September 2006
Real-Time Market Price Corrections

Prepared for the

ISO Scheduling & Pricing
Working Group

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Background/Problem

- 29 of the 33 hours in September 2006 that had price corrections resulted from telemetry related errors

- In a single 37 hour period, there were 23 hours that required price corrections.

- An intermittent telemetry failure involving the East Garden City PAR MW values resulted in a substantial number of incorrect Real-Time Market outcomes requiring price corrections

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RTD Energy Price Correction Report

Intervals Corrected by Zone

Date	First Interval	Last Interval	# of Intervals corrected	Hours with Corrections	Error Type	Error Description	Correction Mode	WEST	CENTRL	MHK VL	CAPITL	HUD VL	GENESE	LONGIL	NORTH	NYC	MILLWD	DUNWOD	HQ	NPX	OH	PJM	Additional Comments
4-Sep-2006	01:15:00	01:20:00	2	01	II	6	a	2	2	2	2	2	2	2	2	2	2	2	2	2	2	-	Metering error on PAR - LI
4-Sep-2006	02:25:00	02:25:00	1	02	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	Metering error on PAR - LI
4-Sep-2006	03:50:00	03:50:00	1	03	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
4-Sep-2006	04:15:00	04:15:00	1	04	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
4-Sep-2006	05:05:00	05:05:00	1	05	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	Metering error on PAR - LI
4-Sep-2006	05:45:00	05:45:00	1	05	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	Metering error on PAR - LI
4-Sep-2006	09:20:00	09:20:00	1	09	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	Metering error on PAR - LI
4-Sep-2006	12:35:00	12:35:00	1	12	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
4-Sep-2006	12:45:00	12:45:00	1	12	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
4-Sep-2006	14:50:00	14:50:00	1	14	II	6	c	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	Metering error on PAR - LI
4-Sep-2006	17:50:00	17:50:00	1	17	II	6	c	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
4-Sep-2006	19:05:00	19:05:00	1	19	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
4-Sep-2006	19:15:00	19:15:00	1	19	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
4-Sep-2006	19:19:52	19:19:52	1	19	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
4-Sep-2006	22:25:00	22:25:00	1	22	II	6	d	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	Metering error on PAR - LI
4-Sep-2006	22:55:00	22:55:00	1	22	II	6	a	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	Metering error on PAR - LI
4-Sep-2006	23:10:00	23:10:00	1	23	II	6	d	1	1	1	1	1	1	1	1	1	1	1	-	1	1	1	Metering error on PAR - LI
4-Sep-2006	23:20:00	23:20:00	1	23	II	6	d	1	1	1	1	1	1	1	1	1	1	1	-	1	1	1	Metering error on PAR - LI
4-Sep-2006	23:30:00	23:30:00	1	23	II	6	d	1	1	1	1	1	1	1	1	1	1	1	-	1	1	1	Metering error on PAR - LI
5-Sep-2006	00:00:00	00:00:00	1	23	II	6	d	1	1	1	1	1	1	1	1	1	1	1	-	1	1	1	Metering error on PAR - LI
5-Sep-2006	00:02:00	00:02:00	1	00	II	6	b	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	00:04:20	00:04:20	1	00	II	6	c	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	00:20:00	00:20:00	1	00	II	6	c	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	00:25:00	00:25:00	1	00	II	6	c	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	00:42:22	00:42:22	1	00	II	6	c	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	00:45:08	00:45:08	1	00	II	6	c	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	01:05:00	01:05:00	1	01	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	01:35:00	01:35:00	1	01	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	01:55:00	01:55:00	1	01	II	6	a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	02:25:00	02:25:00	1	02	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	02:35:00	02:35:00	1	02	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	02:55:00	02:55:00	1	02	II	6	a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	03:20:00	03:20:00	1	03	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	04:55:00	04:55:00	1	04	II	6	a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	07:35:00	07:35:00	1	07	II	6	d	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	Metering error on PAR - LI
5-Sep-2006	08:30:00	08:30:00	1	08	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	09:15:00	09:20:00	2	09	II	6	d	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	Metering error on PAR - LI
5-Sep-2006	10:15:00	10:15:00	1	10	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	10:40:00	10:40:00	1	10	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	11:20:00	11:20:00	1	11	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
5-Sep-2006	12:20:00	12:20:00	1	12	II	6	d	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering error on PAR - LI
7-Sep-2006	23:00:00	23:00:00	1	22	II	6	b	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Metering errors on PAR - LI

Background/Problem

- Most telemetry related errors do not result in price corrections since the implementation of Intelligent Source Selection of Generation and Tie-Line Metering

- The RTS Zonal Load Filter and Intelligent Source Selection was discussed in detail at the S&P WG in January 2006 and BPCTF in April 2006
  - *All NYCA tie-lines are included*
  - *44 of 48 generating units with >200MW capability are included*

- However, some phase angle regulator MW telemetry remains that was used by RTC/RTD and was not part of the Intelligent Source Selection function

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Resolution/Fix

- Initial interim fix on 9/5 was to request the Transmission Owner supply an alternate data point in place of failed value

