

## **Monthly Report**

A Report by the New York Independent System Operator

May 2020



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# Operations Performance Metrics Monthly Report









## May 2020 Report

## Operations & Reliability Department New York Independent System Operator



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### **May 2020 Operations Performance Highlights**

- Peak load of 20,124 MW occurred on 05/29/2020 HB 17
- All-time summer capability period peak load of 33,956 MW occurred on 7/19/2013 HB 16
- 0 hours of Thunder Storm Alerts were declared
- 0 hours of NERC TLR level 3 curtailment
- To reduce risks from COVID-19, the NYISO continues to take several actions to maintain critical business operations and protect the health and well-being of our employees and stakeholders.
- 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	(\$0.04)	\$2.39
NY Savings from PJM-NY Coordinated Transaction Scheduling	(\$0.10)	\$0.06
NY Savings from NE-NY Coordinated Transaction Scheduling	\$0.00	\$0.33
Total NY Savings	(\$0.14)	\$2.78
Regional Savings from PJM-NY Coordinated Transaction Scheduling	\$0.05	\$0.51
Regional Savings from NE-NY Coordinated Transaction Scheduling	(\$0.03)	\$0.00
Total Regional Savings	\$0.02	\$0.51

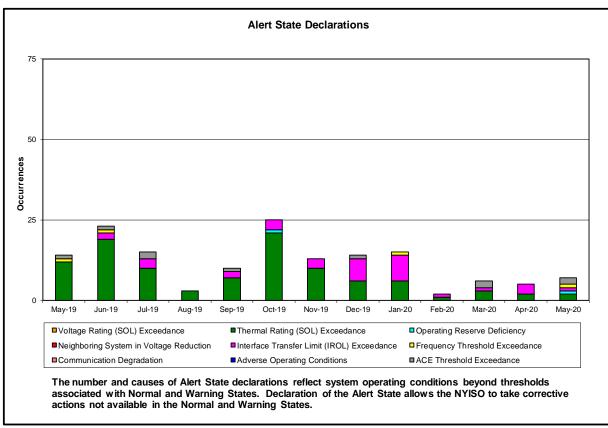
- Statewide uplift cost monthly average was (\$0.23)/MWh
- The following table identifies the Monthly ICAP spot market prices and the price delta.

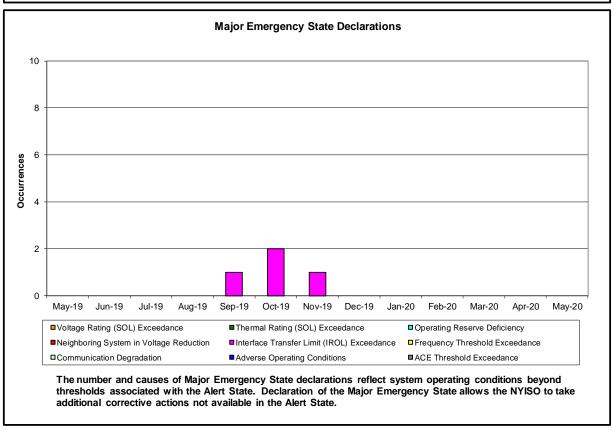
Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
June 2020 Spot Price	\$3.35	\$3.35	\$19.15	\$6.28
May 2020 Spot Price	\$3.15	\$3.15	\$19.17	\$6.30
Delta	\$0.20	\$0.20	(\$0.02)	(\$0.02)

• NYCA - Price increased by \$0.20 due to a decrease in net Imports.

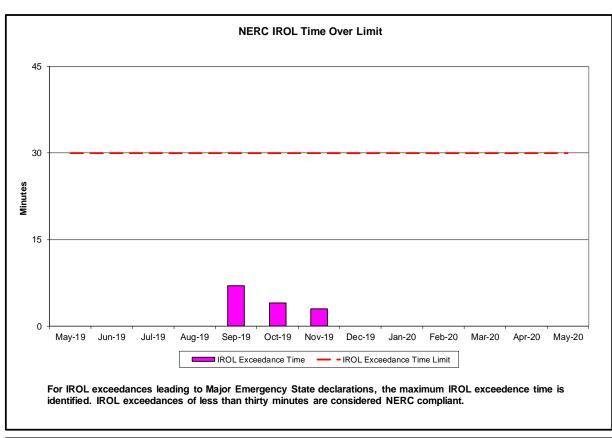


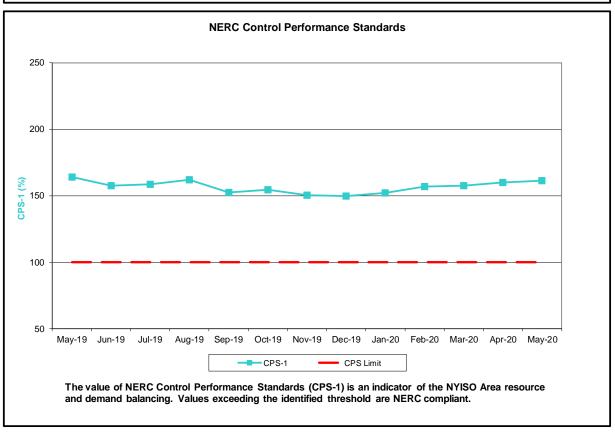
#### **Reliability Performance Metrics**



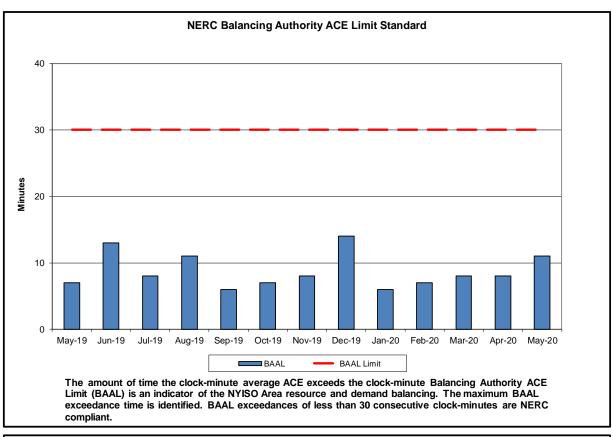


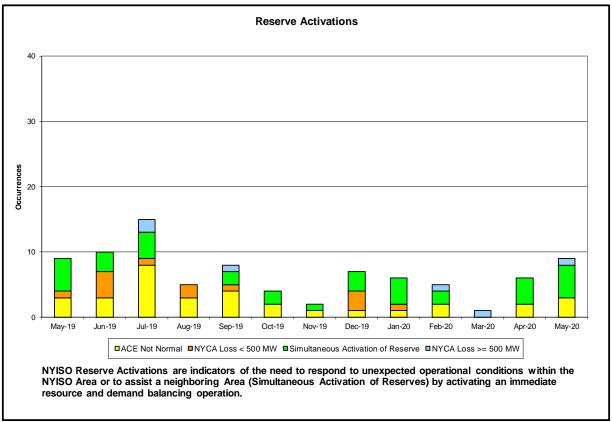




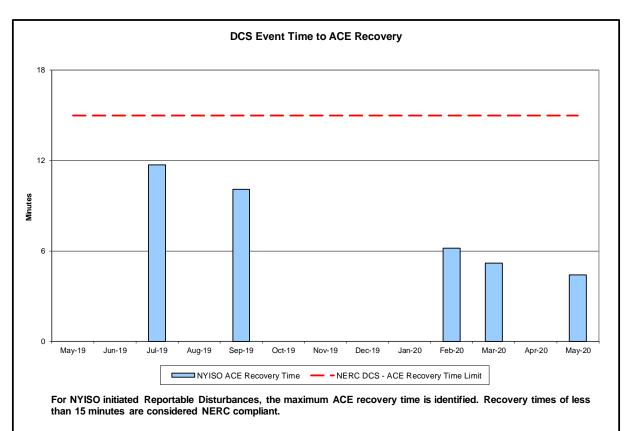


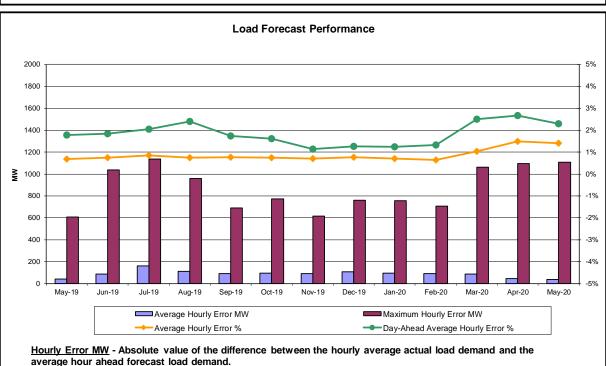










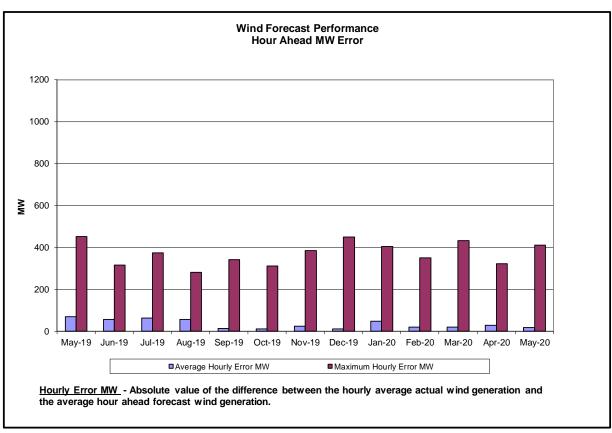


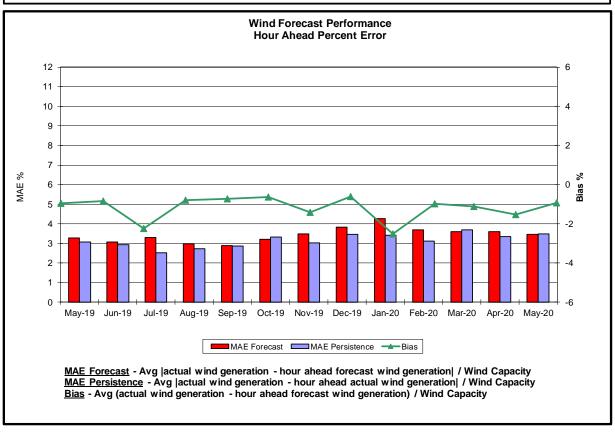
Average Hourly Error % - Average value of the ratio of hourly average error magnitude to hourly average actual

<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.

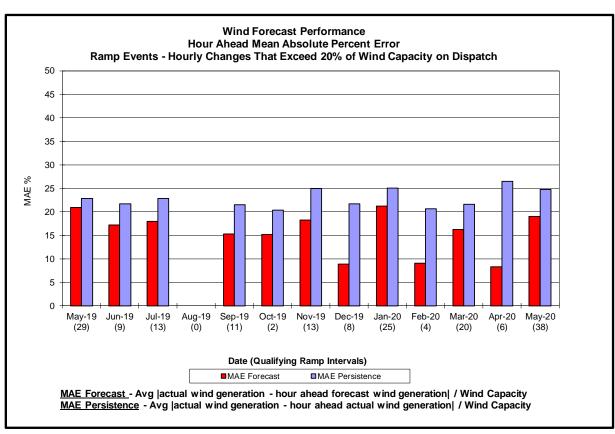
load demand.

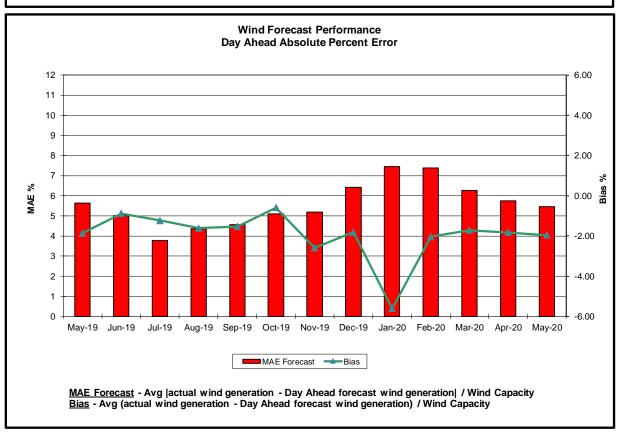




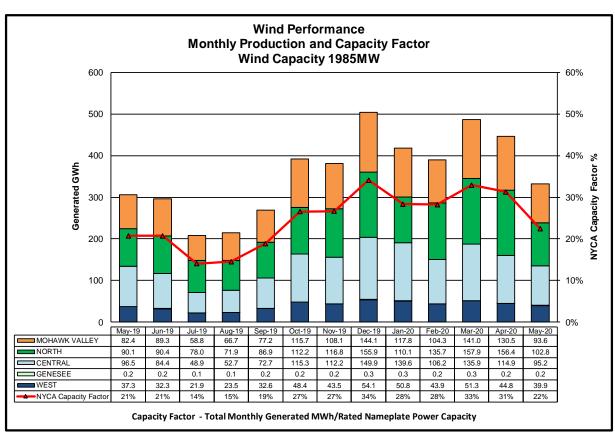


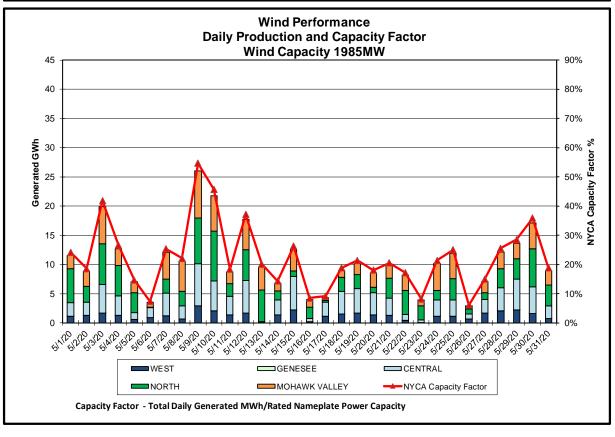




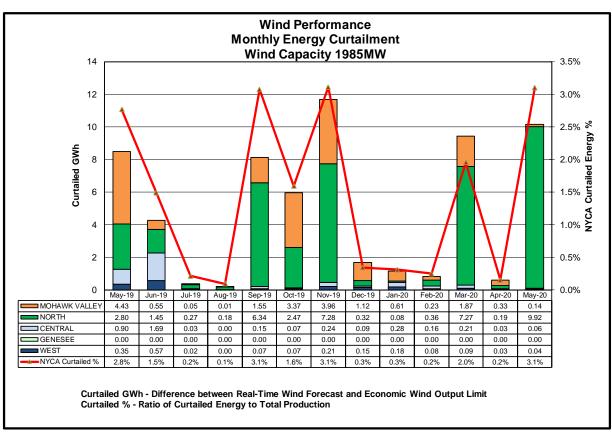


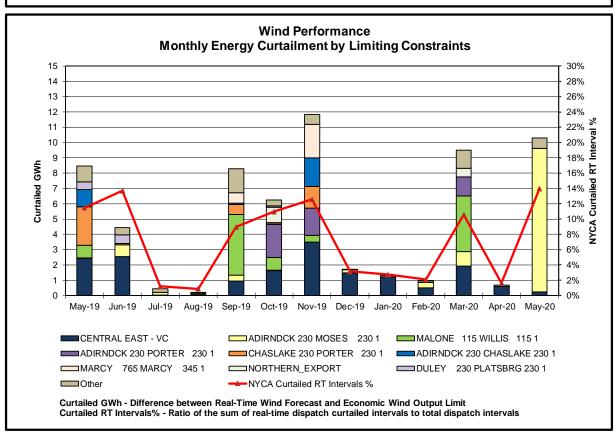




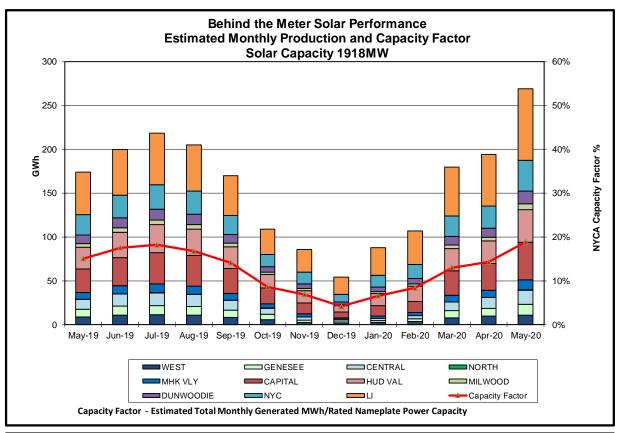


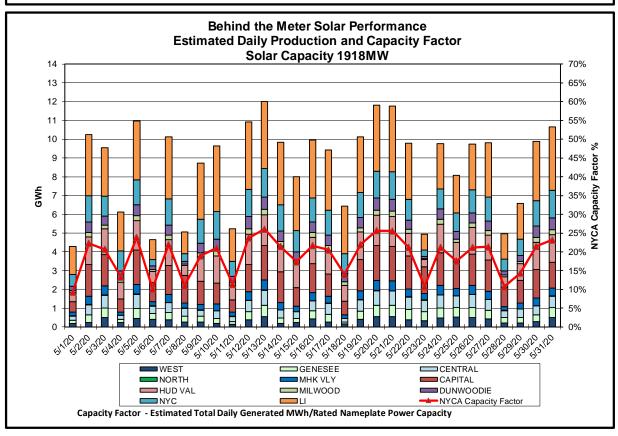




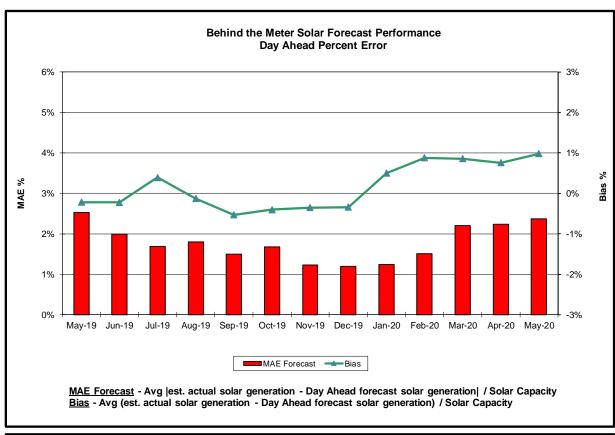


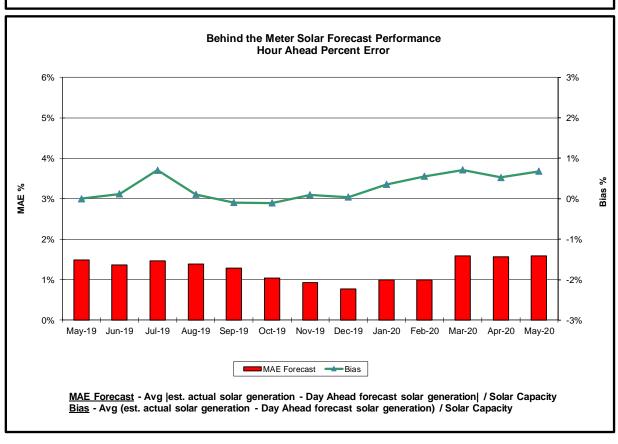




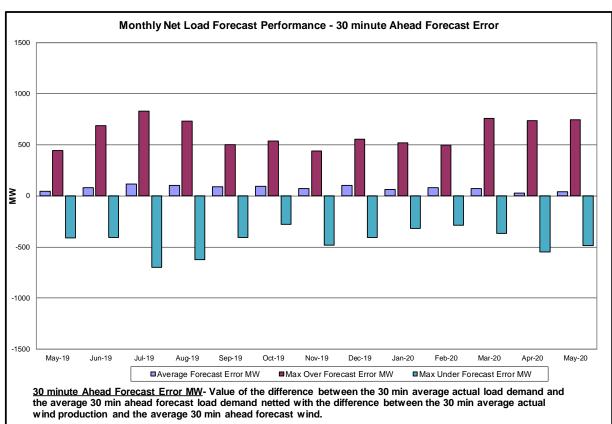


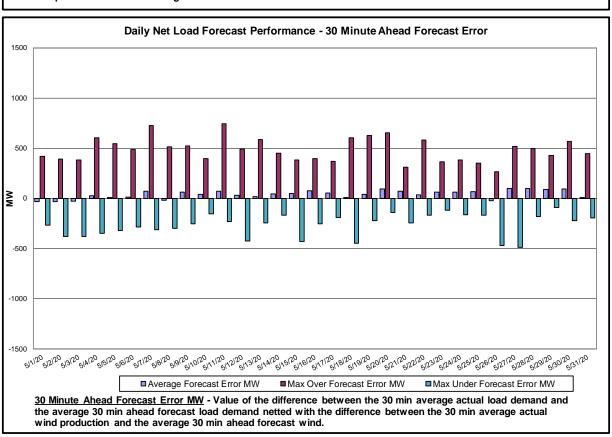




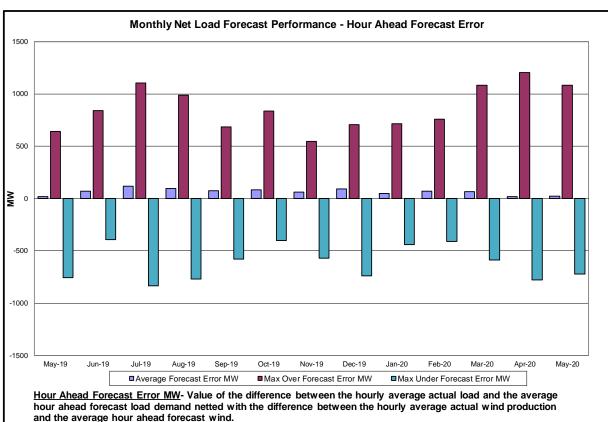


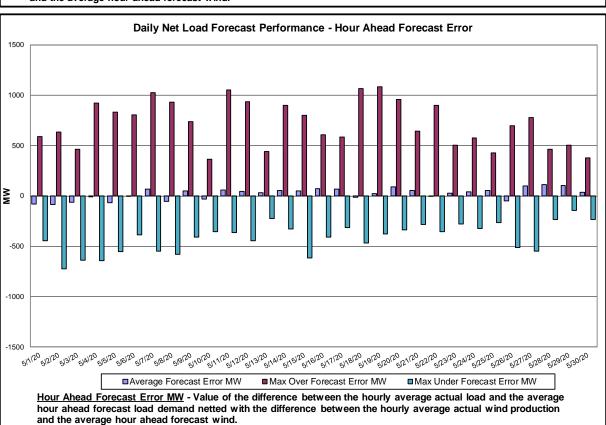




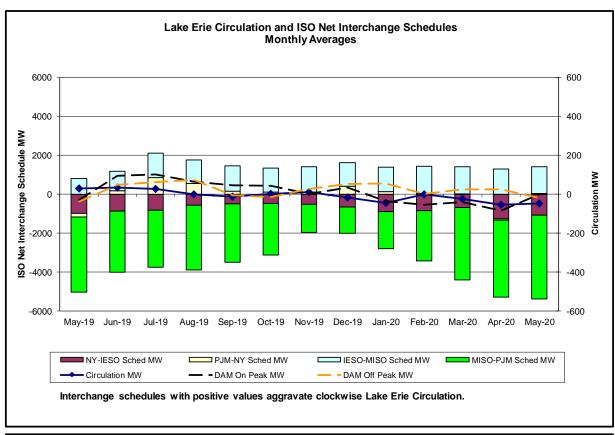


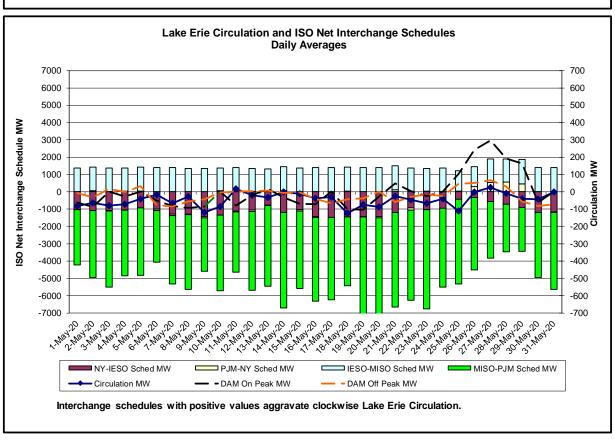






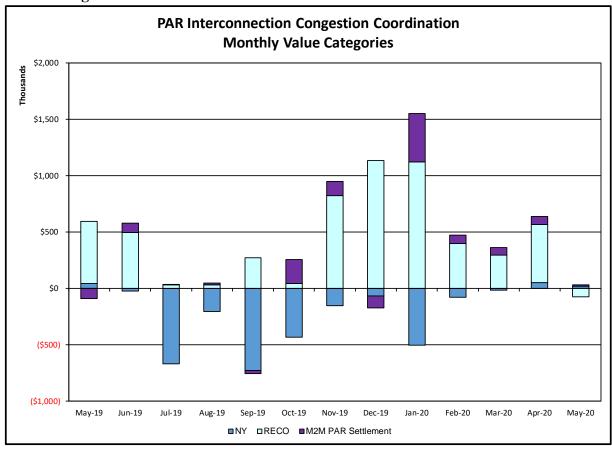


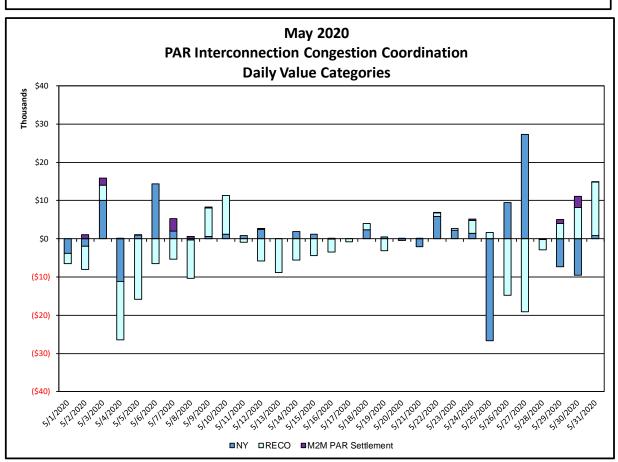






#### **Broader Regional Market Performance Metrics**







#### **PAR Interconnection Congestion Coordination**

<u>Category</u> NY **Description** 

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

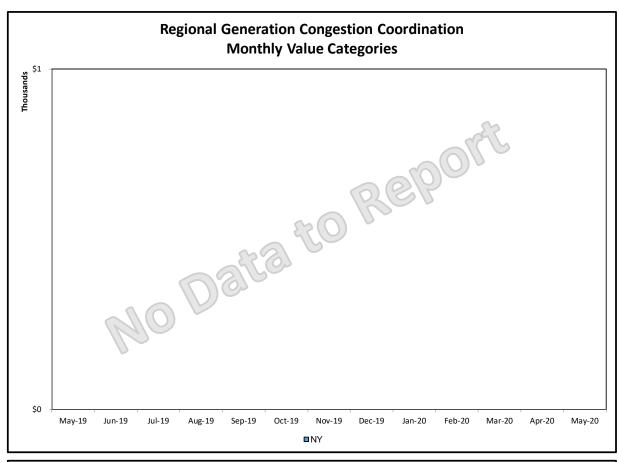
of RECO over Ramapo 5018.

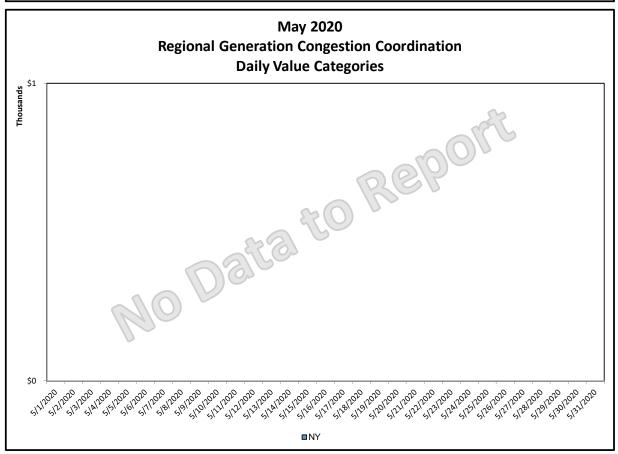
M2M PAR Settlement Market-to-Market PAR Coordination settlement on coordinated flowgates. Through April 2017

this value was included in the NY and RECO categories. The positive sign convention  $% \left\{ 1,2,...,N\right\}$ 

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









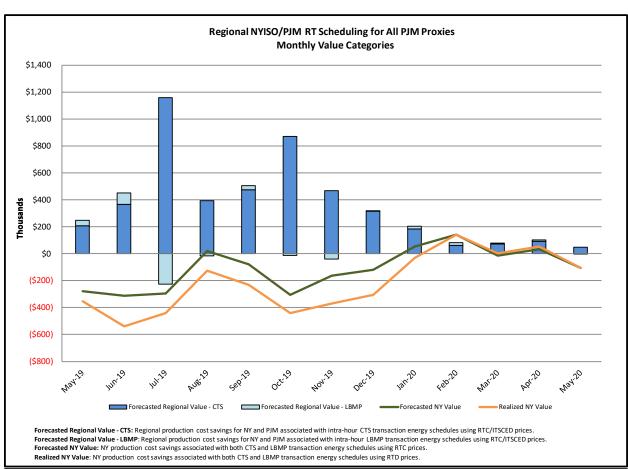
#### **Regional Generation Congestion Coordination**

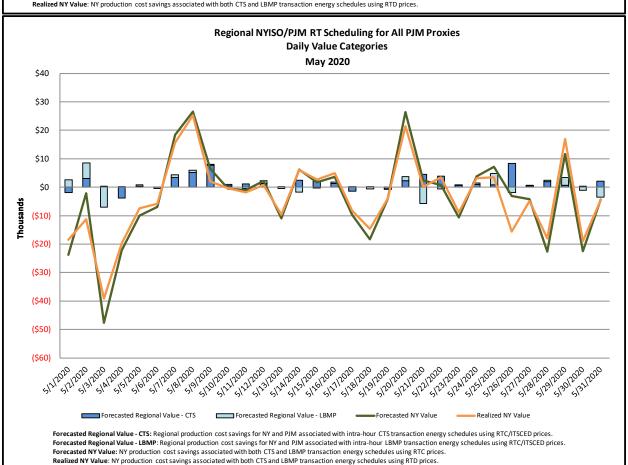
<u>Category</u> NY

#### **Description**

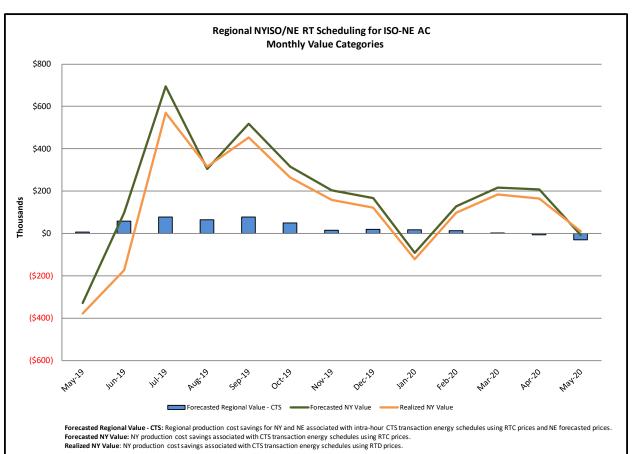
NYISO savings that result from PJM payments to NYISO when PJM's transmission use (PJM's market flow) is greater than PJM's entitlement of the NY transmission system and NYISO is incurring Western or Central NY congestion. Additionally, NYISO savings may result from the more efficient regional utilization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

