

Broader Regional Market Metrics (CTS)

**New York Independent
System Operator**

May 2016

May 2016 Broader Regional Markets Highlights (CTS)

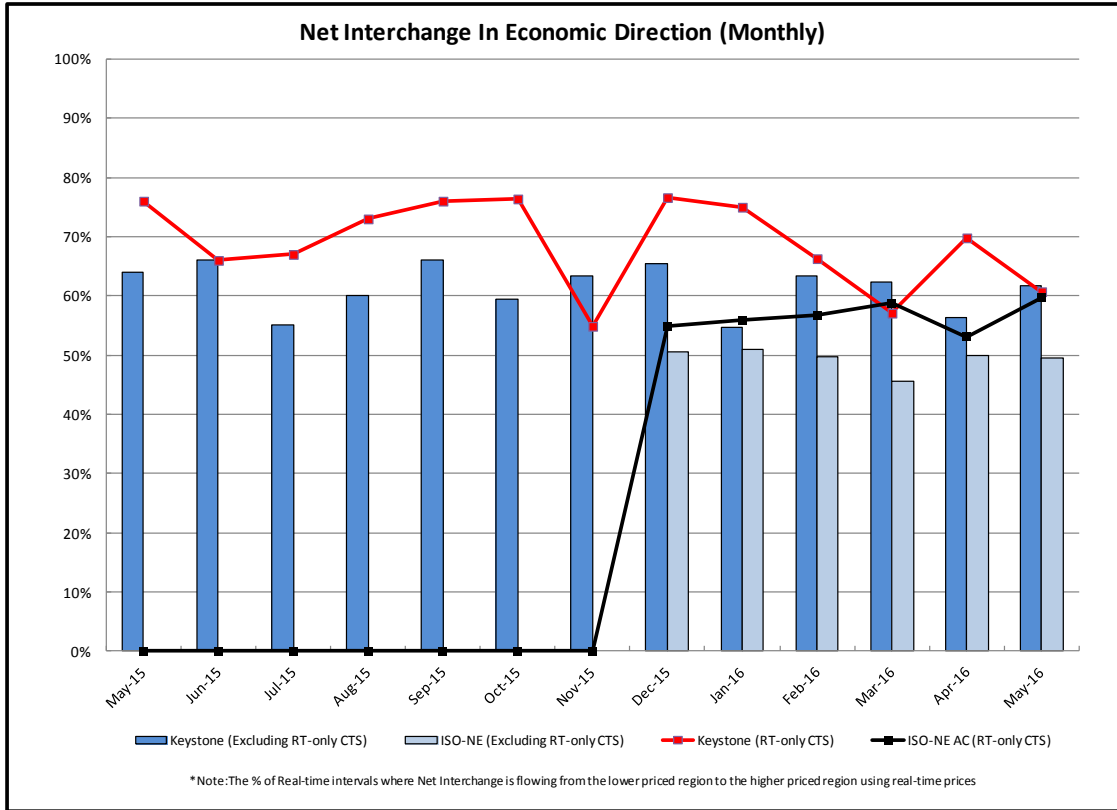
- PJM
 - At PJM Keystone, there was little change from April’s levels, with an average of 225 MWs¹ per hour of CTS offers and an average of 16 MWs per hour of CTS schedules.
 - Interchange at PJM Keystone associated with CTS transactions scheduled only in real-time flowed in the economic direction in 60.7% of the real-time intervals, as compared to all other interchange at the interface which flowed in the economic direction in 61.8% of the real-time intervals.
 - There was \$0.06M in production cost increase associated with real-time transaction scheduling with PJM (\$0.11M forecasted savings at time schedules were set). Year-to-date, the NY production cost savings is \$.12M (\$.96M forecasted savings).

