,033 0.07% 0.05%	0 720 0.00% 0.16% 0 8,723 0.00% 0.04%	0 744 0.00% 0.14% 0 9,021 0.00% 0.04%	2 744 0.27% 0.15% 5 9,071 0.06% 0.04%	1 720 0.14% 0.15% 2 8,723 0.02% 0.04%	0 744 0.00% 0.14% 0 8,990 0.00% 0.03%	0 721 0.00% 0.12% 0 8,763 0.00% 0.03%	0 744 0.00% 0.11% 0 8,993 0.00% 0.03%
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	0 744 0.00% 0.00% 0 9,021 0.00% 0.00%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00%	4 720 0.56% 0.14% 16 8,717 0.18% 0.05%	3 744 0.40% 0.19% 6 9,033 0.07% 0.05%	0 720 0.00% 0.16% 0 8,723 0.00% 0.04%	0 744 0.00% 0.14% 0 9,021 0.00% 0.04%	2 744 0.27% 0.15% 5 9,071 0.06% 0.04%	1 720 0.14% 0.15% 2 8,723 0.02% 0.04%	0 744 0.00% 0.14% 0 8,990 0.00% 0.03% 24 744	0 721 0.00% 0.12% 0 8,763 0.00% 0.03%	0 744 0.00% 0.11% 0 8,993 0.00% 0.03%
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	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month	0 744 0.00% 0.00% 0 9,021 0.00% 0.00% 7 744 0.94%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00% 2 743 0.27%	4 720 0.56% 0.14% 16 8,717 0.18% 0.05% 7 720 0.97%	3 744 0.40% 0.19% 6 9,033 0.07% 0.05% 8 744 1.08%	0 720 0.00% 0.16% 0 8,723 0.00% 0.04% 3 720 0.42%	0 744 0.00% 0.14% 0 9,021 0.00% 0.04% 2 744 0.27%	2 744 0.27% 0.15% 5 9,071 0.06% 0.04% 12 744 1.61%	1 720 0.14% 0.15% 2 8,723 0.02% 0.04% 11 720 1.53%	0 744 0.00% 0.14% 0 8,990 0.00% 0.03% 24 744 3.23%	0 721 0.00% 0.12% 0 8,763 0.00% 0.03% 0 721 0.00%	0 744 0.00% 0.11% 0 8,993 0.00% 0.03% 0 744 0.00%
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  Wors 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	0 744 0.00% 0.00% 0 9,021 0.00% 0.00% 7 744 0.94%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00% 2 743 0.27%	4 720 0.56% 0.14% 16 8,717 0.18% 0.05% 7 720 0.97%	3 744 0.40% 0.19% 6 9,033 0.07% 0.05% 8 744 1.08%	0 720 0.00% 0.16% 0 8,723 0.00% 0.04% 3 720 0.42%	0 744 0.00% 0.14% 0 9,021 0.00% 0.04% 2 744 0.27%	2 744 0.27% 0.15% 5 9,071 0.06% 0.04% 12 744 1.61%	1 720 0.14% 0.15% 2 8,723 0.02% 0.04% 11 720 1.53%	0 744 0.00% 0.14% 0 8,990 0.00% 0.03% 24 744 3.23%	0 721 0.00% 0.12% 0 8,763 0.00% 0.03% 0 721 0.00%	0 744 0.00% 0.11% 0 8,993 0.00% 0.03% 0 744 0.00%
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 % 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 year-to-date	0 744 0.00% 0.00% 0 9,021 0.00% 0.00% 7 744 0.94% 0.94%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00% 0 672 0.00% 0.49%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00% 2 743 0.27% 0.42%	4 720 0.56% 0.14% 16 8,717 0.18% 0.05% 7 720 0.97% 0.56%	3 744 0.40% 0.19% 6 9,033 0.07% 0.05% 8 744 1.08% 0.66%	0 720 0.00% 0.16% 0 8,723 0.00% 0.04% 3 720 0.42% 0.62%	0 744 0.00% 0.14% 0 9,021 0.00% 0.04% 2 744 0.27% 0.57%	2 744 0.27% 0.15% 5 9,071 0.06% 0.04% 12 744 1.61% 0.70%	1 720 0.14% 0.15% 2 8,723 0.02% 0.04% 11 720 1.53% 0.79%	0 744 0.00% 0.14% 0 8,990 0.00% 0.03% 24 744 3.23% 1.04%	0 721 0.00% 0.12% 0 8,763 0.00% 0.03% 0 721 0.00% 0.95%	0 744 0.00% 0.11% 0 8,993 0.00% 0.03% 0 744 0.00% 0.87%
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 % of hours reserved  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	0 744 0.00% 0.00% 0 9,021 0.00% 0.00% 7 744 0.94% 0.94%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00% 0 672 0.00% 0.49%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00% 2 743 0.27% 0.42%	4 720 0.56% 0.14% 16 8,717 0.18% 0.05% 7 720 0.97% 0.56% 2.00	3 744 0.40% 0.19% 6 9,033 0.07% 0.05% 8 744 1.08% 0.66%	0 720 0.00% 0.16% 0 8,723 0.00% 0.04% 3 720 0.42% 0.62%	0 744 0.00% 0.14% 0 9,021 0.00% 0.04% 2 744 0.27% 0.57%	2 744 0.27% 0.15% 5 9,071 0.06% 0.04% 12 744 1.61% 0.70%	1 720 0.14% 0.15% 2 8,723 0.02% 0.04% 11 720 1.53% 0.79%	0 744 0.00% 0.14% 0 8,990 0.00% 0.03% 24 744 3.23% 1.04%	0 721 0.00% 0.12% 0 8,763 0.00% 0.03% 0 721 0.00% 0.95%	0 744 0.00% 0.11% 0 8,993 0.00% 0.03% 0 744 0.00% 0.87%
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 % of hours reserved Days to Correction 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	0 744 0.00% 0.00% 0 9,021 0.00% 0.00% 7 744 0.94% 0.94%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00% 0 672 0.00% 0.49%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00% 2 743 0.27% 0.42%	4 720 0.56% 0.14% 16 8,717 0.18% 0.05% 7 720 0.97% 0.56% 2.00	3 744 0.40% 0.19% 6 9,033 0.07% 0.05% 8 744 1.08% 0.66%	0 720 0.00% 0.16% 0 8,723 0.00% 0.04% 3 720 0.42% 0.62%	0 744 0.00% 0.14% 0 9,021 0.00% 0.04% 2 744 0.27% 0.57%	2 744 0.27% 0.15% 5 9,071 0.06% 0.04% 12 744 1.61% 0.70%	1 720 0.14% 0.15% 2 8,723 0.02% 0.04% 11 720 1.53% 0.79%	0 744 0.00% 0.14% 0 8,990 0.00% 0.03% 24 744 3.23% 1.04%	0 721 0.00% 0.12% 0 8,763 0.00% 0.03% 0 721 0.00% 0.95%	0 744 0.00% 0.11% 0 8,993 0.00% 0.03% 0 744 0.00% 0.87%
Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Number of intervals Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Number 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	0 744 0.00% 0.00% 0 9,021 0.00% 0.00% 7 744 0.94% 0.94% 0.94%	0 672 0.00% 0.00% 0 8,112 0.00% 0.00% 0.00% 0.49%	0 743 0.00% 0.00% 0 9,002 0.00% 0.00% 2 743 0.27% 0.42% 0.00 0.00	4 720 0.56% 0.14% 16 8,717 0.18% 0.05% 7 720 0.97% 0.56% 2.00 2.00	3 744 0.40% 0.19% 6 9,033 0.07% 0.05% 8 744 1.08% 0.66% 2.00 2.00	0 720 0.00% 0.16% 0 8,723 0.00% 0.04% 3 720 0.42% 0.62% 0.00 2.00	0 744 0.00% 0.14% 0 9,021 0.00% 0.04% 2 744 0.27% 0.57% 0.00 2.00	2 744 0.27% 0.15% 5 9,071 0.06% 0.04% 12 744 1.61% 0.70% 2.00 2.00	1 720 0.14% 0.15% 2 8,723 0.02% 0.04% 11 720 1.53% 0.79% 3.00 2.14	0 744 0.00% 0.14% 0 8,990 0.00% 0.03% 24 744 3.23% 1.04% 0.00 2.14	0 721 0.00% 0.12%  0 8,763 0.00% 0.03%  0 721 0.00% 0.95%  0.00 2.14	0 744 0.00% 0.11% 0 8,993 0.00% 0.03% 0 744 0.00% 0.87% 0.00 2.14