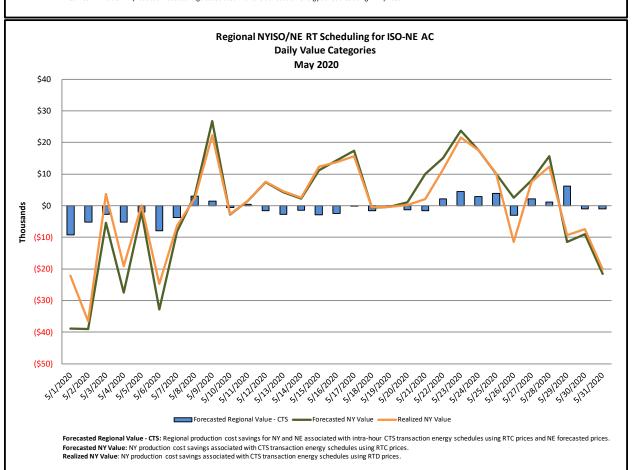






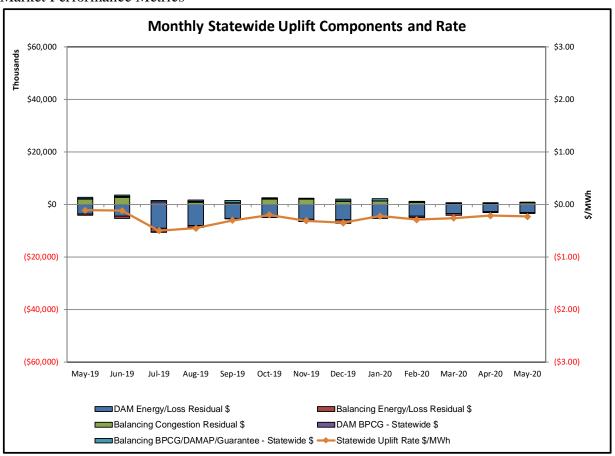




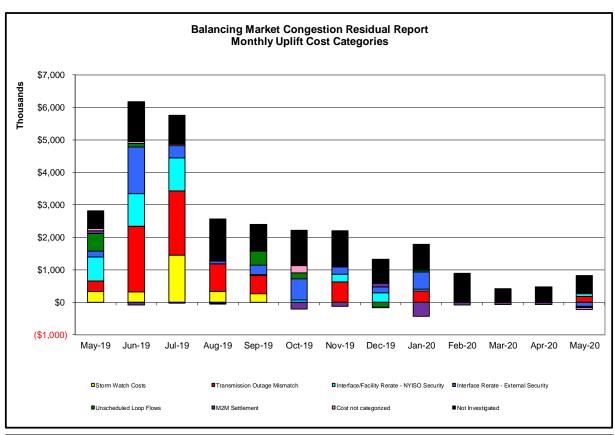


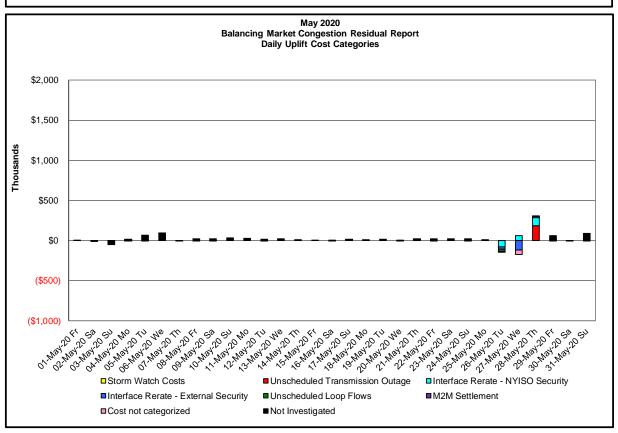


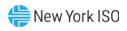
#### Market Performance Metrics







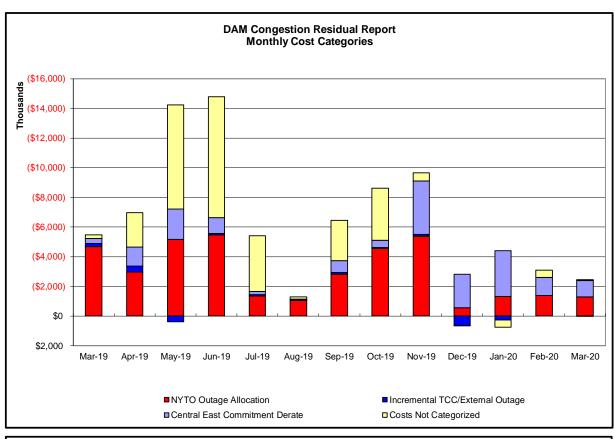


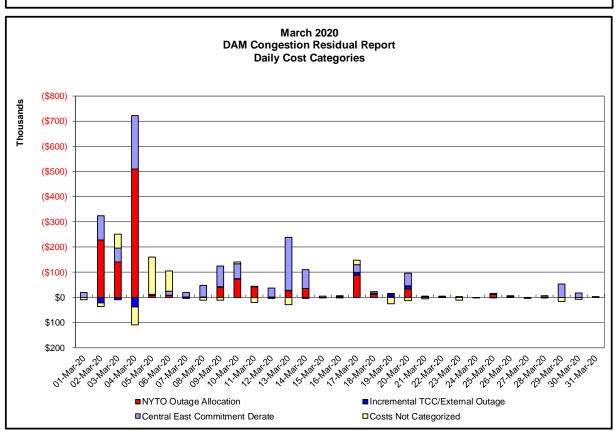


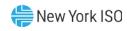
Day's inv	estigated in May:26,27	7,28		
Event Date (yyyymmdd) Hours		Hours	Description	
	5/26/2020	14,15	NYCA DNI Ramp Limit	
5/26/2020 17,18,19		17,18,19	Uprate Freshkills 345/138kV (#TA1) for I/o TWR:GOETHALS 22 & 21	
5/26/2020 13-16		13-16	NE_AC-NY Scheduling Limit	
5/26/2020 19		19	NE_AC DNI Ramp Limit	
5/26/2020 9,13,15,16,19		9,13,15,16,19	Lake Erie Circuilation, DAM-RTM exceeds +/-125MW; West	
	5/27/2020	16,17	NYCA DNI Ramp Limit	
	5/27/2020	17	Derate of Adirondack-Moses 230kV (#MA2) for I/o SIN:MSU1&7040& HQ GN&LD PROXY	
	5/27/2020	15,17	HQ_CHAT - NY (IMP_EXP) Scheduling Limit	
5/27/2020 16 PJ		16	PJM_AC DNI Ramp Limit	
5/27/2020 16		16	NE_NNC1385 - NY Scheduling Limit	
5/27/2020 17 NE_AC ACTIVE DN		17	NE_AC ACTIVE DNI Ramp Limit	
	5/28/2020	7-21	Extended outage of Clay-Dewitt 345kV (#13)	
	5/28/2020 10-13,18,21 Derate of Adirondack-Moses 230kV (#MA1) for I/o SIN:MSU1&7040& HQ GN&LD PROXY		Derate of Adirondack-Moses 230kV (#MA1) for I/o SIN:MSU1&7040& HQ GN&LD PROXY	
5/28/2020 8 PJM_AC DNI Ramp Limit		PJM_AC DNI Ramp Limit		

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



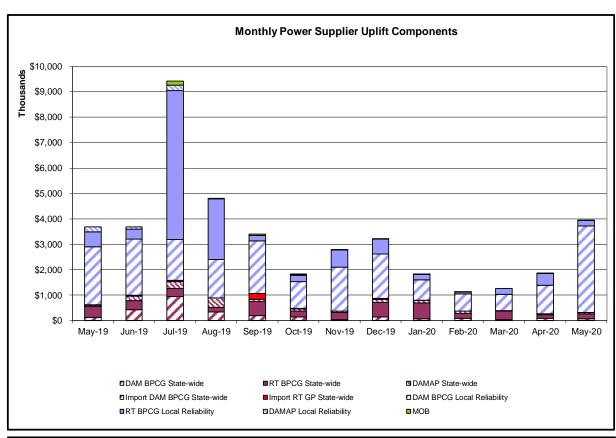


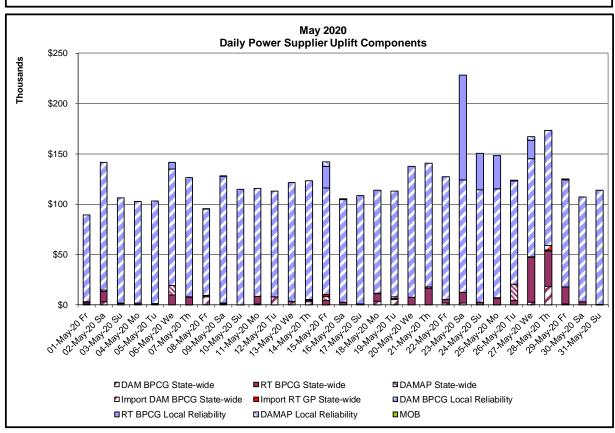




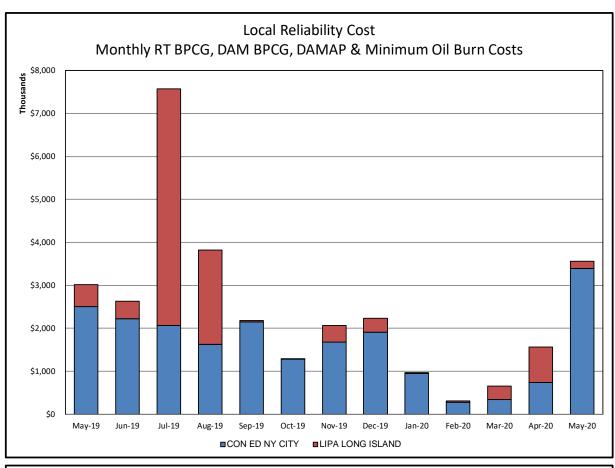
Day-Ahead Market Congestion Residual Categories			
<u>Category</u> NYTO Outage Allocation	<u>Cost Assignment</u> Responsible TO	Events Types Direct allocation to NYTO's responsible for transmission equipment status change.	Event Examples DAM scheduled outage for equipment modeled inservice for the TCC Auction.
Incremental TCC/External Outage Impacts	All TO by Monthly Allocation Factor	Allocation associated with transmission equipment status change caused by change in status of external equipment or change in status of equipment associated with Incremental TCC.	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.	

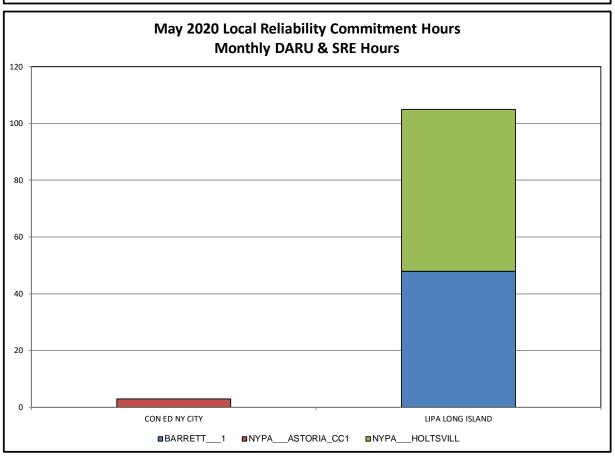




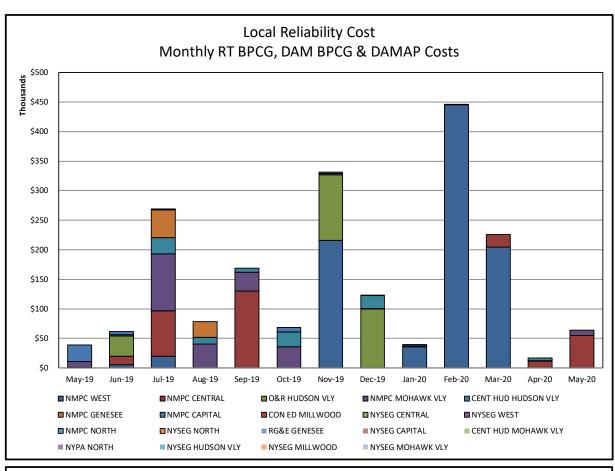


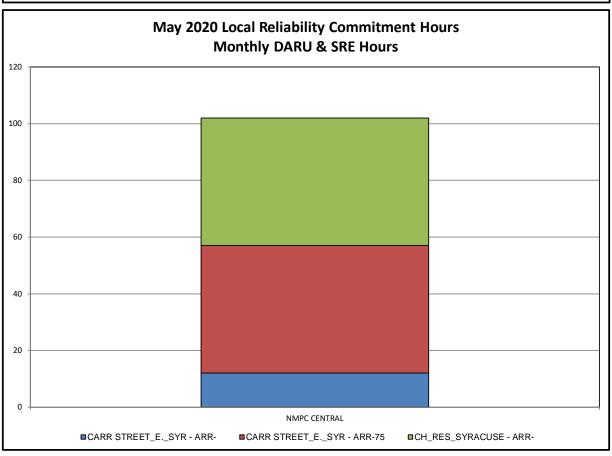




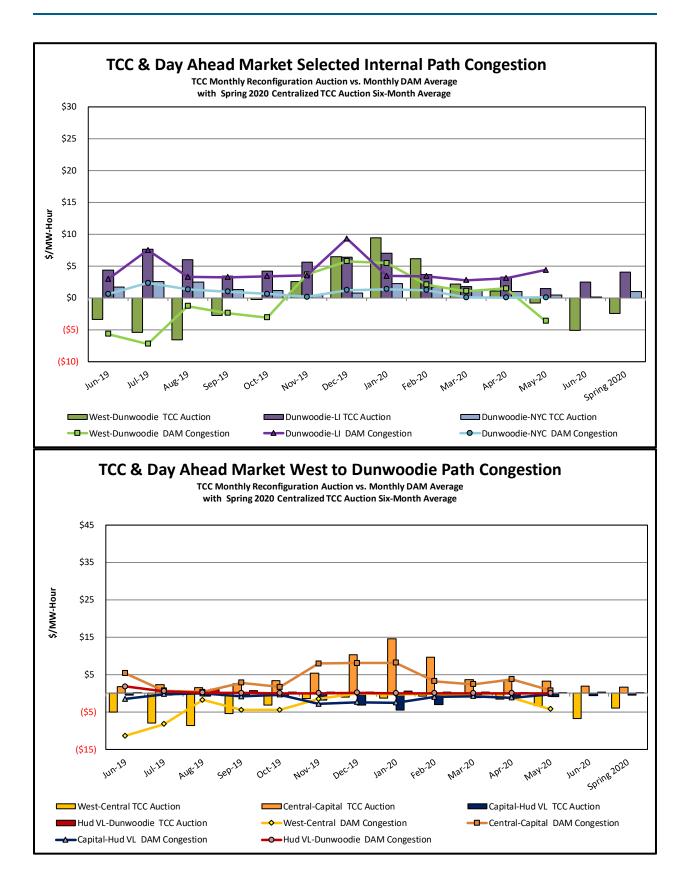




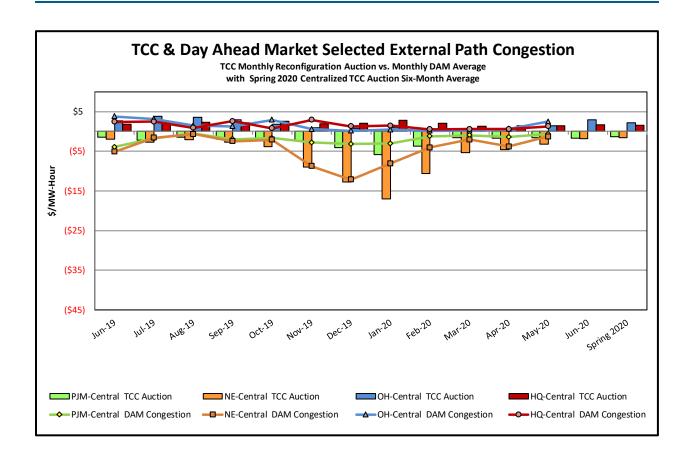




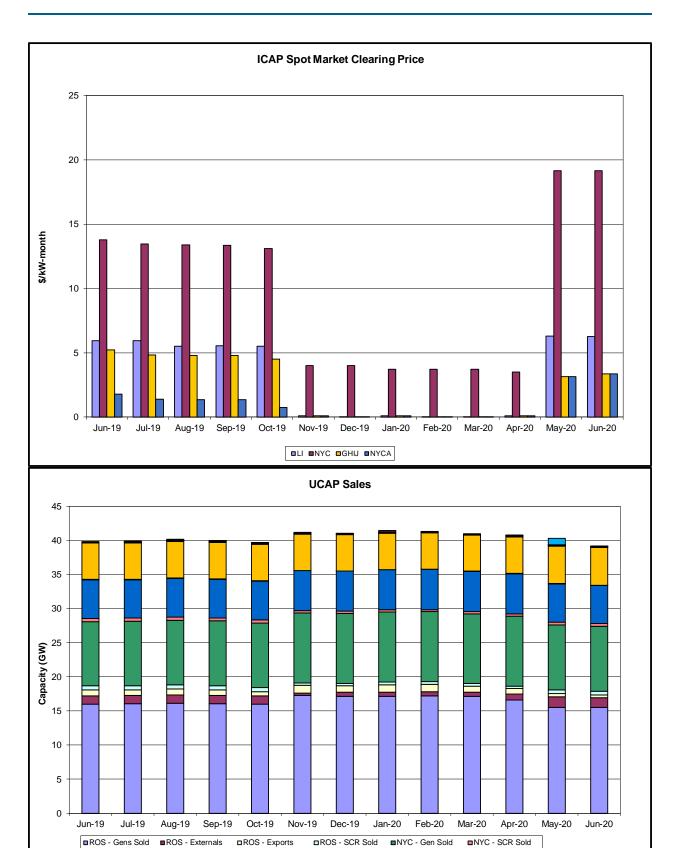












■GHI - SCR Sold ■LI - Gen Unsold

LI - SCR Unsold

■GHI - Gen Sold

■NYC - Gen Unsold ■NYC - SCR Unsold ■ROS - Gen Unsold ■ROS - SCR Unsold ■GHI - Gen Unsold ■GHI - SCR Unsold

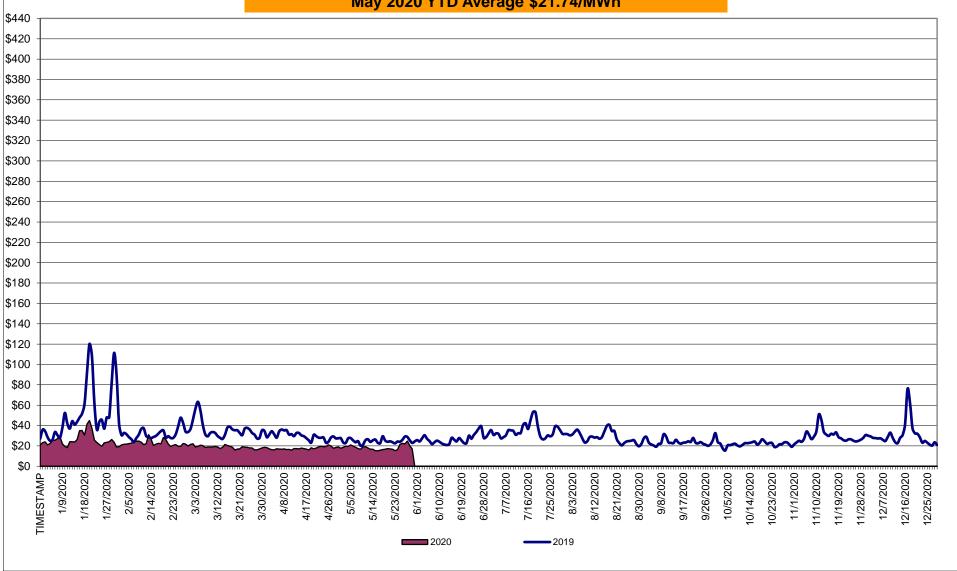
■LI - Gen Sold

LI - SCR Sold

## Market Performance Highlights May 2020

- LBMP for May is \$16.14/MWh; higher than \$15.77/MWh in April 2020 and lower than \$23.10/MWh in May 2019.
  - Day Ahead and Real Time Load Weighted LBMPs are higher compared to April.
- May 2020 average year-to-date monthly cost of \$21.82/MWh is a 42% decrease from \$37.57/MWh in May 2019.
- Average daily sendout is 345 GWh/day in May; higher than 344 GWh/day in April 2020 and lower than 373 GWh/day in May 2019.
- Natural gas prices are lower and distillate prices are mixed compared to the previous month.
  - Natural Gas (Transco Z6 NY) was \$1.33 /MMBtu, down from \$1.51/MMBtu in April.
  - Natural gas prices are down 41.4% year-over-year.
  - Jet Kerosene Gulf Coast was \$5.12/MMBtu, up from \$4.60/MMBtu in April.
  - Ultra Low Sulfur No.2 Diesel NY Harbor was \$6.36/MMBtu, down from \$6.42/MMBtu in April.
  - Distillate prices are down 60.6% year-over-year.
- Uplift per MWh is higher compared to the previous month.
  - Uplift (not including NYISO cost of operations) is \$0.09/MWh; higher than (\$0.08)/MWh in April.
    - Local Reliability Share is \$0.32/MWh, higher than \$0.14/MWh in April.
    - Statewide Share is (\$0.23)/MWh, lower than (\$0.21)/MWh in April.
  - TSA \$ per NYC MWh is \$0.00/MWh.
  - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are higher than April.

# Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\* 2019 Annual Average \$32.59/MWh May 2019 YTD Average \$37.57/MWh May 2020 YTD Average \$21.74/MWh

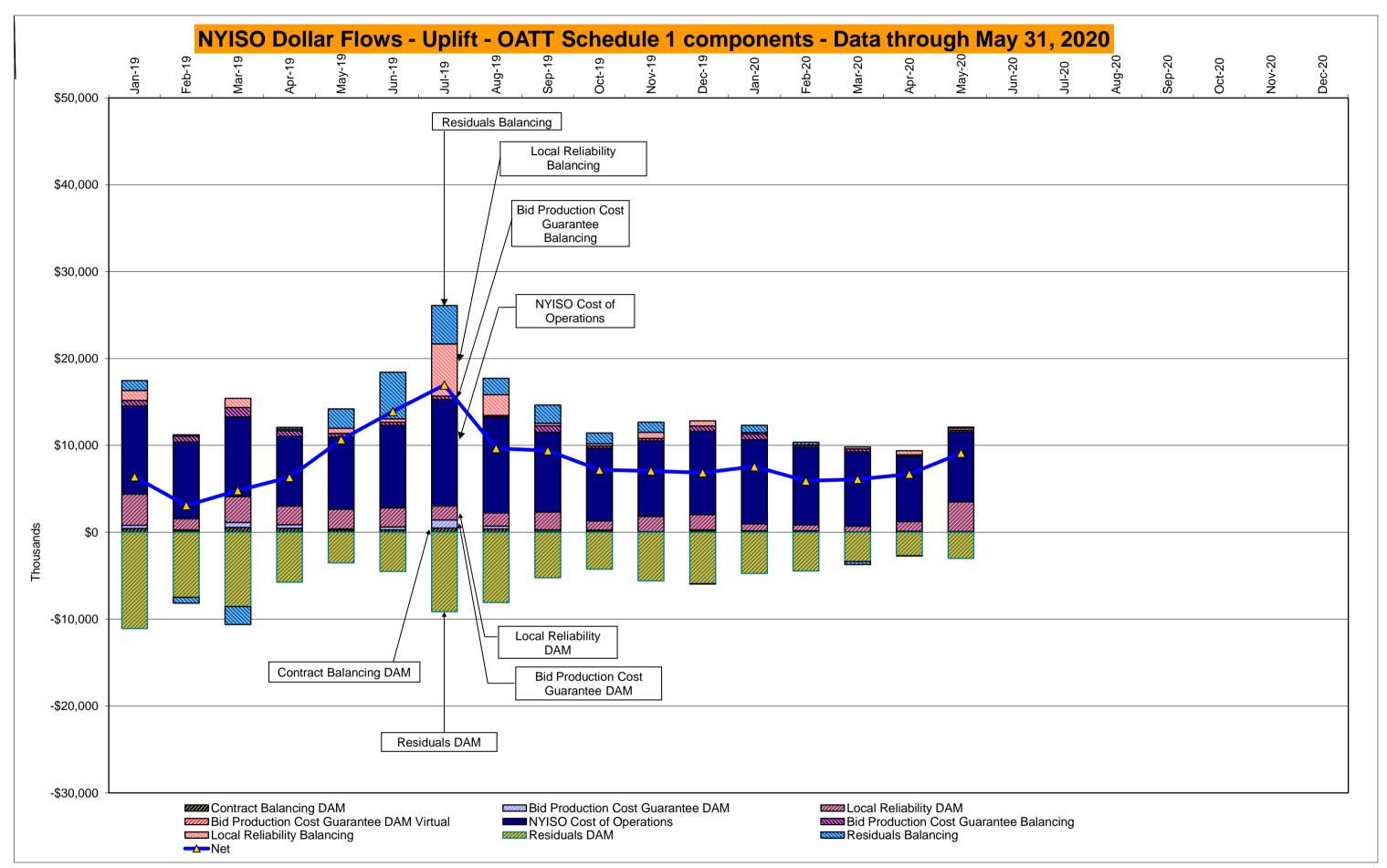


<sup>\*</sup> Excludes ICAP payments.

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

2020	<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>	<u>November</u>	<u>December</u>
LBMP	24.77	21.11	17.11	15.77	16.14							
NTAC	0.91	0.70	0.86	0.91	1.05							
Reserve	0.46	0.43	0.47	0.50	0.53							
Regulation	0.09	0.08	0.09	0.08	0.10							
NYISO Cost of Operations	0.68	0.69	0.68	0.66	0.71							
FERC Fee Recovery	0.08	0.09	0.09	0.10	0.11							
Uplift	(0.15)	(0.23)	(0.19)	(80.0)	0.09							
Uplift: Local Reliability Share	0.07	0.06	0.07	0.14	0.32							
Uplift: Statewide Share	(0.22)	(0.29)	(0.26)	(0.21)	(0.23)							
Voltage Support and Black Start	0.44	0.44	0.44	0.43	0.45							
Avg Monthly Cost	27.29	23.32	19.55	18.38	19.16							
Avg YTD Cost	27.29	25.40	23.48	22.38	21.82							
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.00							
2019	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	May	<u>June</u>	July	August	September	<u>October</u>	<u>November</u>	December
<b>2019</b> LBMP	<u>January</u> 50.93	February 33.51	<u>March</u> 34.91	<u>April</u> 28.01	<u>May</u> 23.10	<u>June</u> 24.43	<u>July</u> 33.18	<u>August</u> 27.83	September 22.22	October 20.84	November 27.39	December 29.52
					<u> </u>		-					<u></u>
LBMP	50.93	33.51	34.91	28.01	23.10	24.43	33.18	27.83	22.22	20.84	27.39	29.52
LBMP NTAC Reserve	50.93 0.51	33.51 0.69	34.91 0.98	28.01 1.16	23.10 0.72	24.43 1.08	33.18 1.01	27.83 0.98	22.22 0.48	20.84 0.57	27.39 0.88	29.52 0.77
LBMP NTAC	50.93 0.51 0.54	33.51 0.69 0.51	34.91 0.98 0.55	28.01 1.16 0.63	23.10 0.72 0.63	24.43 1.08 0.50	33.18 1.01 0.44	27.83 0.98 0.49	22.22 0.48 0.50	20.84 0.57 0.62	27.39 0.88 0.50	29.52 0.77 0.44
LBMP NTAC Reserve Regulation	50.93 0.51 0.54 0.13	33.51 0.69 0.51 0.11	34.91 0.98 0.55 0.10	28.01 1.16 0.63 0.33	23.10 0.72 0.63 0.13	24.43 1.08 0.50 0.09	33.18 1.01 0.44 0.07	27.83 0.98 0.49 0.09	22.22 0.48 0.50 0.09	20.84 0.57 0.62 0.13	27.39 0.88 0.50 0.11	29.52 0.77 0.44 0.10
LBMP NTAC Reserve Regulation NYISO Cost of Operations	50.93 0.51 0.54 0.13 0.68	33.51 0.69 0.51 0.11 0.68	34.91 0.98 0.55 0.10 0.69	28.01 1.16 0.63 0.33 0.69	23.10 0.72 0.63 0.13 0.68	24.43 1.08 0.50 0.09 0.69	33.18 1.01 0.44 0.07 0.70	27.83 0.98 0.49 0.09 0.70	22.22 0.48 0.50 0.09 0.69	20.84 0.57 0.62 0.13 0.67	27.39 0.88 0.50 0.11 0.67	29.52 0.77 0.44 0.10 0.67
LBMP NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery	50.93 0.51 0.54 0.13 0.68 0.08	33.51 0.69 0.51 0.11 0.68 0.09	34.91 0.98 0.55 0.10 0.69 0.09	28.01 1.16 0.63 0.33 0.69 0.10	23.10 0.72 0.63 0.13 0.68 0.10	24.43 1.08 0.50 0.09 0.69 0.08	33.18 1.01 0.44 0.07 0.70 0.06	27.83 0.98 0.49 0.09 0.70 0.07	22.22 0.48 0.50 0.09 0.69 0.09	20.84 0.57 0.62 0.13 0.67 0.09	27.39 0.88 0.50 0.11 0.67 0.09	29.52 0.77 0.44 0.10 0.67 0.08
LBMP NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift	50.93 0.51 0.54 0.13 0.68 0.08 (0.25)	33.51 0.69 0.51 0.11 0.68 0.09 (0.44)	34.91 0.98 0.55 0.10 0.69 0.09 (0.33)	28.01 1.16 0.63 0.33 0.69 0.10 (0.15)	23.10 0.72 0.63 0.13 0.68 0.10 0.13	24.43 1.08 0.50 0.09 0.69 0.08 0.07	33.18 1.01 0.44 0.07 0.70 0.06 (0.06)	27.83 0.98 0.49 0.09 0.70 0.07 (0.20)	22.22 0.48 0.50 0.09 0.69 0.09 (0.13)	20.84 0.57 0.62 0.13 0.67 0.09 (0.09)	27.39 0.88 0.50 0.11 0.67 0.09 (0.13)	29.52 0.77 0.44 0.10 0.67 0.08 (0.19)
LBMP NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift Uplift: Local Reliability Share	50.93 0.51 0.54 0.13 0.68 0.08 (0.25) 0.32	33.51 0.69 0.51 0.11 0.68 0.09 (0.44) 0.11	34.91 0.98 0.55 0.10 0.69 0.09 (0.33) 0.31	28.01 1.16 0.63 0.33 0.69 0.10 (0.15) 0.20	23.10 0.72 0.63 0.13 0.68 0.10 0.13 0.23	24.43 1.08 0.50 0.09 0.69 0.08 0.07 0.19	33.18 1.01 0.44 0.07 0.70 0.06 (0.06) 0.44	27.83 0.98 0.49 0.09 0.70 0.07 (0.20) 0.25	22.22 0.48 0.50 0.09 0.69 0.09 (0.13) 0.17	20.84 0.57 0.62 0.13 0.67 0.09 (0.09) 0.11	27.39 0.88 0.50 0.11 0.67 0.09 (0.13) 0.19	29.52 0.77 0.44 0.10 0.67 0.08 (0.19) 0.17
LBMP NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift Uplift: Local Reliability Share Uplift: Statewide Share	50.93 0.51 0.54 0.13 0.68 0.08 (0.25) 0.32 (0.57)	33.51 0.69 0.51 0.11 0.68 0.09 (0.44) 0.11 (0.55)	34.91 0.98 0.55 0.10 0.69 0.09 (0.33) 0.31 (0.64)	28.01 1.16 0.63 0.33 0.69 0.10 (0.15) 0.20 (0.35)	23.10 0.72 0.63 0.13 0.68 0.10 0.13 0.23 (0.11)	24.43 1.08 0.50 0.09 0.69 0.08 0.07 0.19 (0.12)	33.18 1.01 0.44 0.07 0.70 0.06 (0.06) 0.44 (0.50)	27.83 0.98 0.49 0.09 0.70 0.07 (0.20) 0.25 (0.45)	22.22 0.48 0.50 0.09 0.69 0.09 (0.13) 0.17 (0.30)	20.84 0.57 0.62 0.13 0.67 0.09 (0.09) 0.11 (0.20)	27.39 0.88 0.50 0.11 0.67 0.09 (0.13) 0.19 (0.31)	29.52 0.77 0.44 0.10 0.67 0.08 (0.19) 0.17 (0.35)
LBMP NTAC Reserve Regulation NYISO Cost of Operations FERC Fee Recovery Uplift Uplift: Local Reliability Share Uplift: Statewide Share Voltage Support and Black Start	50.93 0.51 0.54 0.13 0.68 0.08 (0.25) 0.32 (0.57) 0.37	33.51 0.69 0.51 0.11 0.68 0.09 (0.44) 0.11 (0.55) 0.37	34.91 0.98 0.55 0.10 0.69 0.09 (0.33) 0.31 (0.64) 0.38	28.01 1.16 0.63 0.33 0.69 0.10 (0.15) 0.20 (0.35) 0.38	23.10 0.72 0.63 0.13 0.68 0.10 0.13 0.23 (0.11) 0.38	24.43 1.08 0.50 0.09 0.69 0.08 0.07 0.19 (0.12) 0.38	33.18 1.01 0.44 0.07 0.70 0.06 (0.06) 0.44 (0.50) 0.38	27.83 0.98 0.49 0.09 0.70 0.07 (0.20) 0.25 (0.45) 0.38	22.22 0.48 0.50 0.09 0.69 0.09 (0.13) 0.17 (0.30) 0.38	20.84 0.57 0.62 0.13 0.67 0.09 (0.09) 0.11 (0.20) 0.37	27.39 0.88 0.50 0.11 0.67 0.09 (0.13) 0.19 (0.31) 0.37	29.52 0.77 0.44 0.10 0.67 0.08 (0.19) 0.17 (0.35) 0.36

<sup>\*</sup> Excludes ICAP payments. Market Mitigation and Analysis Prepared: 6/8/2020 11:06 AM