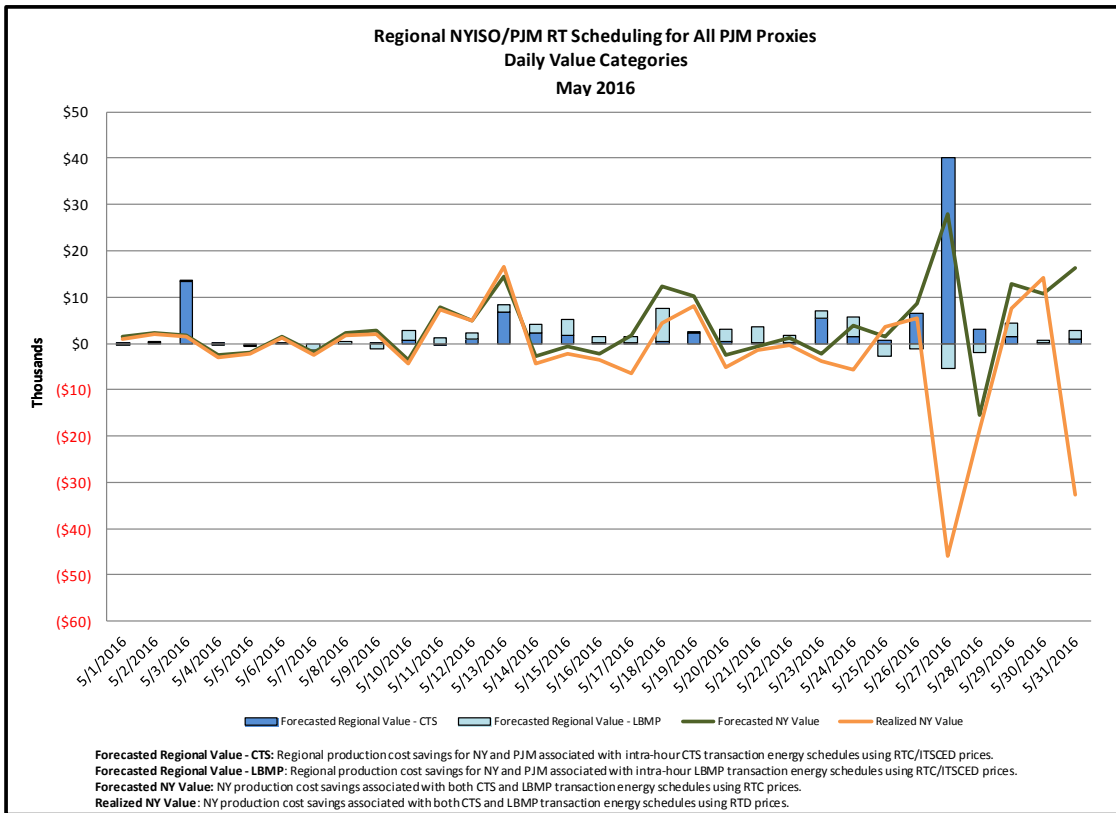
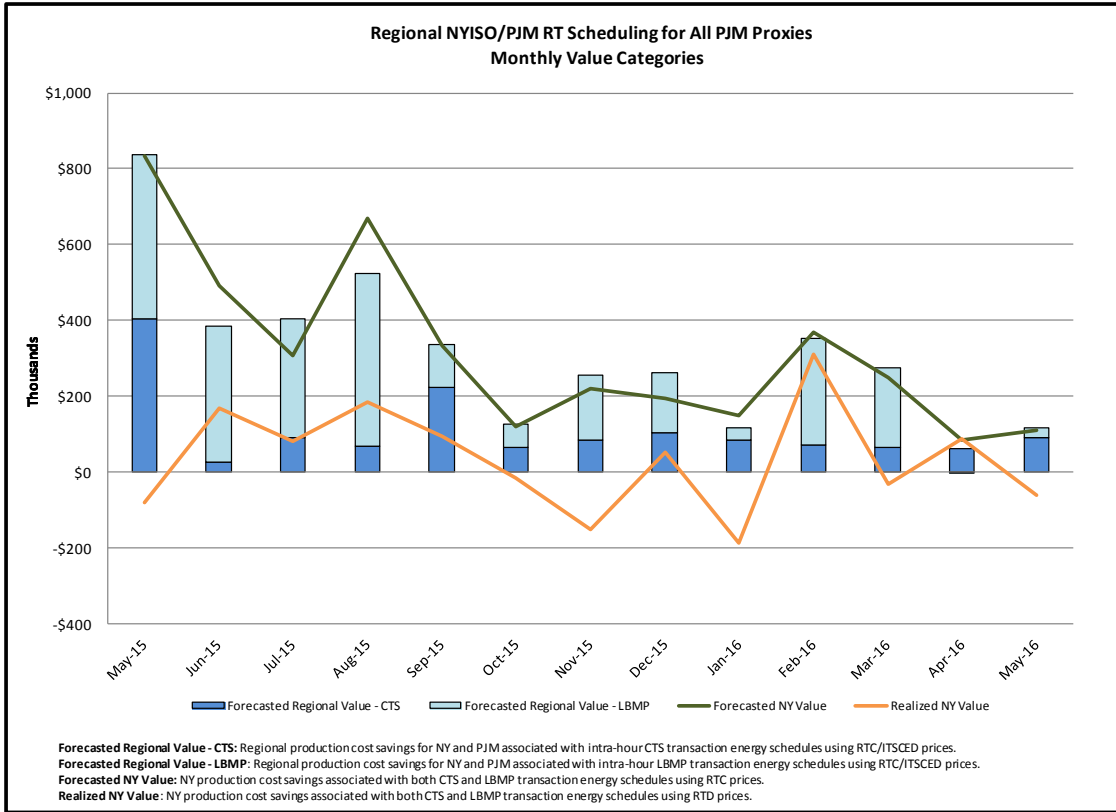
- ISO-NE
 - At NE Sandy Pond, there was an average of 1571 MWs¹ per hour of CTS offers, and an average of 796 MWs per hour of CTS schedules. This is roughly a 500 MW decrease in average offers and a roughly 200 MW decrease in average schedules from April.
 - Interchange at NE Sandy Pond associated with CTS transactions scheduled only in real-time flowed in the economic direction in 59.7% of the real-time intervals, as compared to all other interchange which flowed in the economic direction in 49.4% of the real-time intervals.
 - There was a \$0.05M production cost increase associated with real-time transaction scheduling with NE (\$0.03M forecasted increase at the time schedules were set). Year-to-date, there is a NY production cost increase of \$.85M (\$.43M forecasted increase).

