



Preliminary 2016 Weather Adjustment for the NYSRC 2017 Installed Reserve Margin Study

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Rensselaer, NY

Actual and 20-Year Normal Peak-Producing CTHI Statistics – 1997-2016

Statistic	CE	CH	LI	N Grid	NYPA	NYSEG	OR	RGE	NYCA
Max	91.61	90.18	91.70	86.53	87.86	87.47	90.18	88.33	88.26
20 Yr Avg	86.44	85.60	85.49	82.38	82.12	82.50	85.60	83.60	84.26
Min	81.55	82.24	78.98	77.35	77.26	78.03	82.24	78.50	79.19
StDev	2.84	2.66	3.45	2.49	2.95	2.55	2.66	2.59	2.63
50th	86.44	85.60	85.49	82.38	82.12	82.50	85.60	83.60	84.26
67th	87.66	86.75	86.98	83.46	83.40	83.60	86.75	84.72	85.40
90th	90.07	89.01	89.91	85.58	85.90	85.77	89.01	86.92	87.63
2016	85.98	83.99	83.34	82.52	82.90	82.29	83.99	84.39	83.84
Percentile	44%	27%	27%	52%	60%	47%	27%	62%	44%
z (2016)	-0.16	-0.61	-0.62	0.06	0.26	-0.08	-0.61	0.31	-0.16
CTHI Delta	-0.46	-1.61	-2.15	0.14	0.78	-0.21	-1.61	0.79	-0.42

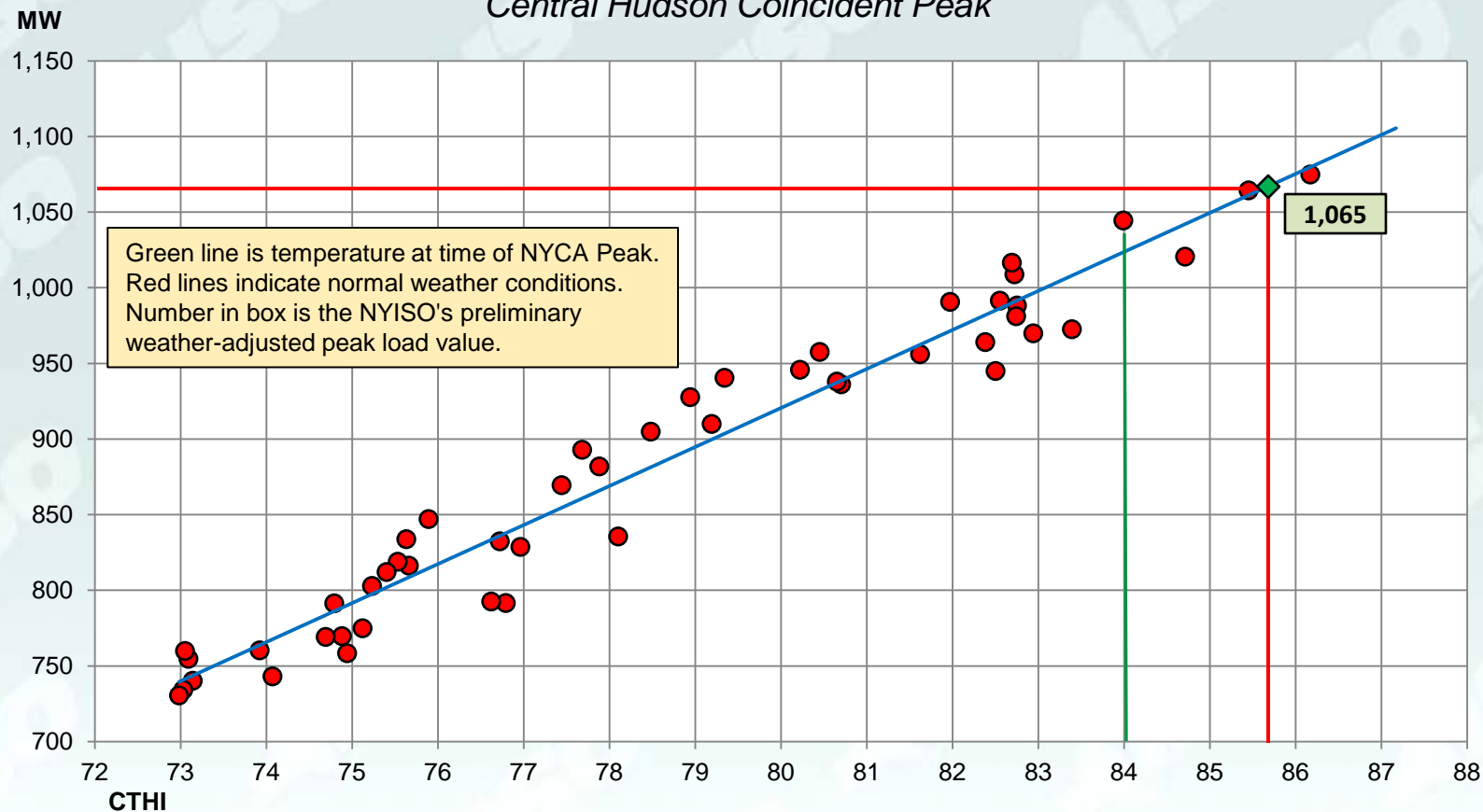
$$Z = \frac{\text{CTHI} - \text{Avg}}{\text{Std Dev}}$$

Peak-producing CTHI is the Cumulative Temperature-Humidity Index that occurs on the day of the NYCA peak each year.