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

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

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

### **NYISO Markets Transactions**

<u>March</u>

<u>February</u>

<u>January</u>

<u>April</u>

<u>May</u>

<u>June</u>

<u>July</u>

August September

October November December

2020	<u>Januar y</u>	<u>i Ebidaiy</u>	<u>iviai Ci i</u>	<u>Apili</u>	iviay	Julie	<u>July</u>	August	<u>oepterriber</u>	<u>October</u>	HOVEITIDE	December
Day Ahead Market MWh	14,194,609	13,172,669	12,495,999	11,372,390	11,462,320							
DAM LSE Internal LBMP Energy Sales	56%	56%	59%	54%	55%							
DAM External TC LBMP Energy Sales	6%	5%	5%	7%	4%							
DAM Bilateral - Internal Bilaterals	30%	30%	27%	30%	31%							
DAM Bilateral - Importl/Non-LBMP Market Bilaterals	5%	5%	6%	6%	6%							
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%	2%	2%	2%							
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%	1%	1%							
Balancing Energy Market MWh	-26,753	-142,168	144,076	22,599	-137,565							
Balancing Energy LSE Internal LBMP Energy Sales	-1080%	-221%	-85%	-884%	-187%							
Balancing Energy External TC LBMP Energy Sales	1156%	181%	240%	1233%	137%							
Balancing Energy Bilateral - Internal Bilaterals	62%	5%	12%	55%	12%							
Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%							
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	127%	16%	18%	92%	12%							
Balancing Energy Bilateral - Wheel Through Bilaterals	-365%	-81%	-85%	-396%	-74%							
Transactions Summary	30070	0170	0070	00070	7 170							
LBMP	62%	62%	65%	61%	59%							
Internal Bilaterals	31%	31%	27%	30%	32%							
Import Bilaterals	5%	5%	6%	6%	6%							
Export Bilaterals	2%	2%	2%	2%	2%							
Wheels Through	0%	1%	0%	0%	0%							
Market Share of Total Load	0 70	1 70	0 70	0 70	0 70							
	400.00/	404.40/	00.00/	00.00/	404.00/							
Day Ahead Market	100.2% -0.2%	101.1% -1.1%	98.9% 1.1%	99.8% 0.2%	101.2% -1.2%							
Balancing Energy +												
Total MWH	14,167,856		12,640,075	11,394,989								
Average Daily Energy Sendout/Month GWh	423	417	375	344	345							
2019	January	February	March	April	May	June	July	Διιαμετ	September	October	November	December
Day Ahead Market MWh	<u></u> _			<del></del>	<del></del> -		<u></u> -			<u></u>		
	15,299,458	13,391,383	13,527,834	11,811,029	12,521,583	13,723,372		16,379,968	13,588,715	12,567,821	13,036,152	14,345,711
DAM LSE Internal LBMP Energy Sales	57%	57%	59%	59%	57%	58%	64%	63%	58%	57% 4%	54%	56%
DAM External TC LBMP Energy Sales  DAM Bilateral - Internal Bilaterals	6%	5%	3%	1%	3%	3%	3%	3%	3%	4%	6%	6%
			200/	240/	(2(20)/				200/		220/	200/
	29%	30%	30%	31%	32%	29%	26%	26%	30%	32%	32%	30%
DAM Bilateral - Importl/Non-LBMP Market Bilaterals	5%	5%	5%	5%	6%	5%	4%	4%	5%	32% 5%	5%	5%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	5% 1%	5% 1%	5% 2%	5% 2%	6% 2%	5% 2%	4% 1%	4% 1%	5% 2%	32% 5% 2%	5% 2%	5% 2%
DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals	5% 1% 2%	5% 1% 2%	5% 2% 2%	5% 2% 2%	6% 2% 1%	5% 2% 2%	4% 1% 2%	4% 1% 2%	5% 2% 2%	32% 5% 2% 1%	5% 2% 1%	5% 2% 1%
DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh	5% 1% 2% -322,442	5% 1% 2% -323,188	5% 2% 2% -261,217	5% 2% 2% -218,482	6% 2% 1% -392,699	5% 2% 2% -102,044	4% 1% 2% 103,628	4% 1% 2% -514,102	5% 2% 2% -247,267	32% 5% 2% 1% -112,057	5% 2% 1% -17,421	5% 2% 1% 46,828
DAM Bilateral - Export/Non-LBMP Market Bilaterals  DAM Bilateral - Wheel Through Bilaterals  Balancing Energy Market MWh  Balancing Energy LSE Internal LBMP Energy Sales	5% 1% 2% -322,442 -120%	5% 1% 2% -323,188 -126%	5% 2% 2% -261,217 -138%	5% 2% 2% -218,482 -178%	6% 2% 1% -392,699 -150%	5% 2% 2% -102,044 -264%	4% 1% 2% 103,628 -2%	4% 1% 2% -514,102 -119%	5% 2% 2% -247,267 -163%	32% 5% 2% 1% -112,057 -346%	5% 2% 1% -17,421 -1332%	5% 2% 1% 46,828 -480%
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	5% 1% 2% -322,442 -120% 65%	5% 1% 2% -323,188 -126% 67%	5% 2% 2% -261,217 -138% 82%	5% 2% 2% -218,482 -178% 113%	6% 2% 1% -392,699 -150% 68%	5% 2% 2% -102,044 -264% 233%	4% 1% 2% 103,628 -2% 199%	4% 1% 2% -514,102 -119% 41%	5% 2% 2% -247,267 -163% 93%	32% 5% 2% 1% -112,057 -346% 266%	5% 2% 1% -17,421 -1332% 1435%	5% 2% 1% 46,828 -480% 699%
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	5% 1% 2% -322,442 -120% 65% -4%	5% 1% 2% -323,188 -126% 67% -1%	5% 2% 2% -261,217 -138% 82% -3%	5% 2% 2% -218,482 -178% 113% 2%	6% 2% 1% -392,699 -150% 68% 1%	5% 2% 2% -102,044 -264% 233% 0%	4% 1% 2% 103,628 -2% 199% 5%	4% 1% 2% -514,102 -119% 41% 0%	5% 2% 2% -247,267 -163% 93% -4%	32% 5% 2% 1% -112,057 -346% 266% 6%	5% 2% 1% -17,421 -1332% 1435% 103%	5% 2% 1% 46,828 -480% 699% 39%
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	5% 1% 2% -322,442 -120% 65% -4% 0%	5% 1% 2% -323,188 -126% 67% -1% 0%	5% 2% 2% -261,217 -138% 82% -3% 0%	5% 2% 2% -218,482 -178% 113% 2% 0%	6% 2% 1% -392,699 -150% 68% 1% 0%	5% 2% 2% -102,044 -264% 233% 0% 0%	4% 1% 2% 103,628 -2% 199% 5% 15%	4% 1% 2% -514,102 -119% 41% 0% 0%	5% 2% 2% -247,267 -163% 93% -4% 0%	32% 5% 2% 1% -112,057 -346% 266% 6% 0%	5% 2% 1% -17,421 -1332% 1435% 103% 0%	5% 2% 1% 46,828 -480% 699% 39% 0%
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	5% 1% 2% -322,442 -120% 65% -4% 0% 3%	5% 1% 2% -323,188 -126% 67% -1% 0% 7%	5% 2% 2% -261,217 -138% 82% -3% 0% 6%	5% 2% 2% -218,482 -178% 113% 2% 0% 7%	6% 2% 1% -392,699 -150% 68% 1% 0% 2%	5% 2% 2% -102,044 -264% 233% 0% 0% 8%	4% 1% 2% 103,628 -2% 199% 5% 15% 8%	4% 1% 2% -514,102 -119% 41% 0% 0% 1%	5% 2% 2% -247,267 -163% 93% -4% 0% 6%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170%	5% 2% 1% 46,828 -480% 699% 39% 0% 70%
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	5% 1% 2% -322,442 -120% 65% -4% 0%	5% 1% 2% -323,188 -126% 67% -1% 0%	5% 2% 2% -261,217 -138% 82% -3% 0%	5% 2% 2% -218,482 -178% 113% 2% 0%	6% 2% 1% -392,699 -150% 68% 1% 0%	5% 2% 2% -102,044 -264% 233% 0% 0%	4% 1% 2% 103,628 -2% 199% 5% 15%	4% 1% 2% -514,102 -119% 41% 0% 0%	5% 2% 2% -247,267 -163% 93% -4% 0%	32% 5% 2% 1% -112,057 -346% 266% 6% 0%	5% 2% 1% -17,421 -1332% 1435% 103% 0%	5% 2% 1% 46,828 -480% 699% 39% 0%
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	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229%
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	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47%	5% 2% 2% -261,217 -138% 82% -3% 0% 6%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229%
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	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229%
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	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229% 63% 30% 5%
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	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44% 60% 31% 6% 2%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21% 59% 33% 6% 2%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77% 62% 30% 5% 2%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125% 68% 25% 4% 1%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229% 63% 30% 5% 2%
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	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45% 63% 29% 5%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47% 62% 30% 5%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47% 61% 30% 6%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44% 60% 31% 6%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21% 59% 33% 6%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77% 62% 30% 5%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125% 68% 25% 4%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23% 65% 27% 5%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31% 61% 30% 5%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52% 61% 32% 5%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476% 60% 32% 5%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229% 63% 30% 5%
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	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45% 63% 29% 5% 1%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47% 62% 30% 5% 2%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47% 61% 30% 6% 2%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44% 60% 31% 6% 2%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21% 59% 33% 6% 2%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77% 62% 30% 5% 2%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125% 68% 25% 4% 1%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23% 65% 27% 5% 1%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31% 61% 30% 5% 2%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52% 61% 32% 5% 2%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476% 60% 32% 5% 2%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229% 63% 30% 5% 2%
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 Wheels Through	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45% 63% 29% 5% 1%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47% 62% 30% 5% 2%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47% 61% 30% 6% 2%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44% 60% 31% 6% 2%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21% 59% 33% 6% 2%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77% 62% 30% 5% 2%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125% 68% 25% 4% 1%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23% 65% 27% 5% 1%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31% 61% 30% 5% 2%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52% 61% 32% 5% 2%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476% 60% 32% 5% 2%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229% 63% 30% 5% 2%
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 Wheels Through  Market Share of Total Load	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45% 63% 29% 5% 1% 1%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47% 62% 30% 5% 2% 1%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47% 61% 30% 6% 2% 1%	5% 2% 2% -218,482 -178% 113% 2% 0% -7% -44% 60% 31% 6% 2% 1%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21% 59% 33% 6% 2% 0%	5% 2% 2% -102,044 -264% 233% 0% 6% -77% 62% 30% 5% 2% 1%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125% 68% 25% 4% 1%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23% 65% 27% 5% 1% 1%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31% 61% 30% 5% 2% 2%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52% 61% 32% 5% 2% 0%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476% 60% 32% 5% 2% 0%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229% 63% 30% 5% 2% 0%
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 Wheels Through  Market Share of Total Load Day Ahead Market	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45% 63% 29% 5% 1% 1%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47% 62% 30% 5% 2% 1%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47% 61% 30% 6% 2% 1%	5% 2% 2% -218,482 -178% 113% 2% 0% 7% -44% 60% 31% 6% 2% 1%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21% 59% 33% 6% 2% 0%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77% 62% 30% 5% 2% 1%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125% 68% 25% 4% 1% 1% 99.4% 0.6%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23% 65% 27% 5% 1% 1%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31% 61% 30% 5% 2% 2% 2%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52% 61% 32% 5% 2% 0%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476% 60% 32% 5% 2% 0%	5% 2% 1% 46,828 -480% 699% 39% 0% 70% -229% 63% 30% 5% 2% 0%
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 Wheels Through  Market Share of Total Load  Day Ahead Market Balancing Energy +	5% 1% 2% -322,442 -120% 65% -4% 0% 3% -45%  63% 29% 5% 1% 1% 1% 102.2% -2.2%	5% 1% 2% -323,188 -126% 67% -1% 0% 7% -47%  62% 30% 5% 2% 1%  102.5% -2.5%	5% 2% 2% -261,217 -138% 82% -3% 0% 6% -47% 61% 30% 6% 2% 1% 102.0% -2.0%	5% 2% 2% -218,482 -178% 113% 2% 0% -7% -44% 60% 31% 6% 2% 1% 101.9% -1.9%	6% 2% 1% -392,699 -150% 68% 1% 0% 2% -21% 59% 33% 6% 2% 0% 103.2% -3.2%	5% 2% 2% -102,044 -264% 233% 0% 0% 8% -77% 62% 30% 5% 2% 1% 100.7% -0.7%	4% 1% 2% 103,628 -2% 199% 5% 15% 8% -125% 68% 25% 4% 1% 1% 99.4% 0.6%	4% 1% 2% -514,102 -119% 41% 0% 0% 1% -23% 65% 27% 5% 1% 1% 1% -3.2%	5% 2% 2% -247,267 -163% 93% -4% 0% 6% -31% 61% 30% 5% 2% 2% 2%	32% 5% 2% 1% -112,057 -346% 266% 6% 0% 25% -52% 61% 32% 5% 2% 0% 100.9% -0.9%	5% 2% 1% -17,421 -1332% 1435% 103% 0% 170% -476% 60% 32% 5% 2% 0% 100.1% -0.1%	5% 2% 1% 46,828 -480% 699% 39% 0% -229% 63% 30% 5% 2% 0% 99.7% 0.3%

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

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

<u>2020</u>

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

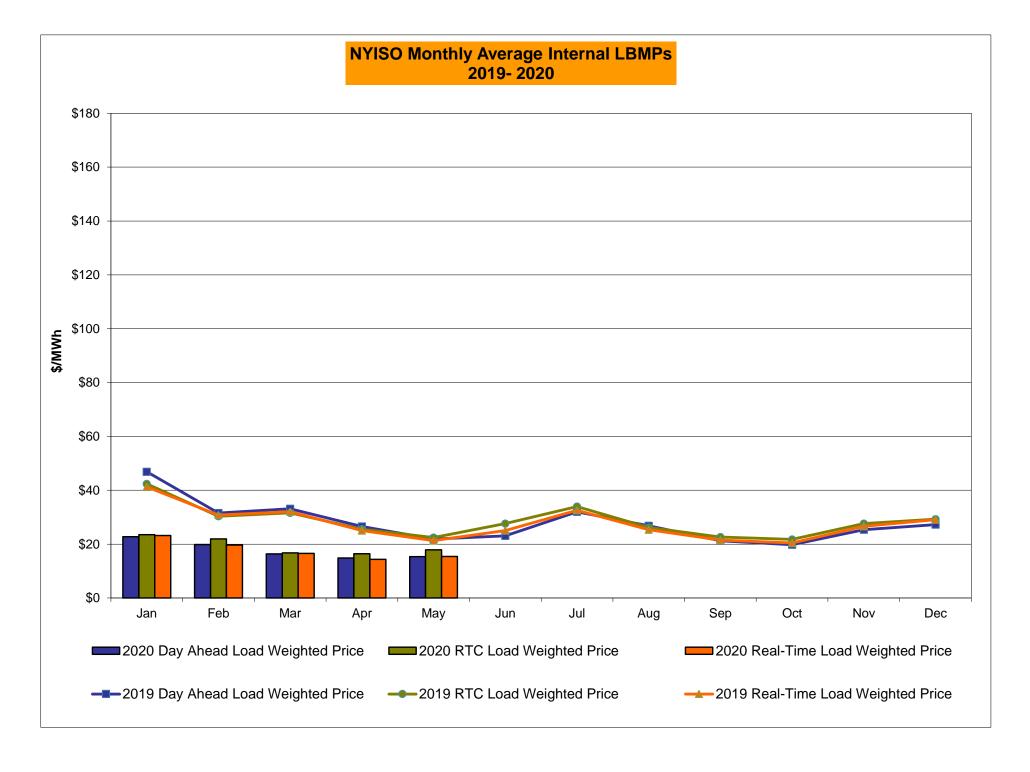
### NYISO Markets 2020 Energy Statistics

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	August September	October November December
DAY AHEAD LBMP									
Price *	\$22.11	\$19.48	\$16.07	\$14.67	\$14.97				
Standard Deviation	\$7.43	\$4.45	\$3.21	\$2.71	\$3.55				
Load Weighted Price **	\$22.77	\$19.84	\$16.36	\$14.86	\$15.37				
RTC LBMP									
Price *	\$22.86	\$21.48	\$16.48	\$16.23	\$17.46				
Standard Deviation	\$9.33	\$53.30	\$4.84	\$5.17	\$8.61				
Load Weighted Price **	\$23.50	\$21.94	\$16.74	\$16.44	\$17.89				
REAL TIME LBMP									
Price *	\$22.53	\$19.29	\$16.24	\$14.14	\$14.90				
Standard Deviation	\$11.90	\$8.68	\$7.48	\$6.98	\$8.35				
Load Weighted Price **	\$23.20	\$19.68	\$16.58	\$14.35	\$15.42				
Average Daily Energy Sendout/Month GWh	423	417	375	344	345				

### **NYISO Markets 2019 Energy Statistics**

DAY 41154D   DMD	<u>January</u>	<u>February</u>	March	<u>April</u>	May	<u>June</u>	<u>July</u>	August S	<u>September</u>	October	November [	<u>December</u>
DAY AHEAD LBMP Price *	\$45.01	\$30.66	\$32.34	\$25.97	\$21.16	\$21.79	\$30.16	\$25.35	\$20.45	\$19.18	\$24.65	\$26.29
Standard Deviation	\$25.67	\$12.86	\$9.30	\$6.32	\$5.89	\$7.28	\$12.06	\$8.73	\$5.57	\$5.09	\$7.73	\$11.81
Load Weighted Price **	\$46.88	\$31.53	\$33.14	\$26.57	\$21.89	\$23.04	\$31.98	\$26.83	\$21.23	\$19.77	\$25.36	\$27.22
RTC LBMP												
Price *	\$40.86	\$29.74	\$31.04	\$25.07	\$21.88	\$25.67	\$32.23	\$24.92	\$21.70	\$20.92	\$26.82	\$28.17
Standard Deviation	\$23.02	\$10.79	\$8.48	\$7.53	\$8.01	\$23.45	\$21.96	\$14.96	\$9.22	\$13.95	\$10.37	\$16.26
Load Weighted Price **	\$42.39	\$30.32	\$31.62	\$25.54	\$22.44	\$27.64	\$33.92	\$26.14	\$22.60	\$21.76	\$27.64	\$29.24
REAL TIME LBMP												
Price *	\$39.54	\$30.13	\$31.46	\$24.47	\$20.56	\$23.30	\$30.77	\$24.01	\$20.49	\$19.53	\$25.82	\$27.81
Standard Deviation	\$26.03	\$13.77	\$12.54	\$17.27	\$10.35	\$17.49	\$20.63	\$12.36	\$9.62	\$12.02	\$11.60	\$19.64
Load Weighted Price **	\$41.24	\$30.80	\$32.06	\$25.06	\$21.28	\$25.05	\$32.53	\$25.34	\$21.50	\$20.43	\$26.64	\$29.05
Average Daily Energy Sendout/Month GWh	449	436	411	371	373	429	539	487	419	377	401	427

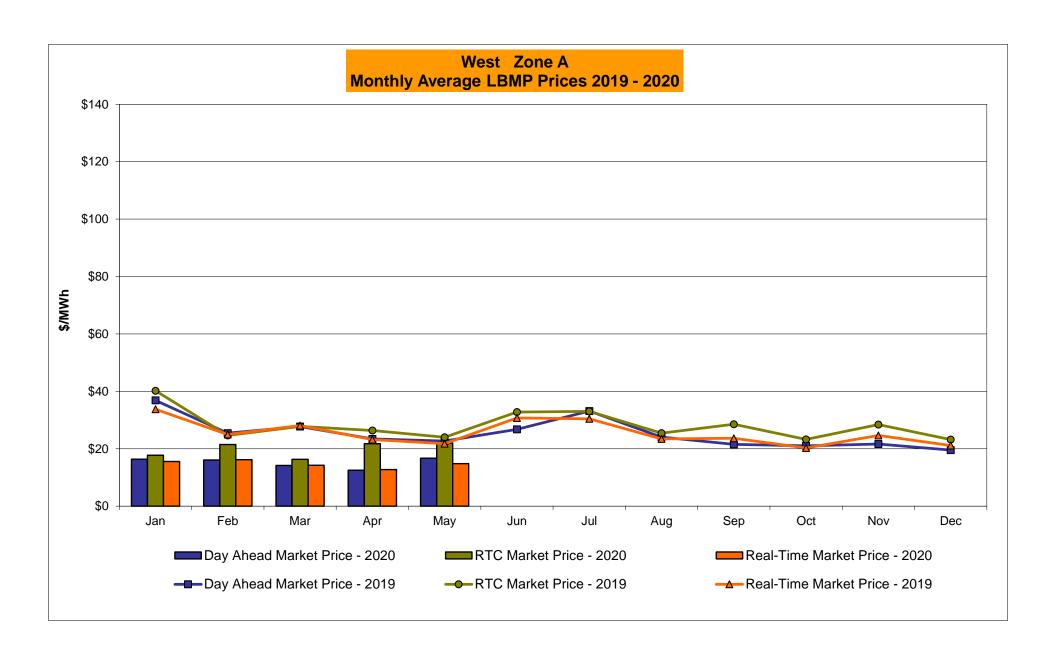
<sup>\*</sup> Average zonal load weighted prices.
\*\* Average zonal load weighted prices, load weighted in each hour.

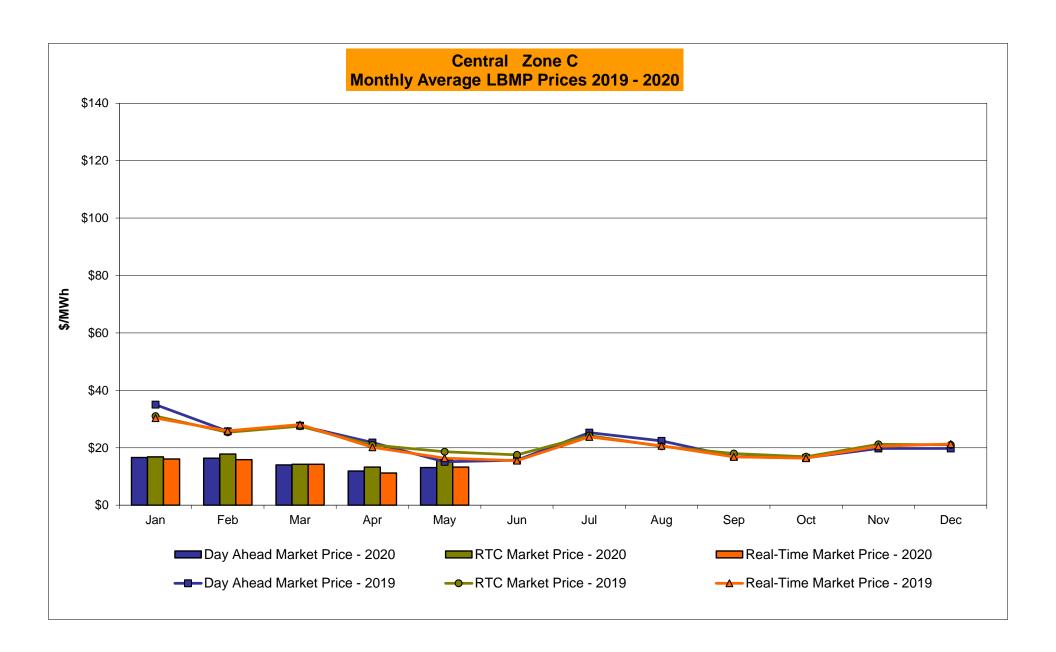


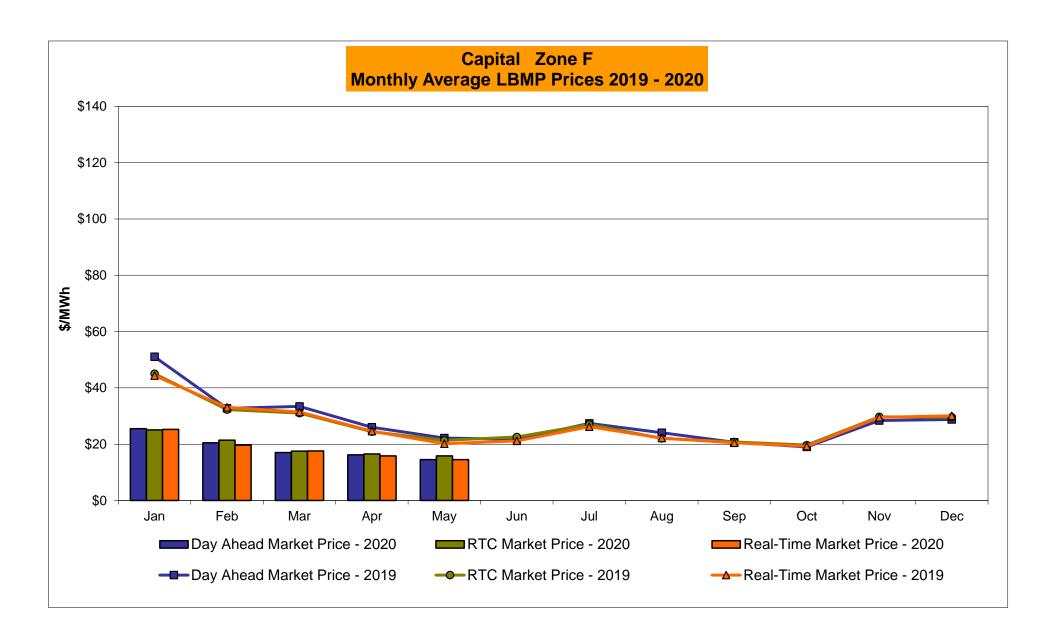
### May 2020 Zonal LBMP Statistics for NYISO (\$/MWh)

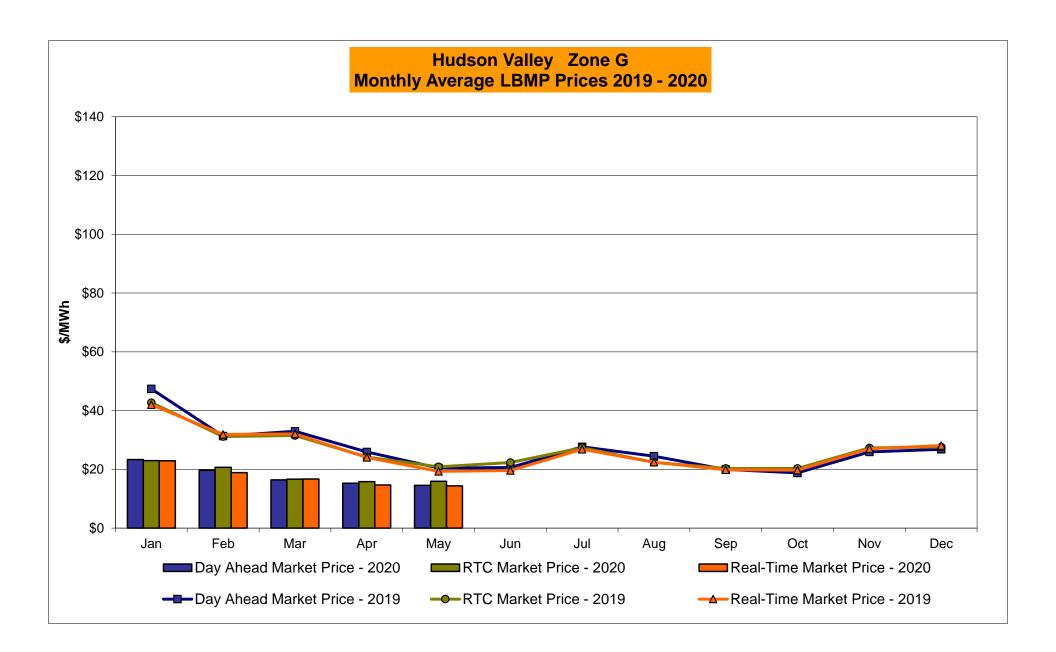
	WEST	GENESEE	NORTH	CENTRAL	MOHAWK VALLEY	CAPITAL	HUDSON VALLEY	MILLWOOD	DUNWOODIE	NEW YORK CITY	LONG ISLAND
	Zone A	Zone B	Zone D	Zone C	Zone E	Zone F	Zone G	Zone H	Zone I	Zone J	Zone K
DAY AHEAD LBMP											
Unweighted Price *	16.72	12.65	8.47	13.08	12.57	14.50	14.57	14.72	14.77	14.95	19.44
Standard Deviation	7.61	3.27	3.34	3.51	2.99	2.95	3.15	3.21	3.24	3.31	5.32
RTC LBMP											
Unweighted Price *	21.97	14.56	9.67	15.77	14.60	15.86	15.95	16.05	16.09	16.28	24.62
Standard Deviation	25.61	5.70	12.26	11.12	6.39	4.74	4.58	4.58	4.58	5.04	43.47
REAL TIME LBMP											
Unweighted Price *	14.83	12.61	7.93	13.27	12.57	14.49	14.35	14.46	14.49	14.72	21.16
Standard Deviation	16.74	8.00	13.73	9.26	8.04	8.34	7.74	7.78	7.78	8.12	17.87
		LIVEDO	LIVERA			00000					
	ONTARIO	HYDRO	HYDRO		NEW	CROSS	NODTUDORT				
	ONTARIO IESO	QUEBEC	HYDRO QUEBEC mport/Export)	PJM	NEW ENGLAND		NORTHPORT- NORWALK	NEPTUNE	LINDEN VFT	HUDSON	Dennison
		QUEBEC	QUEBEC	РЈМ		SOUND		NEPTUNE Controllable	LINDEN VFT	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
<b>DAY AHEAD LBMP</b> Unweighted Price *	<b>Zone O</b> 9.69	QUEBEC (Wheel) (I Zone M	QUEBEC mport/Export)  Zone M  11.31	<b>Zone P</b> 9.69	<b>Zone N</b> 15.25	SOUND CABLE Controllable Line	NORWALK Controllable Line	Controllable Line 18.81	Controllable Line 8.46	Controllable Line 14.80	Controllable Line 18.81
	IESO  Zone O	QUEBEC (Wheel) (I Zone M	QUEBEC mport/Export) Zone M	Zone P	ENGLAND  Zone N	SOUND CABLE Controllable Line	NORWALK Controllable Line	Controllable Line	Controllable Line	Controllable Line	Controllable Line
Unweighted Price * Standard Deviation  RTC LBMP	2one O 9.69 2.99	QUEBEC (Wheel) (I Zone M 11.31 2.56	QUEBEC import/Export)  Zone M  11.31 2.56	<b>Zone P</b> 9.69 2.99	<b>Zone N</b> 15.25 3.05	SOUND CABLE Controllable Line	NORWALK Controllable Line 19.54 5.43	Controllable Line 18.81 4.92	Controllable Line 8.46 3.24	Controllable Line 14.80	Controllable Line 18.81 5.34
Unweighted Price * Standard Deviation  RTC LBMP Unweighted Price *	2one O 9.69 2.99	QUEBEC (Wheel) (I Zone M 11.31 2.56	QUEBEC mport/Export)  Zone M  11.31 2.56	<b>Zone P</b> 9.69 2.99	<b>ENGLAND Zone N</b> 15.25 3.05	SOUND CABLE Controllable Line 13.97 3.51	NORWALK Controllable Line 19.54 5.43	Controllable Line 18.81 4.92	Controllable Line 8.46 3.24 9.48	Controllable Line 14.80 3.22	23.67
Unweighted Price * Standard Deviation  RTC LBMP	2one O 9.69 2.99	QUEBEC (Wheel) (I Zone M 11.31 2.56	QUEBEC import/Export)  Zone M  11.31 2.56	<b>Zone P</b> 9.69 2.99	<b>Zone N</b> 15.25 3.05	SOUND CABLE Controllable Line 13.97 3.51	NORWALK Controllable Line 19.54 5.43	Controllable Line 18.81 4.92	Controllable Line 8.46 3.24	Controllable Line 14.80 3.22	Controllable Line 18.81 5.34
Unweighted Price * Standard Deviation  RTC LBMP Unweighted Price * Standard Deviation  REAL TIME LBMP	9.69 2.99 8.46 12.19	QUEBEC (Wheel) (I Zone M 11.31 2.56 12.73 5.22	QUEBEC import/Export)  Zone M  11.31 2.56  12.73 5.22	9.69 2.99 8.46 12.19	<b>Zone N</b> 15.25 3.05  18.96 12.03	SOUND CABLE Controllable Line 13.97 3.51 15.83 6.45	NORWALK Controllable Line  19.54 5.43  24.86 43.85	24.83 43.86	8.46 3.24 9.48 12.69	14.80 3.22 16.01 4.34	23.67 42.46
Unweighted Price * Standard Deviation  RTC LBMP  Unweighted Price * Standard Deviation	2one O 9.69 2.99	QUEBEC (Wheel) (I Zone M 11.31 2.56	QUEBEC mport/Export)  Zone M  11.31 2.56	<b>Zone P</b> 9.69 2.99	<b>ENGLAND Zone N</b> 15.25 3.05	SOUND CABLE Controllable Line 13.97 3.51	NORWALK Controllable Line  19.54 5.43	Controllable Line 18.81 4.92	Controllable Line 8.46 3.24 9.48	Controllable Line 14.80 3.22	23.67