<sup>\*</sup>Calendar days from reservation date; for June 2018 forward, business days from market date

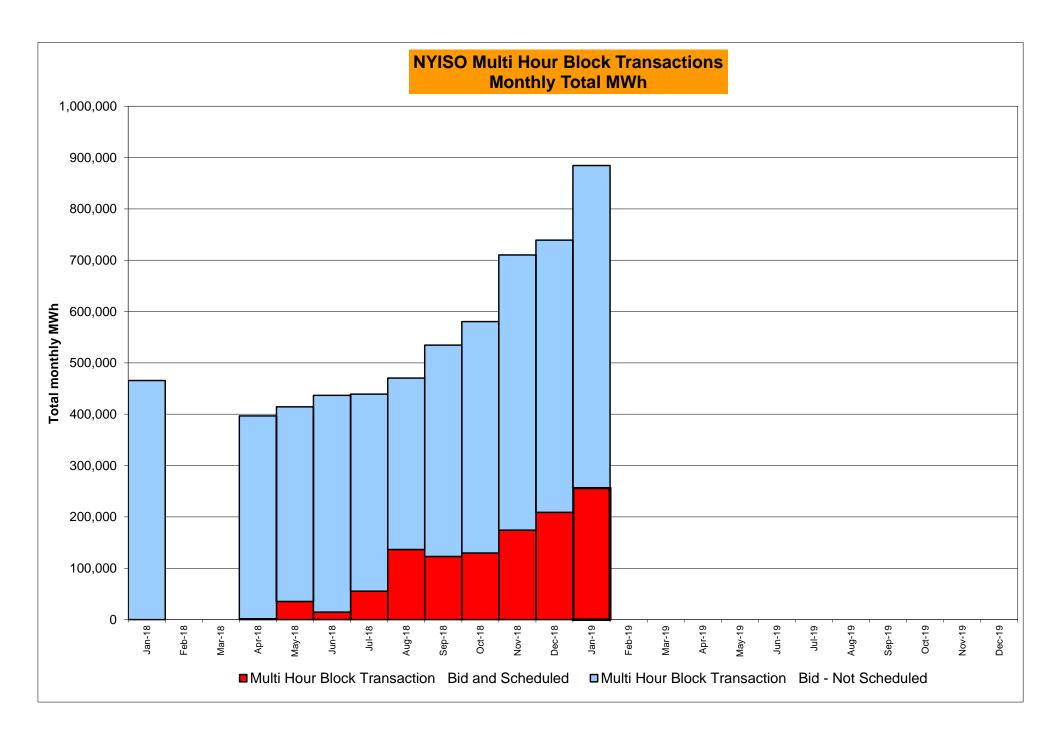


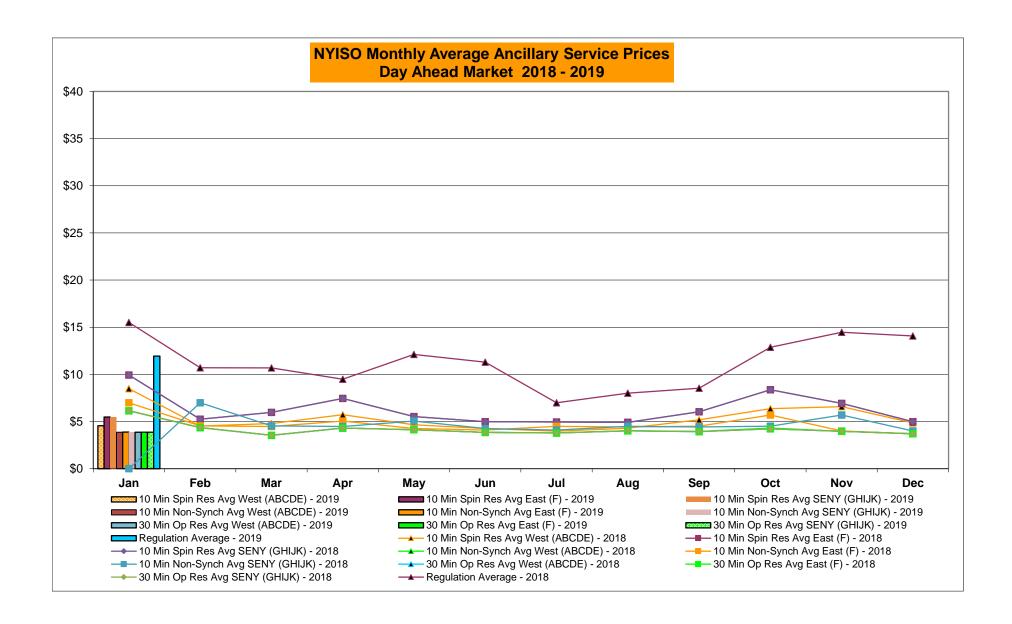


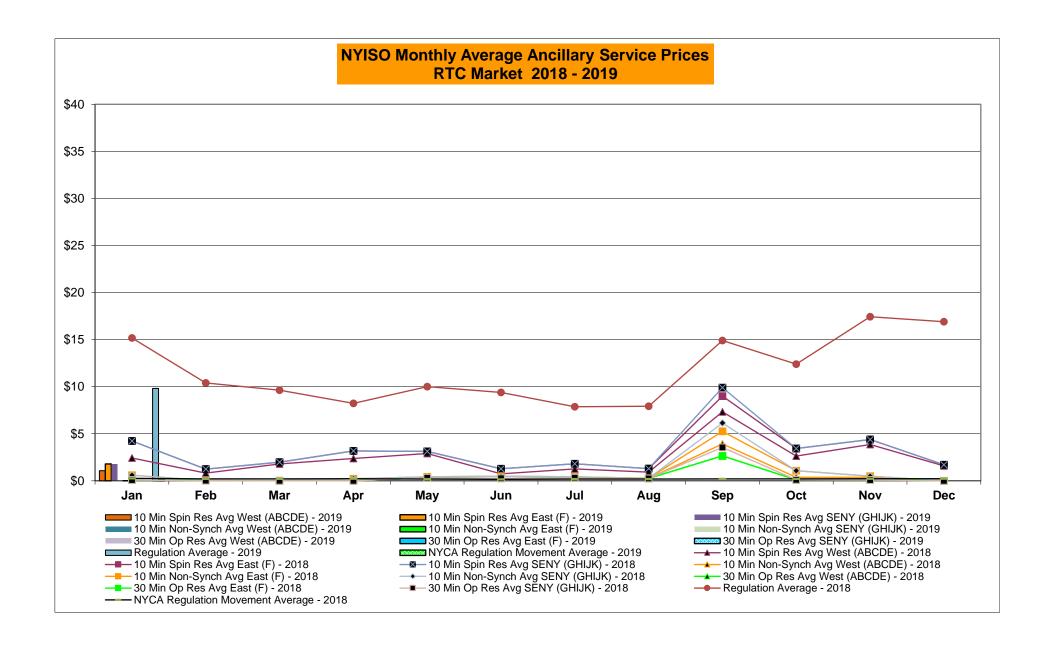


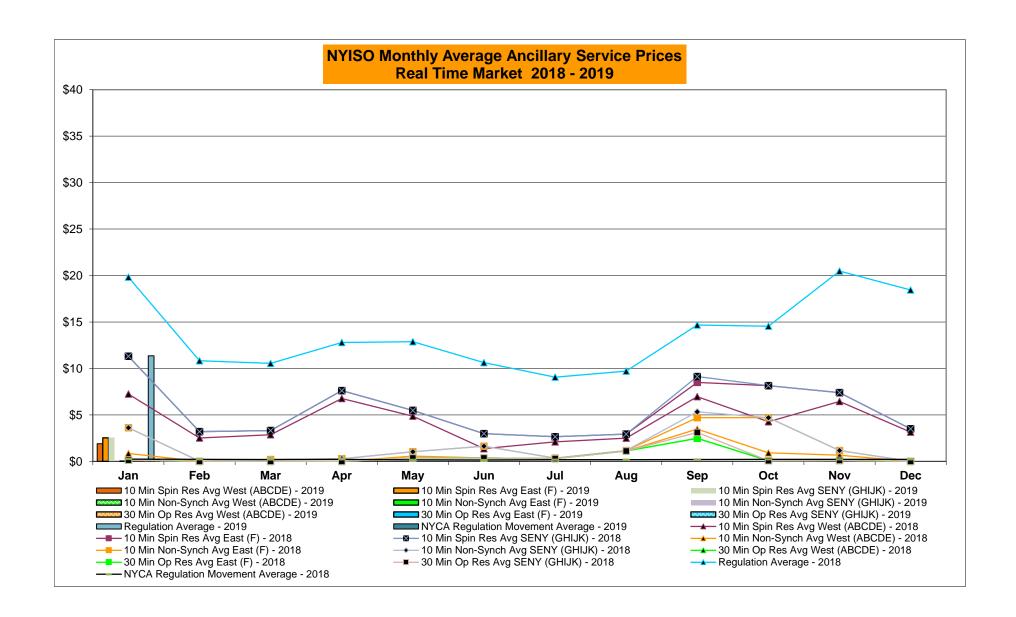


					Virtual L	oad and	Supp	oly Zonal	Statistic	s (Avera	ge MWh/da	ay) - 2019	)				
		Virtual L	oad Bid	Virtual S	upply Bid			Virtual L	_oad Bid	Virtual S	upply Bid			Virtual I	Load Bid	Virtual Su	upply Bid
			Not		Not				Not		Not				Not		Not
Zone	Date	Scheduled	Scheduled	Scheduled	Scheduled	Zone	Date	Scheduled		Scheduled	Scheduled	Zone	Date	Scheduled	1	Scheduled	Scheduled
WEST	Jan-19		5,211	1,609		MHK VL	Jan-19					DUNWOD	Jan-19				203
	Feb-19		,	ĺ			Feb-19						Feb-19				
	Mar-19						Mar-19						Mar-19				
	Apr-19						Apr-19						Apr-19				
	May-19						May-19						May-19				
	Jun-19						Jun-19						Jun-19				
	Jul-19						Jul-19						Jul-19				
	Aug-19						Aug-19						Aug-19				
	Sep-19						Sep-19						Sep-19				
	Oct-19						Oct-19						Oct-19				
	Nov-19						Nov-19						Nov-19				
	Dec-19						Dec-19						Dec-19				
GENESE	Jan-19	527	153	3,560	529	CAPITL	Jan-19	3,042	962	1,550	1,424	N.Y.C.	Jan-19	3,665	3,061	2,599	1,366
	Feb-19						Feb-19						Feb-19				
	Mar-19						Mar-19						Mar-19				
	Apr-19						Apr-19						Apr-19				
	May-19						May-19						May-19				