Con-Ed and O&R use the 67th percentile for design conditions. All others use the 50th percentile.

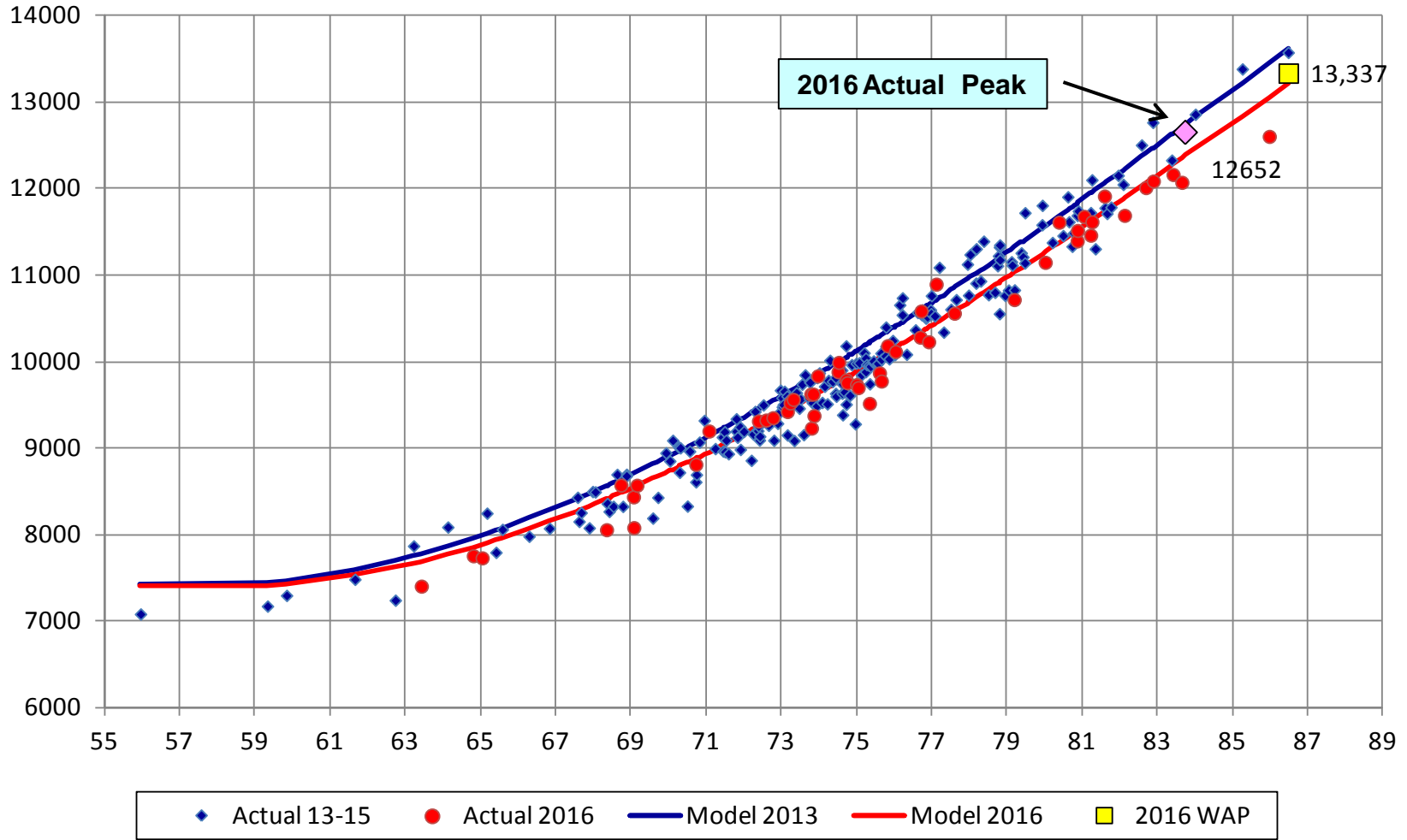
Preliminary 2016 Weather Normalization Model