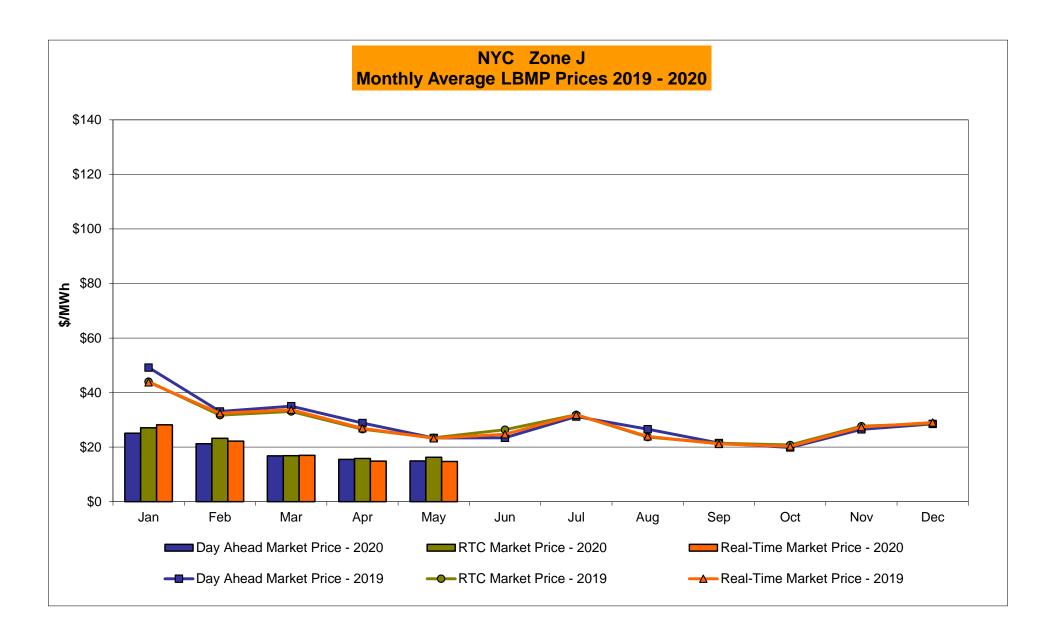
<sup>\*</sup> Straight LBMP averages

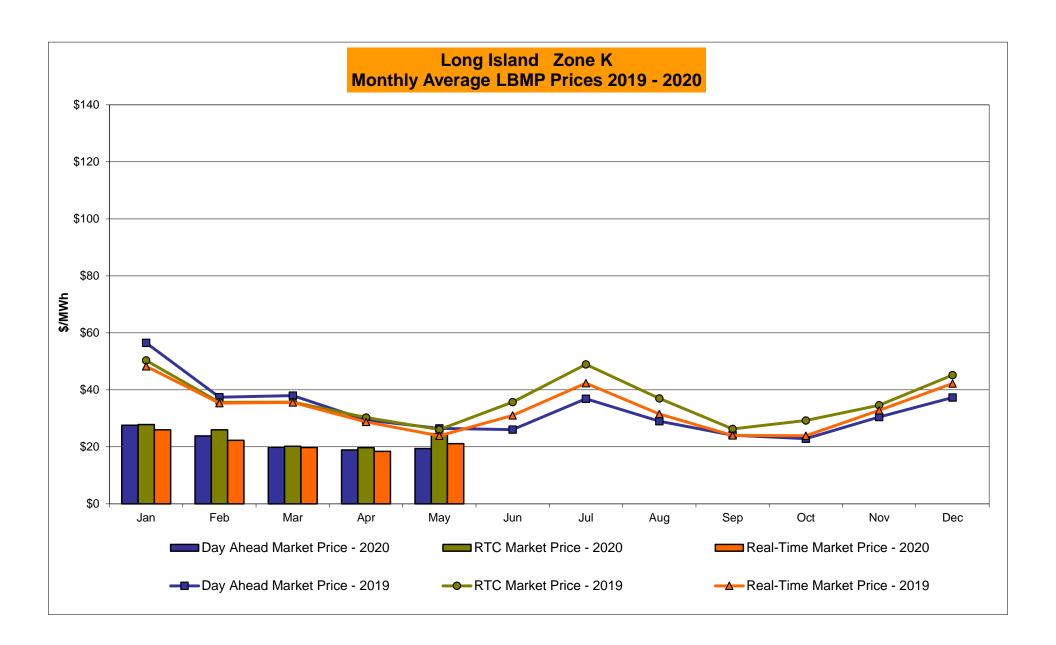


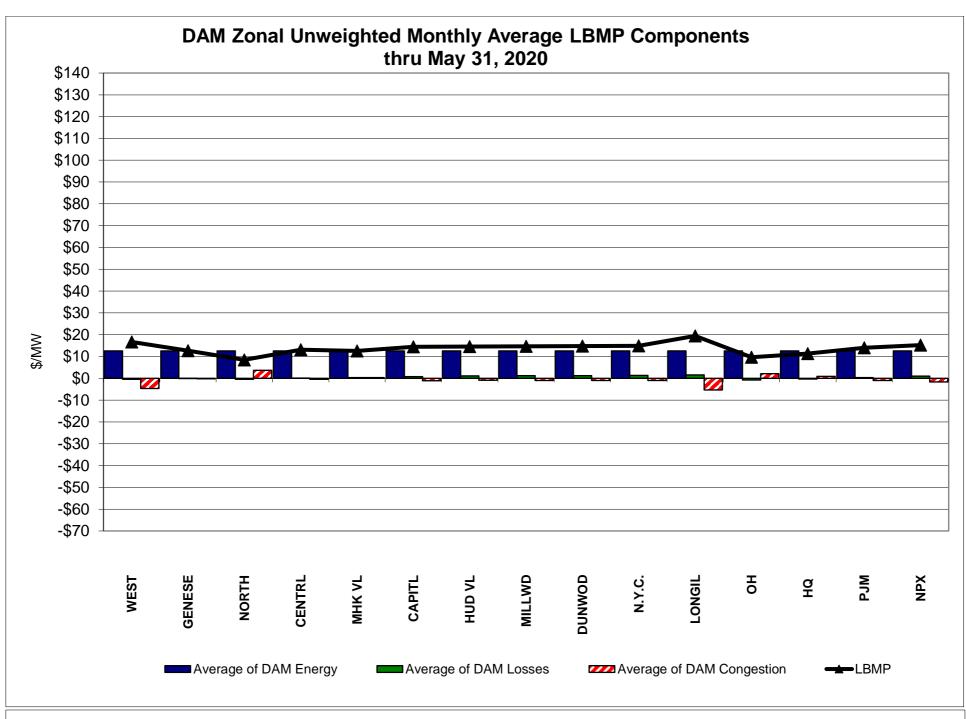


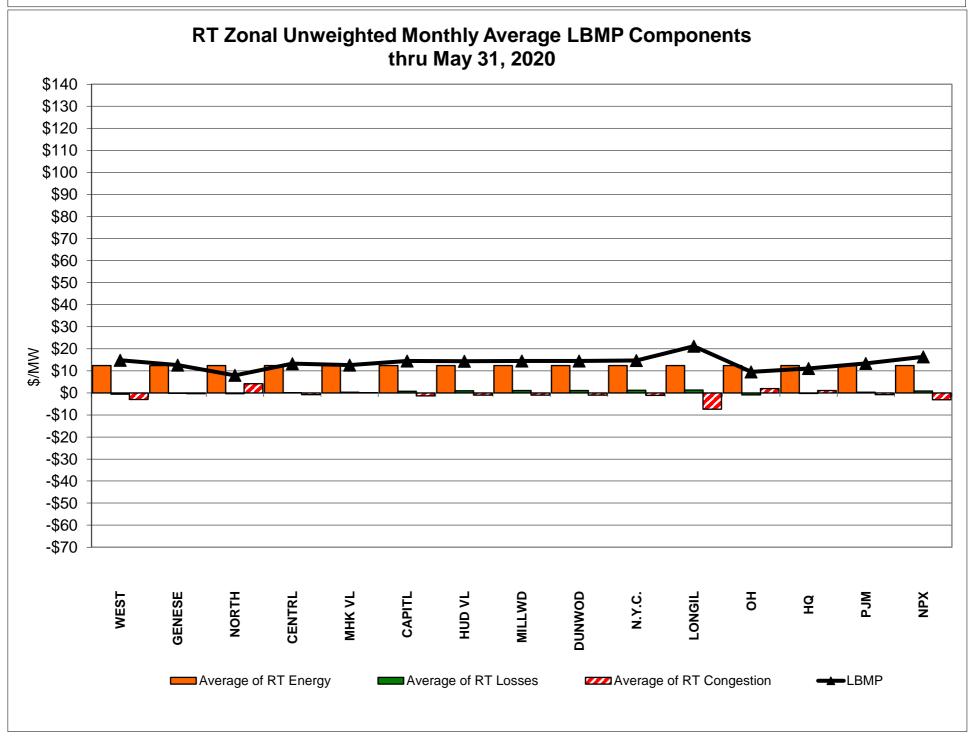




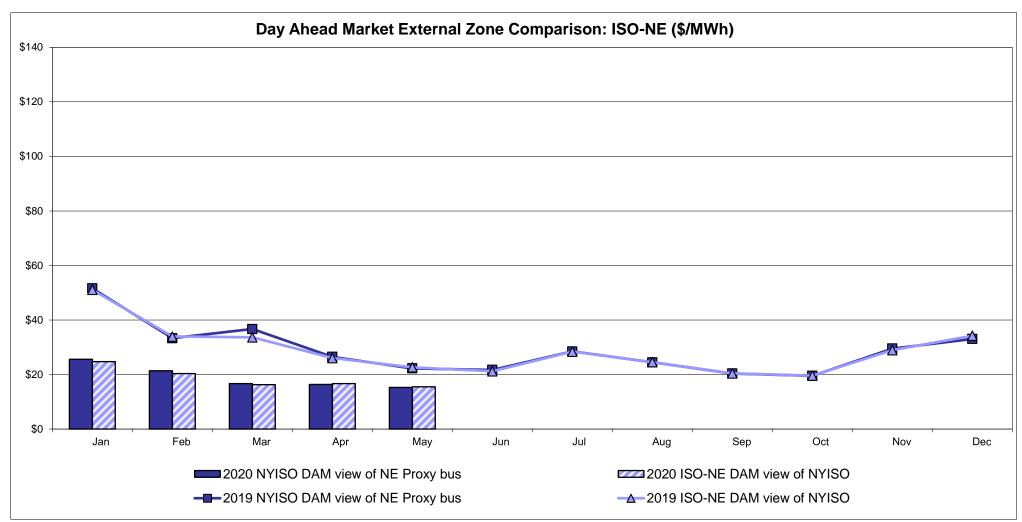


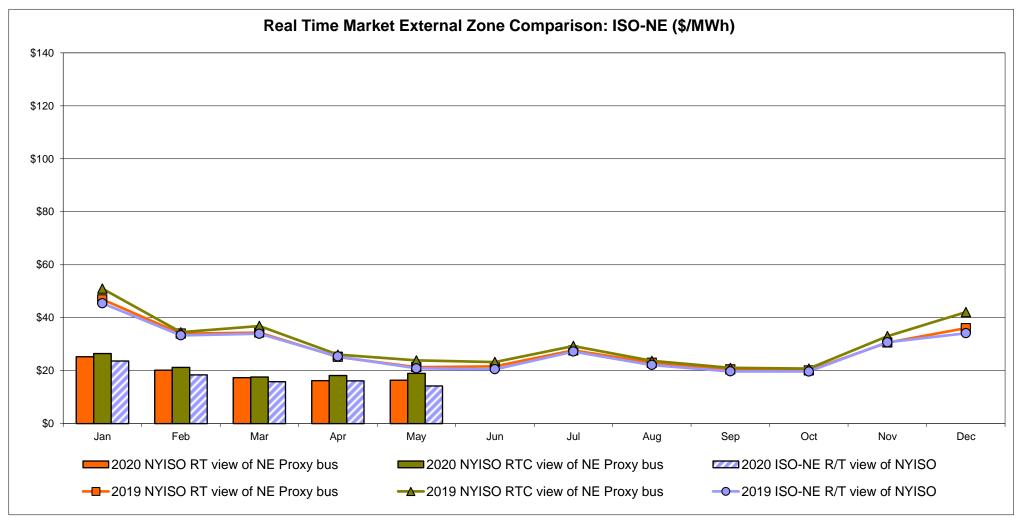




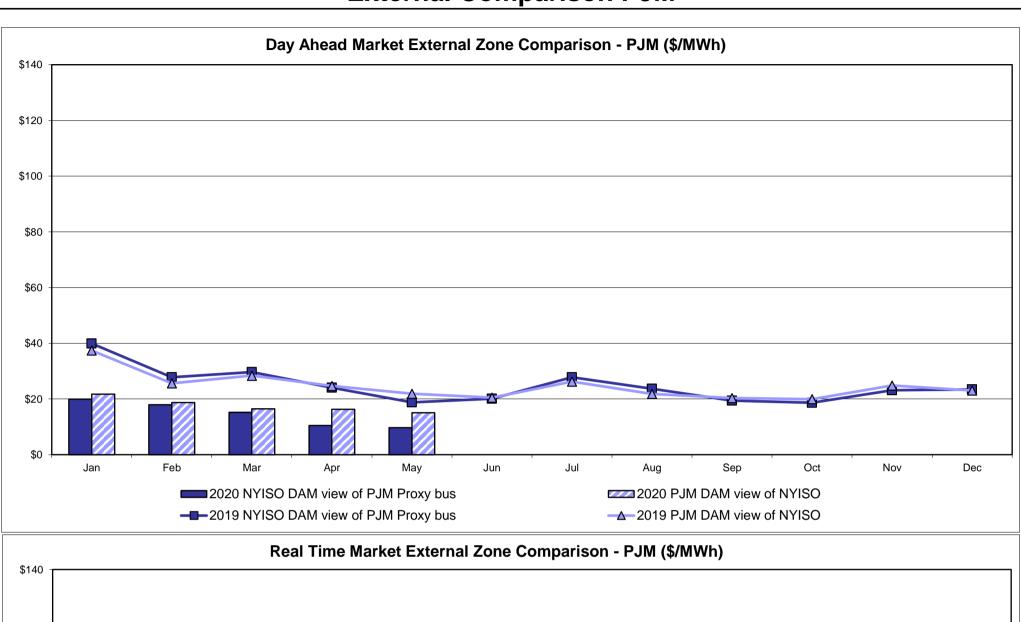


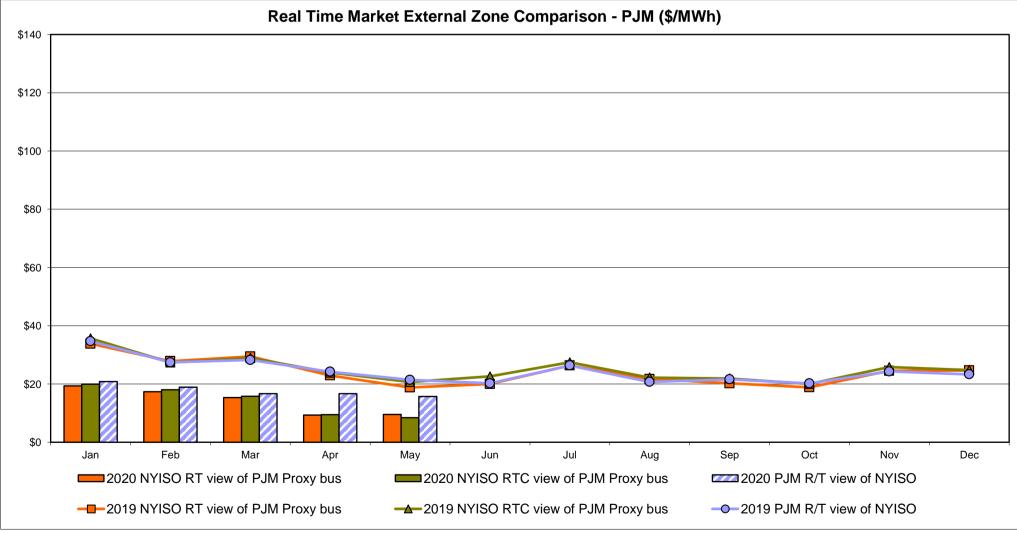
### **External Comparison ISO-New England**



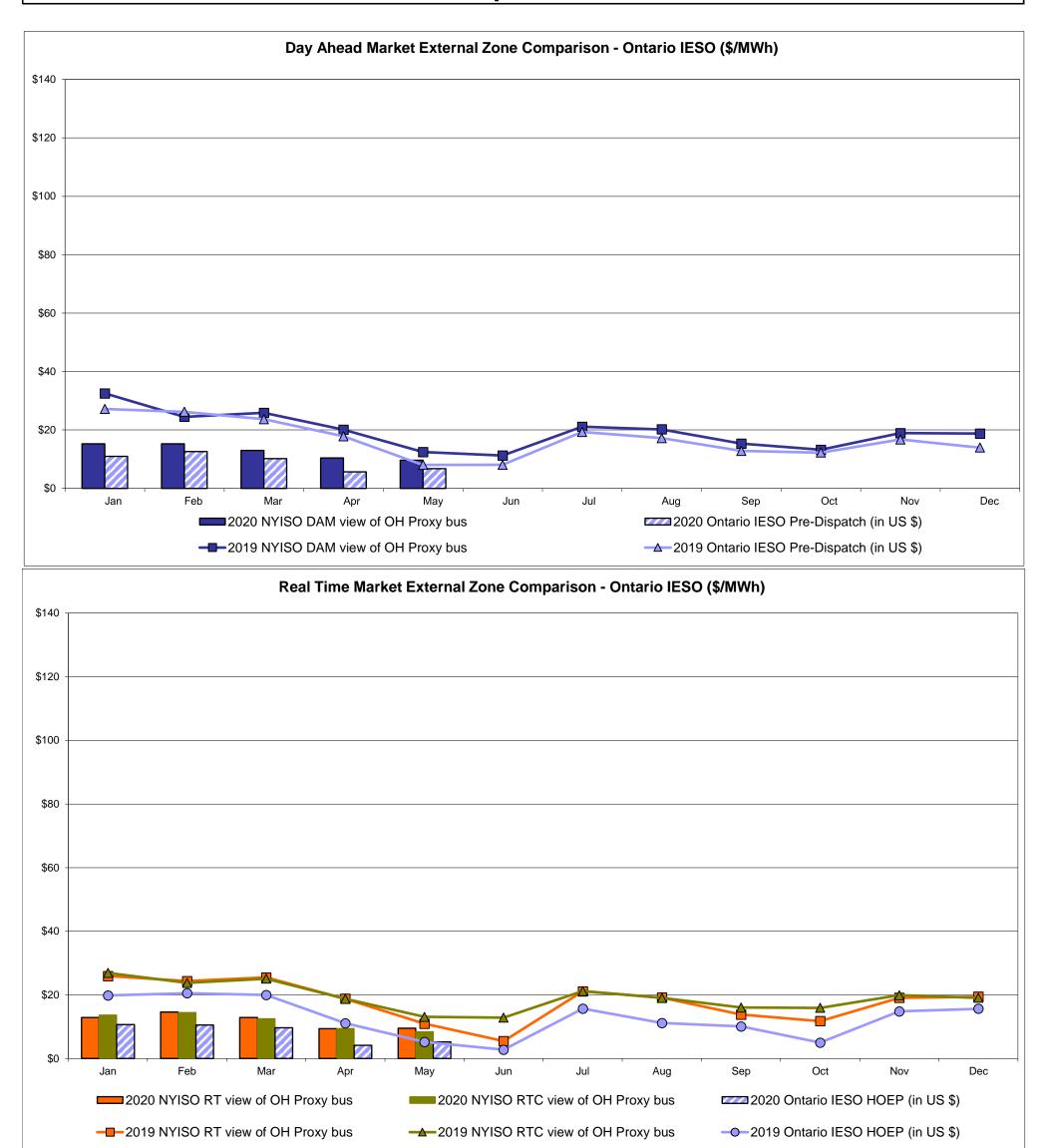


### **External Comparison PJM**





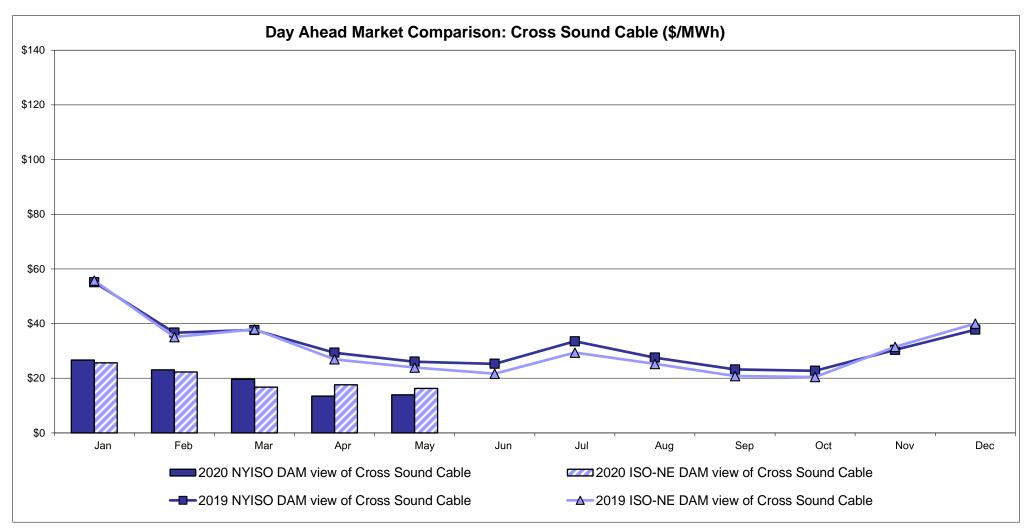
### **External Comparison Ontario IESO**

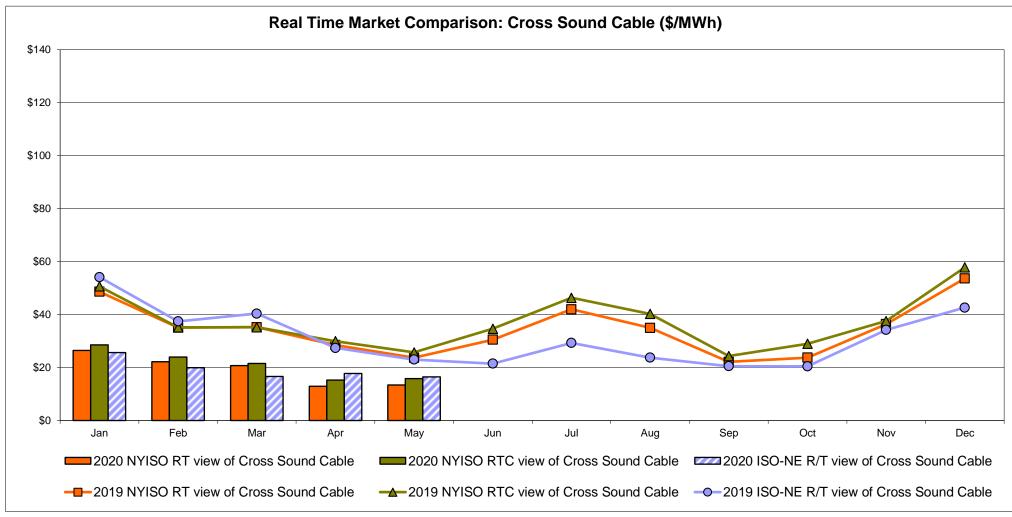


Notes: Exchange factor used for May 2020 was 0.71571714858288 to US

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

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





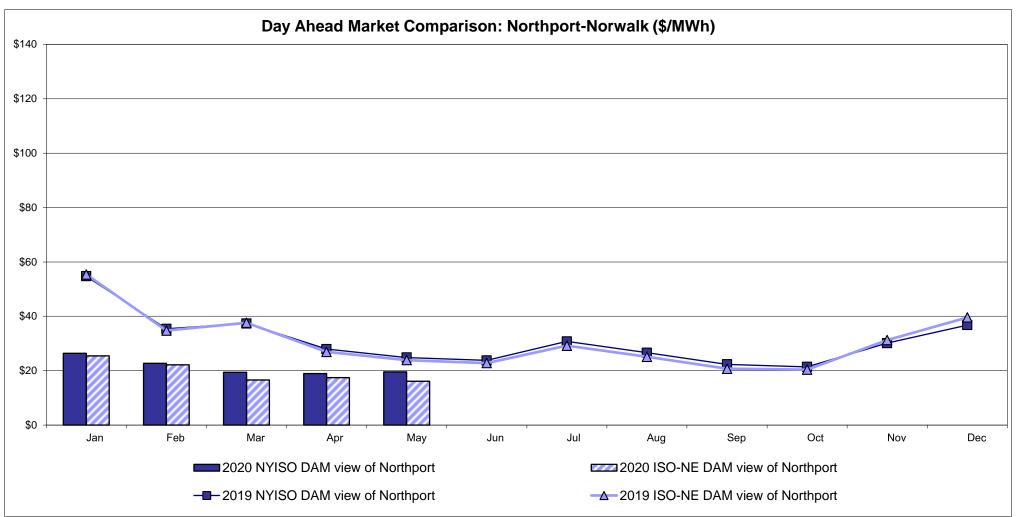
#### Note:

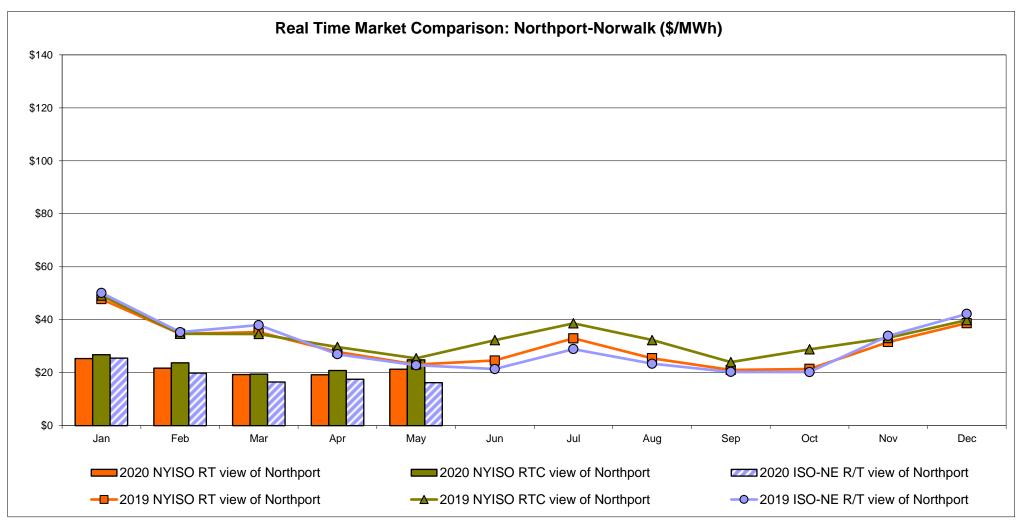
ISO-NE Forecast is an advisory posting @ 18:00 day before.

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)**





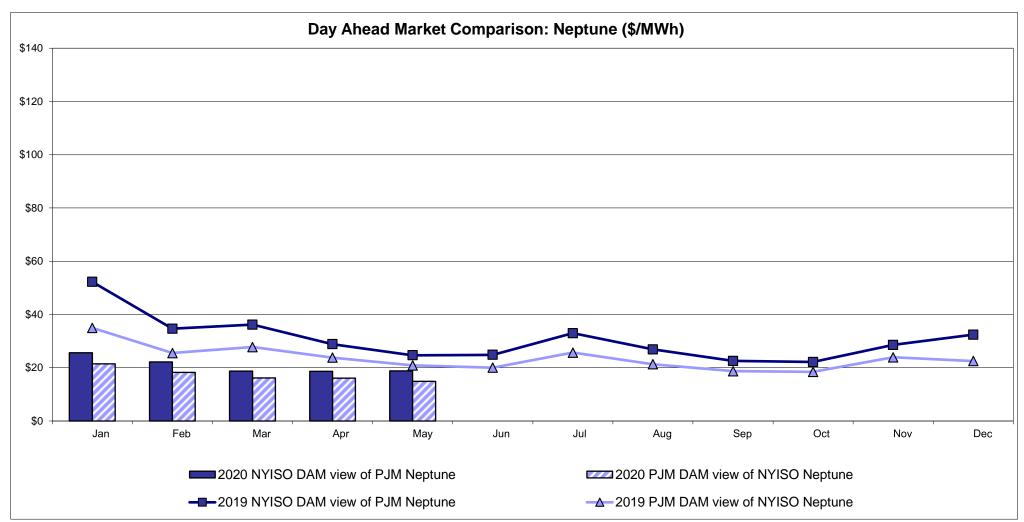
#### Note:

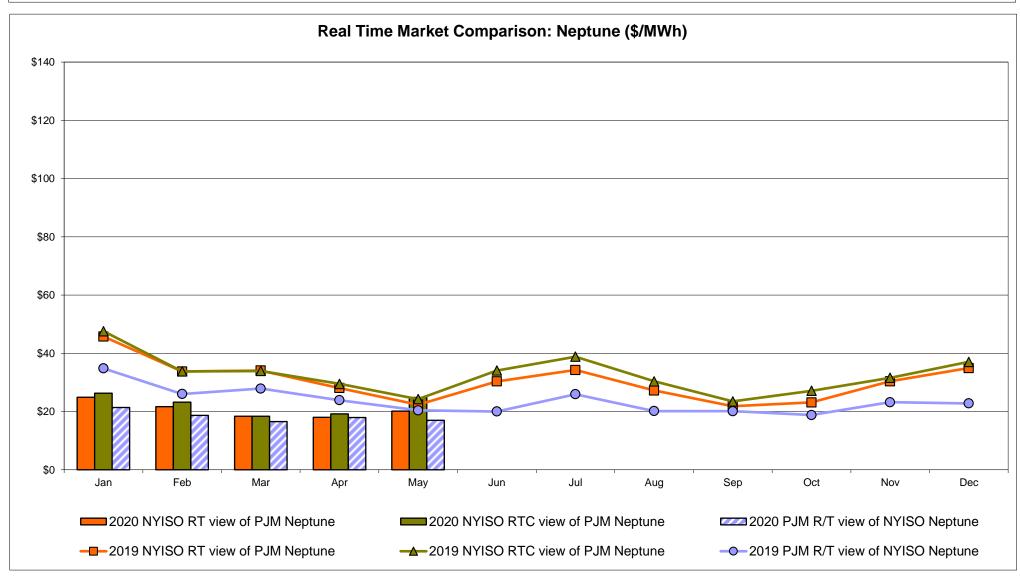
ISO-NE Forecast is an advisory posting @ 18:00 day before.

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

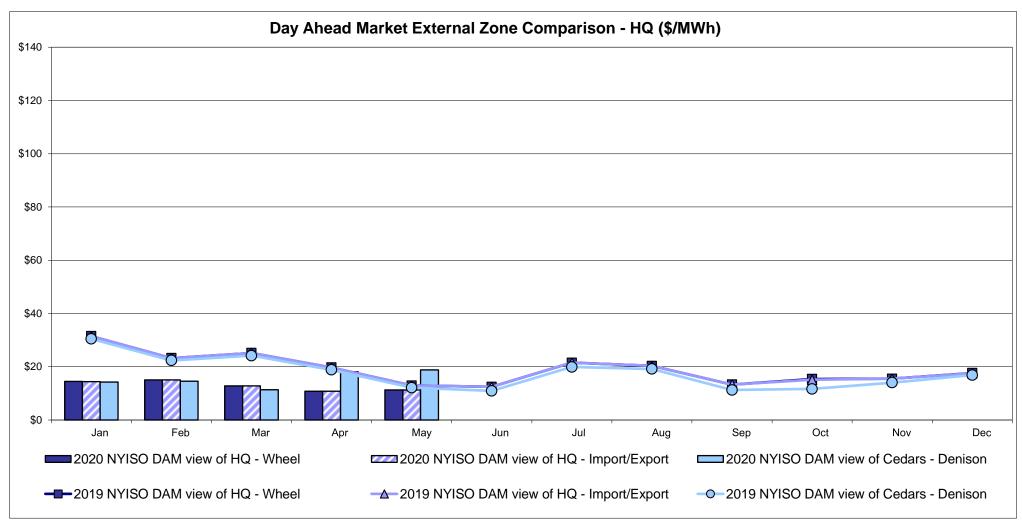
The DAM and R/T prices at the 1385 interface are used for NYISO.

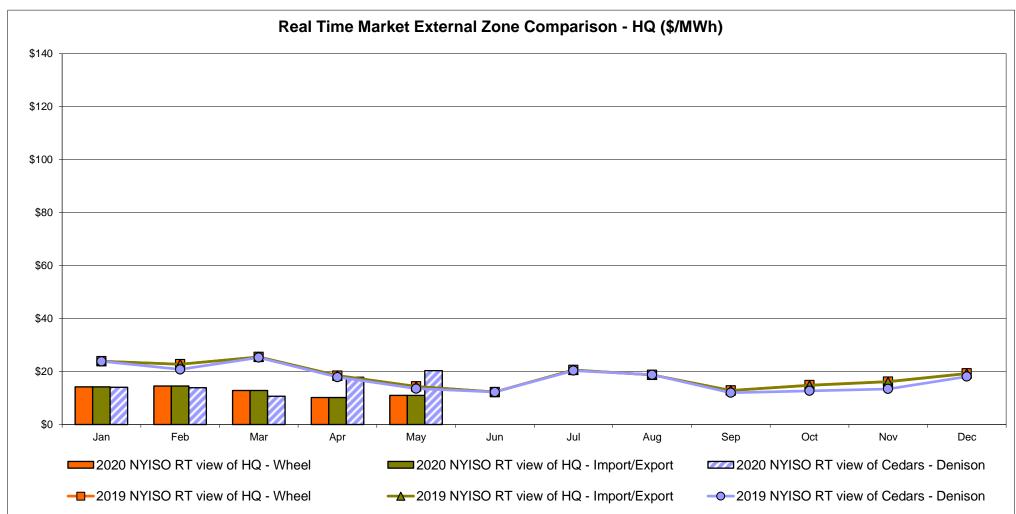
### **External Controllable Line: Neptune (PJM)**





### **External Comparison Hydro-Quebec**

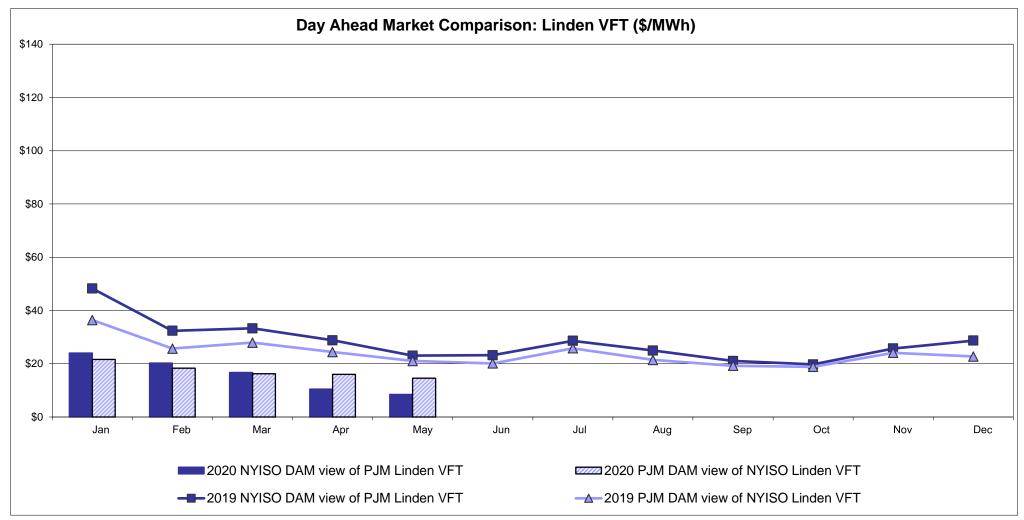


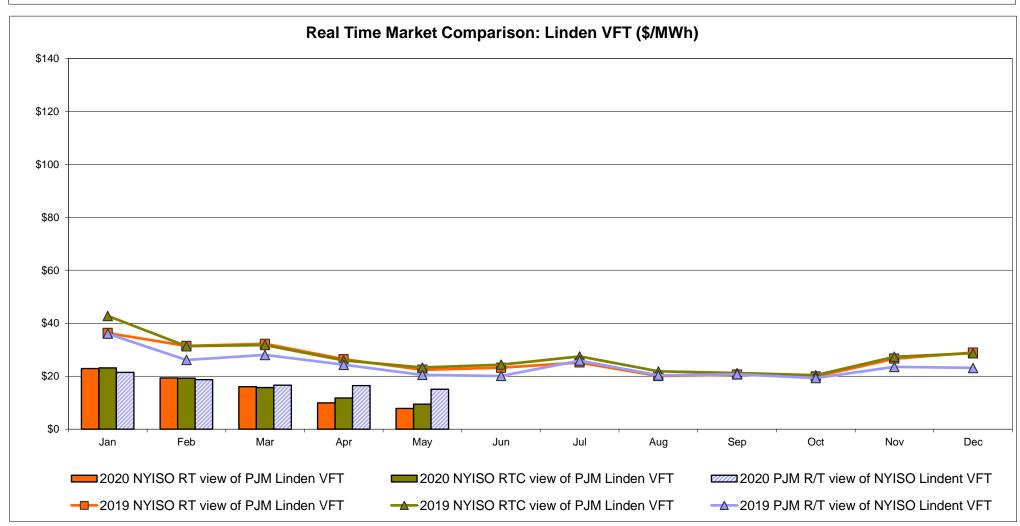


Note:

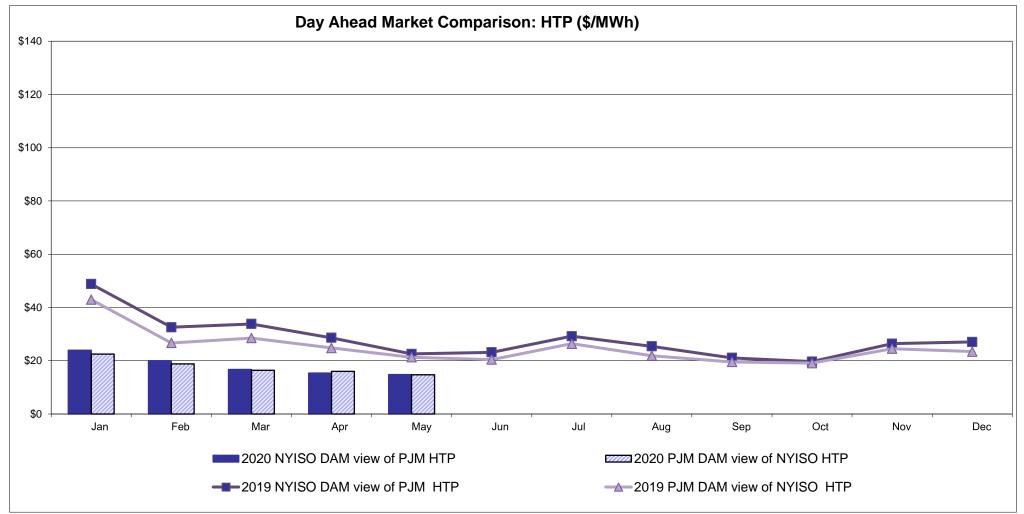
Hydro-Quebec Prices are unavailable.

