

Broader Regional Market Metrics (CTS)

**New York Independent
System Operator**

June 2016

June 2016 Broader Regional Markets Highlights (CTS)

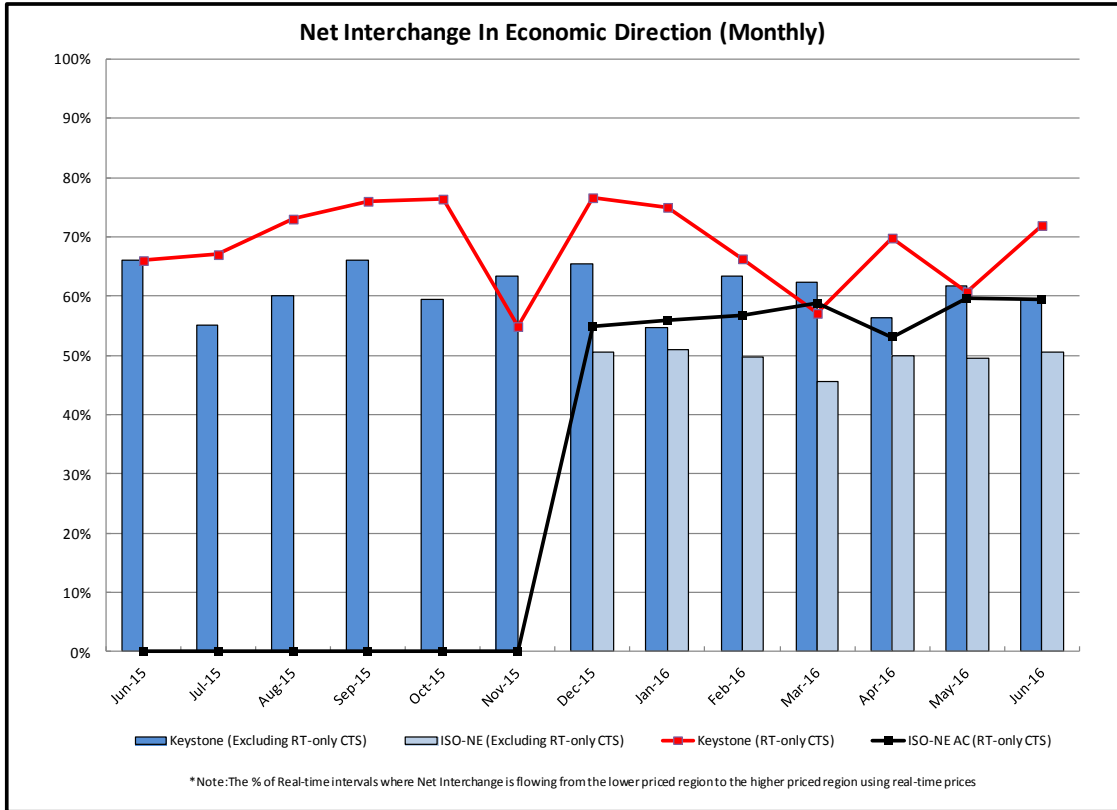
- PJM
 - At PJM Keystone, there was little change from May’s levels, with an average of 216 MWs¹ per hour of CTS offers and an average of 15 MWs per hour of CTS schedules.
 - Interchange at PJM Keystone associated with CTS transactions scheduled only in real-time flowed in the economic direction in 71.9% of the real-time intervals, as compared to all other interchange at the interface which flowed in the economic direction in 59.4% of the real-time intervals.
 - There was less than \$0.01M in production cost increase associated with real-time transaction scheduling with PJM (\$0.21M forecasted savings at time schedules were set). Year-to-date, the NY production cost savings is \$.11M (\$1.17M forecasted savings).