Central Hudson Coincident Peak



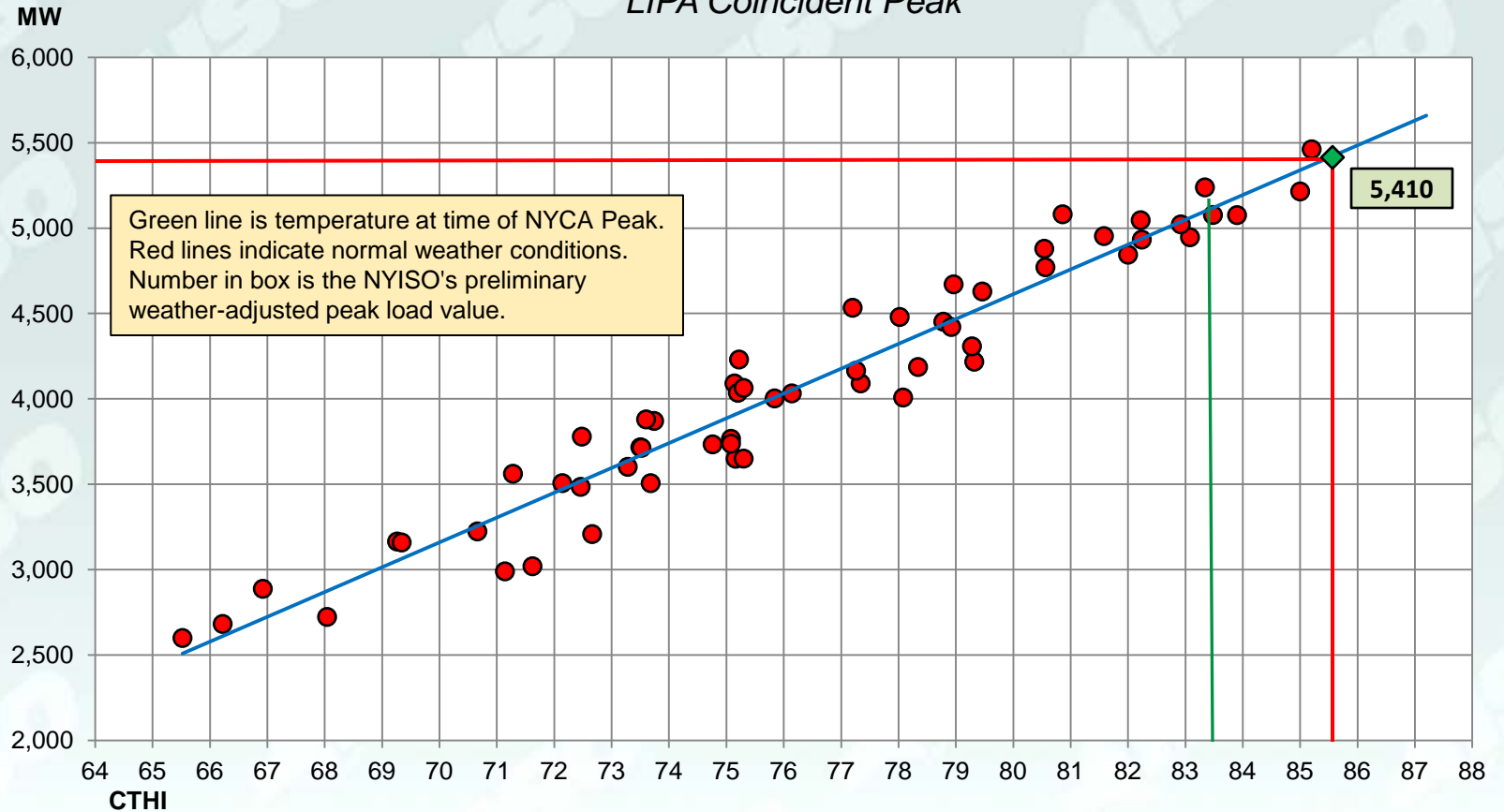
1,065

CECONY Pooled 3rd Order - NYISO Model



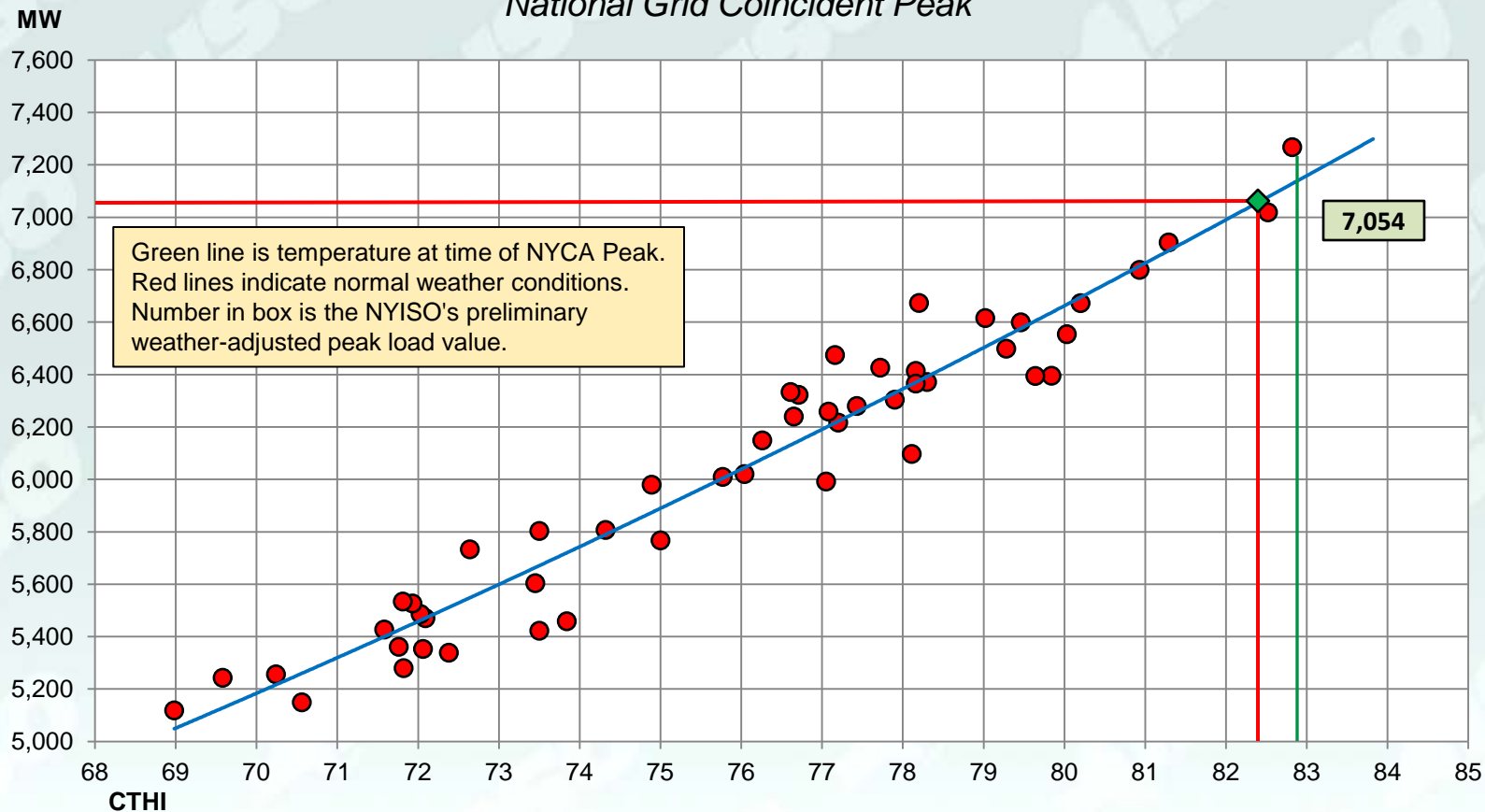
Preliminary 2016 Weather Normalization Model