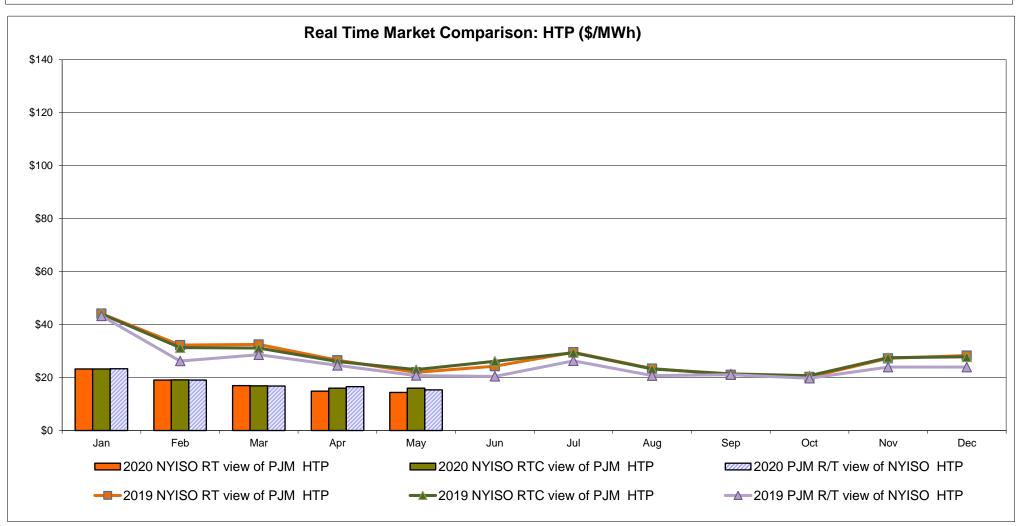
### **External Controllable Line: Linden VFT (PJM)**





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

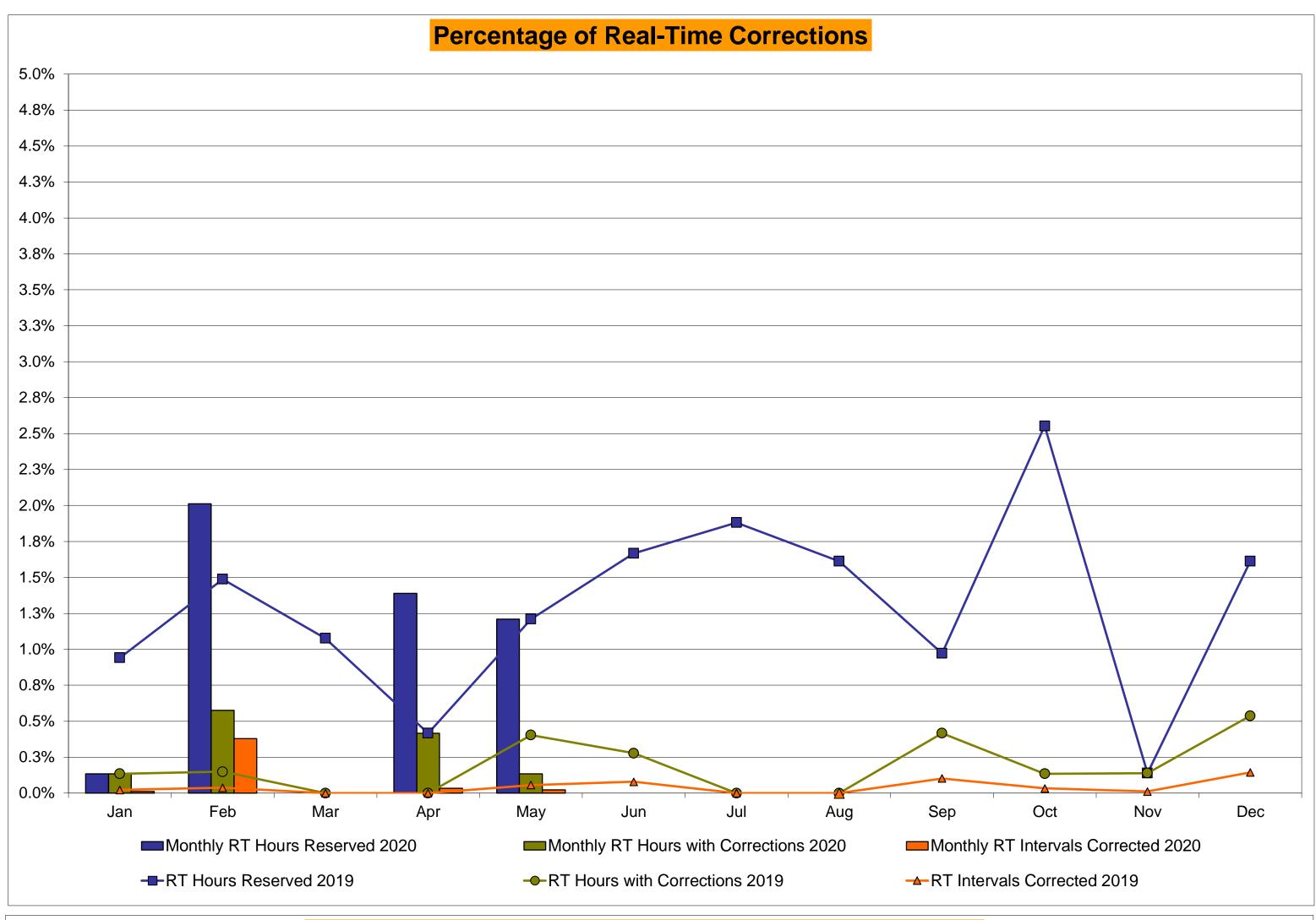


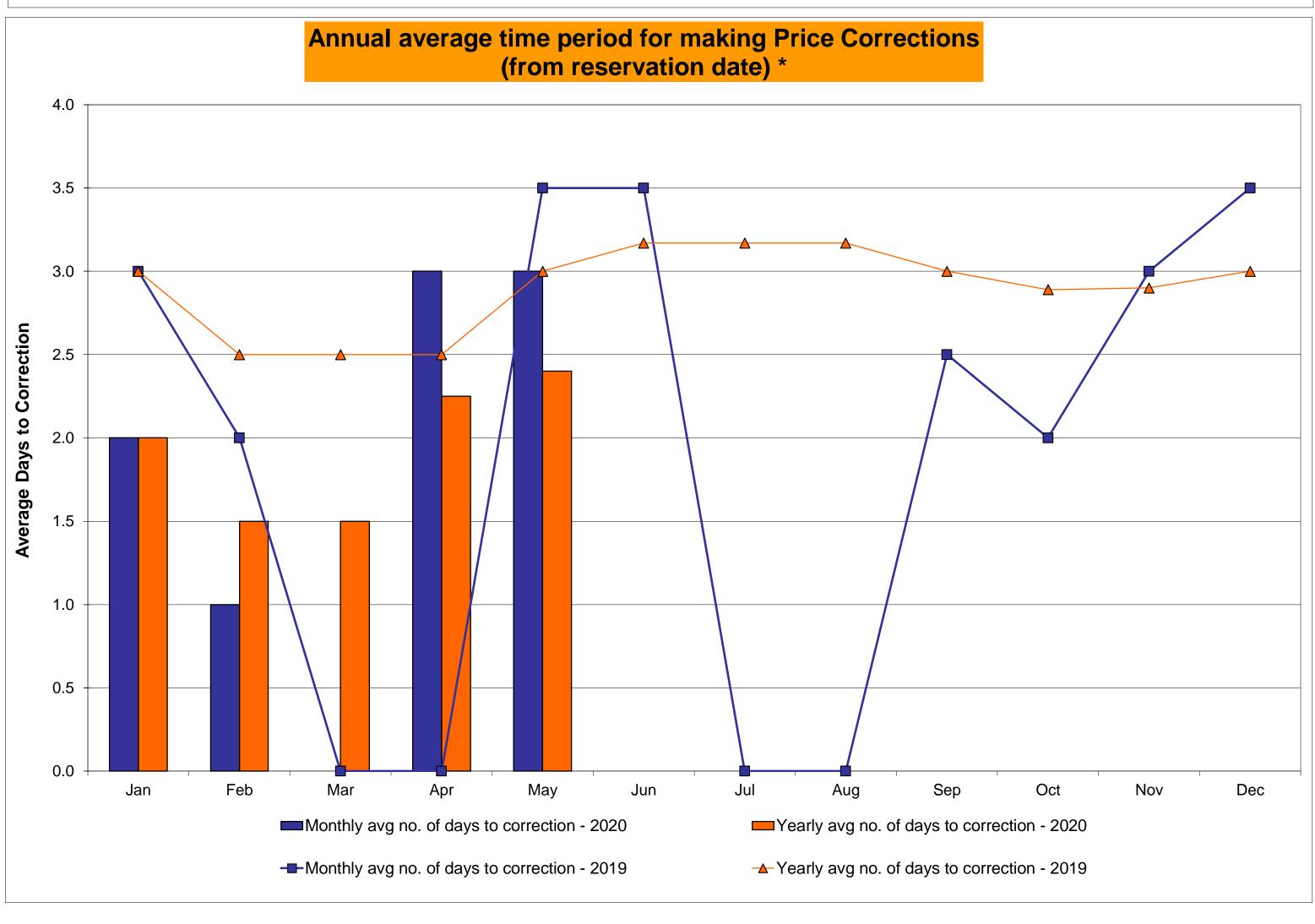


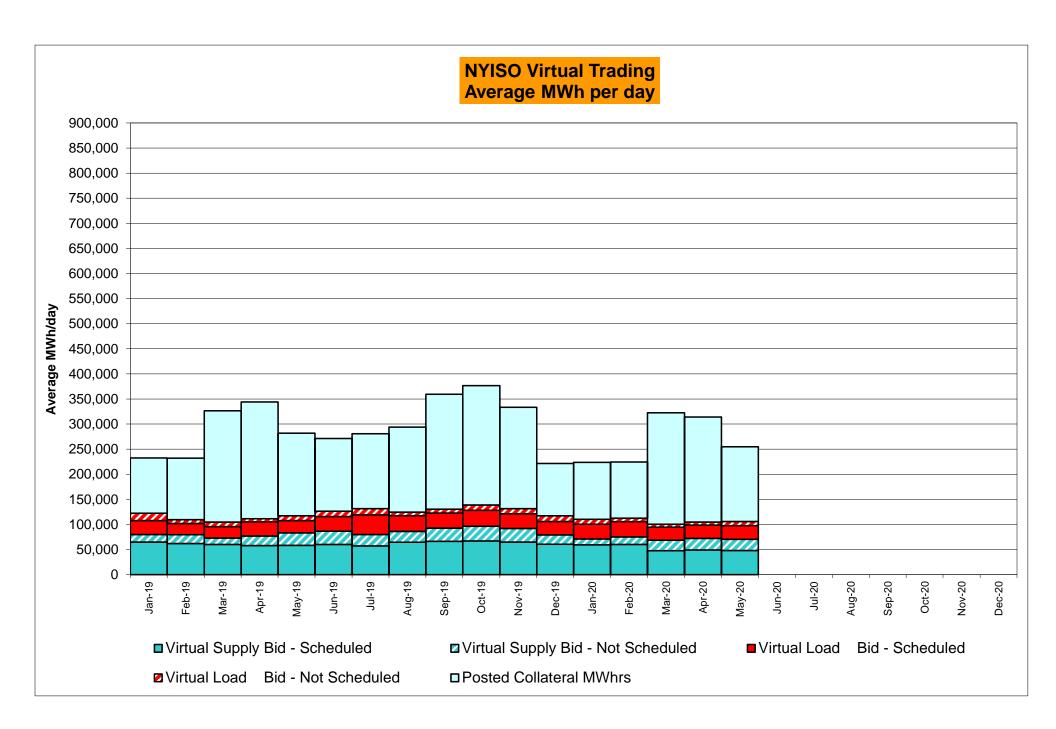
### **NYISO Real Time Price Correction Statistics**

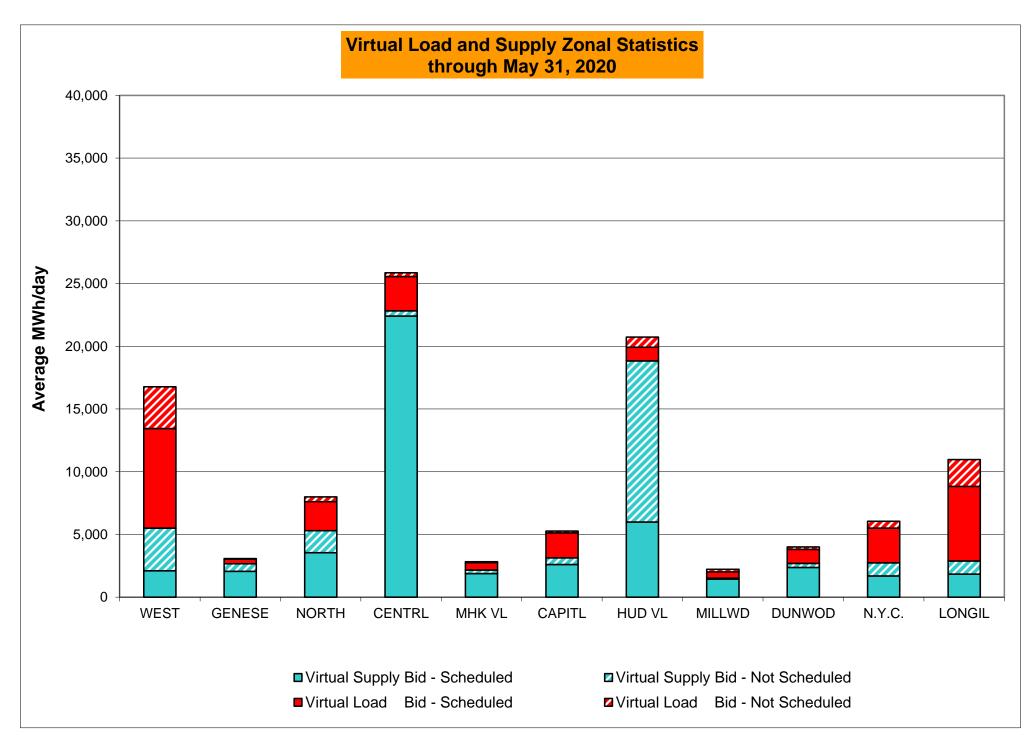
March   Marc								COLLOCK						
Number of hours with corrections in the month in the mo			<u>January</u>	<u>February</u>	March	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	September	<u>October</u>	November	<u>December</u>
Minimer of hours   Minimer of		in the month	4	4	0	2	4							
No fluous with corrections   In the month   0.13%   0.25%			•				711							
Internal Corrections   Municer of Intervals corrected   In the month   1														
Number of intervals corrected   In the month   1   3.08   3.08   3.40   0.00%   0.00														
Number of intervals corrected in the month   1   32   0   3   3   2   3   3   3   3   3   3   3		year-to-date	0.13%	0.35%	0.23%	0.28%	0.25%							
Number of intervals   in the month   9,088   8,480   9,011   8,776   9,030   9,007   8,007   8,007   9,007   8,007		in the meanth	4	00	0	0	0							
Modification   Mode			•											
March of hours reserved   In the month   March of hours reserved   March of hours with corrections   March of hours with corrected   March of hours   March of hours with corrected   March of hours   March of h				•	•	•	•							
Number of hours reserved   in the month   1	% of intervals corrected	in the month	0.01%	0.38%	0.00%	0.03%	0.02%							
Number of hours reserved   in the month   1		year-to-date	0.01%	0.19%	0.12%	0.10%	0.09%							
March of hours with corrections   In the month   March   Mar														
% of hours reserved         in the month         0.13%         2.01%         0.06%         0.85%         0.93%         1.21%         Very Correction         Ver			•											
Second Hours reserved   Year-to-date   1.0.13%   1.0.4%   0.669%   0.869%		in the month												
Avg. number of days to correction   year-to-date   2,00   1,50   1,50   2,25   2,40	% of hours reserved	in the month	0.13%	2.01%	0.00%	1.39%	1.21%							
Avg. number of days to correction   n.he month   2.00   1.50   1.50   2.25   2.40	% of hours reserved	year-to-date	0.13%	1.04%	0.69%	0.86%	0.93%							
Number of lowers with corrections   year-to-date	Days to Correction *													
Days Without Corrections	Avg. number of days to correction	in the month	2.00	1.00	0.00	3.00	3.00							
Days without corrections   in the month   30   28   31   28   30   117   147	Avg. number of days to correction	year-to-date	2.00	1.50	1.50	2.25	2.40							
Days without corrections   year-to-date   30   58   89   117   147   1	<b>Days Without Corrections</b>													
Part	Days without corrections	in the month	30	28	31	28	30							
Hour Corrections   Number of hours with corrections in the month   1	Days without corrections	year-to-date	30	58	89	117	147							
Hour Corrections   Number of hours with corrections in the month   1		-												
Number of hours with corrections in the month Number of hours with corrections (Number of hours with corrections)   Number of intervals corrected (Number of intervals (Number of Number (Number of Number of Number (Number (Nu	2019		January	February	March	April	Mav	June	Julv	August	September	October	November	December
Number of hours in the month % 144 672 743 720 744 720 744 740 720 744 721 744 % of hours with corrections in the month 0.13% 0.15% 0.00% 0.00% 0.40% 0.28% 0.00% 0.00% 0.42% 0.13% 0.14% 0.54% 0.54% 0.00% % of hours with corrections year-to-date 0.13% 0.14% 0.09% 0.07% 0.14% 0.16% 0.14% 0.12% 0.15% 0.15% 0.15% 0.15% 0.18% 0.18% 0.16 0.14% 0.16% 0.14% 0.12% 0.15% 0.15% 0.15% 0.15% 0.18% 0.18% 0.16 0.14% 0.16% 0.14% 0.12% 0.15% 0.15% 0.15% 0.15% 0.18% 0.18% 0.16% 0.14% 0.16% 0.14% 0.12% 0.15% 0.15% 0.15% 0.15% 0.18% 0.18% 0.16% 0.16% 0.14% 0.12% 0.15% 0.15% 0.15% 0.15% 0.18% 0.18% 0.16% 0.16% 0.14% 0.12% 0.15% 0.15% 0.15% 0.15% 0.15% 0.18% 0.18% 0.16% 0.16% 0.14% 0.16% 0.14% 0.12% 0.15% 0.15% 0.15% 0.15% 0.18% 0.18% 0.16% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.16% 0.14% 0.15% 0.14% 0.15% 0.14% 0.15% 0.15% 0.14% 0.15% 0.14% 0.15% 0.14% 0.15% 0.14% 0.15% 0.15% 0.14% 0.15% 0.14% 0.15% 0.14% 0.15% 0.14% 0.15% 0.15% 0.14% 0.15% 0.15% 0.14% 0.15% 0.15% 0.14% 0.15% 0.1			<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	August	September	October	November	<u>December</u>
% of hours with corrections         in the month         0.13%         0.15%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.14%         0.13%         0.14%         0.54%           % of hours with corrections         year-to-date         0.13%         0.14%         0.09%         0.07%         0.14%         0.16%         0.14%         0.12%         0.15%         0.15%         0.15%         0.15%         0.18%           Interval Corrections         Number of intervals corrected         in the month         2         3         0         0         5         7         0         0         9         3         1         13           Number of intervals corrected         in the month         9,071         8,131         9,008         8,750         9,033         8,863         9,243         9,048         8,820         9,087         8,788         9,021           % of intervals corrected         year-to-date         0.02%         0.03%         0.02%         0.01%         0.02%         0.03%         0.02%         0.03%         0.03%         0.02%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%	Hour Corrections	in the month	<u>January</u> 1	<u>February</u> 1			-	· · · · · · · · · · · · · · · · · · ·				October 1	November 1	December
% of hours with corrections         year-to-date         0.13%         0.14%         0.09%         0.07%         0.14%         0.16%         0.14%         0.12%         0.15%         0.15%         0.15%         0.15%         0.18%           Interval Corrections         Intervals corrected         in the month         2         3         0         0         5         7         0         0         9         3         1         13           Number of intervals corrected         in the month         9,071         8,131         9,008         8,750         9,033         8,863         9,243         9,048         8,820         9,087         8,788         9,021           % of intervals corrected         year-to-date         0.02%         0.04%         0.00%         0.00%         0.06%         0.08%         0.00%         0.00%         0.01%         0.02%         0.03%         0.01%         0.02%         0.03%         0.02%         0.03%         0.02%         0.03%         0.02%         0.03%         0.02%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%         0.03%	Hour Corrections  Number of hours with corrections		1	1	0	0	3	2	0	0	3	1	1	4
Interval Corrections   Number of intervals corrected   in the month   9,071   8,131   9,008   8,750   9,033   8,863   9,243   9,048   8,820   9,087   8,788   9,021   9,067   1,028   1,258   1,258   1,278   1,308   1,278   1,258   1,258   1,258   1,278   1,258   1,278   1,208   1,278   1,208	Hour Corrections  Number of hours with corrections  Number of hours	in the month	1 744	1 672	0 743	0 720	3 744	2 720	0 744	0 744	3 720	1 744	 1 721	4 744
Number of intervals corrected in the month   2   3   3   0   0   5   7   0   0   0   9   3   1   13   13   Number of intervals in the month   9,071   8,131   9,008   8,750   9,033   8,863   9,243   9,048   8,820   9,087   8,788   9,021   8,781   9,021   9,006   9,007	Hour Corrections  Number of hours with corrections  Number of hours  % of hours with corrections	in the month in the month	1 744 0.13%	1 672 0.15%	0 743 0.00%	0 720 0.00%	3 744 0.40%	2 720 0.28%	0 744 0.00%	0 744 0.00%	3 720 0.42%	1 744 0.13%	1 721 0.14%	4 744 0.54%
Number of intervals % of intervals corrected         in the month in the month         9,071 0.02%         8,131 0.00%         9,008 0.00%         8,750 0.00%         9,033 0.06%         8,663 0.00%         9,243 0.00%         9,048 0.00%         8,820 0.00%         9,087 0.03%         8,788 0.01%         9,021 0.14%           % of intervals corrected         year-to-date         0.02% 0.03%         0.02% 0.01%         0.02% 0.03%         0.03% 0.03%         0.03% 0.03%         0.03% 0.03%         0.03% 0.03%         0.04%           Hours Reserved         in the month flours reserved         in the month in the month flours         7 10 8 3 720 744 720 744 720 744 744 744 720 744 744 720 744 744 720 744 744 720 744 744 720 744 744 720 744 744 720 744 744 720 744 744 720 744 744 720 744 744 720 744 740 720 744 720 7	Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections	in the month in the month	1 744 0.13%	1 672 0.15%	0 743 0.00%	0 720 0.00%	3 744 0.40%	2 720 0.28%	0 744 0.00%	0 744 0.00%	3 720 0.42%	1 744 0.13%	1 721 0.14%	4 744 0.54%
% of intervals corrected         in the month         0.02%         0.04%         0.00%         0.00%         0.08%         0.00%         0.00%         0.03%         0.01%         0.01%         0.02%         0.00%	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	1 744 0.13% 0.13%	1 672 0.15% 0.14%	0 743 0.00% 0.09%	0 720 0.00% 0.07%	3 744 0.40% 0.14%	2 720 0.28%	0 744 0.00% 0.14%	0 744 0.00% 0.12%	3 720 0.42% 0.15%	1 744 0.13% 0.15%	1 721 0.14%	4 744 0.54% 0.18%
% of intervals corrected         year-to-date         0.02%         0.03%         0.01%         0.02%         0.03%         0.04%         1.2         7         19         1         12         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1	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	1 744 0.13% 0.13%	1 672 0.15% 0.14%	0 743 0.00% 0.09%	0 720 0.00% 0.07%	3 744 0.40% 0.14%	2 720 0.28% 0.16%	0 744 0.00% 0.14%	0 744 0.00% 0.12%	3 720 0.42% 0.15%	1 744 0.13% 0.15%	1 721 0.14% 0.15%	4 744 0.54% 0.18%
Hours Reserved         In the month         7         10         8         3         9         12         14         12         7         19         1         12           Number of hours         in the month         744         672         743         720         744         720         742         743         720         742         1.21%         1.67%         1.28%         1.69%         1.25%         1.25%	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	1 744 0.13% 0.13% 2 9,071	1 672 0.15% 0.14%	0 743 0.00% 0.09% 0 9,008	0 720 0.00% 0.07% 0 8,750	3 744 0.40% 0.14% 5 9,033	2 720 0.28% 0.16% 7 8,863	0 744 0.00% 0.14% 0 9,243	0 744 0.00% 0.12% 0 9,048	3 720 0.42% 0.15% 9 8,820	1 744 0.13% 0.15% 3 9,087	1 721 0.14% 0.15% 1 8,788	4 744 0.54% 0.18% 13 9,021
Number of hours reserved         in the month         7         10         8         3         9         12         14         12         7         19         1         12           Number of hours         in the month         744         672         743         720         744         720         <	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	1 744 0.13% 0.13% 2 9,071	1 672 0.15% 0.14%	0 743 0.00% 0.09% 0 9,008	0 720 0.00% 0.07% 0 8,750	3 744 0.40% 0.14% 5 9,033	2 720 0.28% 0.16% 7 8,863	0 744 0.00% 0.14% 0 9,243	0 744 0.00% 0.12% 0 9,048	3 720 0.42% 0.15% 9 8,820	1 744 0.13% 0.15% 3 9,087	1 721 0.14% 0.15% 1 8,788	4 744 0.54% 0.18% 13 9,021
Number of hours         in the month         744         672         743         720         744         720         743         720         743         1.61%         0.42%         1.21%         1.26%         1.28%         1.28%         1.28%         1.30%         1.28%         1.20%	Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected	in the month in the month year-to-date  in the month in the month in the month	1 744 0.13% 0.13% 2 9,071 0.02%	1 672 0.15% 0.14% 3 8,131 0.04%	0 743 0.00% 0.09% 0 9,008 0.00%	0 720 0.00% 0.07% 0 8,750 0.00%	3 744 0.40% 0.14% 5 9,033 0.06%	2 720 0.28% 0.16% 7 8,863 0.08%	0 744 0.00% 0.14% 0 9,243 0.00%	0 744 0.00% 0.12% 0 9,048 0.00%	3 720 0.42% 0.15% 9 8,820 0.10%	1 744 0.13% 0.15% 3 9,087 0.03%	1 721 0.14% 0.15% 1 8,788 0.01%	4 744 0.54% 0.18% 13 9,021 0.14%
% of hours reserved         in the month         0.94%         1.49%         1.08%         0.42%         1.21%         1.67%         1.88%         1.61%         0.97%         2.55%         0.14%         1.61%           % of hours reserved         year-to-date         0.94%         1.20%         1.16%         0.97%         1.02%         1.13%         1.24%         1.29%         1.25%         1.38%         1.27%         1.30%           Days to Correction         **	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	1 744 0.13% 0.13% 2 9,071 0.02% 0.02%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03%	0 744 0.00% 0.14% 0 9,243 0.00% 0.03%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03%	1 721 0.14% 0.15% 1 8,788 0.01%	4 744 0.54% 0.18% 13 9,021 0.14% 0.04%
% of hours reserved         year-to-date         0.94%         1.20%         1.16%         0.97%         1.02%         1.13%         1.24%         1.29%         1.25%         1.38%         1.27%         1.30%           Days to Correction *           Avg. number of days to correction in the month Avg. number of days to correction year-to-date         3.00         2.00         0.00         0.00         3.50         3.50         0.00         0.00         2.50         2.00         3.00         3.50           Avg. number of days to correction year-to-date         3.00         2.50         2.50         2.50         3.00         3.17         3.17         3.17         3.00         2.89         2.90         3.00           Days Without Corrections         in the month         30         27         31         30         29         28         31         31         28         30         29         29	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	1 744 0.13% 0.13% 2 9,071 0.02% 0.02%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03%	0 744 0.00% 0.14% 0 9,243 0.00% 0.03%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03%	1 721 0.14% 0.15% 1 8,788 0.01% 0.03%	4 744 0.54% 0.18% 13 9,021 0.14% 0.04%
Days to Correction *           Avg. number of days to correction in the month Avg. number of days to correction year-to-date         3.00         2.00         0.00         0.00         3.50         0.00         0.00         2.50         2.00         3.00         3.50           Avg. number of days to correction year-to-date         3.00         2.50         2.50         2.50         3.00         3.17         3.17         3.17         3.00         2.89         2.90         3.00           Days Without Corrections         In the month         30         27         31         30         29         28         31         31         28         30         29         29	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	1 744 0.13% 0.13% 2 9,071 0.02% 0.02%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03%	0 744 0.00% 0.14% 0 9,243 0.00% 0.03%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03%	1 721 0.14% 0.15% 1 8,788 0.01% 0.03%	4 744 0.54% 0.18% 13 9,021 0.14% 0.04%
Avg. number of days to correction       in the month       3.00       2.00       0.00       0.00       3.50       0.00       0.00       0.00       2.50       2.00       3.00       3.50         Avg. number of days to correction       year-to-date       3.00       2.50       2.50       2.50       3.00       3.17       3.17       3.17       3.00       2.89       2.90       3.00         Days Without Corrections         Days without corrections       in the month       30       27       31       30       29       28       31       31       28       30       29       29	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	1 744 0.13% 0.13% 2 9,071 0.02% 0.02%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03%	0 744 0.00% 0.14% 0 9,243 0.00% 0.03%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03%	1 721 0.14% 0.15% 1 8,788 0.01% 0.03%	4 744 0.54% 0.18% 13 9,021 0.14% 0.04%
Avg. number of days to correction       year-to-date       3.00       2.50       2.50       2.50       3.00       3.17       3.17       3.17       3.00       2.89       2.90       3.00         Days Without Corrections         Days without corrections       in the month       30       27       31       30       29       28       31       31       28       30       29       29	Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Hours Reserved Number of hours reserved Number of hours % of hours reserved % of hours reserved	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month	1 744 0.13% 0.13% 2 9,071 0.02% 0.02% 7 744 0.94%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03% 10 672 1.49%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02% 8 743 1.08%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01% 3 720 0.42%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02% 9 744 1.21%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03% 12 720 1.67%	0 744 0.00% 0.14% 0 9,243 0.00% 0.03% 14 744 1.88%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02% 12 744 1.61%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03% 7 720 0.97%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03% 19 744 2.55%	1 721 0.14% 0.15% 1 8,788 0.01% 0.03% 1 721 0.14%	4 744 0.54% 0.18% 13 9,021 0.14% 0.04% 12 744 1.61%
Days Without Corrections           Days without corrections         in the month         30         27         31         30         29         28         31         31         28         30         29         29	Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections  Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected  Hours Reserved Number of hours reserved Number of hours % of hours reserved % of hours reserved	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month	1 744 0.13% 0.13% 2 9,071 0.02% 0.02% 7 744 0.94%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03% 10 672 1.49%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02% 8 743 1.08%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01% 3 720 0.42%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02% 9 744 1.21%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03% 12 720 1.67%	0 744 0.00% 0.14% 0 9,243 0.00% 0.03% 14 744 1.88%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02% 12 744 1.61%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03% 7 720 0.97%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03% 19 744 2.55%	1 721 0.14% 0.15%  1 8,788 0.01% 0.03%  1 721 0.14%	4 744 0.54% 0.18% 13 9,021 0.14% 0.04% 12 744 1.61%
Days without corrections in the month 30 27 31 30 29 28 31 31 28 30 29 29	Hour Corrections  Number of hours with corrections Number of hours % of hours with corrections % of hours with corrections Interval Corrections  Number of intervals corrected Number of intervals % of intervals corrected % of intervals corrected Hours Reserved Number of hours reserved Number of hours % of hours reserved % of hours reserved Days to Correction *	in the month in the month year-to-date  in the month in the month in the month year-to-date  in the month year-to-date	1 744 0.13% 0.13% 2 9,071 0.02% 0.02% 7 744 0.94% 0.94%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03% 10 672 1.49% 1.20%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02% 8 743 1.08% 1.16%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01% 3 720 0.42% 0.97%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02% 9 744 1.21% 1.02%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03% 12 720 1.67% 1.13%	0 744 0.00% 0.14% 0 9,243 0.00% 0.03% 14 744 1.88% 1.24%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02% 12 744 1.61% 1.29%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03% 7 720 0.97% 1.25%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03% 19 744 2.55% 1.38%	1 721 0.14% 0.15%  1 8,788 0.01% 0.03%  1 721 0.14% 1.27%	4 744 0.54% 0.18% 13 9,021 0.14% 0.04% 12 744 1.61% 1.30%
·	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  in the month	1 744 0.13% 0.13% 2 9,071 0.02% 0.02% 7 744 0.94% 0.94%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03% 10 672 1.49% 1.20%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02% 8 743 1.08% 1.16%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01% 3 720 0.42% 0.97%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02% 9 744 1.21% 1.02%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03% 12 720 1.67% 1.13% 3.50	0 744 0.00% 0.14% 0 9,243 0.00% 0.03% 14 744 1.88% 1.24%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02% 12 744 1.61% 1.29%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03% 7 720 0.97% 1.25%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03% 19 744 2.55% 1.38%	1 721 0.14% 0.15%  1 8,788 0.01% 0.03%  1 721 0.14% 1.27% 3.00	4 744 0.54% 0.18% 13 9,021 0.14% 0.04% 12 744 1.61% 1.30%
·	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  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  in the month	1 744 0.13% 0.13% 2 9,071 0.02% 0.02% 7 744 0.94% 0.94%	1 672 0.15% 0.14% 3 8,131 0.04% 0.03% 10 672 1.49% 1.20%	0 743 0.00% 0.09% 0 9,008 0.00% 0.02% 8 743 1.08% 1.16%	0 720 0.00% 0.07% 0 8,750 0.00% 0.01% 3 720 0.42% 0.97%	3 744 0.40% 0.14% 5 9,033 0.06% 0.02% 9 744 1.21% 1.02%	2 720 0.28% 0.16% 7 8,863 0.08% 0.03% 12 720 1.67% 1.13% 3.50	0 744 0.00% 0.14% 0 9,243 0.00% 0.03% 14 744 1.88% 1.24%	0 744 0.00% 0.12% 0 9,048 0.00% 0.02% 12 744 1.61% 1.29%	3 720 0.42% 0.15% 9 8,820 0.10% 0.03% 7 720 0.97% 1.25%	1 744 0.13% 0.15% 3 9,087 0.03% 0.03% 19 744 2.55% 1.38%	1 721 0.14% 0.15%  1 8,788 0.01% 0.03%  1 721 0.14% 1.27% 3.00	4 744 0.54% 0.18% 13 9,021 0.14% 0.04% 12 744 1.61% 1.30%
Days million 30, 30, 30, 30, 30, 30, 30, 30, 30, 30,	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 % 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	1 744 0.13% 0.13%  2 9,071 0.02%  0.02%  7 744 0.94% 0.94%  3.00 3.00	1 672 0.15% 0.14% 3 8,131 0.04% 0.03% 10 672 1.49% 1.20% 2.00 2.50	0 743 0.00% 0.09% 0 9,008 0.00% 0.02% 8 743 1.08% 1.16% 0.00 2.50	0 720 0.00% 0.07% 0 8,750 0.00% 0.01% 3 720 0.42% 0.97% 0.00 2.50	3 744 0.40% 0.14% 5 9,033 0.06% 0.02% 9 744 1.21% 1.02% 3.50 3.00	2 720 0.28% 0.16% 7 8,863 0.08% 0.03% 12 720 1.67% 1.13% 3.50 3.17	0 744 0.00% 0.14% 0 9,243 0.00% 0.03% 14 744 1.88% 1.24% 0.00 3.17	0 744 0.00% 0.12% 0 9,048 0.00% 0.02% 12 744 1.61% 1.29% 0.00 3.17	3 720 0.42% 0.15% 9 8,820 0.10% 0.03% 7 720 0.97% 1.25% 2.50 3.00	1 744 0.13% 0.15% 3 9,087 0.03% 0.03% 19 744 2.55% 1.38% 2.00 2.89	1 721 0.14% 0.15%  1 8,788 0.01% 0.03%  1 721 0.14% 1.27%  3.00 2.90	4 744 0.54% 0.18% 13 9,021 0.14% 0.04% 12 744 1.61% 1.30% 3.50 3.00