	Jun-19						Jun-19						Jun-19				
	Jul-19						Jul-19						Jul-19				
	Aug-19						Aug-19						Aug-19				
	Sep-19						Sep-19						Sep-19				
	Oct-19						Oct-19						Oct-19				
	Nov-19						Nov-19						Nov-19				
	Dec-19						Dec-19						Dec-19				
NORTH	Jan-19	484	540	6,406	1,553	HUD VL	Jan-19		980	9,176	7,130	LONGIL	Jan-19	,	2,135	3,091	1,056
	Feb-19						Feb-19						Feb-19				
	Mar-19						Mar-19						Mar-19				
	Apr-19						Apr-19						Apr-19				
	May-19						May-19						May-19				
	Jun-19						Jun-19						Jun-19				
	Jul-19						Jul-19						Jul-19				
	Aug-19						Aug-19						Aug-19				
	Sep-19						Sep-19						Sep-19				
	Oct-19						Oct-19						Oct-19				
	Nov-19						Nov-19						Nov-19				
	Dec-19						Dec-19						Dec-19				
CENTRI	lon 10	2 705	274	20 145	507	MILLWD	lon 10	105	206	2.051	160	NVICO	lon 10	27 602	14 700	64.900	1E 202
CENTRL	Jan-19		374	30,145	507	MILLWD			386	2,051	169	NYISO	Jan-19		14,720	64,802	15,203
	Feb-19 Mar-19						Feb-19 Mar-19					—	Feb-19 Mar-19				
	Apr-19					_	Apr-19					_	Apr-19				
				-		_											
	May-19						May-19 Jun-19					—	May-19 Jun-19				
	Jun-19 Jul-19					_	Jul-19					_	Jul-19				
				-													
	Aug-19 Sep-19					_	Aug-19 Sep-19					_	Aug-19 Sep-19				
	Oct-19			-			Oct-19					—	Oct-19		-		
						_	Nov-19					_	Nov-19				
	Nov-19			-		_									-		
	Dec-19						Dec-19						Dec-19				