LIPA Coincident Peak



Preliminary 2016 Weather Normalization Model

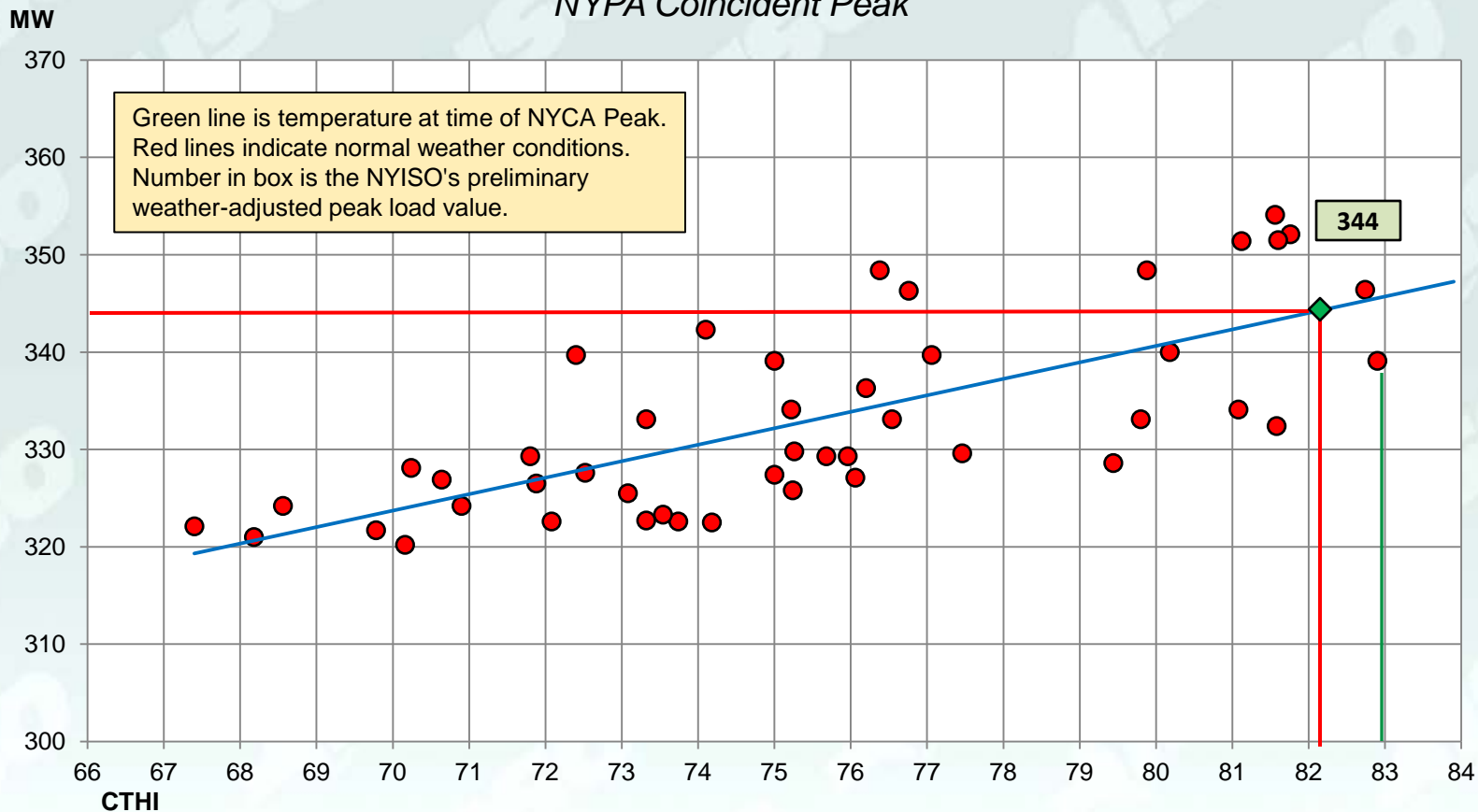
National Grid Coincident Peak



7,054

Preliminary 2016 Weather Normalization Model

