



EDRP/SCR Scarcity Pricing Rules July 21-22, 2011 Overview

Emilie Nelson

New York Independent System Operator

Market Issues Working Group

NYISO – Krey Corporate Center

August 29, 2011

EDRP/SCR Real-Time Price-Setting Rules Overview Cont.

- ◆ **Step 1 Activation** – Operations identifies a reliability need for activating EDRP / SCR. Activation notice is issued, typically with 2 hours notice in real-time.
- ◆ **Step 2 Estimated Load Reductions** – The estimated load reductions are reported by the EDRP/SCR resources and entered into MIS prior to the event start time.
 - *East and NYCA scarcity pricing curves built based upon registration data and Zones activated*

EDRP/SCR Real-Time Price-Setting Rules Overview Cont.

- ◆ **Step 3 Reserve Shortage Check** – Each RTD interval as per MST Attachment B, Section 17.1.2 is checked to determine if reserves would have been insufficient but for the EDRP/SCR load reductions.
 - *If Available Reserves – [EDRP/SCR + reserve req.] < 0 then scarcity pricing applies*
 - *Available Reserves as defined in the MST Section 2 are ‘the capability of all Suppliers that submit Incremental Energy Bids to provide Spinning Reserves, Non-Synchronized 10-Minute Reserves, and 30-Minute Reserves in that interval and in the relevant location, and the quantity of recallable External ICAP Energy sales in that interval’*
 - *For NYCA, consider requirement for total 30-Minute Reserves*
 - *For East, consider requirement for 10-Minute Reserves located East of Central-East*

EDRP/SCR Real-Time Price-Setting Rules Overview Cont.

- ◆ **Step 4 Scarcity Pricing Applied** – Scarcity pricing will be applied regardless of the reason for activation if, in any RTD interval, reserves would have been insufficient but for EDRP/SCR and the resulting scarcity pricing LBMP is higher.
 - *The scarcity pricing rules are governed by MST Attachment B, Sections 17.1.2 including 17.1.2.2 and 17.1.2.3*
 - *As per MST Section 17, Attachment B, if SCR/EDRP NYCA is called and needed, Scarcity Pricing Rule A is applied in the West and East and Scarcity Pricing Rule B is not applied.*

Thursday - July 21, 2011

- ◆ EDRP and SCR resources in all Zones were notified for possible next day activation on 7/20
- ◆ EDRP and SCR resources were activated in Zones G, H, I, J, and K on 7/21 from HB13 through HB17
 - *EDRP/SCR resources were activated for Zones G-K transmission security operations (requirement to restore system power flows to within normal operating limits)*
- ◆ EDRP/SCR estimated value of demand response was 574 MW
 - *Initial review of performance was as requested for five hour period*
- ◆ Scarcity pricing was not applied because a reserve shortage “but for the EDRP/SCR resources” was not identified.

Friday – July 22, 2011

- ◆ EDRP and SCR resources in all Zones were notified for possible next day activation on 7/21
- ◆ EDRP and SCR resources were activated in Zone J from HB12 through HB17
- ◆ EDRP and SCR resources were activated in Zone A, B, C, E, F, G, H, I, and K on 7/22 from HB13 through HB17
 - *EDRP/SCR resources were activated for Zones G-K for transmission security operations*
 - *EDRP/SCR resources were activated for Zones A-C and E-F to meet statewide capacity requirements in response to import transaction curtailments and nearly 1600 MW load forecast error (about 90% of the error due to weather forecast error)*
- ◆ EDRP/SCR estimated value of demand response was 1,396 MW
 - *Initial review of performance was as requested for five hour period (six hour period for Zone J)*
- ◆ Scarcity pricing was applied for certain intervals.