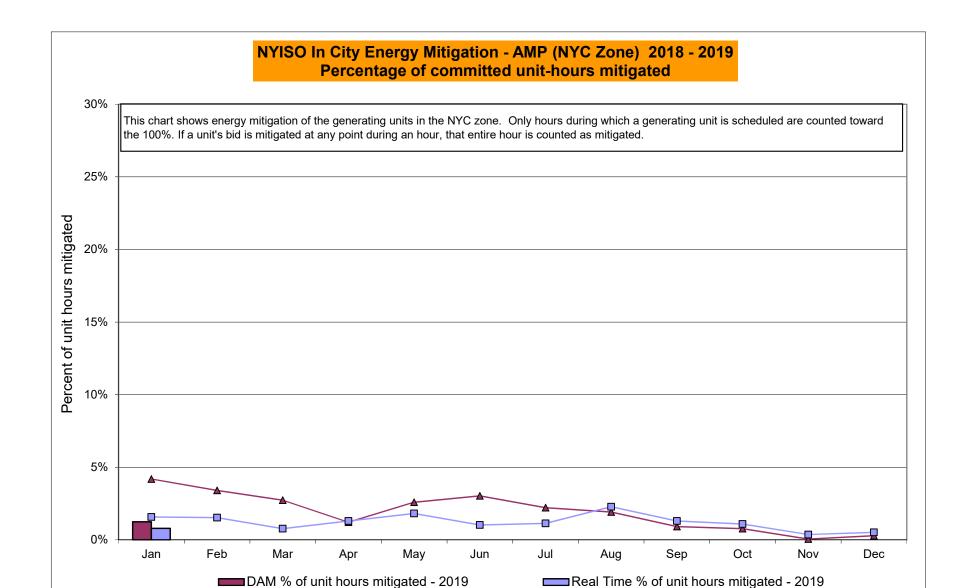






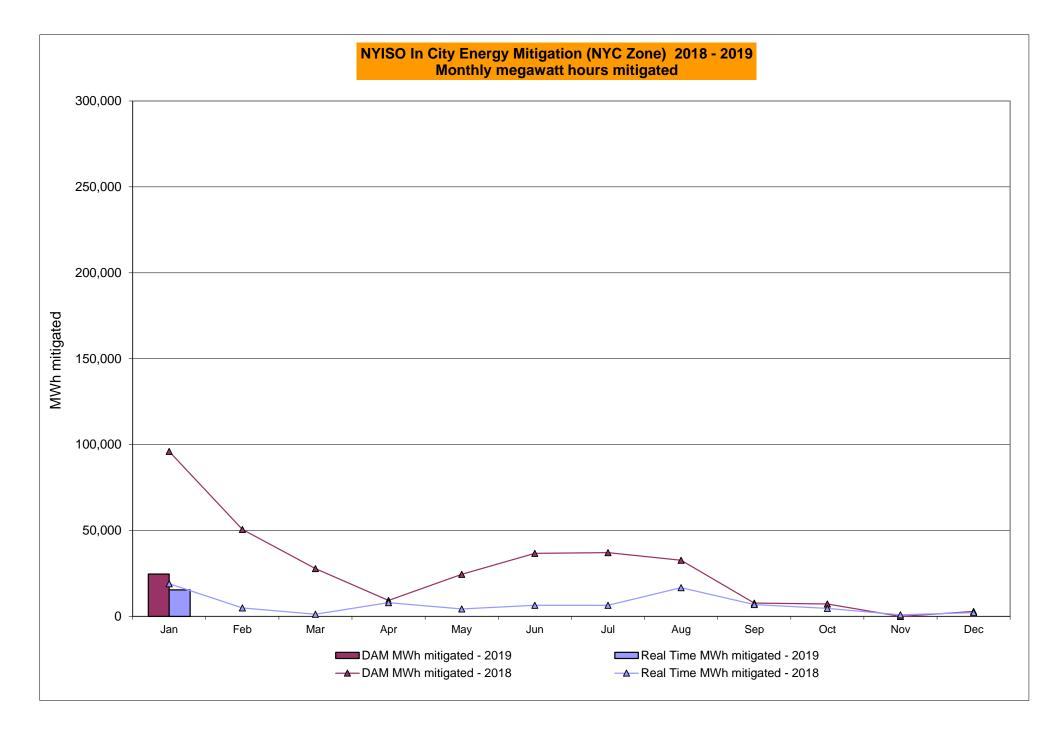
## NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)