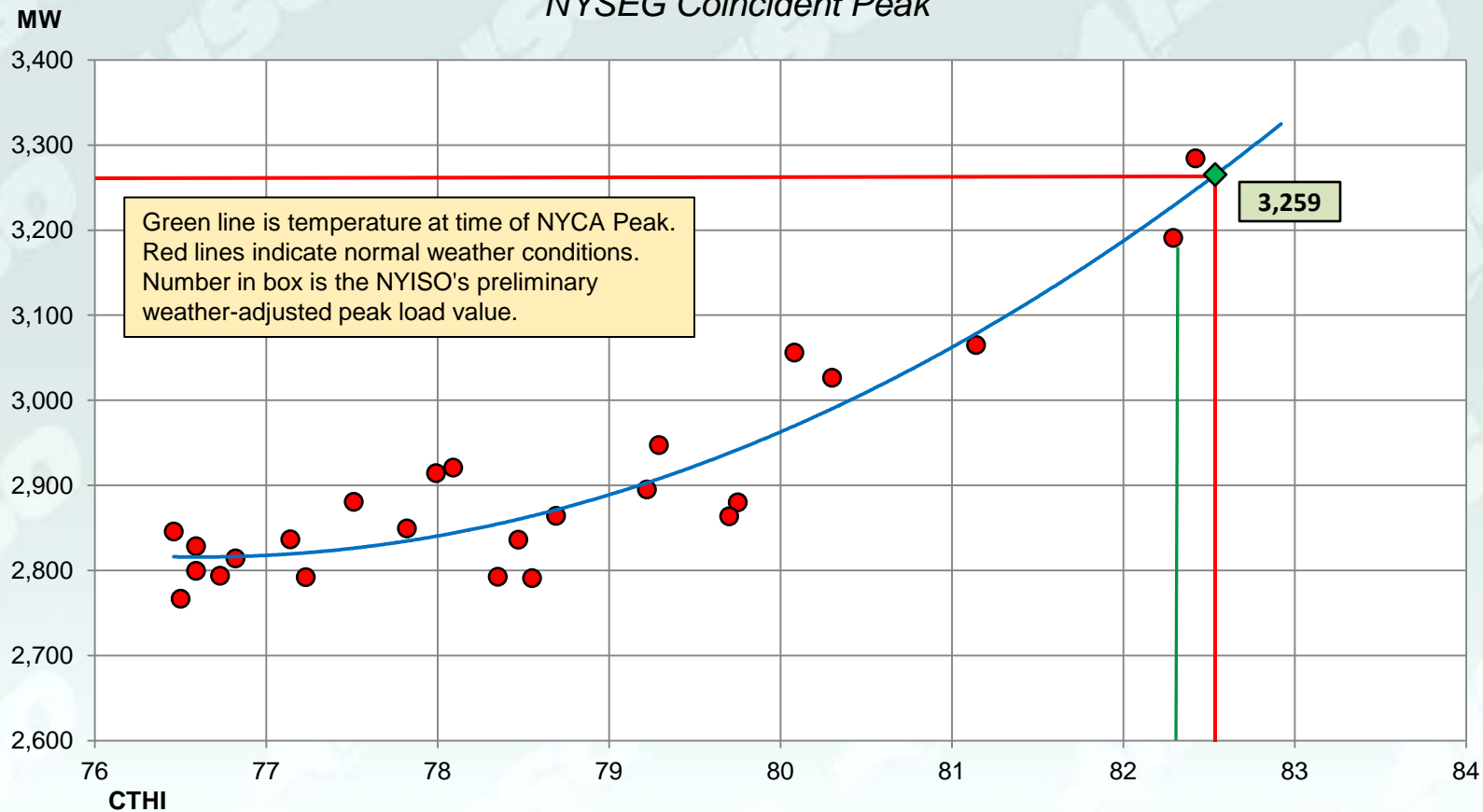
NYPA Coincident Peak



344

Preliminary 2016 Weather Normalization Model

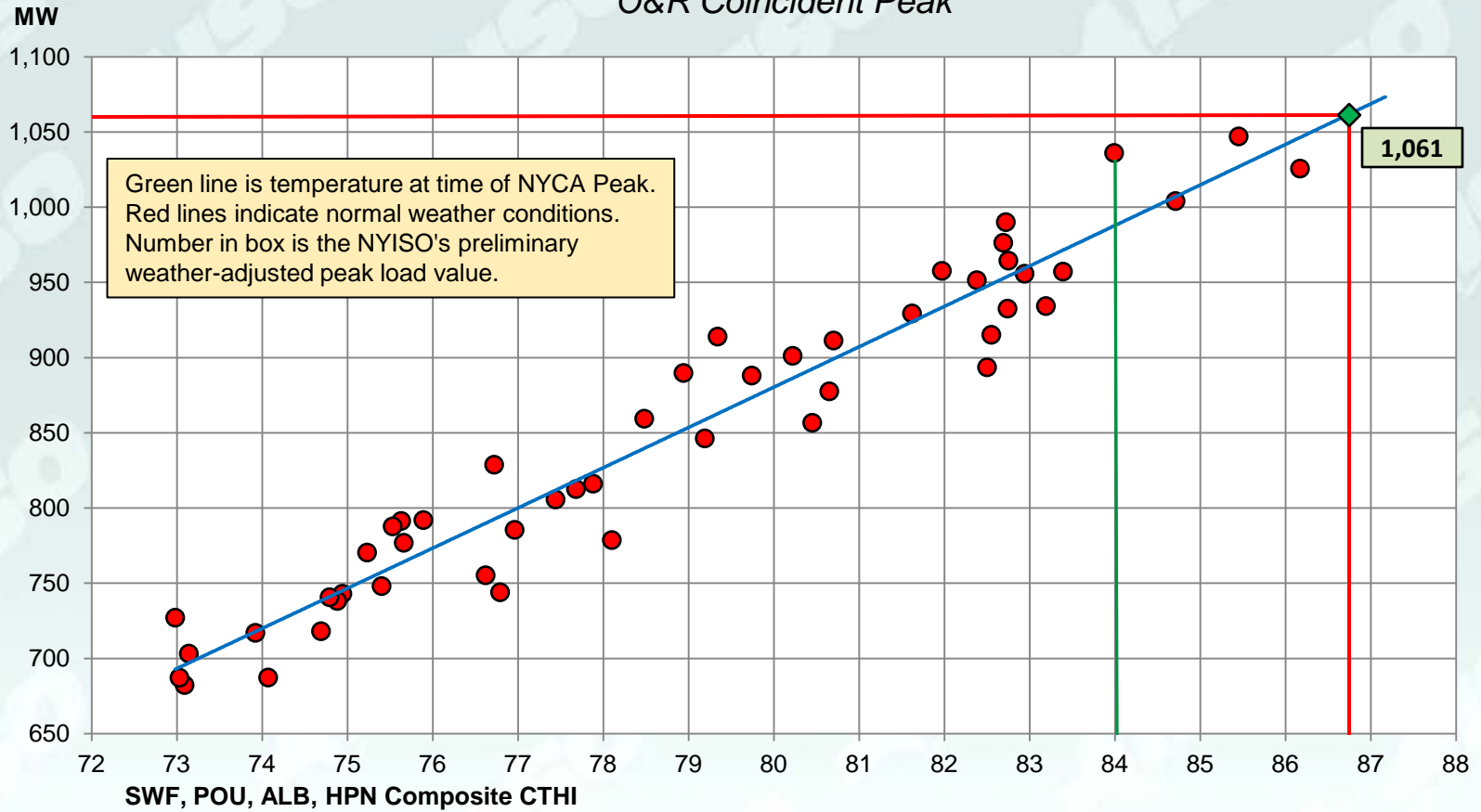
NYSEG Coincident Peak