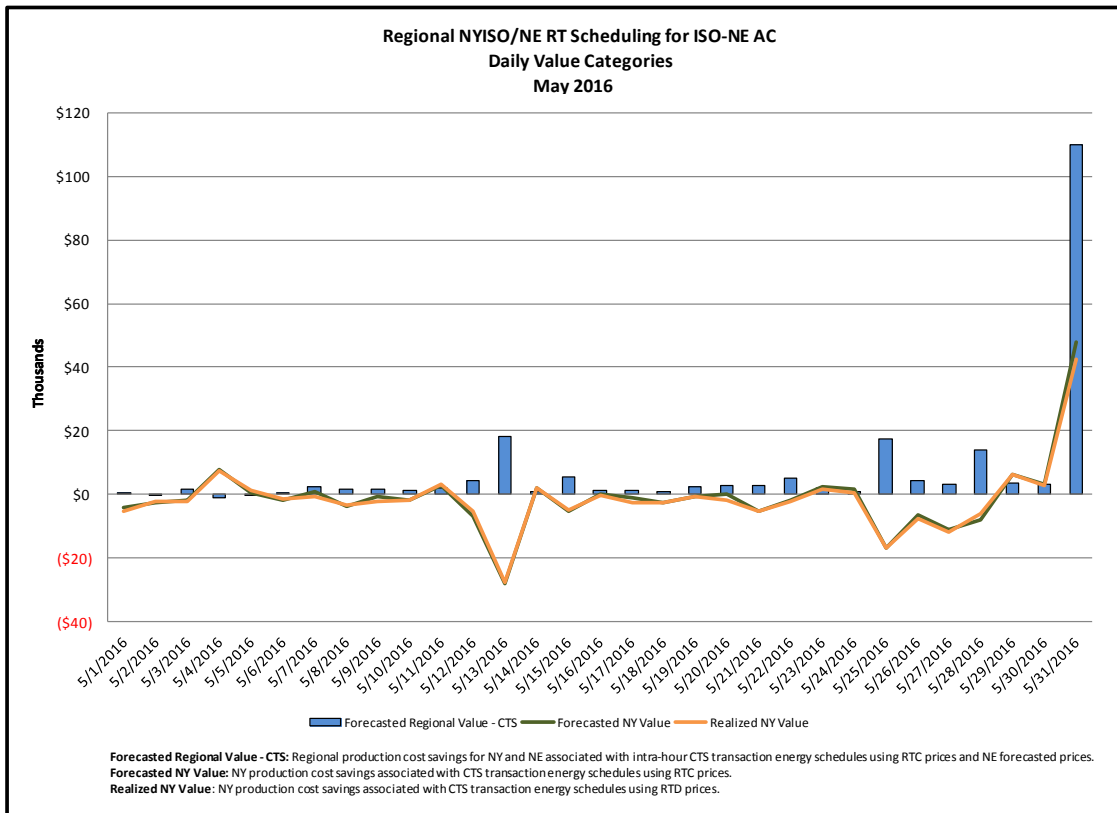
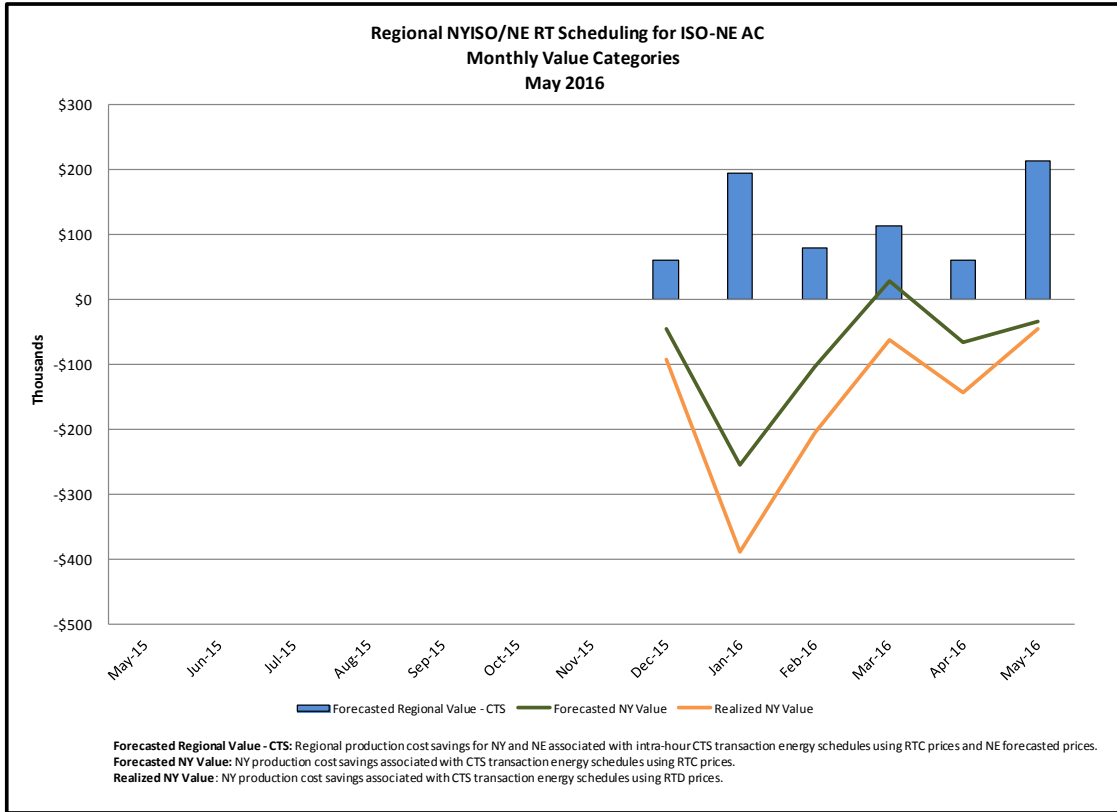
Pricing Data²

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	\$201.67	(\$183.56)	2.4%	4.3%	49.7%	37.5%	3.0%	3.2%
HTP	\$90.10	(\$182.56)	2.5%	5.2%	48.1%	37.8%	3.4%	3.0%
NEPTUNE	\$979.75	(\$180.85)	3.6%	5.5%	46.5%	37.0%	4.0%	3.5%
VFT	\$89.64	(\$183.40)	3.1%	5.8%	49.0%	36.2%	3.1%	2.7%
Sandy Pond	\$999.00	(\$100.15)	4.9%	6.4%	43.9%	38.0%	4.9%	1.8%





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.