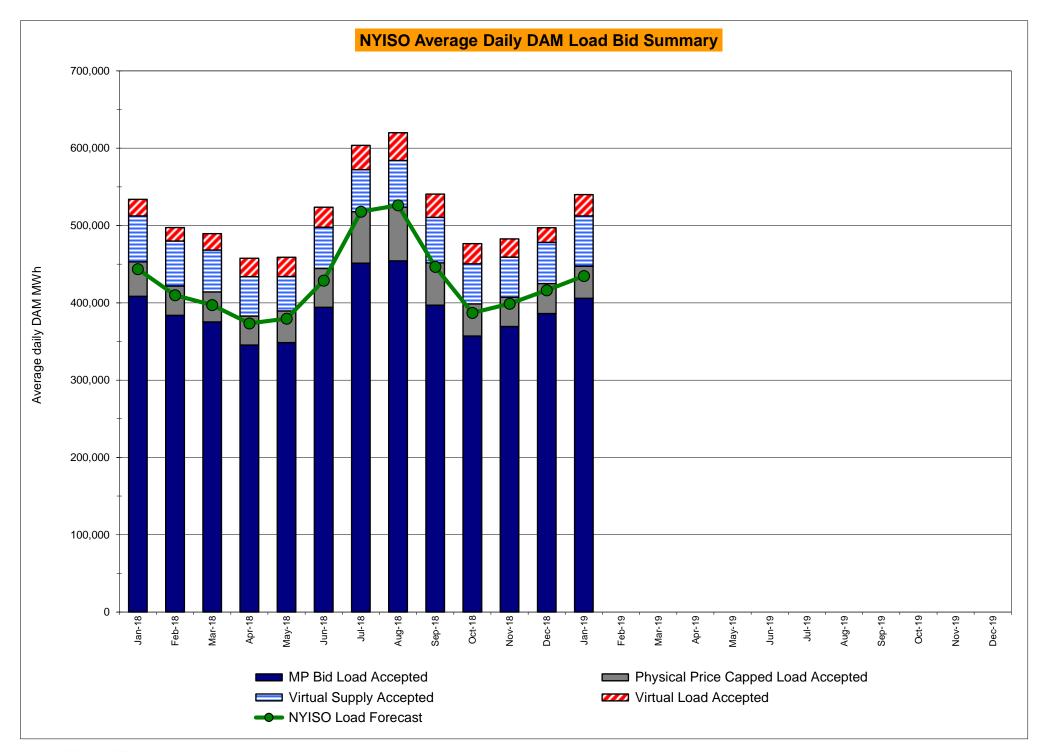
			4				<u>.g</u>					
<u>2019</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	September	October	November	<u>December</u>
Day Ahead Market		<del></del>		<del></del>								· · · · · · · · · · · · · · · · · · ·
10 Min Spin SENY (GHIJK)	5.47											
10 Min Spin East (F)	5.47											
10 Min Spin West (ABCDE)	4.56											
10 Min Non Synch SENY (GHIJK)	3.88											
10 Min Non Synch East (F) 10 Min Non Synch West (ABCDE)	3.88 3.86											
30 Min SENY (GHIJK)	3.86											
30 Min East (F)	3.86											
30 Min West (ABCDE)	3.86											
Regulation	11.94											
RTC Market												
10 Min Spin SENY (GHIJK)	1.80											
10 Min Spin East (F)	1.80											
10 Min Spin Last (1)	1.08											
10 Min Non Synch SENY (GHIJK)	0.01											
10 Min Non Synch East (F)	0.01											
10 Min Non Synch West (ABCDE)	0.00											
30 Min SENY (GHIJK)	0.00											
30 Min East (F)	0.00											
30 Min West (ABCDE)	0.00											
Regulation	9.81											
NYCA Regulation Movement	0.23											
Real Time Market												
10 Min Spin SENY (GHIJK)	2.53											
10 Min Spin East (F)	2.53											
10 Min Spin West (ABCDE)	1.89											
10 Min Non Synch SENY (GHIJK)	0.03											
10 Min Non Synch East (F)	0.03											
10 Min Non Synch West (ABCDE) 30 Min SENY (GHIJK)	0.00 0.00											
30 Min East (F)	0.00											
30 Min West (ABCDE)	0.00											
Regulation	11.36											
NYCA Regulation Movement	0.22											
2018	<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>	<u>October</u>	November	<u>December</u>
Day Ahead Market	<del></del>	<del></del>										
<u>Day Ahead Market</u> 10 Min Spin SENY (GHIJK)	9.93	5.24	5.97	7.45	5.52	4.98	4.95	4.91	6.04	8.37	6.93	4.99
<u>Day Ahead Market</u> 10 Min Spin SENY (GHIJK) 10 Min Spin East (F)	9.93 9.93	5.24 5.24	5.97 5.97	7.45 7.45	5.52 5.52	4.98 4.98	4.95 4.95	4.91 4.91	6.04 6.04	8.37 8.37	6.93 6.93	4.99 4.99
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)	9.93 9.93 8.49	5.24 5.24 4.53	5.97 5.97 4.78	7.45 7.45 5.73	5.52 5.52 4.65	4.98 4.98 4.26	4.95 4.95 3.98	4.91 4.91 4.30	6.04 6.04 5.18	8.37 8.37 6.36	6.93 6.93 6.57	4.99 4.99 4.86
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)	9.93 9.93 8.49 6.99	5.24 5.24 4.53 4.54	5.97 5.97 4.78 4.48	7.45 7.45 5.73 5.05	5.52 5.52 4.65 4.26	4.98 4.98 4.26 4.09	4.95 4.95 3.98 4.49	4.91 4.91 4.30 4.43	6.04 6.04 5.18 4.51	8.37 8.37 6.36 5.69	6.93 6.93 6.57 4.00	4.99 4.99 4.86 3.71
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)	9.93 9.93 8.49 6.99 6.99	5.24 5.24 4.53 4.54	5.97 5.97 4.78 4.48 4.48	7.45 7.45 5.73 5.05 5.05	5.52 5.52 4.65 4.26 4.26	4.98 4.98 4.26 4.09 4.09	4.95 4.95 3.98 4.49 4.49	4.91 4.91 4.30 4.43 4.43	6.04 6.04 5.18 4.51 4.51	8.37 8.37 6.36 5.69 5.69	6.93 6.93 6.57 4.00 4.00	4.99 4.99 4.86 3.71 3.71
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch SENY (GHIJK)	9.93 9.93 8.49 6.99	5.24 5.24 4.53 4.54	5.97 5.97 4.78 4.48	7.45 7.45 5.73 5.05	5.52 5.52 4.65 4.26	4.98 4.98 4.26 4.09	4.95 4.95 3.98 4.49	4.91 4.91 4.30 4.43	6.04 6.04 5.18 4.51	8.37 8.37 6.36 5.69	6.93 6.93 6.57 4.00	4.99 4.99 4.86 3.71
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)	9.93 9.93 8.49 6.99 6.99 6.15	5.24 5.24 4.53 4.54 4.54 4.36	5.97 5.97 4.78 4.48 4.48 3.54	7.45 7.45 5.73 5.05 5.05 4.31	5.52 5.52 4.65 4.26 4.26 4.13	4.98 4.98 4.26 4.09 4.09 3.85	4.95 4.95 3.98 4.49 4.49 3.80	4.91 4.91 4.30 4.43 4.43 4.03	6.04 6.04 5.18 4.51 4.51 3.95	8.37 8.37 6.36 5.69 5.69 4.31	6.93 6.93 6.57 4.00 4.00 3.97	4.99 4.99 4.86 3.71 3.71 3.70
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)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97	4.99 4.99 4.86 3.71 3.70 3.70 3.70 3.70
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)	9.93 9.93 8.49 6.99 6.15 6.14 6.14	5.24 5.24 4.53 4.54 4.54 4.36 4.36	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31	5.52 5.52 4.65 4.26 4.26 4.13 4.13	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22	6.93 6.93 6.57 4.00 4.00 3.97 3.97	4.99 4.99 4.86 3.71 3.71 3.70 3.70
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	9.93 9.93 8.49 6.99 6.15 6.14 6.14 15.51	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97	4.99 4.99 4.86 3.71 3.70 3.70 3.70 3.70
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)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13 12.11	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 12.88	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 14.47	4.99 4.99 4.86 3.71 3.70 3.70 3.70 3.70 14.07
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)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13 4.13 12.11	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47	4.99 4.99 4.86 3.71 3.70 3.70 3.70 3.70 14.07
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)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13 4.13 12.11	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85	4.99 4.99 4.86 3.71 3.70 3.70 3.70 3.70 14.07
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)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 3.17 2.38 0.22	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30 1.28 1.28 0.74 0.49	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99 1.81 1.81 1.27 0.42	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 3.43 2.63 1.07	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50	4.99 4.99 4.86 3.71 3.70 3.70 3.70 3.70 14.07
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)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.01	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 3.17 2.38 0.22 0.22	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30 1.28 1.28 0.74 0.49 0.49	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99 1.81 1.27 0.42 0.42	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.27	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 12.88 3.43 3.43 2.63 1.07 1.07	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07
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 East (F)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 10.68 1.98 1.98 1.79 0.01 0.01 0.00	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 3.17 2.38 0.22 0.22 0.00	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30 1.28 1.28 0.74 0.49 0.49 0.27	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99 1.81 1.27 0.42 0.42 0.33	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.27 0.25	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 3.43 2.63 1.07 1.07 0.38	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07
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 East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.01 0.00 0.00	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 3.17 2.38 0.22 0.22 0.00 0.00	5.52 5.52 4.65 4.26 4.13 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30 1.28 1.28 0.74 0.49 0.49 0.27 0.27	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.33 0.33	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.27 0.25 0.25	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 3.43 2.63 1.07 1.07 0.38 0.11	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07  1.71 1.58 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 East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.98 1.79 0.01 0.00 0.00 0.00	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 3.17 2.38 0.22 0.22 0.00 0.00 0.00	5.52 5.52 4.65 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.42 0.33 0.33 0.33	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.27 0.25 0.25 0.25	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07  1.71 1.58 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 SENY (GHIJK)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.01 0.00 0.00	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 3.17 2.38 0.22 0.22 0.00 0.00	5.52 5.52 4.65 4.26 4.13 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30 1.28 1.28 0.74 0.49 0.49 0.27 0.27	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.33 0.33	