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









#### Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2020 Virtual Load Bid **Virtual Supply Bid Virtual Load Bid Virtual Supply Bid** Virtual Load Bid **Virtual Supply Bid** Not Not Not Not Not Not Date Scheduled Scheduled Scheduled Scheduled Date Scheduled Scheduled Scheduled Scheduled Date Scheduled Scheduled Scheduled Scheduled Zone Zone Zone MHK VL DUNWOD **WEST** 984 Jan-20 7,809 1,328 1,765 Jan-20 747 77 2,155 793 Jan-20 1,120 241 3,191 370 Feb-20 8,213 1,248 2,597 947 Feb-20 724 88 2,339 504 Feb-20 536 298 3,782 368 97 Mar-20 9,155 1,778 1,637 1,236 Mar-20 481 2,455 542 Mar-20 766 109 3,143 282 10,056 2,032 1,542 1,018 577 86 2,599 888 423 2,336 504 Apr-20 Apr-20 Apr-20 1,185 7,943 3,322 2,105 586 70 2,373 323 May-20 3,397 May-20 1,878 287 May-20 1,114 196 Jun-20 Jun-20 Jun-20 Jul-20 Jul-20 Jul-20 Aug-20 Aug-20 Aug-20 Sep-20 Sep-20 Sep-20 Oct-20 Oct-20 Oct-20 Nov-20 Nov-20 Nov-20 Dec-20 Dec-20 Dec-20 GENESE 995 CAPITL N.Y.C. Jan-20 553 131 1,749 Jan-20 1,772 539 3,324 1,235 Jan-20 6,699 2,678 2,148 1,639 2.082 Feb-20 Feb-20 534 79 640 Feb-20 2.046 418 3.149 673 9.452 1,841 1,316 1.894 Mar-20 397 46 2,294 550 Mar-20 443 837 Mar-20 4,317 1,126 1,676 2,571 1,446 3,181 Apr-20 422 42 2,940 622 Apr-20 2,367 825 928 Apr-20 2,089 1,864 2,269 3,335 546 May-20 356 47 2,051 618 May-20 1,982 151 2,597 541 May-20 2,759 548 1,692 1,049 Jun-20 Jun-20 Jun-20 Jul-20 Jul-20 Jul-20 Aug-20 Aug-20 Aug-20 Sep-20 Sep-20 Sep-20 Oct-20 Oct-20 Oct-20 Nov-20 Nov-20 Nov-20 Dec-20 Dec-20 Dec-20 NORTH 5,038 HUD VL 2,206 LONGIL Jan-20 811 206 1,765 Jan-20 891 1,274 7,573 Jan-20 5,640 2,824 2.246 1,109 Feb-20 402 276 5,144 2,014 Feb-20 886 5,838 Feb-20 1,683 1,678 1,217 722 8,517 4,795 Mar-20 335 293 5,075 2,315 Mar-20 944 634 6,811 10,029 Mar-20 5,402 1,429 1,602 1,683 Apr-20 321 1,001 210 5,153 2,057 Apr-20 813 5,955 12,414 Apr-20 5,033 1,036 1,620 1,672 2.305 381 3,547 1,757 May-20 1.088 806 5,998 12,839 5.948 2,125 1.844 1,045 May-20 May-20 Jun-20 Jun-20 Jun-20 Jul-20 Jul-20 Jul-20 Aug-20 Aug-20 Aug-20 Sep-20 Sep-20 Sep-20 Oct-20 Oct-20 Oct-20 Nov-20 Nov-20 Nov-20 Dec-20 Dec-20 Dec-20 CENTRL Jan-20 3,050 214 28,503 541 MILLWD Jan-20 270 68 1,646 213 **NYISO** Jan-20 29,361 9,580 59,340 11,849 Feb-20 2,567 118 27,919 487 Feb-20 281 68 1,811 229 Feb-20 30,434 6,838 60,334 14,811 17,986 Mar-20 2,340 113 481 Mar-20 494 19 1,844 174 Mar-20 26,077 6,087 47,704 20,700 2,568 131 20,490 491 563 55 90 49.344 22,953 Apr-20 Apr-20 1,510 Apr-20 26,181 6,200 May-20 2,736 296 22,414 414 May-20 502 198 1,442 76 May-20 27,319 8,140 47,941 22,346 Jun-20 Jun-20 Jun-20 Jul-20 Jul-20 Jul-20 Aug-20 Aug-20 Aug-20 Sep-20 Sep-20 Sep-20 Oct-20 Oct-20 Oct-20

Nov-20

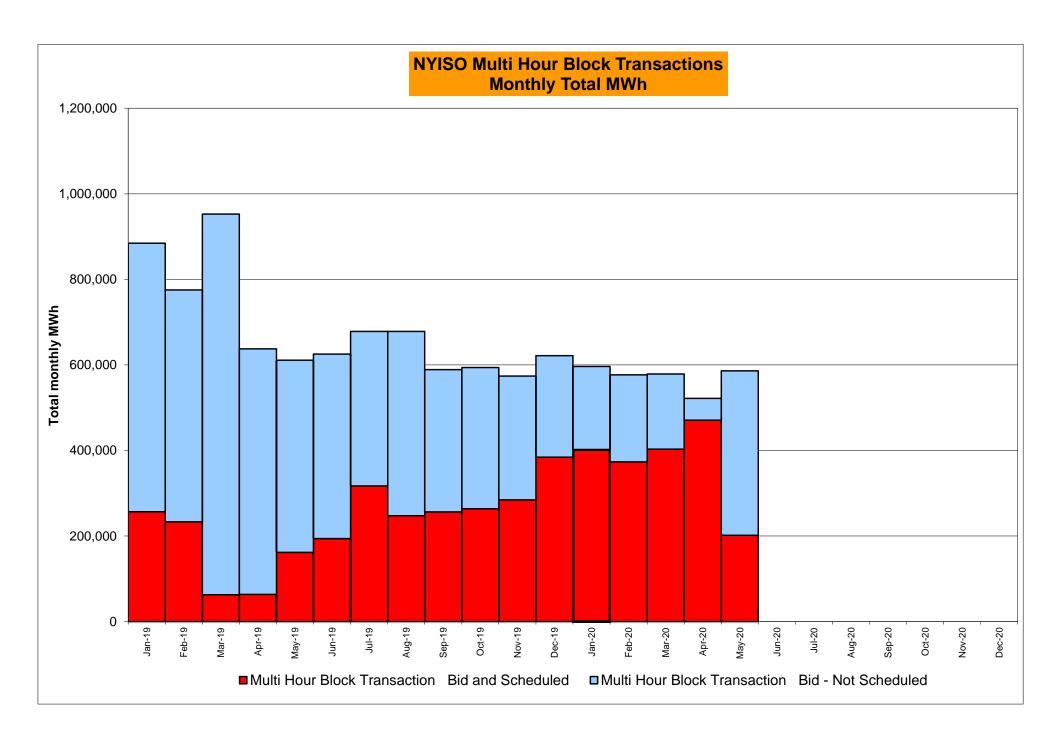
Dec-20

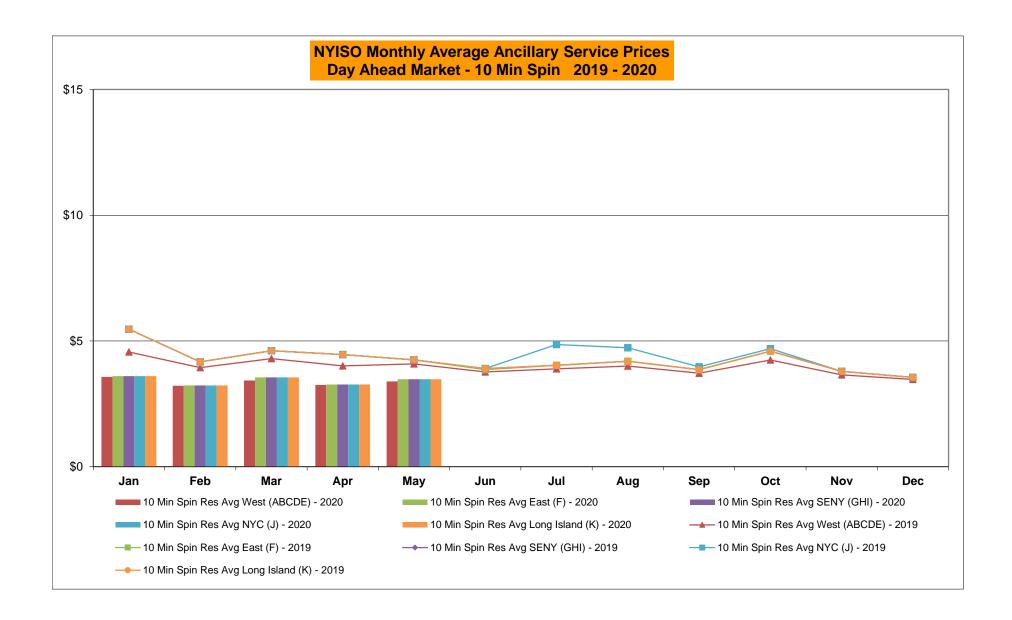
Nov-20

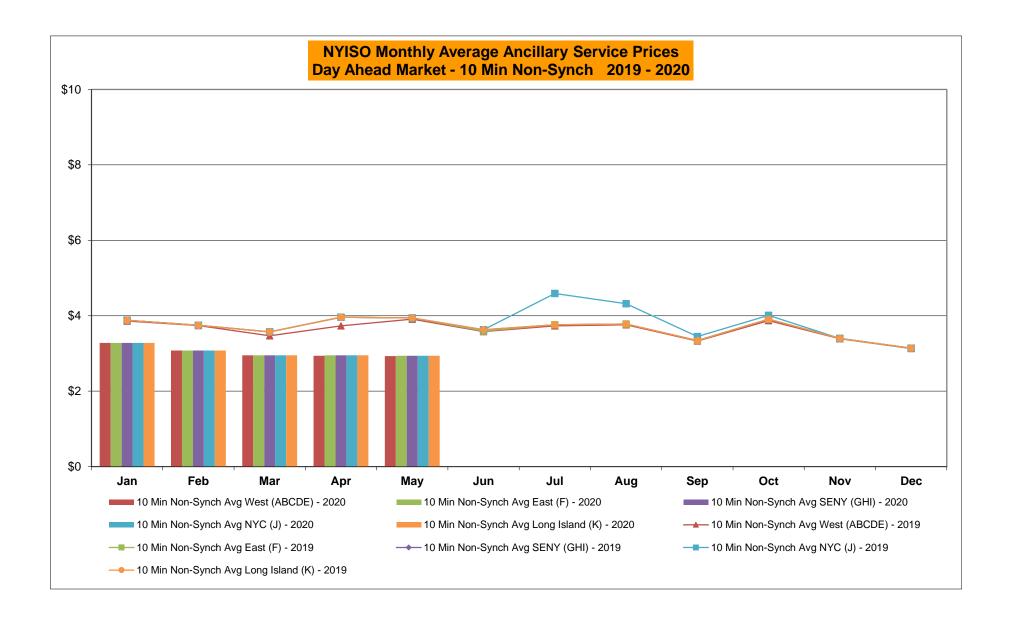
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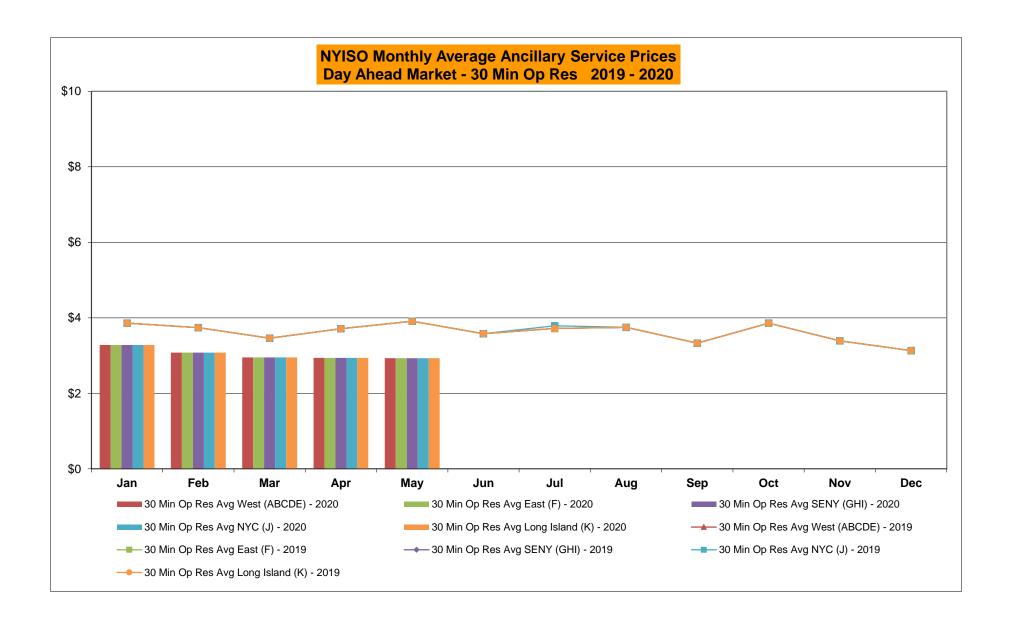
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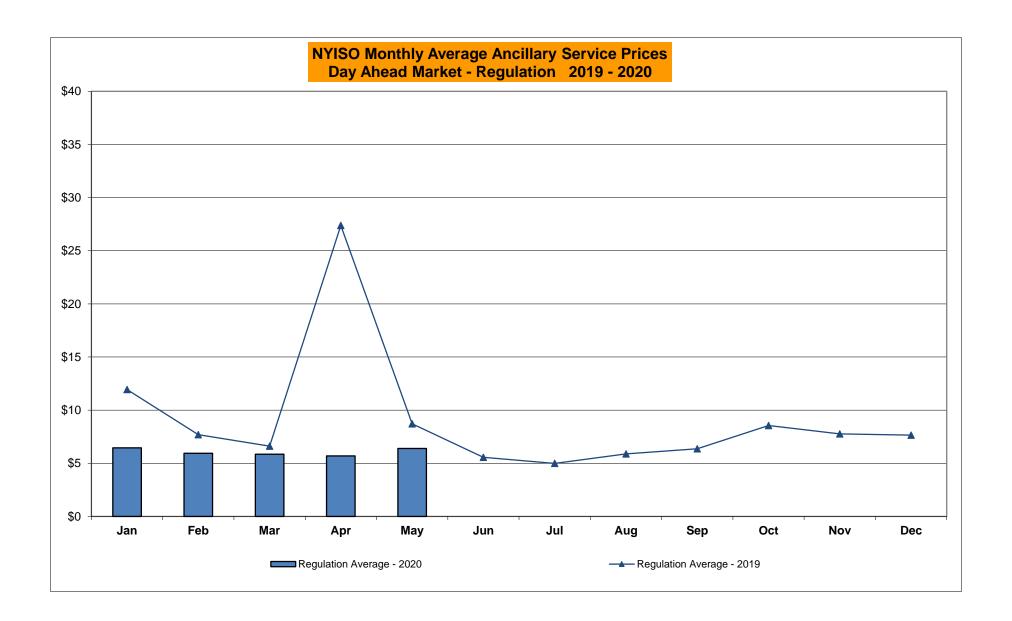
Dec-20