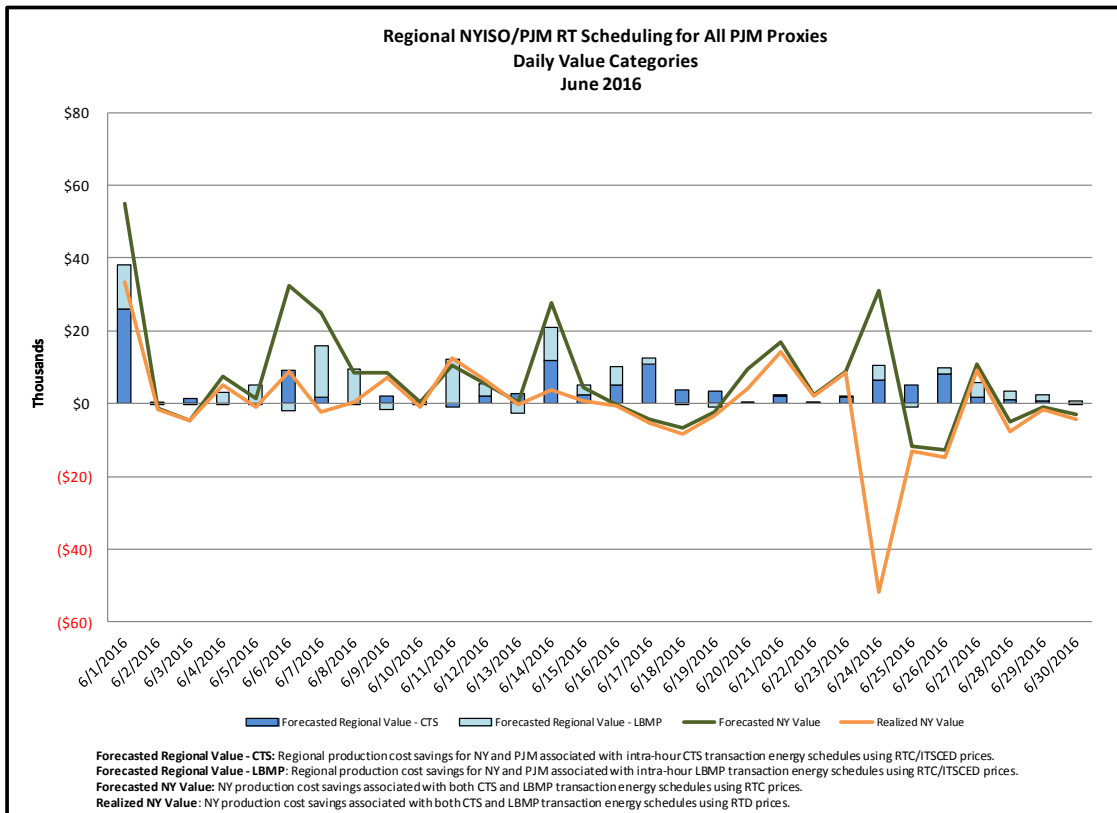
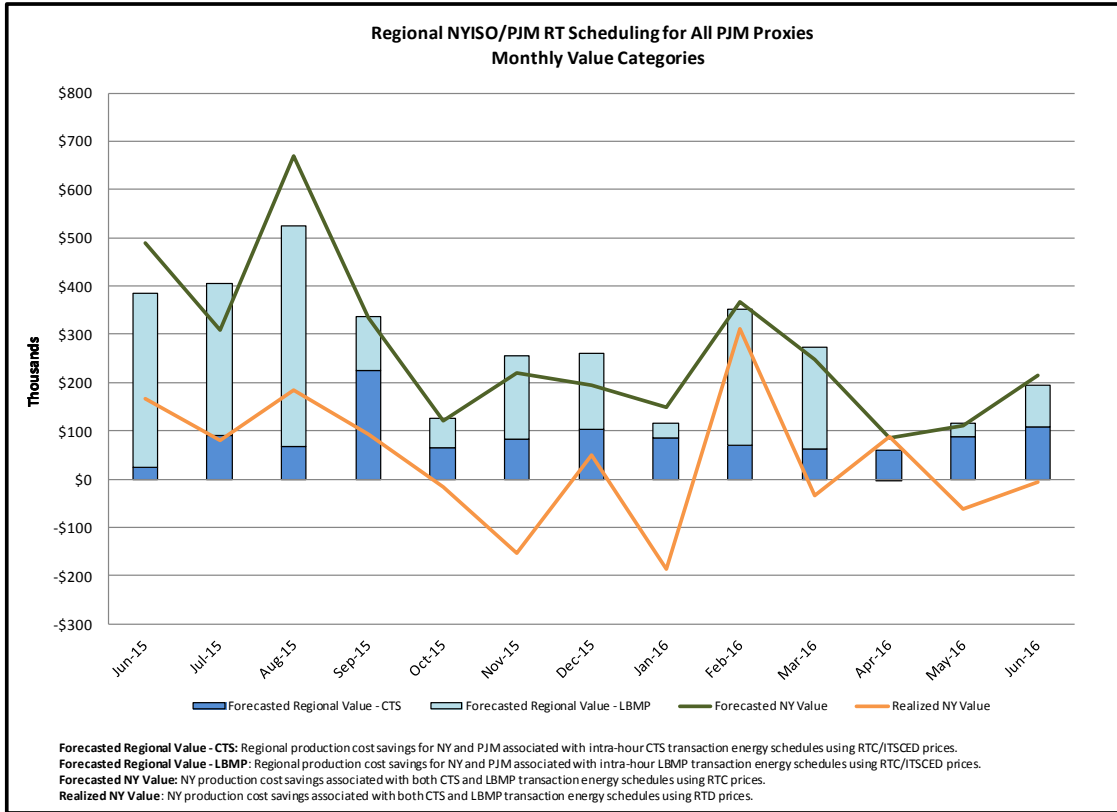
- ISO-NE
 - At NE Sandy Pond, there was an average of 1558 MWs¹ per hour of CTS offers, and an average of 678 MWs per hour of CTS schedules. Compared to May, this is a similar level of average offers and a roughly 100 MW decrease in average schedules.
 - Interchange at NE Sandy Pond associated with CTS transactions scheduled only in real-time flowed in the economic direction in 59.5% of the real-time intervals, as compared to all other interchange which flowed in the economic direction in 50.5% of the real-time intervals.
 - There was a \$0.15M production cost increase associated with real-time transaction scheduling with NE (\$0.12M forecasted increase at the time schedules were set). Year-to-date, there is a NY production cost increase of \$1.00M (\$.55M forecasted increase).