Scarcity Pricing Analysis

July 22, 2011

- ◆ **The following intervals were subject to EDRP/SCR Scarcity Pricing Rule B (impacting the East):**
 - ***13:15, 15:05 – 16:00, 17:25 end timestamp***

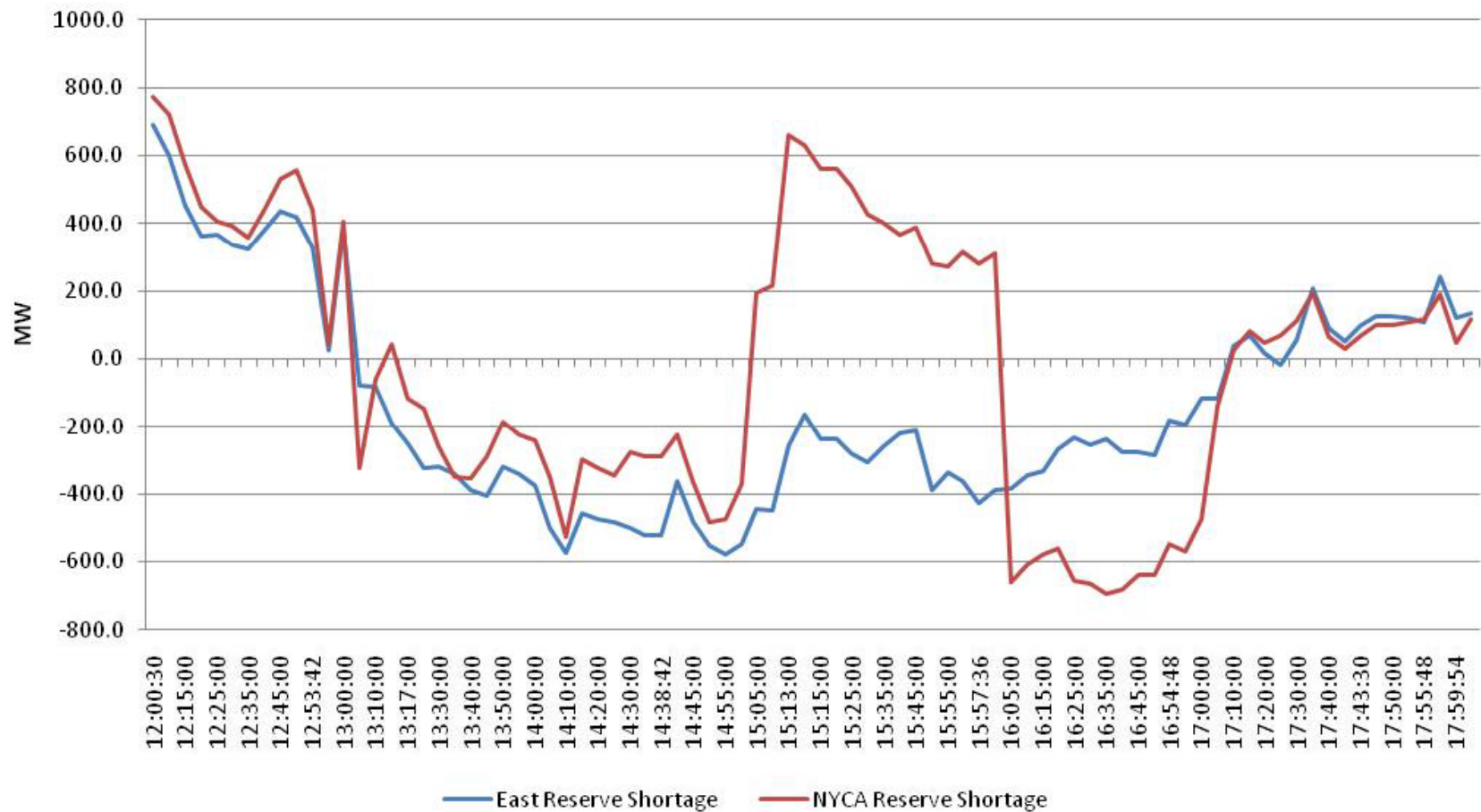
- ◆ **The following intervals were subject to EDRP/SCR Scarcity Pricing Rule A (impacting NYCA):**
 - ***13:05 – 13:10, 13:17 – 15:00, 16:05 – 17:05 end timestamp***