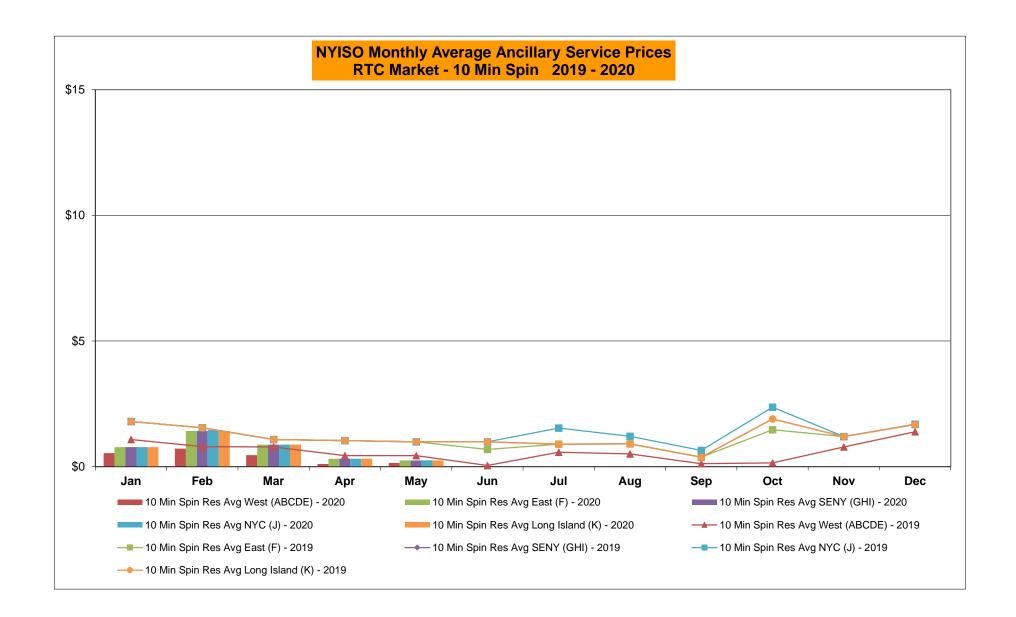


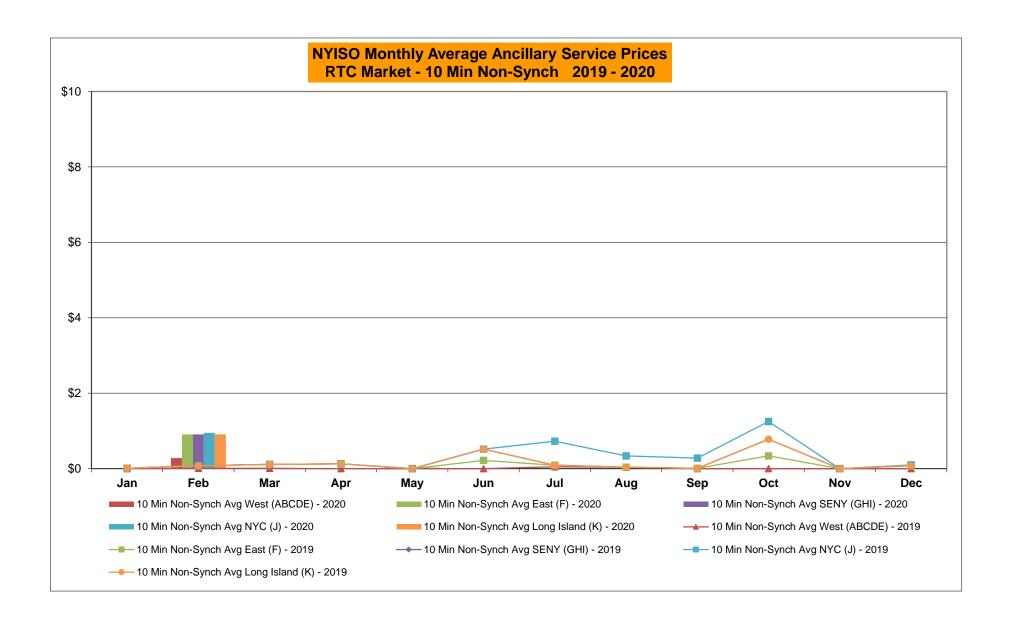


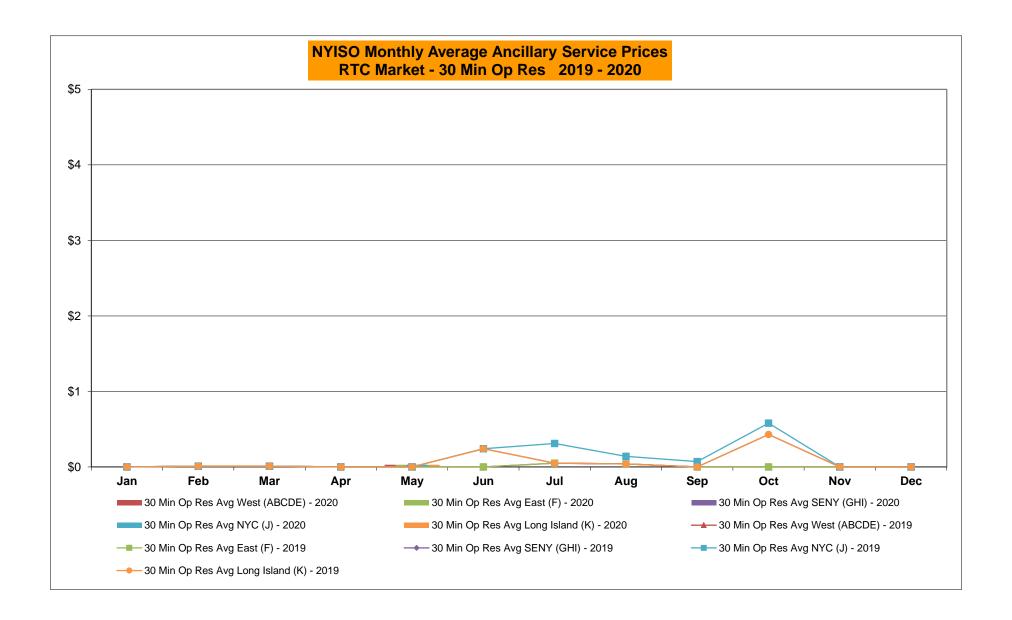


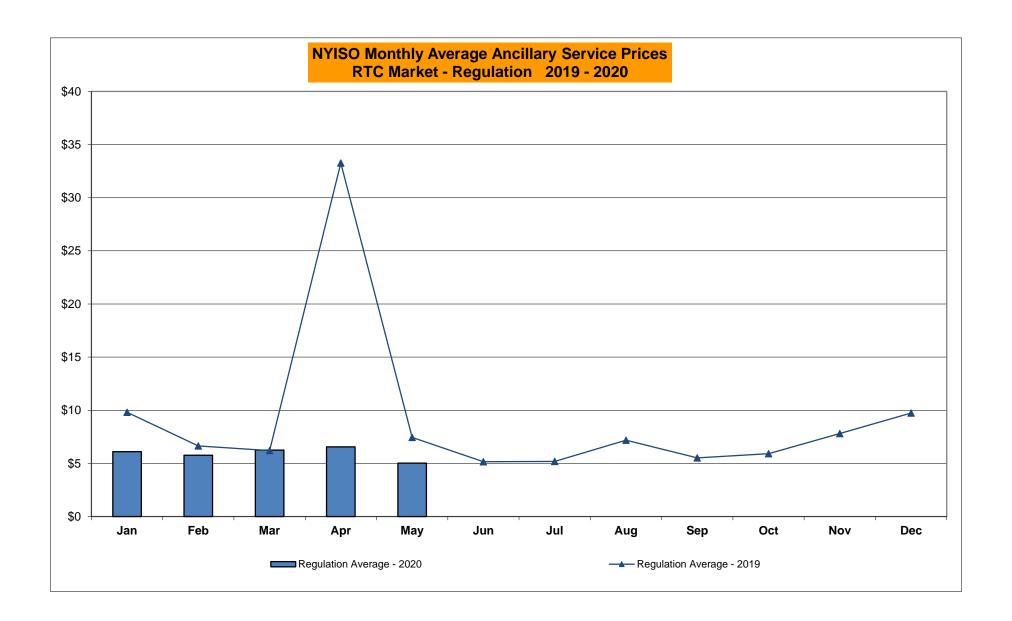


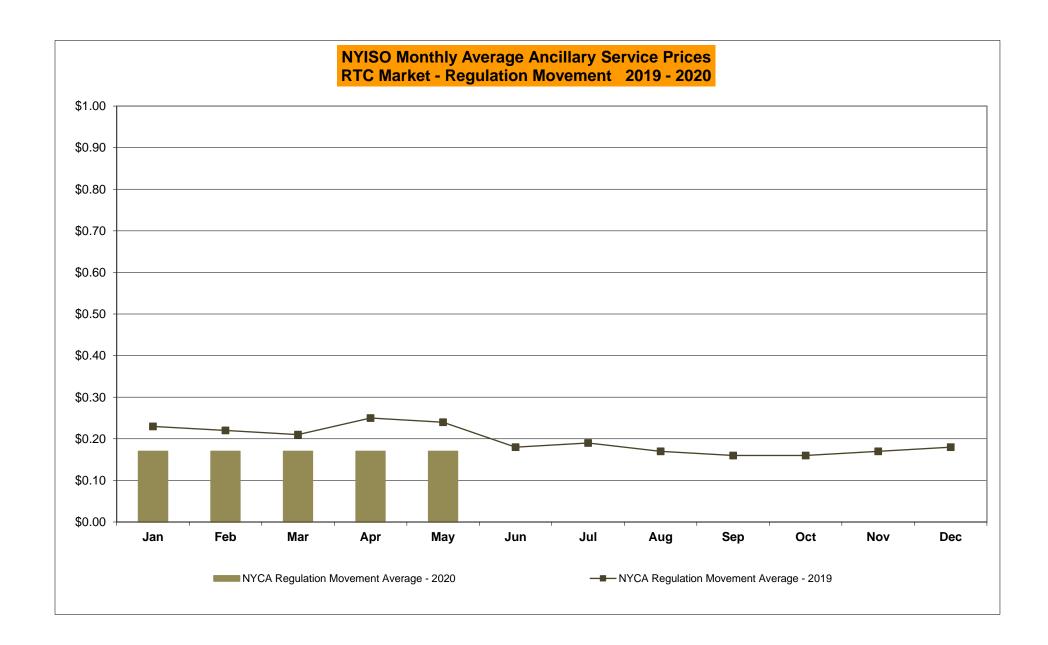


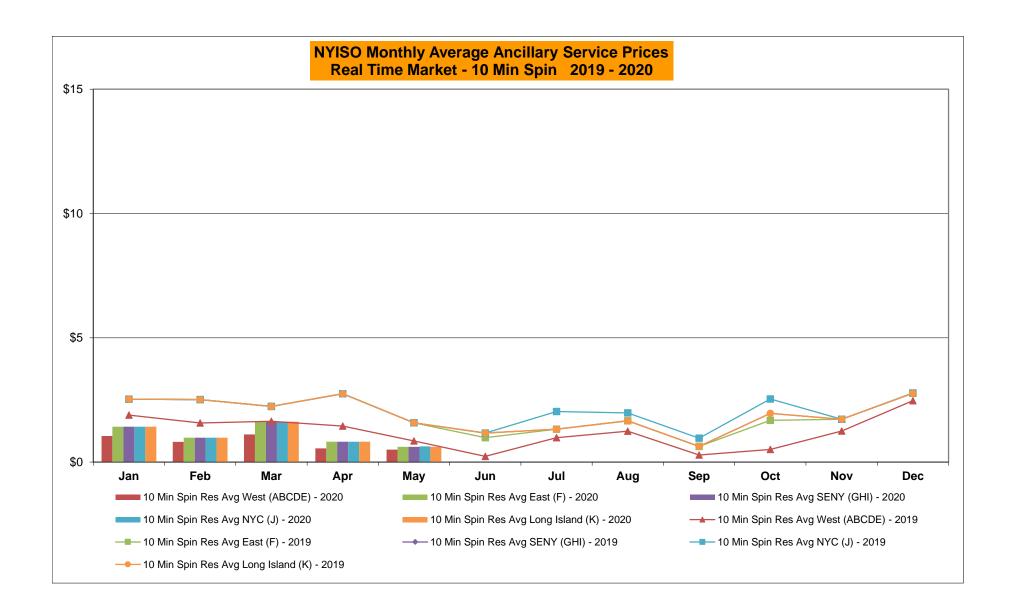


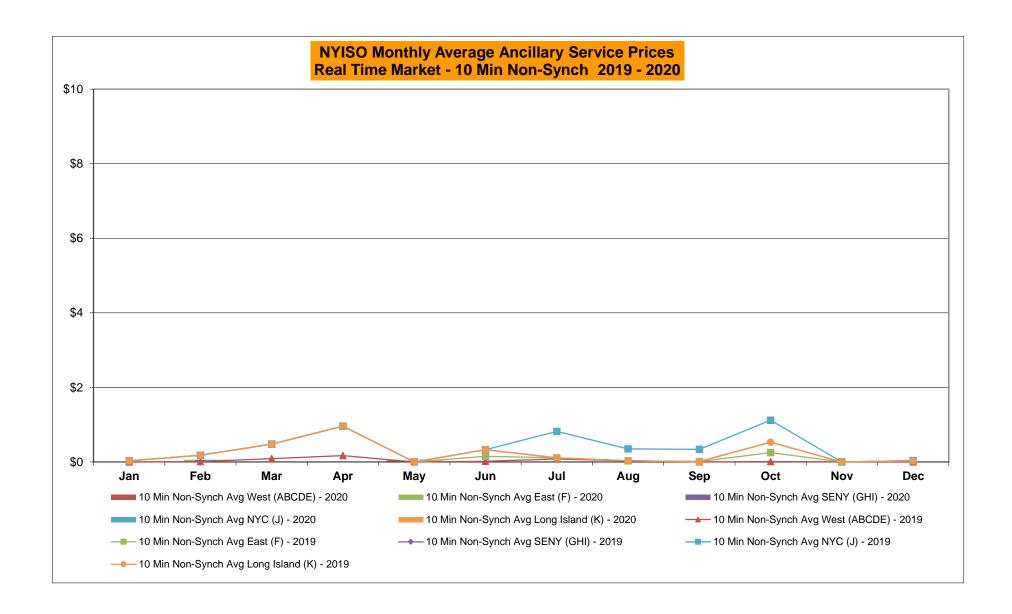


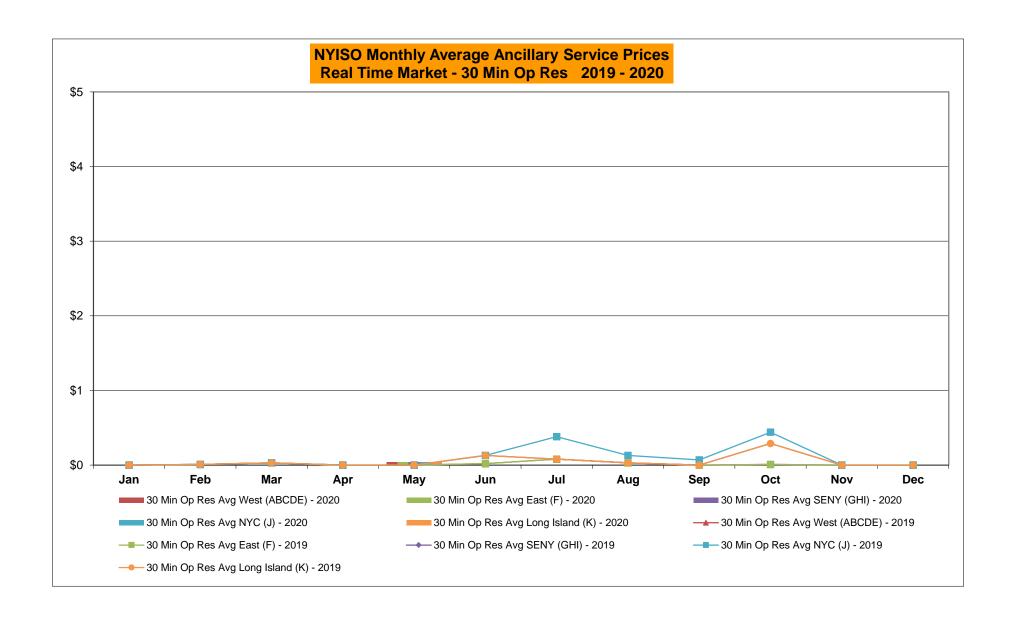


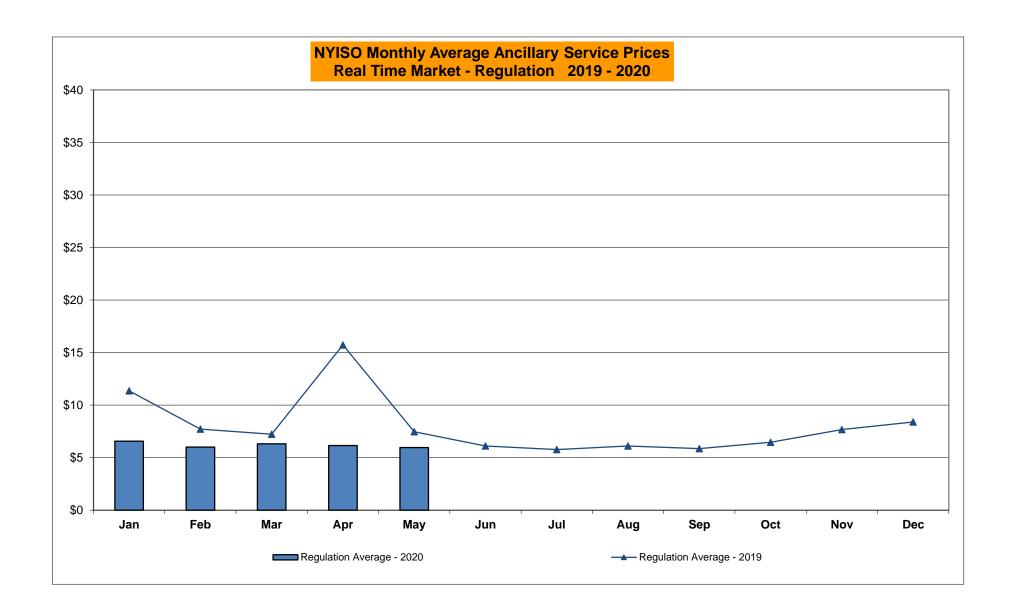


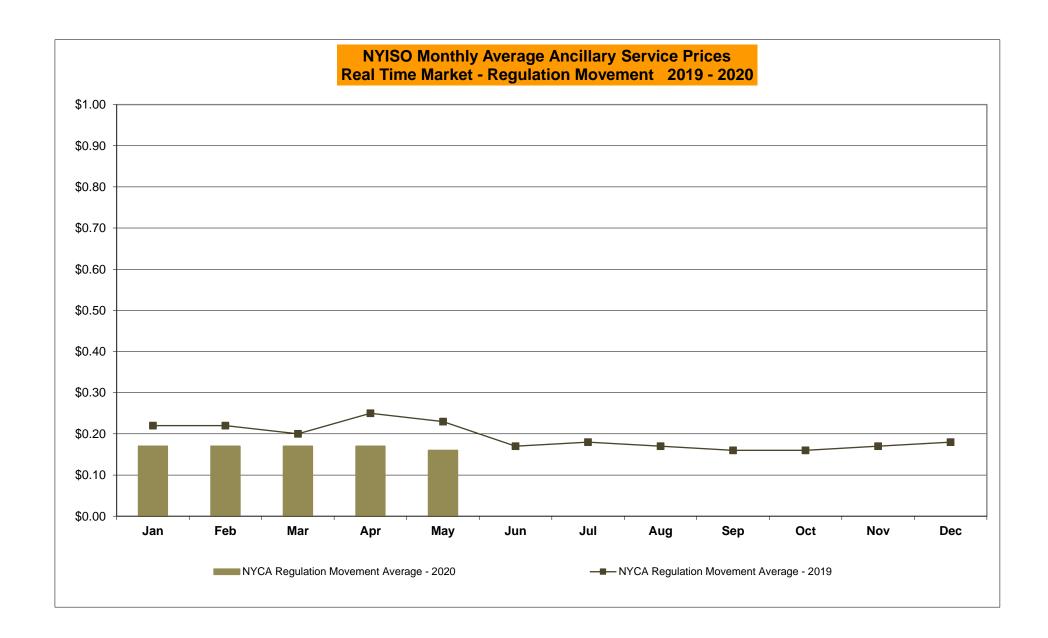












## NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH) - DAM

2020 Day Ahead Market	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	October	November	December
10 Min Spin Long Island (K)	3.60	3.23	3.55	3.27	3.48							
10 Min Spin NYC (J)	3.60	3.23	3.55	3.27	3.48							
10 Min Spin SENY (GHI)	3.60	3.23	3.55	3.27	3.48							
10 Min Spin East (F)	3.60	3.23	3.55	3.27	3.48							
10 Min Spin West (ABCDE)	3.57	3.22	3.43	3.25	3.39							
10 Min Non Synch Long Island (K)	3.28	3.08	2.95	2.95	2.94							
10 Min Non Synch NYC (J)	3.28	3.08	2.95	2.95	2.94							
10 Min Non Synch SENY (GHI)	3.28	3.08	2.95	2.95	2.94							
10 Min Non Synch East (F)	3.28	3.08	2.95	2.95	2.94							
10 Min Non Synch West (ABCDE)	3.28	3.08	2.95	2.94	2.93							
30 Min Long Island (K)	3.28	3.08	2.95	2.94	2.93							
30 Min NYC (J)	3.28	3.08	2.95	2.94	2.93							
30 Min SENY (GHI)	3.28	3.08	2.95	2.94	2.93							
30 Min East (F)	3.28	3.08	2.95	2.94	2.93							
30 Min West (ABCDE)	3.28	3.08	2.95	2.94	2.93							
Regulation	6.46	5.94	5.86	5.70	6.40							
<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>	<u>November</u>	<u>December</u>
Day Ahead Market	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>				_	•			<u>December</u>
<u>Day Ahead Market</u> 10 Min Spin Long Island (K)	5.47	5.47	4.61	4.46	4.25	3.90	4.03	4.19	3.86	4.59	3.79	3.55
Day Ahead Market				-				_	•			
<u>Day Ahead Market</u> 10 Min Spin Long Island (K)	5.47 5.47 5.47	5.47 5.47 4.17	4.61	4.46 4.46 4.46	4.25 4.25 4.25	3.90 3.90 3.90	4.03 4.86 4.03	4.19 4.73 4.19	3.86 3.97 3.86	4.59	3.79 3.79 3.79	3.55
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)	5.47 5.47 5.47 5.47	5.47 5.47 4.17 4.17	4.61 4.61 4.61 4.61	4.46 4.46 4.46 4.46	4.25 4.25 4.25 4.25	3.90 3.90 3.90 3.86	4.03 4.86 4.03 4.03	4.19 4.73 4.19 4.19	3.86 3.97 3.86 3.86	4.59 4.69 4.59 4.59	3.79 3.79 3.79 3.79	3.55 3.55 3.55 3.55
Day Ahead Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE)	5.47 5.47 5.47 5.47 4.56	5.47 5.47 4.17 4.17 3.94	4.61 4.61 4.61 4.61 4.30	4.46 4.46 4.46 4.46 4.01	4.25 4.25 4.25 4.25 4.09	3.90 3.90 3.90 3.86 3.77	4.03 4.86 4.03 4.03 3.89	4.19 4.73 4.19 4.19 4.00	3.86 3.97 3.86 3.86 3.72	4.59 4.69 4.59 4.59 4.24	3.79 3.79 3.79 3.79 3.65	3.55 3.55 3.55 3.55 3.47
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)	5.47 5.47 5.47 5.47 4.56 3.88	5.47 5.47 4.17 4.17 3.94 3.88	4.61 4.61 4.61 4.30 3.57	4.46 4.46 4.46 4.01 3.96	4.25 4.25 4.25 4.25 4.09 3.94	3.90 3.90 3.90 3.86 3.77 3.63	4.03 4.86 4.03 4.03 3.89 3.76	4.19 4.73 4.19 4.19 4.00 3.78	3.86 3.97 3.86 3.86 3.72 3.34	4.59 4.69 4.59 4.59 4.24 3.91	3.79 3.79 3.79 3.79 3.65 3.40	3.55 3.55 3.55 3.55 3.47 3.14
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)	5.47 5.47 5.47 5.47 4.56 3.88 3.88	5.47 5.47 4.17 4.17 3.94 3.88 3.88	4.61 4.61 4.61 4.30 3.57 3.57	4.46 4.46 4.46 4.01 3.96 3.96	4.25 4.25 4.25 4.25 4.09 3.94 3.94	3.90 3.90 3.90 3.86 3.77 3.63 3.63	4.03 4.86 4.03 4.03 3.89 3.76 4.59	4.19 4.73 4.19 4.19 4.00 3.78 4.32	3.86 3.97 3.86 3.86 3.72 3.34 3.45	4.59 4.69 4.59 4.59 4.24 3.91 4.01	3.79 3.79 3.79 3.79 3.65 3.40 3.40	3.55 3.55 3.55 3.55 3.47 3.14 3.14
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)	5.47 5.47 5.47 5.47 4.56 3.88 3.88 3.88	5.47 5.47 4.17 4.17 3.94 3.88 3.88 3.75	4.61 4.61 4.61 4.30 3.57 3.57 3.57	4.46 4.46 4.46 4.01 3.96 3.96 3.96	4.25 4.25 4.25 4.25 4.09 3.94 3.94 3.94	3.90 3.90 3.90 3.86 3.77 3.63 3.63 3.63	4.03 4.86 4.03 4.03 3.89 3.76 4.59 3.76	4.19 4.73 4.19 4.19 4.00 3.78 4.32 3.78	3.86 3.97 3.86 3.86 3.72 3.34 3.45 3.34	4.59 4.69 4.59 4.59 4.24 3.91 4.01 3.91	3.79 3.79 3.79 3.65 3.40 3.40 3.40	3.55 3.55 3.55 3.55 3.47 3.14 3.14
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)	5.47 5.47 5.47 5.47 4.56 3.88 3.88 3.88 3.88	5.47 5.47 4.17 4.17 3.94 3.88 3.88 3.75 3.75	4.61 4.61 4.61 4.61 4.30 3.57 3.57 3.57	4.46 4.46 4.46 4.01 3.96 3.96 3.96 3.96	4.25 4.25 4.25 4.25 4.09 3.94 3.94 3.94 3.94	3.90 3.90 3.90 3.86 3.77 3.63 3.63 3.63 3.59	4.03 4.86 4.03 4.03 3.89 3.76 4.59 3.76 3.76	4.19 4.73 4.19 4.19 4.00 3.78 4.32 3.78 3.78	3.86 3.97 3.86 3.86 3.72 3.34 3.45 3.34	4.59 4.69 4.59 4.59 4.24 3.91 4.01 3.91 3.91	3.79 3.79 3.79 3.65 3.40 3.40 3.40 3.40	3.55 3.55 3.55 3.55 3.47 3.14 3.14 3.14
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)	5.47 5.47 5.47 5.47 4.56 3.88 3.88 3.88 3.88	5.47 5.47 4.17 4.17 3.94 3.88 3.88 3.75 3.75 3.75	4.61 4.61 4.61 4.30 3.57 3.57 3.57 3.57 3.47	4.46 4.46 4.46 4.01 3.96 3.96 3.96 3.73	4.25 4.25 4.25 4.25 4.09 3.94 3.94 3.94 3.94 3.91	3.90 3.90 3.90 3.86 3.77 3.63 3.63 3.63 3.59 3.58	4.03 4.86 4.03 4.03 3.89 3.76 4.59 3.76 3.76 3.73	4.19 4.73 4.19 4.19 4.00 3.78 4.32 3.78 3.78 3.76	3.86 3.97 3.86 3.86 3.72 3.34 3.45 3.34 3.34	4.59 4.69 4.59 4.59 4.24 3.91 4.01 3.91 3.91 3.87	3.79 3.79 3.79 3.65 3.40 3.40 3.40 3.39	3.55 3.55 3.55 3.55 3.47 3.14 3.14 3.14 3.14 3.13
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Long Island (K)	5.47 5.47 5.47 5.47 4.56 3.88 3.88 3.88 3.88 3.88	5.47 5.47 4.17 4.17 3.94 3.88 3.75 3.75 3.74 3.86	4.61 4.61 4.61 4.30 3.57 3.57 3.57 3.47 3.47	4.46 4.46 4.46 4.01 3.96 3.96 3.96 3.73 3.71	4.25 4.25 4.25 4.25 4.09 3.94 3.94 3.94 3.94 3.91 3.91	3.90 3.90 3.90 3.86 3.77 3.63 3.63 3.63 3.59 3.58	4.03 4.86 4.03 4.03 3.89 3.76 4.59 3.76 3.76 3.73 3.72	4.19 4.73 4.19 4.19 4.00 3.78 4.32 3.78 3.78 3.76 3.75	3.86 3.97 3.86 3.86 3.72 3.34 3.45 3.34 3.33 3.33	4.59 4.69 4.59 4.59 4.24 3.91 4.01 3.91 3.91 3.87 3.86	3.79 3.79 3.79 3.65 3.40 3.40 3.40 3.39 3.39	3.55 3.55 3.55 3.55 3.47 3.14 3.14 3.14 3.13 3.13
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Long Island (K)  30 Min NYC (J)	5.47 5.47 5.47 5.47 4.56 3.88 3.88 3.88 3.88 3.86 3.86 3.86	5.47 5.47 4.17 4.17 3.94 3.88 3.75 3.75 3.74 3.86 3.86	4.61 4.61 4.61 4.30 3.57 3.57 3.57 3.47 3.46 3.46	4.46 4.46 4.46 4.01 3.96 3.96 3.96 3.73 3.71 3.71	4.25 4.25 4.25 4.09 3.94 3.94 3.94 3.91 3.91 3.91	3.90 3.90 3.90 3.86 3.77 3.63 3.63 3.63 3.59 3.58 3.58	4.03 4.86 4.03 4.03 3.89 3.76 4.59 3.76 3.76 3.73 3.72 3.79	4.19 4.73 4.19 4.19 4.00 3.78 4.32 3.78 3.76 3.75 3.75	3.86 3.97 3.86 3.86 3.72 3.34 3.45 3.34 3.33 3.33 3.33	4.59 4.69 4.59 4.59 4.24 3.91 4.01 3.91 3.87 3.86 3.86	3.79 3.79 3.79 3.65 3.40 3.40 3.40 3.39 3.39 3.39	3.55 3.55 3.55 3.55 3.47 3.14 3.14 3.14 3.13 3.13
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min Long Island (K)  30 Min NYC (J)  30 Min SENY (GHI)	5.47 5.47 5.47 5.47 4.56 3.88 3.88 3.88 3.88 3.86 3.86 3.86	5.47 5.47 4.17 4.17 3.94 3.88 3.75 3.75 3.75 3.74 3.86 3.86 3.74	4.61 4.61 4.61 4.30 3.57 3.57 3.57 3.47 3.46 3.46 3.46	4.46 4.46 4.46 4.46 4.01 3.96 3.96 3.96 3.73 3.71 3.71 3.71	4.25 4.25 4.25 4.09 3.94 3.94 3.94 3.91 3.91 3.91 3.91	3.90 3.90 3.86 3.77 3.63 3.63 3.63 3.59 3.58 3.58 3.58	4.03 4.86 4.03 4.03 3.89 3.76 4.59 3.76 3.76 3.72 3.79 3.72	4.19 4.73 4.19 4.19 4.00 3.78 4.32 3.78 3.78 3.75 3.75 3.75	3.86 3.97 3.86 3.86 3.72 3.34 3.45 3.34 3.33 3.33 3.33 3.33	4.59 4.69 4.59 4.59 4.24 3.91 4.01 3.91 3.81 3.86 3.86 3.86	3.79 3.79 3.79 3.65 3.40 3.40 3.40 3.39 3.39 3.39 3.39	3.55 3.55 3.55 3.55 3.47 3.14 3.14 3.14 3.13 3.13 3.13
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min Long Island (K)  30 Min NYC (J)  30 Min SENY (GHI)  30 Min East (F)	5.47 5.47 5.47 5.47 4.56 3.88 3.88 3.88 3.88 3.86 3.86 3.86 3.8	5.47 5.47 4.17 4.17 3.94 3.88 3.75 3.75 3.74 3.86 3.86 3.74 3.74	4.61 4.61 4.61 4.30 3.57 3.57 3.57 3.47 3.46 3.46 3.46 3.46	4.46 4.46 4.46 4.01 3.96 3.96 3.96 3.73 3.71 3.71 3.71	4.25 4.25 4.25 4.09 3.94 3.94 3.94 3.91 3.91 3.91 3.91 3.91	3.90 3.90 3.86 3.77 3.63 3.63 3.63 3.59 3.58 3.58 3.58 3.58	4.03 4.86 4.03 4.03 3.89 3.76 4.59 3.76 3.76 3.73 3.72 3.79 3.72	4.19 4.73 4.19 4.19 4.00 3.78 4.32 3.78 3.78 3.75 3.75 3.75 3.75	3.86 3.97 3.86 3.86 3.72 3.34 3.45 3.34 3.33 3.33 3.33 3.33 3.33	4.59 4.69 4.59 4.59 4.24 3.91 4.01 3.91 3.81 3.86 3.86 3.86 3.86	3.79 3.79 3.79 3.65 3.40 3.40 3.40 3.39 3.39 3.39 3.39 3.39	3.55 3.55 3.55 3.55 3.47 3.14 3.14 3.14 3.13 3.13 3.13 3.13
Day Ahead Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min Long Island (K)  30 Min NYC (J)  30 Min SENY (GHI)	5.47 5.47 5.47 5.47 4.56 3.88 3.88 3.88 3.88 3.86 3.86 3.86	5.47 5.47 4.17 4.17 3.94 3.88 3.75 3.75 3.75 3.74 3.86 3.86 3.74	4.61 4.61 4.61 4.30 3.57 3.57 3.57 3.47 3.46 3.46 3.46	4.46 4.46 4.46 4.46 4.01 3.96 3.96 3.96 3.73 3.71 3.71 3.71	4.25 4.25 4.25 4.09 3.94 3.94 3.94 3.91 3.91 3.91 3.91	3.90 3.90 3.86 3.77 3.63 3.63 3.63 3.59 3.58 3.58 3.58	4.03 4.86 4.03 4.03 3.89 3.76 4.59 3.76 3.76 3.72 3.79 3.72	4.19 4.73 4.19 4.19 4.00 3.78 4.32 3.78 3.78 3.75 3.75 3.75	3.86 3.97 3.86 3.86 3.72 3.34 3.45 3.34 3.33 3.33 3.33 3.33	4.59 4.69 4.59 4.59 4.24 3.91 4.01 3.91 3.81 3.86 3.86 3.86	3.79 3.79 3.79 3.65 3.40 3.40 3.40 3.39 3.39 3.39 3.39	3.55 3.55 3.55 3.55 3.47 3.14 3.14 3.14 3.13 3.13 3.13

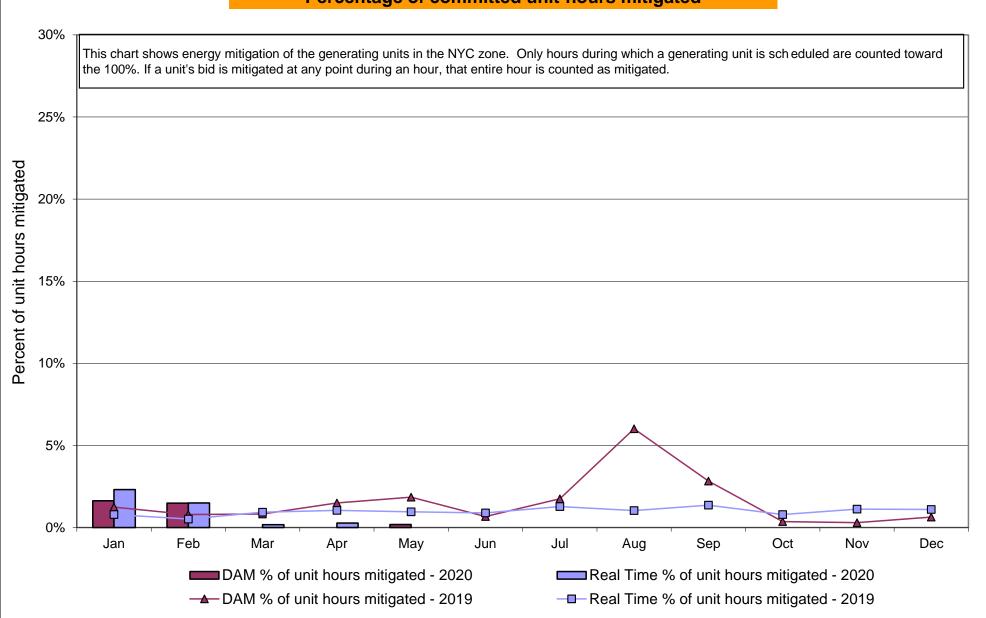
## NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH) - RTC

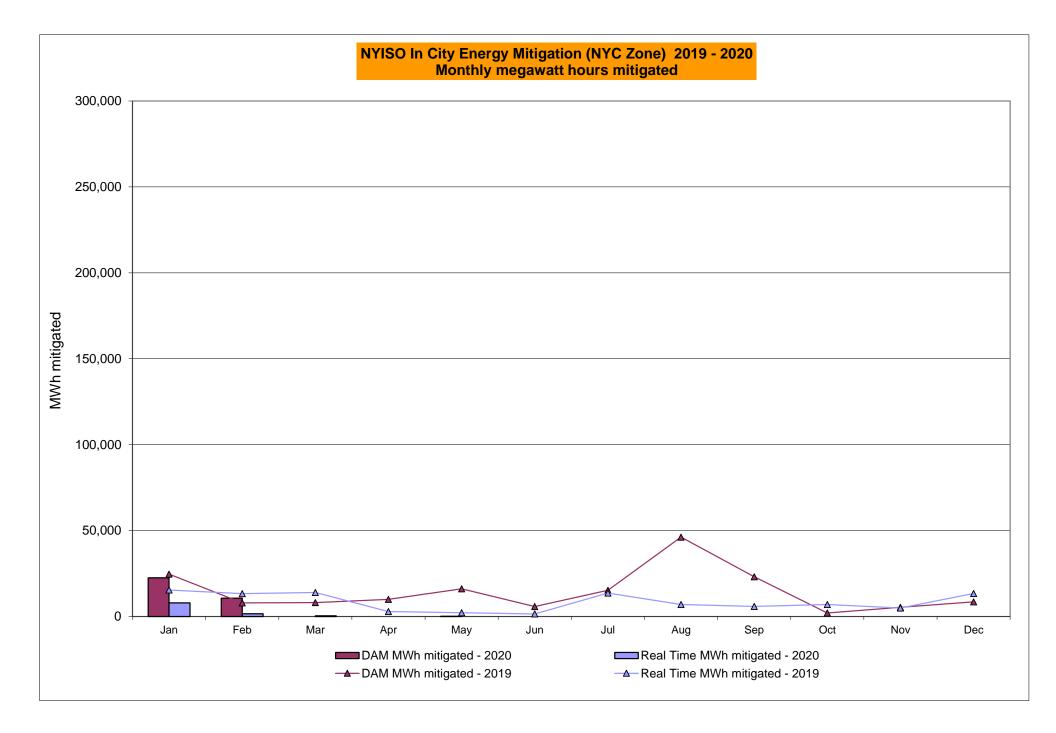
2020 RTC Market	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	September	October	November	December
10 Min Spin Long Island (K)	0.78	1.42	0.88	0.32	0.25							
10 Min Spin NYC (J)	0.78	1.46	0.88	0.32	0.26							
10 Min Spin SENY (GHI)	0.78	1.42	0.88	0.32	0.25							
10 Min Spin East (F)	0.78	1.42	0.88	0.32	0.25							
10 Min Spin West (ABCDE)	0.54	0.72	0.46	0.11	0.15							
10 Min Non Synch Long Island (K)	0.00	0.91	0.00	0.00	0.03							
10 Min Non Synch NYC (J)	0.00	0.95	0.00	0.00	0.04							
10 Min Non Synch SENY (GHI)	0.00	0.91	0.00	0.00	0.03							
10 Min Non Synch East (F)	0.00	0.91	0.00	0.00	0.03							
10 Min Non Synch West (ABCDE)	0.00	0.28	0.00	0.00	0.03							
30 Min Long Island (K)	0.00	0.01	0.00	0.00	0.03							
30 Min NYC (J)	0.00	0.01	0.00	0.00	0.03							
30 Min SENY (GHI)	0.00	0.01	0.00	0.00	0.03							
30 Min East (F)	0.00	0.01	0.00	0.00	0.03							
30 Min West (ABCDE)	0.00	0.01	0.00	0.00	0.03							
Regulation	6.11	5.77	6.25	6.56	5.02							
NYCA Regulation Movement	0.17	0.17	0.17	0.17	0.17							
2019	<u>January</u>	February	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>2019</u> <u>RTC Market</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	October	<u>November</u>	<u>December</u>
	<u>January</u> 1.80	February 1.80	<u>March</u> 1.08	<u>April</u> 1.04	<u>May</u> 0.99	<u>June</u> 0.99	<u>July</u> 0.90	<u>August</u> 0.91	September 0.38	October 1.90	November 1.20	<u>December</u> 1.68
RTC Market	·							_				
RTC Market  10 Min Spin Long Island (K)	1.80	1.80	1.08	1.04	0.99	0.99	0.90	0.91	0.38	1.90	1.20	1.68
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J)	1.80 1.80	1.80 1.80	1.08 1.08	1.04 1.04	0.99 0.99	0.99 0.99	0.90 1.54	0.91 1.21	0.38 0.65	1.90 2.37	1.20 1.20	1.68 1.69
TC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI)	1.80 1.80 1.80	1.80 1.80 1.55	1.08 1.08 1.08	1.04 1.04 1.04	0.99 0.99 0.99	0.99 0.99 0.99 0.69 0.05	0.90 1.54 0.90	0.91 1.21 0.91	0.38 0.65 0.38	1.90 2.37 1.90	1.20 1.20 1.20	1.68 1.69 1.68
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K)	1.80 1.80 1.80 1.80 1.08 0.01	1.80 1.80 1.55 1.55 0.80 0.01	1.08 1.08 1.08 1.08 0.79 0.11	1.04 1.04 1.04 1.04 0.44 0.13	0.99 0.99 0.99 0.99 0.44 0.00	0.99 0.99 0.99 0.69 0.05 0.52	0.90 1.54 0.90 0.90 0.58 0.09	0.91 1.21 0.91 0.91 0.51 0.04	0.38 0.65 0.38 0.38 0.12 0.01	1.90 2.37 1.90 1.47 0.15 0.78	1.20 1.20 1.20 1.20 0.79 0.00	1.68 1.69 1.68 1.68 1.39 0.08
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J)	1.80 1.80 1.80 1.80 1.08 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01	1.08 1.08 1.08 1.08 0.79 0.11	1.04 1.04 1.04 1.04 0.44 0.13	0.99 0.99 0.99 0.99 0.44 0.00	0.99 0.99 0.99 0.69 0.05 0.52	0.90 1.54 0.90 0.90 0.58 0.09 0.73	0.91 1.21 0.91 0.91 0.51 0.04 0.34	0.38 0.65 0.38 0.38 0.12	1.90 2.37 1.90 1.47 0.15 0.78 1.25	1.20 1.20 1.20 1.20 0.79 0.00 0.00	1.68 1.69 1.68 1.68 1.39 0.08 0.10
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI)	1.80 1.80 1.80 1.80 1.08 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01	1.08 1.08 1.08 1.08 0.79 0.11 0.11	1.04 1.04 1.04 1.04 0.44 0.13 0.13	0.99 0.99 0.99 0.99 0.44 0.00 0.00	0.99 0.99 0.99 0.69 0.05 0.52 0.52	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09	0.91 1.21 0.91 0.91 0.51 0.04 0.34 0.04	0.38 0.65 0.38 0.38 0.12 0.01 0.28	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78	1.20 1.20 1.20 1.20 0.79 0.00 0.00	1.68 1.69 1.68 1.68 1.39 0.08 0.10
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI) 10 Min Non Synch East (F)	1.80 1.80 1.80 1.80 1.08 0.01 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01 0.08 0.08	1.08 1.08 1.08 1.08 0.79 0.11 0.11	1.04 1.04 1.04 1.04 0.44 0.13 0.13 0.13	0.99 0.99 0.99 0.44 0.00 0.00 0.00	0.99 0.99 0.69 0.05 0.52 0.52 0.52 0.22	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09 0.09	0.91 1.21 0.91 0.91 0.51 0.04 0.34 0.04 0.04	0.38 0.65 0.38 0.38 0.12 0.01 0.28 0.01 0.01	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78 0.34	1.20 1.20 1.20 1.20 0.79 0.00 0.00 0.00	1.68 1.69 1.68 1.68 1.39 0.08 0.10 0.08
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI) 10 Min Non Synch East (F) 10 Min Non Synch West (ABCDE)	1.80 1.80 1.80 1.80 1.08 0.01 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01 0.08 0.08 0.01	1.08 1.08 1.08 1.08 0.79 0.11 0.11 0.11 0.11	1.04 1.04 1.04 1.04 0.44 0.13 0.13 0.13 0.13	0.99 0.99 0.99 0.44 0.00 0.00 0.00 0.00	0.99 0.99 0.69 0.05 0.52 0.52 0.52 0.22 0.00	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09 0.09	0.91 1.21 0.91 0.91 0.51 0.04 0.34 0.04 0.04 0.04	0.38 0.65 0.38 0.38 0.12 0.01 0.28 0.01 0.01 0.00	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78 0.34 0.00	1.20 1.20 1.20 1.20 0.79 0.00 0.00 0.00 0.00	1.68 1.69 1.68 1.68 1.39 0.08 0.10 0.08 0.08
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI) 10 Min Non Synch East (F) 10 Min Non Synch West (ABCDE) 30 Min Long Island (K)	1.80 1.80 1.80 1.80 1.08 0.01 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01 0.08 0.08 0.01 0.00	1.08 1.08 1.08 1.08 0.79 0.11 0.11 0.11 0.01	1.04 1.04 1.04 1.04 0.44 0.13 0.13 0.13 0.13 0.00	0.99 0.99 0.99 0.44 0.00 0.00 0.00 0.00	0.99 0.99 0.99 0.69 0.05 0.52 0.52 0.52 0.22 0.00 0.24	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09 0.09 0.05	0.91 1.21 0.91 0.91 0.51 0.04 0.34 0.04 0.04 0.04 0.04	0.38 0.65 0.38 0.12 0.01 0.28 0.01 0.01 0.00 0.00	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78 0.34 0.00 0.43	1.20 1.20 1.20 1.20 0.79 0.00 0.00 0.00 0.00 0.00	1.68 1.69 1.68 1.68 1.39 0.08 0.10 0.08 0.00 0.00
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI) 10 Min Non Synch East (F) 10 Min Non Synch West (ABCDE) 30 Min Long Island (K) 30 Min NYC (J)	1.80 1.80 1.80 1.80 1.08 0.01 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01 0.08 0.08 0.01 0.00 0.00	1.08 1.08 1.08 1.08 0.79 0.11 0.11 0.11 0.01 0.01	1.04 1.04 1.04 1.04 0.44 0.13 0.13 0.13 0.13 0.00 0.00	0.99 0.99 0.99 0.44 0.00 0.00 0.00 0.00	0.99 0.99 0.99 0.69 0.05 0.52 0.52 0.52 0.22 0.00 0.24	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09 0.09 0.05 0.05	0.91 1.21 0.91 0.91 0.51 0.04 0.34 0.04 0.04 0.04 0.04 0.04	0.38 0.65 0.38 0.38 0.12 0.01 0.28 0.01 0.01 0.00 0.00 0.00	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78 0.34 0.00 0.43 0.58	1.20 1.20 1.20 1.20 0.79 0.00 0.00 0.00 0.00 0.00	1.68 1.69 1.68 1.68 1.39 0.08 0.10 0.08 0.00 0.00
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI) 10 Min Non Synch East (F) 10 Min Non Synch West (ABCDE) 30 Min Non Synch West (ABCDE) 30 Min Long Island (K) 30 Min NYC (J) 30 Min SENY (GHI)	1.80 1.80 1.80 1.80 1.08 0.01 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01 0.08 0.08 0.01 0.00 0.00	1.08 1.08 1.08 1.08 0.79 0.11 0.11 0.11 0.01 0.01 0.01	1.04 1.04 1.04 1.04 0.44 0.13 0.13 0.13 0.00 0.00 0.00	0.99 0.99 0.99 0.44 0.00 0.00 0.00 0.00	0.99 0.99 0.99 0.69 0.52 0.52 0.52 0.22 0.00 0.24 0.24	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09 0.09 0.05 0.05	0.91 1.21 0.91 0.91 0.51 0.04 0.34 0.04 0.04 0.04 0.04 0.14 0.04	0.38 0.65 0.38 0.38 0.12 0.01 0.28 0.01 0.01 0.00 0.00 0.07	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78 0.34 0.00 0.43 0.58 0.43	1.20 1.20 1.20 1.20 0.79 0.00 0.00 0.00 0.00 0.00 0.00	1.68 1.69 1.68 1.68 1.39 0.08 0.10 0.08 0.00 0.00 0.00
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI) 10 Min Non Synch East (F) 10 Min Non Synch West (ABCDE) 30 Min Non Synch West (ABCDE) 30 Min NYC (J) 30 Min SENY (GHI) 30 Min SENY (GHI)	1.80 1.80 1.80 1.80 1.08 0.01 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01 0.08 0.08 0.01 0.00 0.00	1.08 1.08 1.08 1.08 0.79 0.11 0.11 0.11 0.01 0.01 0.01 0.01	1.04 1.04 1.04 1.04 0.44 0.13 0.13 0.13 0.13 0.00 0.00 0.00	0.99 0.99 0.99 0.44 0.00 0.00 0.00 0.00	0.99 0.99 0.99 0.69 0.52 0.52 0.52 0.22 0.00 0.24 0.24 0.24	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09 0.09 0.05 0.05 0.31 0.05	0.91 1.21 0.91 0.91 0.51 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	0.38 0.65 0.38 0.38 0.12 0.01 0.28 0.01 0.01 0.00 0.00 0.00 0.00	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78 0.34 0.00 0.43 0.58 0.43 0.00	1.20 1.20 1.20 1.20 0.79 0.00 0.00 0.00 0.00 0.00 0.00 0.0	1.68 1.69 1.68 1.68 1.39 0.08 0.10 0.08 0.00 0.00 0.00 0.00
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI) 10 Min Non Synch East (F) 10 Min Non Synch West (ABCDE) 30 Min Non Synch West (ABCDE) 30 Min NYC (J) 30 Min SENY (GHI) 30 Min East (F) 30 Min West (ABCDE)	1.80 1.80 1.80 1.80 1.08 0.01 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01 0.08 0.08 0.01 0.00 0.00	1.08 1.08 1.08 1.08 0.79 0.11 0.11 0.11 0.01 0.01 0.01 0.01	1.04 1.04 1.04 1.04 0.44 0.13 0.13 0.13 0.13 0.00 0.00 0.00	0.99 0.99 0.99 0.44 0.00 0.00 0.00 0.00	0.99 0.99 0.69 0.05 0.52 0.52 0.52 0.22 0.00 0.24 0.24 0.24 0.00 0.00	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09 0.05 0.05 0.05 0.05	0.91 1.21 0.91 0.91 0.51 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	0.38 0.65 0.38 0.12 0.01 0.28 0.01 0.01 0.00 0.00 0.00 0.00 0.00	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78 0.34 0.00 0.43 0.58 0.43 0.00 0.00	1.20 1.20 1.20 1.20 0.79 0.00 0.00 0.00 0.00 0.00 0.00 0.0	1.68 1.69 1.68 1.68 1.39 0.08 0.10 0.08 0.00 0.00 0.00 0.00 0.00
RTC Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE) 10 Min Non Synch Long Island (K) 10 Min Non Synch NYC (J) 10 Min Non Synch SENY (GHI) 10 Min Non Synch East (F) 10 Min Non Synch West (ABCDE) 30 Min Non Synch West (ABCDE) 30 Min NYC (J) 30 Min SENY (GHI) 30 Min SENY (GHI)	1.80 1.80 1.80 1.80 1.08 0.01 0.01 0.01	1.80 1.80 1.55 1.55 0.80 0.01 0.01 0.08 0.08 0.01 0.00 0.00	1.08 1.08 1.08 1.08 0.79 0.11 0.11 0.11 0.01 0.01 0.01 0.01	1.04 1.04 1.04 1.04 0.44 0.13 0.13 0.13 0.13 0.00 0.00 0.00	0.99 0.99 0.99 0.44 0.00 0.00 0.00 0.00	0.99 0.99 0.99 0.69 0.52 0.52 0.52 0.22 0.00 0.24 0.24 0.24	0.90 1.54 0.90 0.90 0.58 0.09 0.73 0.09 0.09 0.05 0.05 0.31 0.05	0.91 1.21 0.91 0.91 0.51 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	0.38 0.65 0.38 0.38 0.12 0.01 0.28 0.01 0.01 0.00 0.00 0.00 0.00	1.90 2.37 1.90 1.47 0.15 0.78 1.25 0.78 0.34 0.00 0.43 0.58 0.43 0.00	1.20 1.20 1.20 1.20 0.79 0.00 0.00 0.00 0.00 0.00 0.00 0.0	1.68 1.69 1.68 1.68 1.39 0.08 0.10 0.08 0.00 0.00 0.00 0.00