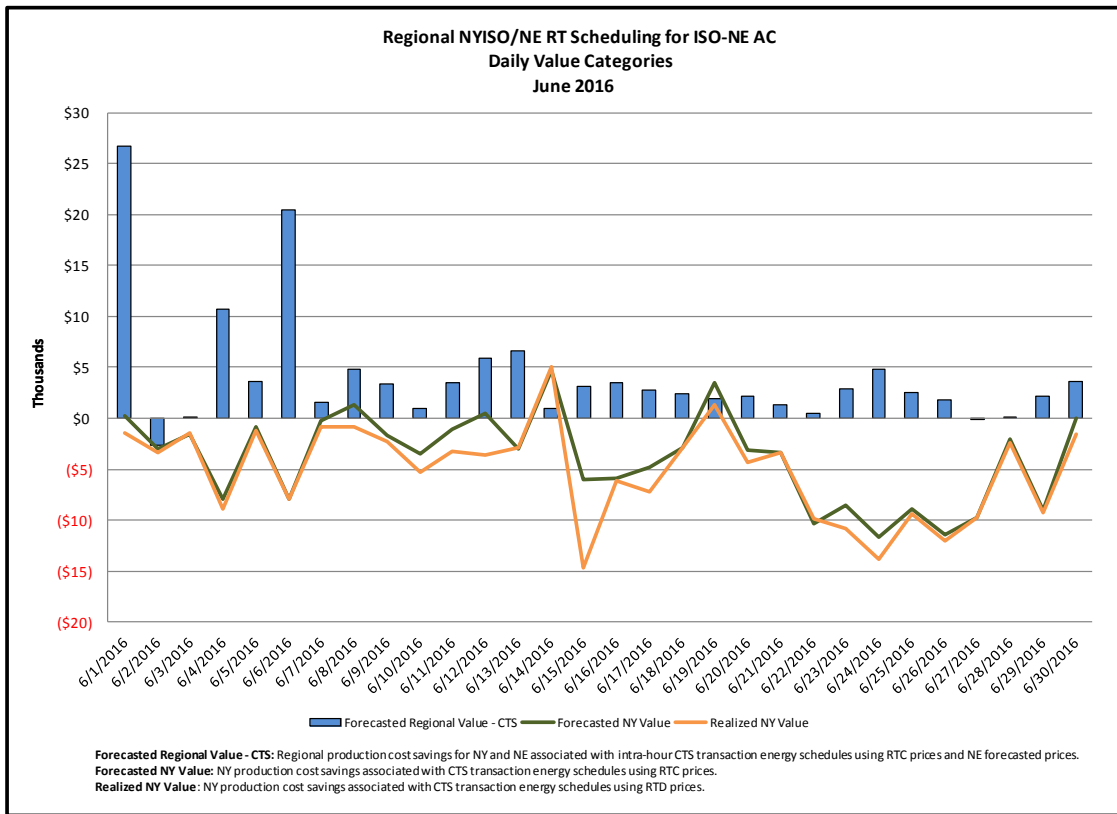
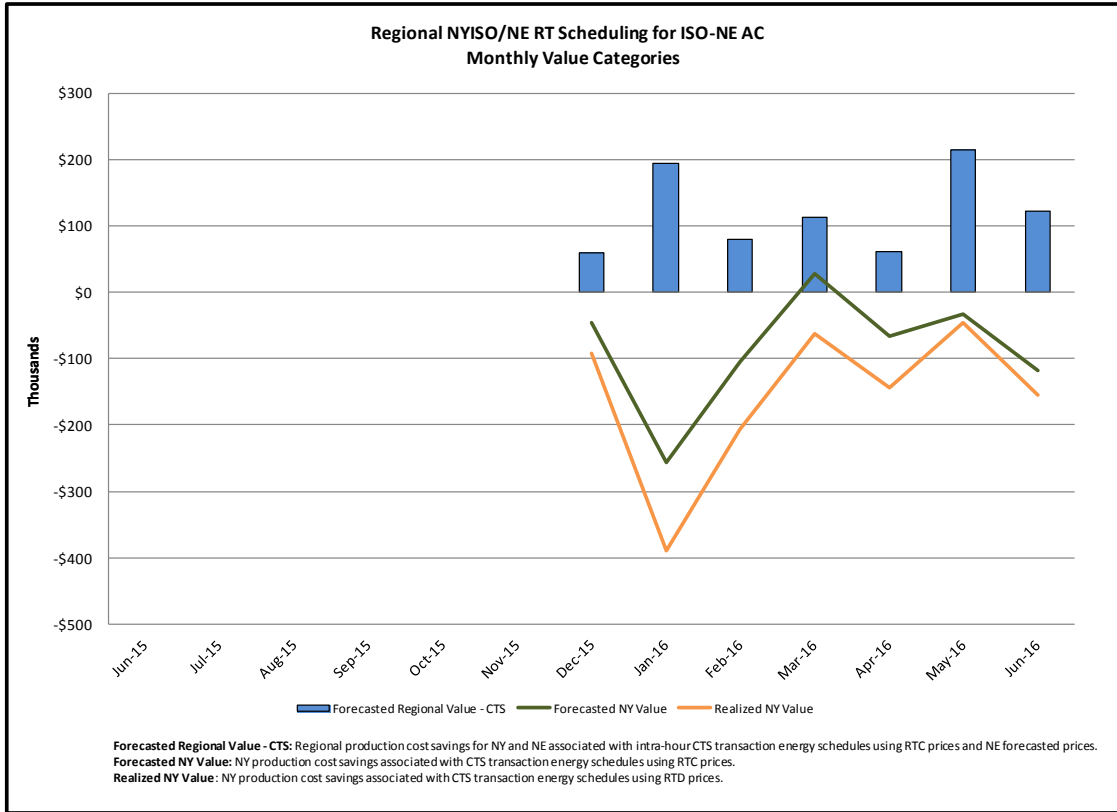
Pricing Data²