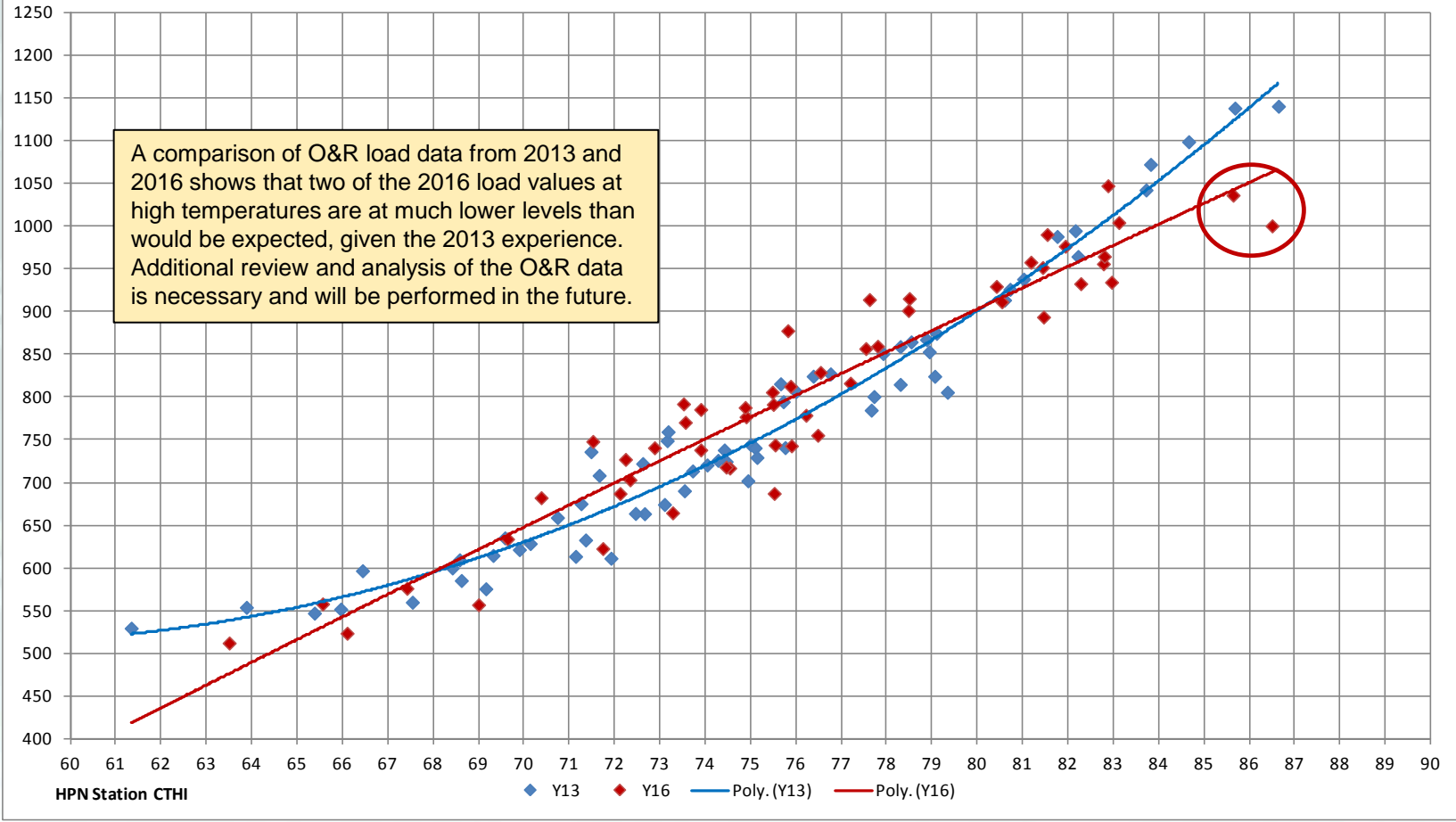
Green line is temperature at time of NYCA Peak.
Red lines indicate normal weather conditions.
Number in box is the NYISO's preliminary weather-adjusted peak load value.