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.27 0.25 0.25	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 3.43 2.63 1.07 1.07 0.38 0.11	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07  1.71 1.58 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 East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02 0.02	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.01 0.00 0.00 0.00 0.00	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 3.17 2.38 0.22 0.22 0.00 0.00 0.00	5.52 5.52 4.65 4.26 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 3.79 6.99  1.81 1.27 0.42 0.42 0.42 0.33 0.33 0.33 0.33	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.25 0.25 0.25 0.25	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07  1.71 1.58 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 East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  30 Min SENY (GHIJK)  Regulation  NYCA Regulation Movement	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02 0.02 10.40	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.01 0.00 0.00 0.00 0.00 9.63	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 2.38 0.22 0.22 0.22 0.00 0.00 0.00 0.00 8.22	5.52 5.52 4.65 4.26 4.13 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 10.01	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 9.39	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.33 0.33 0.33 0.33 7.87	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.27 0.25 0.25 0.25 7.92	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 0.11	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09 17.43	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
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)  30 Min East (F)  30 Min SENY (GHIJK)  Regulation	9.93 9.93 8.49 6.99 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02 0.02 10.40	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.01 0.00 0.00 0.00 0.00 9.63	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49 3.17 2.38 0.22 0.22 0.22 0.00 0.00 0.00 0.00 8.22	5.52 5.52 4.65 4.26 4.13 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 10.01	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 9.39	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.33 0.33 0.33 0.33 7.87	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.27 0.25 0.25 0.25 7.92	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 0.11	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09 17.43	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
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  Real Time Market	9.93 9.93 8.49 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 15.17 0.26	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02 0.02 10.40 0.21	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.00 0.00 0.00 0.00 0.00 9.63 0.20	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49  3.17 3.17 2.38 0.22 0.22 0.00 0.00 0.00 0.00 0.00 8.22 0.22 0	5.52 5.52 4.65 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 10.01 0.19	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 9.39 0.16	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.42 0.33 0.33 0.33 0.33 7.87 0.19	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.25 0.25 0.25 0.25 7.92 0.19	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 0.11 12.40 0.21	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09 17.43 0.22	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
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 East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min SENY (GHIJK)  30 Min East (F)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)	9.93 9.93 8.49 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 0.08 15.17 0.26	5.24 5.24 4.53 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02 0.02 10.40 0.21	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.01 0.00 0.00 0.00 0.00 9.63 0.20	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 9.49  3.17 3.17 2.38 0.22 0.22 0.00 0.00 0.00 0.00 0.00 8.22 0.22 7.62	5.52 5.52 4.65 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 10.01 0.19	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 0.27 0.27 9.39 0.16	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.33 0.33 0.33 0.33 7.87 0.19	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.27 0.25 0.25 0.25 7.92 0.19	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 0.11 12.40 0.21	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 4.39 3.85 0.50 0.50 0.50 0.38 0.09 0.09 17.43 0.22	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
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 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 East (F)  10 Min Spin SENY (GHIJK)	9.93 9.93 8.49 6.99 6.15 6.14 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 0.08 15.17 0.26	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02 0.02 10.40 0.21 3.19 3.19 2.52 0.01	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.00 0.00 0.00 0.00 0.00 0.00 9.63 0.20	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 4.31 9.49  3.17 2.38 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	5.52 5.52 4.65 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 0.32 10.01 0.19 5.48 5.48 4.86 1.03	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 0.27 0.27 9.39 0.16  2.98 2.98 1.37 1.63	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.42 0.33 0.33 0.33 0.33 7.87 0.19  2.65 2.65 2.10 0.35	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 0.93 0.27 0.25 0.25 0.25 0.25 7.92 0.19 2.93 2.93 2.50 1.16	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20 9.13 8.50 6.96 5.33	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 0.11 12.40 0.21 8.14 8.14 4.26 4.70	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09 17.43 0.22 7.39 7.39 6.45 1.16	4.99 4.89 4.86 3.71 3.70 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
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 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)	9.93 9.93 8.49 6.99 6.15 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 15.17 0.26 11.31 11.31 7.24 3.61 3.61	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.02 0.02 0.02 0.02 0.02 10.40 0.21 3.19 3.19 2.52 0.01 0.01	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 1.98 1.79 0.01 0.00 0.00 0.00 0.00 0.00 0.00 9.63 0.20 3.31 3.31 3.31 2.86 0.19 0.19	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 4.31 9.49  3.17 2.38 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	5.52 5.52 4.65 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.42 0.33 0.32 0.32 0.32 0.32 10.01 0.19 5.48 5.48 4.86 1.03 1.03	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 9.39 0.16  2.98 2.98 1.37 1.63 1.63	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 3.79 6.99  1.81 1.27 0.42 0.42 0.33 0.33 0.33 0.33 7.87 0.19  2.65 2.65 2.10 0.35 0.35	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 0.93 0.27 0.25 0.25 0.25 0.25 7.92 0.19 2.93 2.93 2.50 1.16 1.16	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20 9.13 8.50 6.96 5.33 4.70	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 3.43 2.63 1.07 1.07 0.38 0.11 0.11 12.40 0.21 8.14 8.14 4.26 4.70 4.70	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.50 0.38 0.09 0.09 17.43 0.22 7.39 7.39 6.45 1.16	4.99 4.86 3.71 3.70 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