Interface	Max Forecasted Price Spread	Min Forecasted Price Spread	Forecasted Price Spreads minus Real-time Price Spreads					
			< \$-20	\$-20 to \$-10	\$-10 to \$0	\$0 to \$10	\$10 to \$20	> \$20
Keystone	\$459.55	(\$198.92)	3.7%	6.5%	46.2%	35.6%	3.3%	4.7%
HTP	\$104.14	(\$192.65)	3.3%	7.4%	46.3%	36.2%	3.7%	3.2%
NEPTUNE	\$975.67	(\$194.72)	4.8%	9.3%	43.2%	34.5%	4.0%	4.1%
VFT	\$103.98	(\$192.24)	3.3%	7.6%	46.1%	36.4%	3.5%	3.2%
Sandy Pond	\$158.77	(\$212.59)	4.7%	8.6%	37.8%	41.1%	5.1%	2.7%





1. All MW Values include the absolute sum of both imports + exports. Wheels have been excluded.
 2. “Forecasted Prices” refer to NYISO’s RTC LBMP and RTO’s LMP used in RTC. “Real-time Prices” refer to NYISO’s RTD LBMP and RTO’s Real-time LMP. Forecasted Prices are used during NYISO’s RTC evaluation to schedule transactions. Real-time Prices are used to settle transactions. Price Spreads are always calculated as NYISO’s LBMP minus RTO’s LMP.







Regional NYISO RT Scheduling

<u>Category</u>	<u>Description</u>
 Forecasted Regional Value - CTS	Forecasted regional production cost savings from the intra-hour (non-TOH) energy schedule changes ¹ on CTS bids (Intra-hour CTS Schedule Changes * [NY RTC LBMP – PJM or ISO-NE’s Forecasted LMP]).
 Forecasted Regional Value - LBMP	Forecasted regional production cost savings from the intra-hour (non-TOH) energy schedule changes ¹ on LBMP bids (Intra-hour LBMP Schedule Changes * [NY RTC LBMP - PJM or ISO-NE’s Forecasted LMP]).
 Forecasted NY Value	Forecasted NY production cost savings from the intra-hour (non-TOH) energy schedule changes ¹ on CTS and LBMP bids (Total Intra-hour CTS & LBMP Schedule Changes * NY RTC LBMP).
 Realized NY Value	Realized NY production cost savings from the intra-hour (non-TOH) energy schedule changes ¹ on CTS and LBMP bids (Total Intra-hour CTS & LBMP Schedule Changes * NY RTD LBMP).

¹ Note: Schedule changes associated with manual Operator actions such as curtailments and/or transaction derates, and that have a significant impact (either positive or negative) to the above metrics, are generally excluded.