Scarcity Pricing Curves

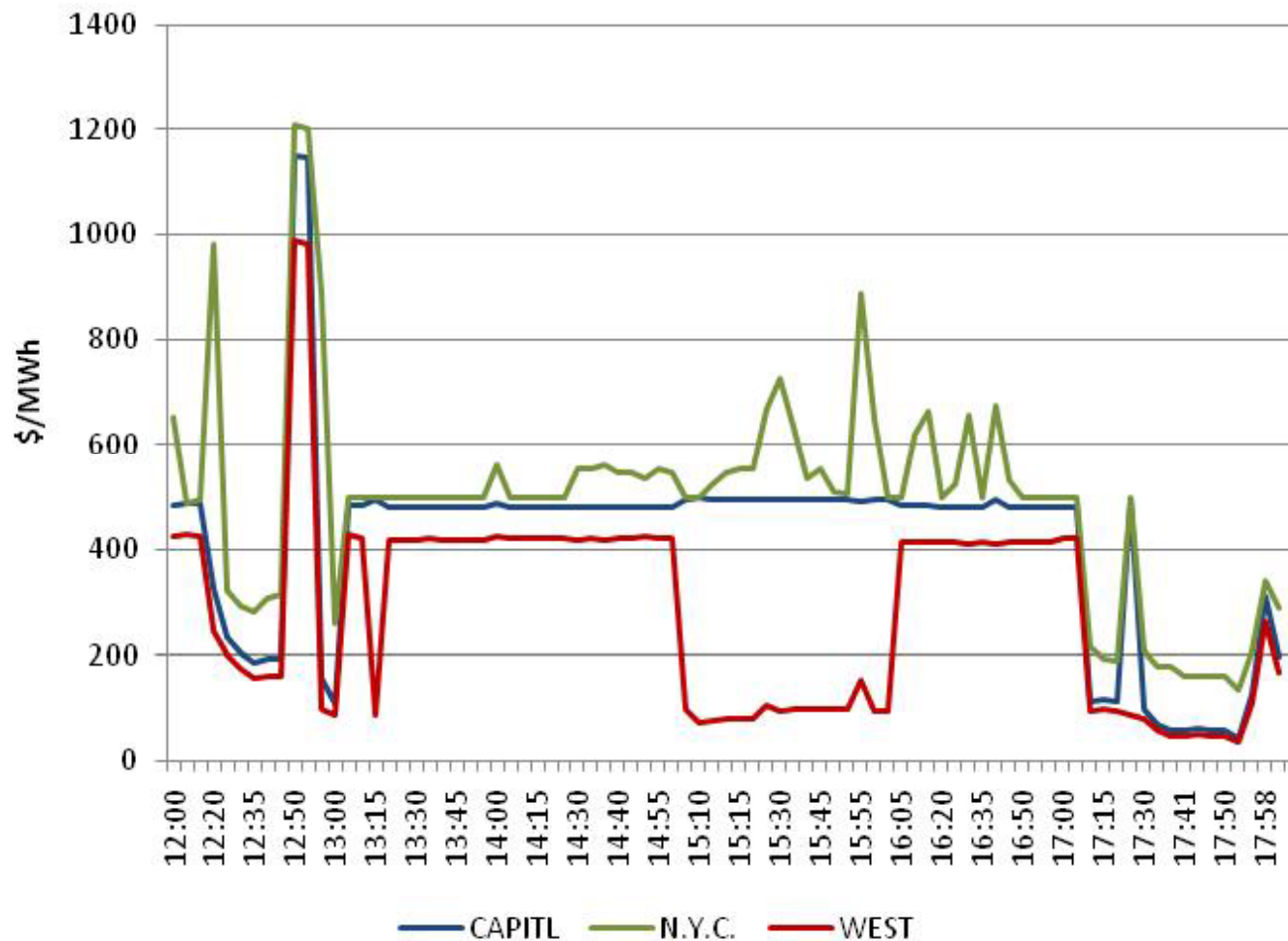


July 22, 2011

Calculated Reserve Shortages without EDRP/SCR Load Reduction



July 22, 2011 Real-Time Market Zonal LBMPs



Price Corrections

July 22, 2011

Price corrections were required in order to effectuate the correct scarcity pricing outcomes on July 22, 2011.