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 SENY (GHIJK)  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)	9.93 9.93 8.49 6.99 6.15 6.14 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 0.08 15.17 0.26 11.31 11.31 7.24 3.61 3.61 0.85	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02 0.02 10.40 0.21 3.19 3.19 2.52 0.01 0.01 0.00	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.00 0.00 0.00 0.00 0.00 9.63 0.20 3.31 3.31 2.86 0.19 0.19 0.09	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 4.31 9.49  3.17 3.17 2.38 0.22 0.02 0.00 0.00 0.00 0.00 0.00 0.0	5.52 5.52 4.65 4.26 4.13 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 0.32 10.01 0.19 5.48 4.86 1.03 1.03 0.57	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 0.27 0.27 1.63 1.63 1.63 0.37	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.33 0.33 0.33 0.33 7.87 0.19  2.65 2.65 2.10 0.35 0.35 0.29	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.25 0.25 0.25 0.25 7.92 0.19 2.93 2.93 2.50 1.16 1.16 1.12	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20 9.13 8.50 6.96 5.33 4.70 3.47	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 12.40 0.21 8.14 8.14 4.26 4.70 4.70 0.92	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 4.39 3.85 0.50 0.50 0.50 0.38 0.09 0.09 17.43 0.22 7.39 7.39 6.45 1.16 1.16 0.67	4.99 4.86 3.71 3.70 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.90 0.22  3.49 3.49 3.15 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 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 West (ABCDE)  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 East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)	9.93 9.93 8.49 6.99 6.15 6.14 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 15.17 0.26 11.31 11.31 7.24 3.61 3.61 0.85 0.13	5.24 5.24 4.53 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.03 0.02 0.02 0.02 0.02 10.40 0.21 3.19 3.19 2.52 0.01 0.00 0.00 0.00	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.00 0.00 0.00 0.00 0.00 9.63 0.20 3.31 3.31 2.86 0.19 0.09 0.00 0.00	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 4.31 9.49  3.17 3.17 2.38 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	5.52 5.52 4.65 4.26 4.13 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 0.32 10.01 0.19 5.48 5.48 4.86 1.03 1.03 0.57 0.37	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 0.27 0.27 1.63 1.63 1.63 1.63 0.37 0.37	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.33 0.33 0.33 0.33 0.33 7.87 0.19  2.65 2.65 2.10 0.35 0.29 0.29	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 0.93 0.27 0.25 0.25 0.25 0.25 7.92 0.19 2.93 2.93 2.50 1.16 1.16 1.12 1.12	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20 9.13 8.50 6.96 5.33 4.70 3.47 3.11	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 12.40 0.21 8.14 8.14 4.26 4.70 4.70 0.92 0.06	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 4.39 3.85 0.50 0.50 0.50 0.38 0.09 0.09 17.43 0.22 7.39 7.39 6.45 1.16 1.16 0.67 0.10	4.99 4.86 3.71 3.70 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  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 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 West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin 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)	9.93 9.93 8.49 6.99 6.15 6.14 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 15.17 0.26 11.31 11.31 7.24 3.61 3.61 0.85 0.13 0.13	5.24 5.24 4.53 4.54 4.36 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.02 0.02 0.02 0.02 0.02 10.40 0.21 3.19 3.19 2.52 0.01 0.00	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.00 0.00 0.00 0.00 0.00 9.63 0.20 3.31 3.31 2.86 0.19 0.09 0.09 0.09 0.09	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 4.31 9.49  3.17 3.17 2.38 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	5.52 5.52 4.65 4.26 4.13 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 0.32 10.01 0.19 5.48 5.48 4.86 1.03 1.03 0.57 0.37	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 0.27 0.27 1.63 1.63 1.63 0.37 0.37 0.37	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.42 0.33 0.33 0.33 0.33 7.87 0.19  2.65 2.65 2.10 0.35 0.29 0.29 0.29	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.25 0.25 0.25 0.25 7.92 0.19 2.93 2.93 2.50 1.16 1.12 1.12 1.12	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20 9.13 8.50 6.96 5.33 4.70 3.47 3.11 2.48	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 12.40 0.21 8.14 8.14 4.26 4.70 4.70 0.92 0.06 0.06	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09 17.43 0.22 7.39 7.39 6.45 1.16 1.16 0.67 0.10	4.99 4.86 3.71 3.70 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.90 0.22  3.49 3.49 3.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  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 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 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  NYCA Regulation Movement  Real Time Market  10 Min Spin SENY (GHIJK)  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 East (F)  10 Min Non Synch West (ABCDE)  30 Min SENY (GHIJK)  30 Min East (F)  30 Min SENY (GHIJK)  30 Min East (F)	9.93 9.93 8.49 6.99 6.15 6.14 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 15.17 0.26 11.31 11.31 7.24 3.61 3.61 0.85 0.13 0.13	5.24 5.24 4.53 4.54 4.54 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.02 0.02 0.02 0.02 0.02 10.40 0.21 3.19 3.19 2.52 0.01 0.01 0.00 0.00 0.00 0.00 0.00 0.0	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.00 0.00 0.00 0.00 0.00 9.63 0.20 3.31 3.31 3.31 2.86 0.19 0.09 0.09 0.09 0.09 0.09 0.09	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 4.31 9.49  3.17 3.17 2.38 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	5.52 5.52 4.65 4.26 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 0.32 10.01 0.19 5.48 5.48 4.86 1.03 1.03 0.57 0.37 0.37	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 0.27 0.27 1.63 1.63 1.63 1.63 0.37 0.37 0.37	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.42 0.33 0.33 0.33 0.33 7.87 0.19  2.65 2.65 2.10 0.35 0.29 0.29 0.29 0.29	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.25 0.25 0.25 0.25 7.92 0.19 2.93 2.93 2.50 1.16 1.12 1.12 1.12	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20 9.13 8.50 6.96 5.33 4.70 3.47 3.11 2.48 2.48	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 3.43 2.63 1.07 1.07 0.38 0.11 0.11 12.40 0.21 8.14 8.14 4.26 4.70 4.70 0.92 0.06 0.06 0.06	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09 17.43 0.22 7.39 7.39 6.45 1.16 1.16 0.67 0.10 0.10	4.99 4.86 3.71 3.70 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.90 0.22  3.49 3.49 3.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
Day Ahead Market  10 Min Spin SENY (GHIJK)  10 Min Spin East (F)  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 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 West (ABCDE)  Regulation  NYCA Regulation Movement  Real Time Market  10 Min Spin 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)	9.93 9.93 8.49 6.99 6.15 6.14 6.14 6.14 15.51 4.23 4.23 2.43 0.59 0.59 0.08 0.08 0.08 15.17 0.26 11.31 11.31 7.24 3.61 3.61 0.85 0.13 0.13	5.24 5.24 4.53 4.54 4.36 4.36 4.36 4.36 4.36 10.70 1.24 1.24 0.82 0.03 0.02 0.02 0.02 0.02 0.02 10.40 0.21 3.19 3.19 2.52 0.01 0.00	5.97 5.97 4.78 4.48 4.48 3.54 3.54 3.54 3.54 10.68 1.98 1.79 0.01 0.00 0.00 0.00 0.00 0.00 9.63 0.20 3.31 3.31 2.86 0.19 0.09 0.09 0.09 0.09	7.45 7.45 5.73 5.05 5.05 4.31 4.31 4.31 4.31 9.49  3.17 3.17 2.38 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.0	5.52 5.52 4.65 4.26 4.13 4.13 4.13 4.13 12.11 3.13 3.13 2.91 0.42 0.42 0.33 0.32 0.32 0.32 0.32 10.01 0.19 5.48 5.48 4.86 1.03 1.03 0.57 0.37	4.98 4.98 4.26 4.09 4.09 3.85 3.85 3.85 3.85 11.30  1.28 1.28 0.74 0.49 0.49 0.27 0.27 0.27 0.27 0.27 0.27 0.27 1.63 1.63 1.63 0.37 0.37 0.37	4.95 4.95 3.98 4.49 4.49 3.80 3.79 3.79 6.99  1.81 1.81 1.27 0.42 0.42 0.42 0.33 0.33 0.33 0.33 7.87 0.19  2.65 2.65 2.10 0.35 0.29 0.29 0.29	4.91 4.91 4.30 4.43 4.43 4.03 4.02 4.02 4.02 8.00 1.29 1.29 0.93 0.27 0.25 0.25 0.25 0.25 7.92 0.19 2.93 2.93 2.50 1.16 1.12 1.12 1.12	6.04 6.04 5.18 4.51 4.51 3.95 3.94 3.94 3.94 8.54 9.90 9.00 7.33 6.14 5.25 3.92 3.55 2.65 2.65 14.90 0.20 9.13 8.50 6.96 5.33 4.70 3.47 3.11 2.48	8.37 8.37 6.36 5.69 5.69 4.31 4.22 4.22 4.22 12.88 3.43 2.63 1.07 1.07 0.38 0.11 0.11 12.40 0.21 8.14 8.14 4.26 4.70 4.70 0.92 0.06 0.06	6.93 6.93 6.57 4.00 4.00 3.97 3.97 3.97 3.97 14.47 4.39 4.39 3.85 0.50 0.50 0.38 0.09 0.09 17.43 0.22 7.39 7.39 6.45 1.16 1.16 0.67 0.10	4.99 4.86 3.71 3.70 3.70 3.70 3.70 3.70 14.07  1.71 1.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.90 0.22  3.49 3.49 3.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0