- End-state fix was to develop an Intelligent Source Selection (ISS) process similar to that for Generation and Tie-Lines

- New process uses three (3) independent data points to determine whether the primary or alternate data source should be used – similar to existing ISS process

- Implementation date for new process was October 11

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PHASE ANGLE REGULATOR MONITOR

PARMON Rev 310.1

TYPE	EQUIPMENT	IN USE	SRC	PRIMARY	ALTERNATE	SE	OPP END	DBND	STATUS	TIME
TIE	FARRAGUT TR11 (B3402)	438	PRIMRY	- 442	- 435	- 439	439	15	NORMAL	0.0
TIE	FARRAGUT TR12 (C3403)	383	PRIMRY	- 387	- 382	- 385	388	15	NORMAL	0.0
TIE	GOETHALS 1N (A2253)	0	PRIMRY	0	0	- 0	0	15	NORMAL	0.0
TIEX	RAMAPO 3500 (5018)	- 362	PRIMRY	- 727	- 715	- 724	722	15	NORMAL	0.0
TIEX	RAMAPO 4500 (5018)	- 362								
PAR	CORONA R1	- 94	PRIMRY	- 94	- 95 C	- 98	95	10	NORMAL	0.0
PAR	CORONA R2	- 99	PRIMRY	- 99	- 95 C	- 98	94	10	NORMAL	0.0
PAR	FRESH KILLS R1 (21191)	200	PRIMRY	199	169	189	- 210 C	10	NORMAL	0.0
PAR	FRESH KILLS R2 (21192)	214	ALTRNT	222	214	217	- 210 C	- 1	NORMAL	0.0
PAR	GOWANUS R2	112	OPP END	120	- 115 C	119	- 112 C	- 2	NORMAL	0.0
PAR	GOWANUS R14	155	PRIMRY	155	154 C	153	- 155 C	10	NORMAL	0.0
TIEX	TREMONT 11 (X28)	183	PRIMRY	- 368	- 359	- 355	377	15	NORMAL	0.0
TIEX	TREMONT 12 (X28)	183								
TIE	DUNWOODIE NORTH N1 (99031)	47	PRIMRY	47		53	- 46	10	NORMAL	0.0
TIE	DUNWOODIE NORTH N2 (99032)	136	PRIMRY	136		124	- 139	10	NORMAL	0.0
TIEX	DUNWOODIE SOUTH S1 (99153)	89	PRIMRY	178	170	191	- 151	10	NORMAL	0.0
TIEX	DUNWOODIE SOUTH S2 (99153)	89								
PAR	EAST RIVER 111	- 2	OPP END	- 1	16 C	5	1	- 2	NORMAL	0.0
PAR	EAST RIVER 112	10	PRIMRY	10	16 C	5	1	0	NORMAL	0.0
PAR	EAST RIVER 113	- 29	PRIMRY	- 28	16 C	5	1	0	NORMAL	0.0
PAR	EAST RIVER 114	- 26	PRIMRY	- 26	16 C	5	2	0	NORMAL	0.0
TIEX	EAST GARDEN CITY 1 (Y49)	189	PRIMRY	378	371	359	- 373	15	NORMAL	0.1
TIEX	EAST GARDEN CITY 2 (Y49)	189								
PAR	BARRETT	97	PRIMRY	97	0 т	98	- 97	0	NORMAL	0.0
TIE	LAKE SUCCESS (903)	190	PRIMRY	188	188	190	- 189	10	NORMAL	0.0
TIE	NORTHPORT 1 (1385)	- 8	OPP END	- 1	- 3	- 36	8	- 2	NORMAL	0.1
PAR	NORTHPORT 2	- 58	PRIMRY	- 58	0 т	36	61 C	10	NORMAL	0.0
PAR	PILGRIM	105	PRIMRY	105	94 C	99	- 105	10	NORMAL	0.0
TIE	VALLEY STREAM (901)	84	PRIMRY	84	84	89	- 90	10	NORMAL	0.2
PAR	INGHAMS 2	- 76	PRIMRY	- 76	- 84 C	- 91	76 C	10	NORMAL	0.0
TIE	ST LAWRENCE PS 33 (L33P)	21	PRIMRY	- 22	- 13	- 12	12	10	NORMAL	0.0
TIE	ST LAWRENCE PS 34 (L34P)	65	PRIMRY	- 68	- 63	- 63	58	10	NORMAL	0.0
TIEX	WALDWICK PS1 (J3410,K3411)	- 246	PRIMRY	- 2	0	0	1 C	30	NORMAL	0.0
TIEX	WALDWICK PS2 (J3410,K3411)	- 227	PRIMRY	- 530	- 534	- 540	538	20	NORMAL	0.0
TIEX	WALDWICK PS4 (J3410,K3411)	- 63								
TIE	PLATTSBURG 3 (PV20)	111	PRIMRY	112	113	0	- 106	10	NORMAL	0.0
TIE	SAND BAR (PV20)	- 111	PRIMRY	112	113	0	- 106	10	NORMAL	0.0

ZONE LOADS | PAR RTD

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