- ◆ The required energy price corrections were completed by the required price correction deadline of July 26, 2011.
- ◆ The NYISO was not able to complete the required ancillary services price corrections by the required price correction deadline. The NYISO has requested a waiver from FERC to permit it to complete corrections to Ancillary Service prices. The NYISO's waiver request is pending in Docket No. ER11-4141-000.

Required Price Corrections

July 22, 2011 continued

- The average change in energy prices across all impacted intervals based on a comparison of original and corrected zonal LBMPs are as follows:

	CAPITL	N.Y.C.	WEST
HB13	251.17	198.70	241.69
HB14	2.65	0.00	270.86
HB15	346.11	0.00	0.00
HB16	207.30	91.79	275.90
HB17	378.53	286.79	164.95

	DUNWOD	HUD VL	LONGIL	MILLWD	CENTRL	GENESE	MHK VL	NORTH	H Q	NPX	O H	PJM
HB13	197.13	212.81	109.68	199.85	263.60	257.35	264.95	242.52	0.00	0.00	0.00	0.00
HB14	-0.47	0.45	2.78	-0.08	294.31	287.26	281.05	271.13	0.00	-1.89	0.00	113.45
HB15	0.00	33.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	174.77	0.00	0.00
HB16	117.59	134.34	24.37	119.61	231.05	218.86	225.90	249.85	252.85	164.69	271.08	148.41
HB17	283.33	308.58	60.76	286.81	179.25	174.37	179.26	165.13	167.57	338.59	157.28	151.82

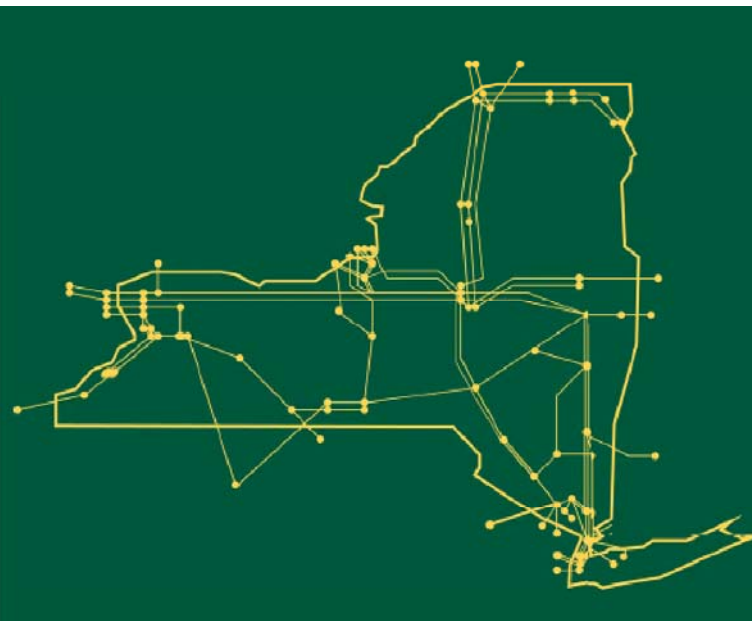
Required Price Corrections

July 22, 2011 continued

- The average change in ancillary services prices across all impacted intervals based on a comparison of original and corrected (pending FERC decision) prices are below.

	East 10 Min Spinning Reserve (\$/MWHr)	East 10 Min Non- Synchronous Reserve	East 30 Min Operating Reserve (\$/MWH)	East Regulation (\$/MWHr)	West 10 Min Spinning Reserve (\$/MWHr)	West 10 Min Non- Synchronous Reserve	West 30 Min Operating Reserve (\$/MWH)
HB13	246.87	223.29	252.11	199.94	263.21	140.04	140.04
HB14	-12.92	-4.11	26.98	-35.27	284.81	120.92	120.92
HB15	55.64	36.83	381.44	261.24	0.00	0.00	0.00
HB16	179.42	167.65	358.49	243.92	290.62	163.90	163.90
HB17	379.57	369.92	419.30	152.37	157.00	152.76	152.76

The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and conducts comprehensive planning for the state's bulk electricity system.



www.nyiso.com