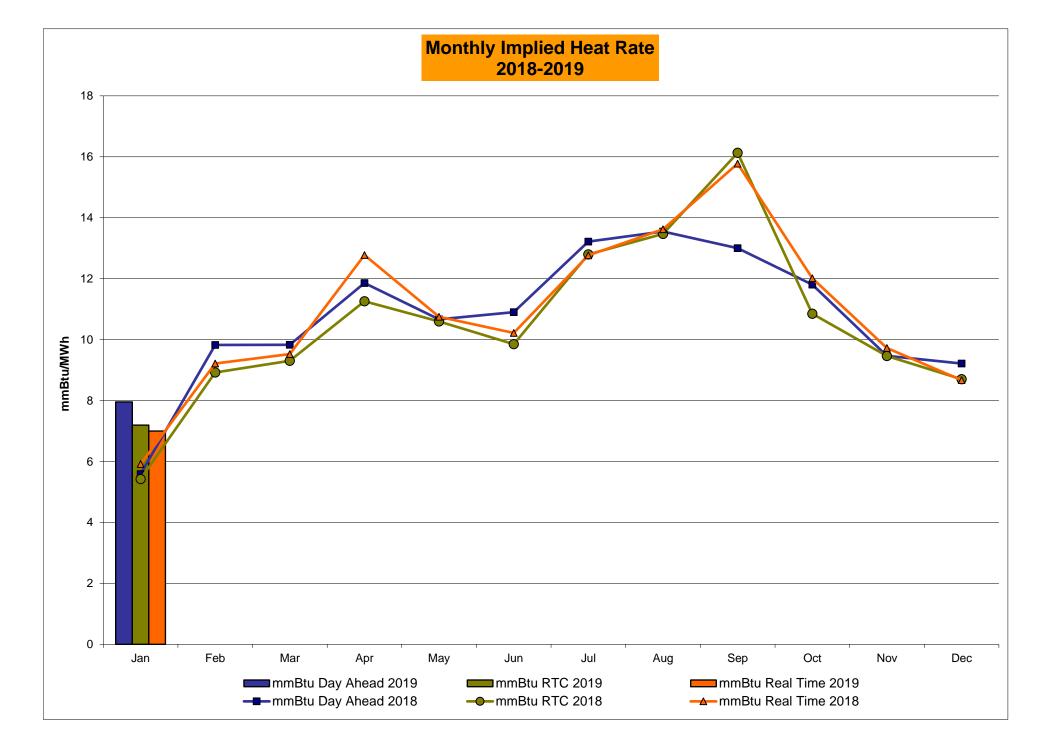


—■ Real Time % of unit hours mitigated - 2018

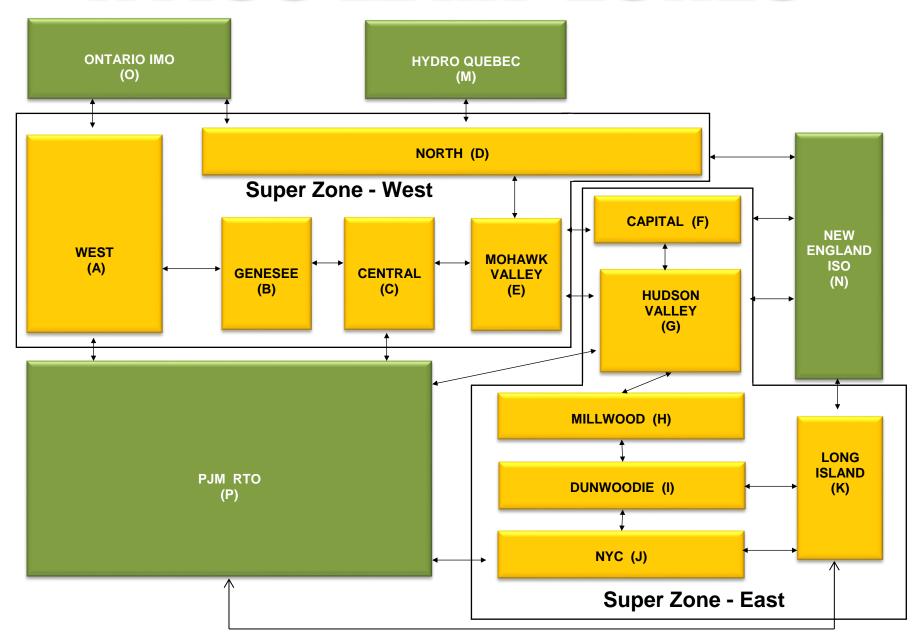
→ DAM % of unit hours mitigated - 2018







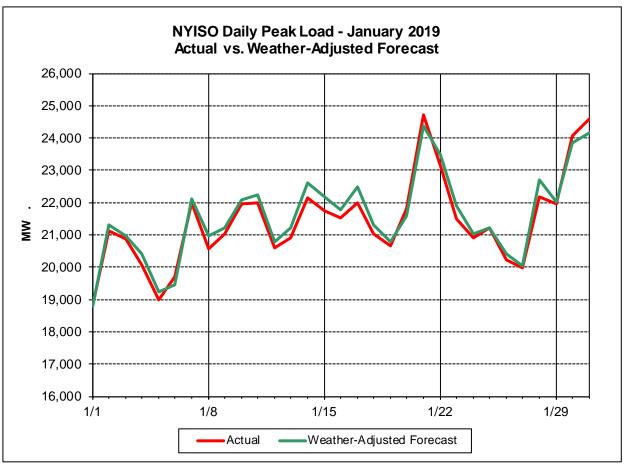
# NYISO LBMP ZONES

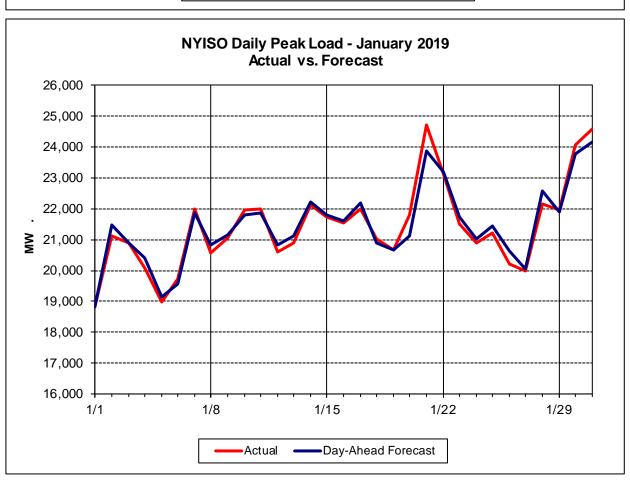


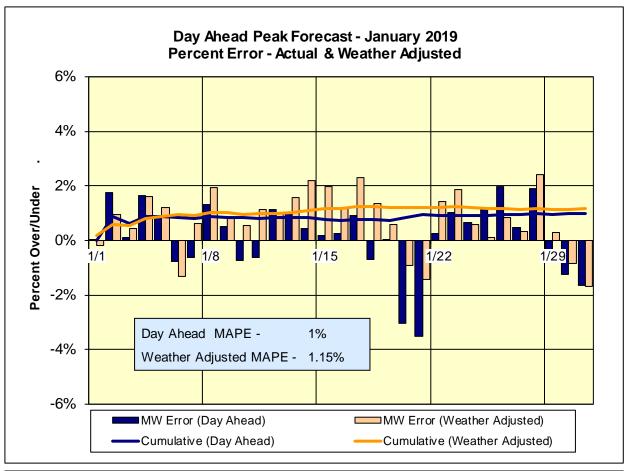
#### **Billing Codes for Chart C**

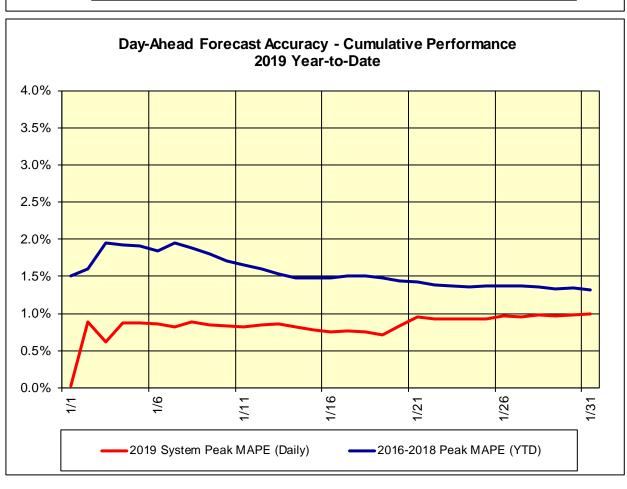
Chart - C Category Name	<b>Billing Code</b>	Billing Category Name
Bid Production Cost Guarantee Balancing	81203	Balancing NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee Balancing	81204	Balancing NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost 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: 2/8/2019 11:10 AM









## Summary Description of Regulatory Filings, Investigations, Rulemakings and Related Orders in NYISO Matters – January 2019

Filing Date	Filing Summary	Docket	Order Date	Order Summary
09/07/2018 11/15/2018	NYISO Order No. 844 compliance filing re: uplift cost reporting requirements  NYISO Order 844 amended compliance filing re: reporting of uplift paid to Suppliers at external proxy generator buses	ER18-2400-000 ER18-2400-001	01/04/2019	Order accepted compliance filing, as amended, subject to submission of a compliance filing specifying the effective date of the tariff revisions related to the Operator-Initiated Commitment Report at least two weeks in advance of the intended effective date; revisions related to Zonal Uplift Report to be effective 03/15/2019
01/08/2019	NYISO motion to intervene and comment re: NYSRC filing of a 17.0% IRM for the 2019-2020 Capability Year	ER19-659-000		
01/11/2019	NYISO filing on behalf of New York State Electric & Gas Corporation re: cost reimbursement agreement (SA 2444) between NYSEG and Mid-Atlantic Interstate Transmission	ER19-797-000		
01/15/2019	NYISO informational compliance filing re: annual Demand Side Management programs report	ER01-3001-000		
01/15/2019	NYISO confidential filing to the PSC re: three-month Reliability Commitment Data Report for the period ending 12/31/2018	PSC Matter No. 10-02007		
01/17/2019	NYISO filing to the PSC re: report of funds received from the credit facilities authorized in Case 15-E-0655 for the period 01/01/2018 - 12/31/2018	PSC Case No. 15-E-0655		
01/17/2019	NYISO answer to NY Transco comments re: NYISO's 12/11/2018 filing of tariff revisions regarding the Public Policy Transmission Planning Process	ER19-528-000		
01/22/2019	NYISO filing to the PSC re: comments in support of the PSC NOPR in "Proposed Public Policy Transmission Needs/Public Policy Requirements"	PSC Case No. 18-E-0623		
01/23/2019	NYISO filing to the PSC re: comments in support of the proposed rulemaking on the New York State Reliability Council's establishment of an Installed Reserve Margin of 17.0% for the New York Control Area	PSC Case No. 07-E-0088		