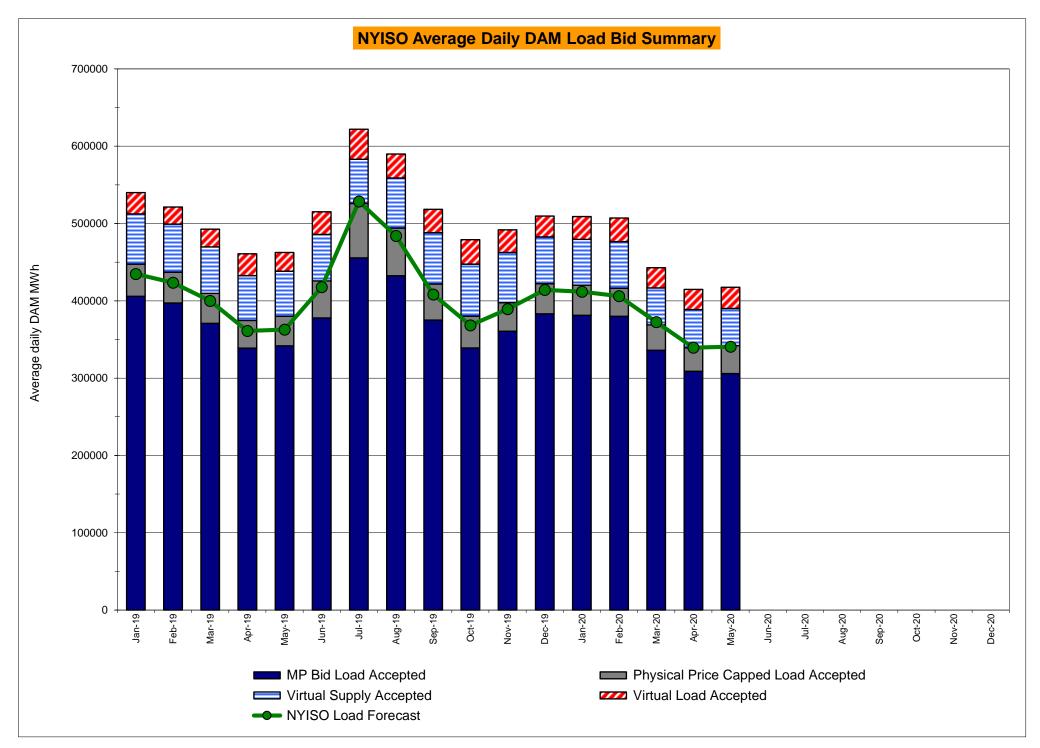
## NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH) - RT

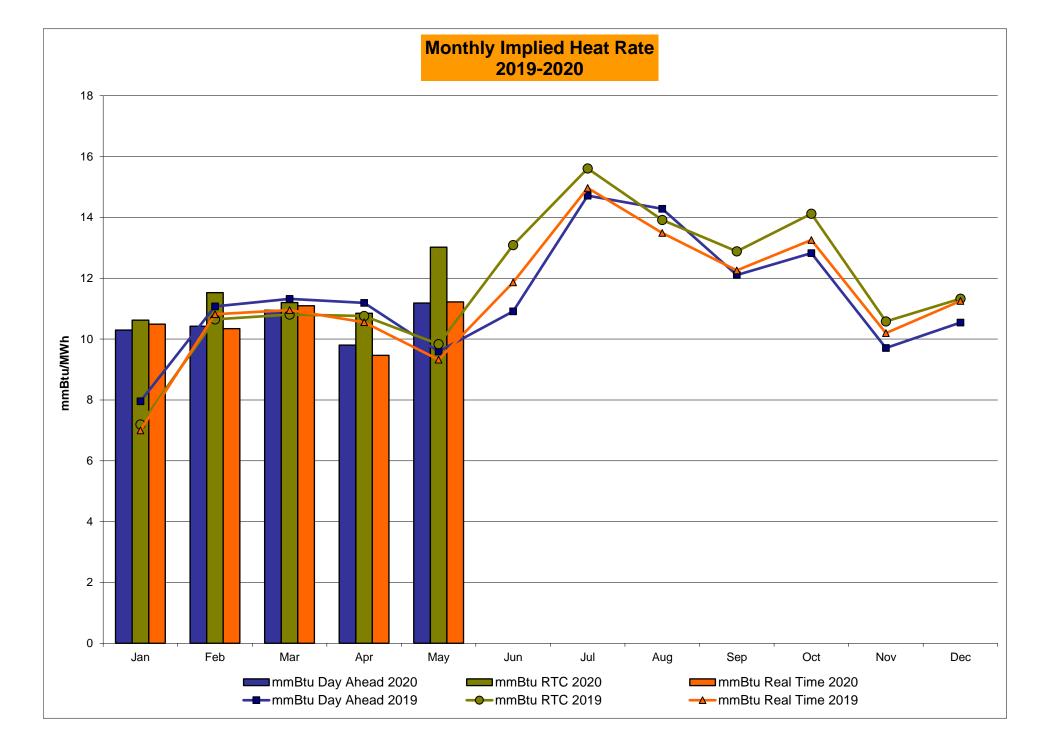
2020 Real Time Market	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	October	November	<u>December</u>
10 Min Spin Long Island (K)	1.42	0.98	1.62	0.82	0.61							
10 Min Spin NYC (J)	1.42	0.98	1.62	0.82	0.63							
10 Min Spin SENY (GHI)	1.42	0.98	1.62	0.82	0.61							
10 Min Spin East (F)	1.42	0.98	1.62	0.82	0.61							
10 Min Spin West (ABCDE)	1.05	0.81	1.11	0.55	0.50							
10 Min Non Synch Long Island (K)	0.00	0.06	0.00	0.00	0.04							
10 Min Non Synch NYC (J)	0.00	0.06	0.00	0.00	0.07							
10 Min Non Synch SENY (GHI)	0.00	0.06	0.00	0.00	0.04							
10 Min Non Synch East (F)	0.00	0.06	0.00	0.00	0.04							
10 Min Non Synch West (ABCDE)	0.00	0.00	0.00	0.00	0.04							
30 Min Long Island (K)	0.00	0.00	0.00	0.00	0.04							
30 Min NYC (J)	0.00	0.00	0.00	0.00	0.04							
30 Min SENY (GHI)	0.00	0.00	0.00	0.00	0.04							
30 Min East (F)	0.00	0.00	0.00	0.00	0.04							
30 Min West (ABCDE)	0.00	0.00	0.00	0.00	0.04							
Regulation	6.57	6.00	6.32	6.16	5.96							
NYCA Regulation Movement	0.17	0.17	0.17	0.10	0.16							
NTOA Regulation Movement	0.17	0.17	0.17	0.17	0.10							
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>
Real Time Market	•							-	•			
Real Time Market  10 Min Spin Long Island (K)	2.53	2.53	2.24	2.75	1.58	1.17	1.32	1.66	0.63	1.96	1.72	2.77
Real Time Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J)	2.53 2.53	2.53 2.53	2.24 2.24	2.75 2.75	1.58 1.58	1.17 1.17	1.32 2.03	1.66 1.98	0.63 0.96	1.96 2.54	1.72 1.72	2.77 2.78
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)	2.53 2.53 2.53	2.53 2.53 2.51	2.24 2.24 2.24	2.75 2.75 2.75	1.58 1.58 1.58	1.17 1.17 1.17	1.32 2.03 1.32	1.66 1.98 1.66	0.63 0.96 0.63	1.96 2.54 1.96	1.72 1.72 1.72	2.77 2.78 2.77
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)	2.53 2.53 2.53 2.53	2.53 2.53 2.51 2.51	2.24 2.24 2.24 2.24	2.75 2.75 2.75 2.75	1.58 1.58 1.58 1.58	1.17 1.17 1.17 0.98	1.32 2.03 1.32 1.32	1.66 1.98 1.66 1.66	0.63 0.96 0.63 0.63	1.96 2.54 1.96 1.68	1.72 1.72 1.72 1.72	2.77 2.78 2.77 2.77
Real Time Market  10 Min Spin Long Island (K) 10 Min Spin NYC (J) 10 Min Spin SENY (GHI) 10 Min Spin East (F) 10 Min Spin West (ABCDE)	2.53 2.53 2.53 2.53 1.89	2.53 2.53 2.51 2.51 1.57	2.24 2.24 2.24 2.24 1.64	2.75 2.75 2.75 2.75 1.45	1.58 1.58 1.58 1.58 0.85	1.17 1.17 1.17 0.98 0.23	1.32 2.03 1.32 1.32 0.98	1.66 1.98 1.66 1.66 1.24	0.63 0.96 0.63 0.63 0.28	1.96 2.54 1.96 1.68 0.51	1.72 1.72 1.72 1.72 1.72	2.77 2.78 2.77 2.77 2.47
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)	2.53 2.53 2.53 2.53 1.89 0.03	2.53 2.53 2.51 2.51 1.57 0.03	2.24 2.24 2.24 2.24 1.64 0.48	2.75 2.75 2.75 2.75 1.45 0.96	1.58 1.58 1.58 1.58 0.85 0.00	1.17 1.17 1.17 0.98 0.23 0.33	1.32 2.03 1.32 1.32 0.98 0.11	1.66 1.98 1.66 1.66 1.24 0.03	0.63 0.96 0.63 0.63 0.28 0.01	1.96 2.54 1.96 1.68 0.51 0.53	1.72 1.72 1.72 1.72 1.25 0.00	2.77 2.78 2.77 2.77 2.47 0.03
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)	2.53 2.53 2.53 2.53 1.89 0.03 0.03	2.53 2.53 2.51 2.51 1.57 0.03 0.03	2.24 2.24 2.24 2.24 1.64 0.48 0.48	2.75 2.75 2.75 2.75 1.45 0.96 0.96	1.58 1.58 1.58 1.58 0.85 0.00	1.17 1.17 1.17 0.98 0.23 0.33 0.33	1.32 2.03 1.32 1.32 0.98 0.11 0.82	1.66 1.98 1.66 1.66 1.24 0.03 0.35	0.63 0.96 0.63 0.63 0.28 0.01	1.96 2.54 1.96 1.68 0.51 0.53 1.12	1.72 1.72 1.72 1.72 1.25 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)	2.53 2.53 2.53 2.53 1.89 0.03 0.03	2.53 2.53 2.51 2.51 1.57 0.03 0.03 0.18	2.24 2.24 2.24 2.24 1.64 0.48 0.48	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96	1.58 1.58 1.58 1.58 0.85 0.00 0.00	1.17 1.17 1.17 0.98 0.23 0.33 0.33	1.32 2.03 1.32 1.32 0.98 0.11 0.82 0.11	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03	0.63 0.96 0.63 0.63 0.28 0.01 0.34	1.96 2.54 1.96 1.68 0.51 0.53 1.12	1.72 1.72 1.72 1.72 1.25 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04 0.03
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)	2.53 2.53 2.53 2.53 1.89 0.03 0.03	2.53 2.51 2.51 2.51 1.57 0.03 0.03 0.18 0.18	2.24 2.24 2.24 2.24 1.64 0.48 0.48 0.48	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96 0.96	1.58 1.58 1.58 1.58 0.85 0.00 0.00 0.00	1.17 1.17 1.17 0.98 0.23 0.33 0.33 0.33	1.32 2.03 1.32 1.32 0.98 0.11 0.82	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03	0.63 0.96 0.63 0.63 0.28 0.01	1.96 2.54 1.96 1.68 0.51 0.53 1.12 0.53 0.25	1.72 1.72 1.72 1.72 1.25 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)	2.53 2.53 2.53 2.53 1.89 0.03 0.03	2.53 2.53 2.51 2.51 1.57 0.03 0.03 0.18 0.18 0.01	2.24 2.24 2.24 1.64 0.48 0.48 0.48 0.48 0.09	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96 0.96 0.17	1.58 1.58 1.58 1.58 0.85 0.00 0.00 0.00 0.00	1.17 1.17 1.17 0.98 0.23 0.33 0.33 0.33 0.15	1.32 2.03 1.32 1.32 0.98 0.11 0.82 0.11 0.11 0.08	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03 0.03	0.63 0.96 0.63 0.63 0.28 0.01 0.34 0.01 0.01	1.96 2.54 1.96 1.68 0.51 0.53 1.12 0.53 0.25 0.01	1.72 1.72 1.72 1.72 1.25 0.00 0.00 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04 0.03 0.03 0.03
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Long Island (K)	2.53 2.53 2.53 2.53 1.89 0.03 0.03 0.03	2.53 2.53 2.51 2.51 1.57 0.03 0.03 0.18 0.18 0.01 0.00	2.24 2.24 2.24 1.64 0.48 0.48 0.48 0.48 0.09	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96 0.96 0.17 0.00	1.58 1.58 1.58 1.58 0.85 0.00 0.00 0.00 0.00	1.17 1.17 1.17 0.98 0.23 0.33 0.33 0.33 0.15 0.02 0.13	1.32 2.03 1.32 1.32 0.98 0.11 0.82 0.11 0.11	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03 0.03 0.03	0.63 0.96 0.63 0.63 0.28 0.01 0.34 0.01 0.01 0.00	1.96 2.54 1.96 1.68 0.51 0.53 1.12 0.53 0.25 0.01	1.72 1.72 1.72 1.72 1.25 0.00 0.00 0.00 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04 0.03 0.03
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)	2.53 2.53 2.53 2.53 1.89 0.03 0.03 0.03 0.03	2.53 2.53 2.51 2.51 1.57 0.03 0.03 0.18 0.18 0.01	2.24 2.24 2.24 1.64 0.48 0.48 0.48 0.48 0.09	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96 0.96 0.17	1.58 1.58 1.58 1.58 0.85 0.00 0.00 0.00 0.00	1.17 1.17 1.17 0.98 0.23 0.33 0.33 0.33 0.15	1.32 2.03 1.32 1.32 0.98 0.11 0.82 0.11 0.11 0.08	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03 0.03	0.63 0.96 0.63 0.63 0.28 0.01 0.34 0.01 0.01	1.96 2.54 1.96 1.68 0.51 0.53 1.12 0.53 0.25 0.01	1.72 1.72 1.72 1.72 1.25 0.00 0.00 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04 0.03 0.03 0.03
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Long Island (K)	2.53 2.53 2.53 2.53 1.89 0.03 0.03 0.03 0.03 0.00 0.00	2.53 2.53 2.51 2.51 1.57 0.03 0.03 0.18 0.18 0.01 0.00	2.24 2.24 2.24 1.64 0.48 0.48 0.48 0.48 0.09	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96 0.96 0.17 0.00	1.58 1.58 1.58 1.58 0.85 0.00 0.00 0.00 0.00	1.17 1.17 1.17 0.98 0.23 0.33 0.33 0.33 0.15 0.02	1.32 2.03 1.32 1.32 0.98 0.11 0.82 0.11 0.11 0.08 0.08	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03 0.03 0.03	0.63 0.96 0.63 0.63 0.28 0.01 0.34 0.01 0.01 0.00	1.96 2.54 1.96 1.68 0.51 0.53 1.12 0.53 0.25 0.01	1.72 1.72 1.72 1.72 1.25 0.00 0.00 0.00 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04 0.03 0.03 0.00 0.00
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Long Island (K)  30 Min NYC (J)	2.53 2.53 2.53 2.53 1.89 0.03 0.03 0.03 0.03 0.00 0.00	2.53 2.53 2.51 2.51 1.57 0.03 0.03 0.18 0.18 0.01 0.00	2.24 2.24 2.24 2.24 1.64 0.48 0.48 0.48 0.48 0.09 0.03	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96 0.96 0.17 0.00 0.00	1.58 1.58 1.58 1.58 0.85 0.00 0.00 0.00 0.00 0.00 0.00	1.17 1.17 1.17 0.98 0.23 0.33 0.33 0.33 0.15 0.02 0.13	1.32 2.03 1.32 1.32 0.98 0.11 0.82 0.11 0.11 0.08 0.08 0.38	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03 0.03 0.03 0.03	0.63 0.96 0.63 0.63 0.28 0.01 0.34 0.01 0.01 0.00 0.00	1.96 2.54 1.96 1.68 0.51 0.53 1.12 0.53 0.25 0.01 0.29 0.44	1.72 1.72 1.72 1.72 1.25 0.00 0.00 0.00 0.00 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04 0.03 0.03 0.00 0.00
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min Long Island (K)  30 Min NYC (J)  30 Min SENY (GHI)	2.53 2.53 2.53 2.53 1.89 0.03 0.03 0.03 0.03 0.00 0.00 0.00	2.53 2.53 2.51 2.51 1.57 0.03 0.03 0.18 0.18 0.01 0.00 0.00	2.24 2.24 2.24 1.64 0.48 0.48 0.48 0.48 0.09 0.03 0.03	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96 0.96 0.17 0.00 0.00	1.58 1.58 1.58 1.58 0.85 0.00 0.00 0.00 0.00 0.00 0.00 0	1.17 1.17 1.17 0.98 0.23 0.33 0.33 0.33 0.15 0.02 0.13 0.13	1.32 2.03 1.32 1.32 0.98 0.11 0.82 0.11 0.11 0.08 0.08 0.38 0.08	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03 0.03 0.03 0.13 0.03	0.63 0.96 0.63 0.63 0.28 0.01 0.34 0.01 0.01 0.00 0.00	1.96 2.54 1.96 1.68 0.51 0.53 1.12 0.53 0.25 0.01 0.29 0.44 0.29	1.72 1.72 1.72 1.72 1.25 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04 0.03 0.03 0.00 0.00 0.00
Real Time Market  10 Min Spin Long Island (K)  10 Min Spin NYC (J)  10 Min Spin SENY (GHI)  10 Min Spin East (F)  10 Min Spin West (ABCDE)  10 Min Non Synch Long Island (K)  10 Min Non Synch NYC (J)  10 Min Non Synch SENY (GHI)  10 Min Non Synch East (F)  10 Min Non Synch West (ABCDE)  30 Min Non Synch West (ABCDE)  30 Min Long Island (K)  30 Min NYC (J)  30 Min SENY (GHI)  30 Min East (F)	2.53 2.53 2.53 2.53 1.89 0.03 0.03 0.03 0.03 0.00 0.00 0.00	2.53 2.53 2.51 2.51 1.57 0.03 0.03 0.18 0.18 0.01 0.00 0.00	2.24 2.24 2.24 1.64 0.48 0.48 0.48 0.48 0.09 0.03 0.03	2.75 2.75 2.75 2.75 1.45 0.96 0.96 0.96 0.96 0.17 0.00 0.00 0.00	1.58 1.58 1.58 1.58 0.85 0.00 0.00 0.00 0.00 0.00 0.00 0	1.17 1.17 1.17 0.98 0.23 0.33 0.33 0.33 0.15 0.02 0.13 0.13 0.13	1.32 2.03 1.32 1.32 0.98 0.11 0.82 0.11 0.11 0.08 0.08 0.38 0.08	1.66 1.98 1.66 1.66 1.24 0.03 0.35 0.03 0.03 0.03 0.03 0.03 0.03	0.63 0.96 0.63 0.63 0.28 0.01 0.34 0.01 0.01 0.00 0.00 0.00	1.96 2.54 1.96 1.68 0.51 0.53 1.12 0.53 0.25 0.01 0.29 0.44 0.29 0.01	1.72 1.72 1.72 1.72 1.25 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.77 2.78 2.77 2.77 2.47 0.03 0.04 0.03 0.03 0.00 0.00 0.00 0.00

#### NYISO In City Energy Mitigation - AMP (NYC Zone) 2019 - 2020 Percentage of committed unit-hours mitigated

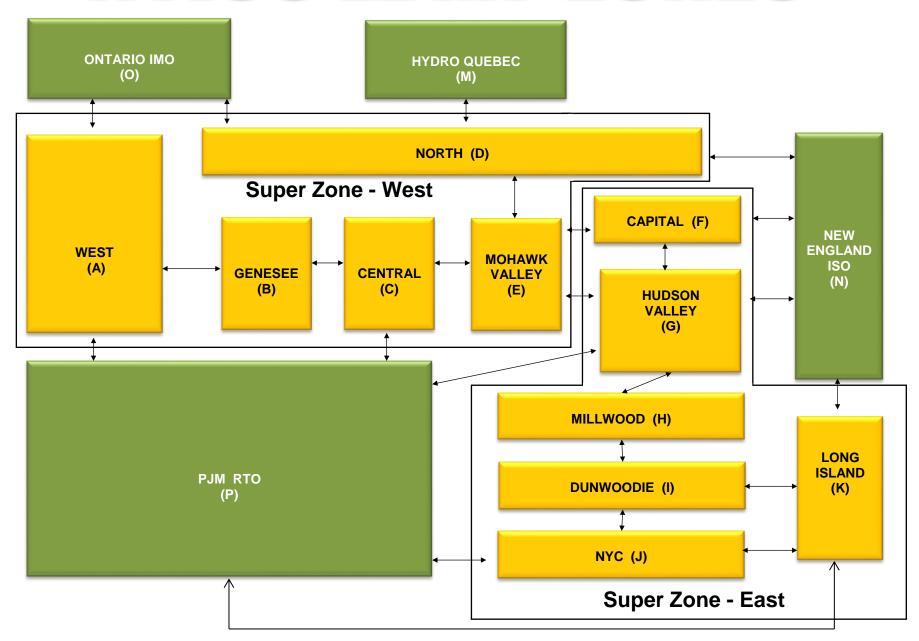








# NYISO LBMP ZONES

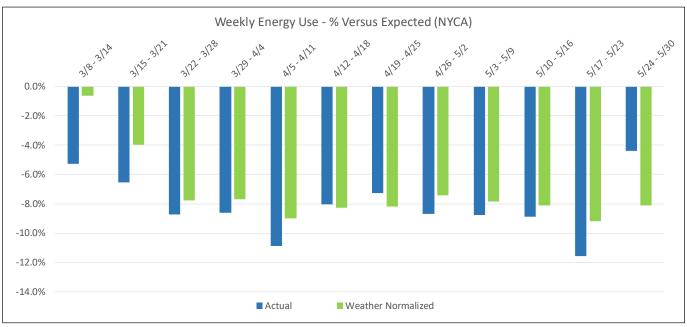


#### **Billing Codes for Chart C**

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

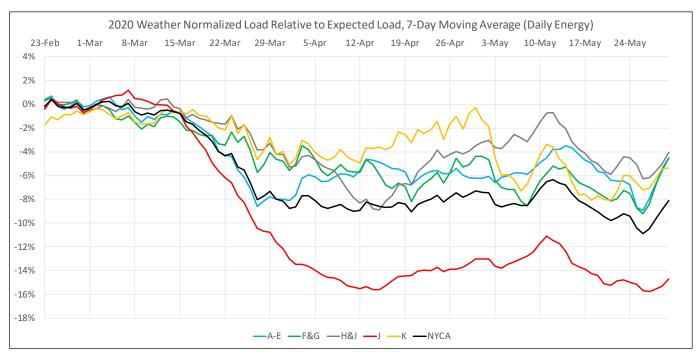
## **COVID-19: Estimated Load Impacts**

#### NYCA Weekly Energy Impacts versus Expected\*



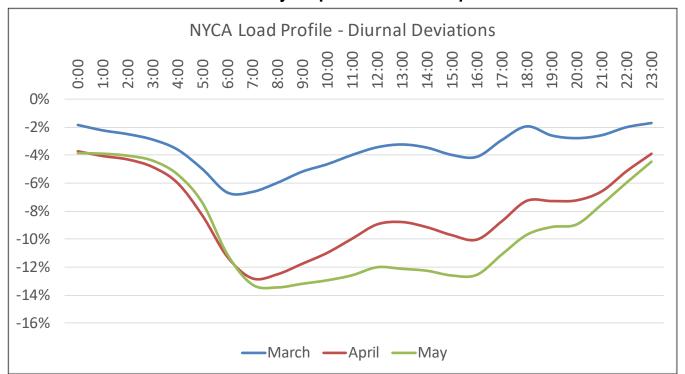
#### \* Green bars indicate COVID-19 impact

#### **Regional Energy Impacts**



### **COVID-19: Estimated Load Impacts**

#### **NYCA Hourly Impacts versus Expected\***



#### \* Includes Weekdays and Weekends

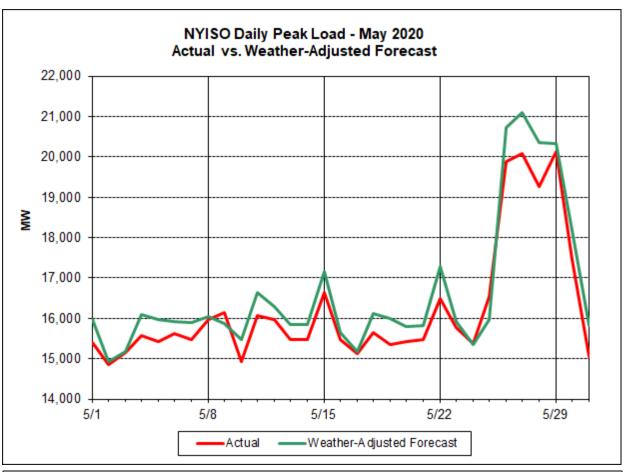
1.1	N 4 1	Δ	N.4
Hour	March	April	May
0:00	-2%	-4%	-4%
1:00	-2%	-4%	-4%
2:00	-3%	-4%	-4%
3:00	-3%	-5%	-4%
4:00	-4%	-6%	-5%
5:00	-5%	-8%	-7%
6:00	-7%	-11%	-11%
7:00	-7%	-13%	-13%
8:00	-6%	-13%	-13%
9:00	-5%	-12%	-13%
10:00	-5%	-11%	-13%
11:00	-4%	-10%	-13%
12:00	-3%	-9%	-12%
13:00	-3%	-9%	-12%
14:00	-3%	-9%	-12%
15:00	-4%	-10%	-13%
16:00	-4%	-10%	-13%
17:00	-3%	-9%	-11%
18:00	-2%	-7%	-10%
19:00	-3%	-7%	-9%
20:00	-3%	-7%	-9%
21:00	-3%	-7%	-7%
22:00	-2%	-5%	-6%
23:00	-2%	-4%	-4%

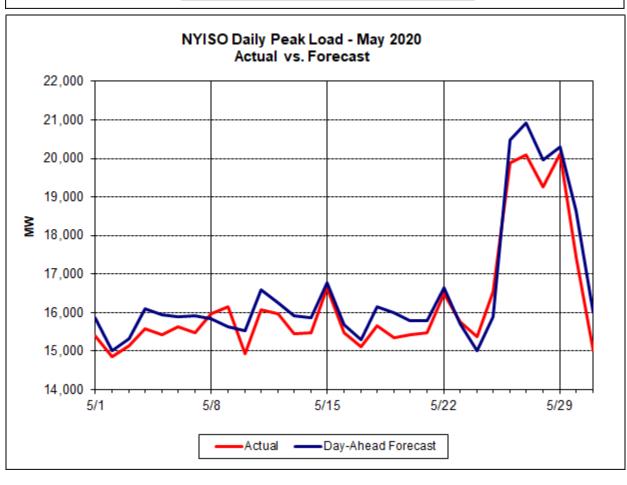
**Percent Deviations** 

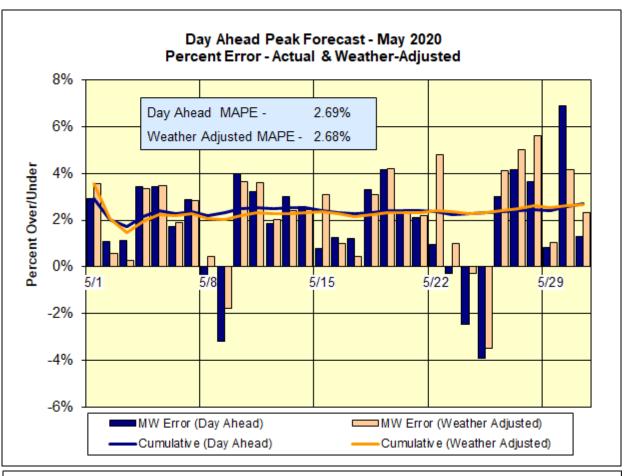
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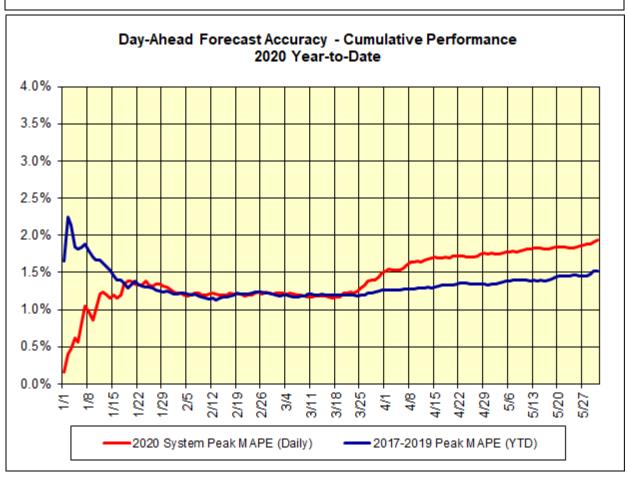
			-
Hour	March	April	May
0:00	-261	-502	-513
1:00	-306	-530	-498
2:00	-336	-551	-503
3:00	-386	-617	-541
4:00	-487	-775	-669
5:00	-712	-1140	-970
6:00	-1042	-1686	-1588
7:00	-1093	-2027	-2038
8:00	-1002	-2029	-2137
9:00	-871	-1916	-2129
10:00	-781	-1785	-2111
11:00	-667	-1610	-2069
12:00	-571	-1432	-1982
13:00	-533	-1397	-2011
14:00	-562	-1448	-2039
15:00	-644	-1540	-2107
16:00	-672	-1612	-2125
17:00	-485	-1424	-1898
18:00	-332	-1192	-1652
19:00	-454	-1211	-1545
20:00	-485	-1217	-1518
21:00	-431	-1068	-1237
22:00	-317	-781	-914
23:00	-253	-552	-633

Peak Hour









## Summary Description of Regulatory Filings, Investigations, Rulemakings and Related Orders in NYISO Matters – May 2020

	Traiomakingo ana rrolatoa		1	Triay 2020
Filing Date	Filing Summary	Docket	Order Date	Order Summary
03/11/2020	NYISO filing re: notice of compliance plan and request for conditional waiver to address any potential technical non-compliance with its tariff associated with the exemption of new Special Case Resources from 02/2017 – 02/20/2020	EL16-92-002 ER17-996-001	05/12/2020	Order clarified the effective Services Tariff language, directed NYISO to submit a compliance filing within 45 days, to be effective as of 05/12/2020, and found a waiver unnecessary
03/20/2020	NYISO 205 filing on behalf of Niagara Mohawk Power Corporation ("Niagara Mohawk") re: Cost Reimbursement Agreement (SA 2528) between Niagara Mohawk and Lake Placid Village, Inc.	ER20-1352-000	05/01/2020	Order accepted agreement effective 02/21/2020, as requested
03/26/2020	NYISO 205 filing on behalf of LS Power Grid New York Corporation I re: response to a FERC deficiency letter concerning proposed transmission formula rate template and implementation protocols	ER20-716-001	05/26/2020	Order accepted in part the Formula Rate and transmission incentives, suspended them for a nominal period, to become effective 5/27/20, as requested, subject to refund, and established hearing and settlement judge procedures
03/26/2020	NYISO filing on behalf of Niagara Mohawk Power Corporation re: notice of cancellation of an interconnection agreement (SA 2205) between Niagara Mohawk and Covanta Niagara I, LLC	ER10-1393-000	05/21/2020	Order accepted notice of cancellation effective 05/26/2020, as requested
03/27/2020	NYISO 205 filing on behalf of Consolidated Edison Company of New York re: interconnection agreement (SA 2515) between Con Edison and Orange & Rockland Utilities, Inc.	ER20-1404-000	05/22/2020	Order accepted interconnection agreement effective 03/30/2020, as requested
05/04/2020	NYISO filing re: request for waiver of the timing requirement in OATT Section 6.1.2.5 to allow the use of revenue from non-physical market activity to recover expected 2020 Rate Schedule 1 shortfall beginning in the current year	ER20-1767-000	05/14/2020	Order granted the waiver request
05/05/2020	NYISO filing re: submission of corrected tariff records in Docket No. ER20-1105-000 to include inadvertently omitted tariff revisions that the NYISO had proposed in Docket No. ER20-1049-000	ER20-1105-000		
05/13/2020	NYISO filing re: to certain arguments in the comments and protests filed in response to the NYISO's Renewable Exemption Limit proposal	ER16-1404-002		
05/18/2020	NYISO 205 filing on behalf of New York State Electric & Gas Corporation ("NYSEG") of an Engineering and Procurement Agreement (SA 2534) between NYSEG and New York Transco, LLC	ER20-1844-000		

05/28/2020	NYISO filing re: errata filing to properly locate two tariff sections within the NYISO's and the Commission's eTariff databases	ER20-1105-000	
05/28/2020	NYISO filing re: FERC Form 714 Annual Electric Balancing Authority Area and Planning Area Report	No docket no.	
05/29/2020	NYISO compliance filing re: removal of state program language from MST 23.4.5.7.5	EL16-92-000 ER17-996-000	