3,259

Preliminary 2016 Weather Normalization Model O&R Coincident Peak

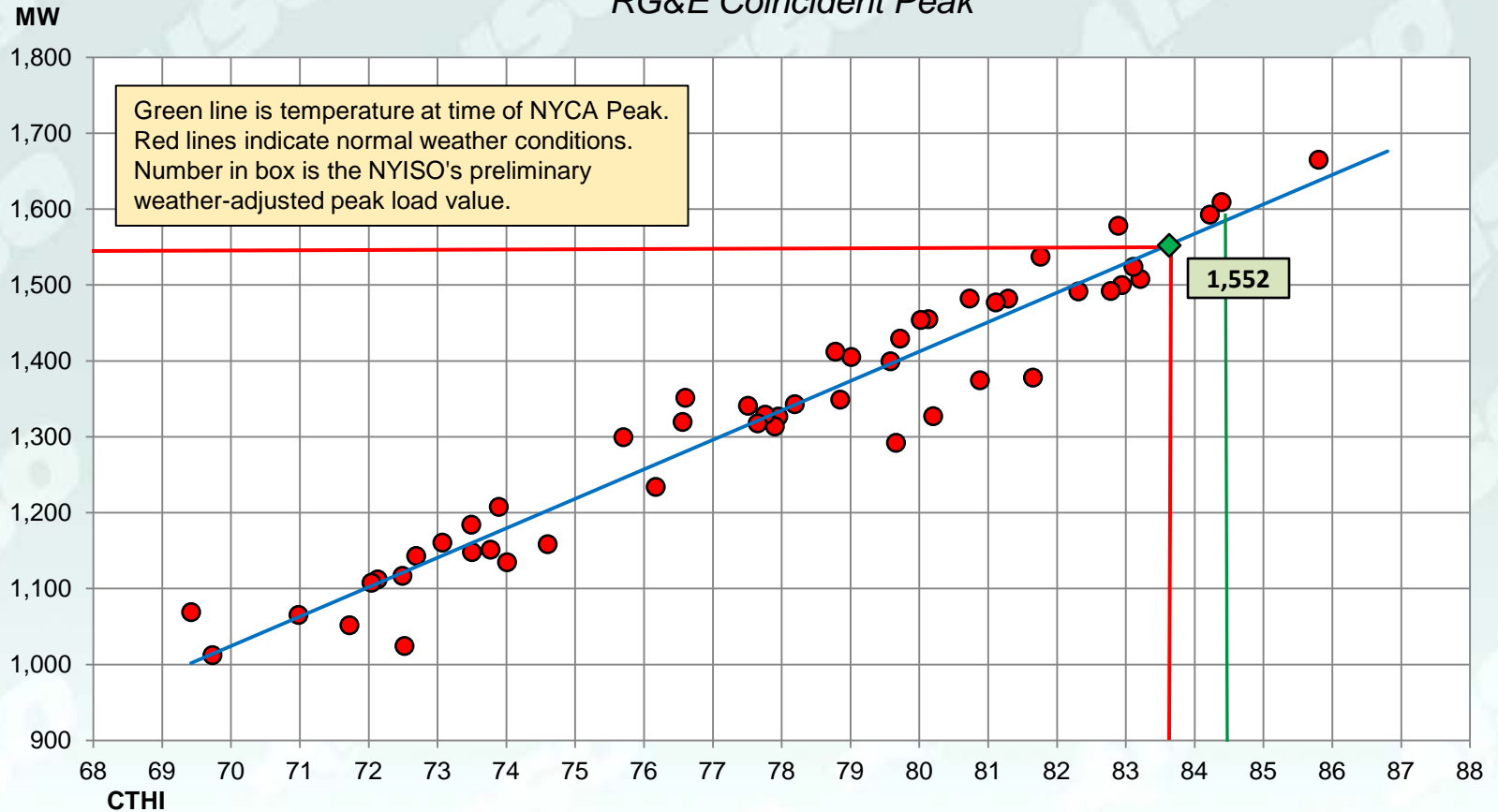


O&R Peak MW v CTHI, 2013 & 2016



Preliminary 2016 Weather Normalization Model

RG&E Coincident Peak



2016 Weather Adjusted Peaks & Comparison to 2016 ICAP Forecast

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Transmission District	2016 Actual MW, 8/11/2016 HB 16	Adjustments to Load	SCR/EDRP Estimate MW	Weather Adjustment MW	2016 Weather Normalized MW	Loss Reallocation MW	2016 WN MW, Adj for Losses	2016 ICAP Forecast MW	Over/Under MW	Percent Over/Under
Gen. Hudson	1,022	0	0	43	1,065	-7	1,058	1,104	-46	-4.3%
Con Ed	12,652	0	0	798	13,450	165	13,615	13,705	-89	-0.7%
LIPA	5,190	0	0	221	5,410	42	5,452	5,491	-39	-0.7%
NGrid	7,004	0	0	50	7,054	-208	6,846	6,776	70	1.0%
NYPA	328	0	0	16	344	4	348	336	12	3.5%
NYSEG	3,174	0	0	85	3,259	-17	3,242	3,192	51	1.6%
O&R	1,028	0	0	150	1,178	9	1,187	1,164	23	1.9%
RG&E	1,598	0	0	-46	1,552	11	1,563	1,591	-28	-1.8%
Grand Total	31,995	0	0	1,317	33,312	0	33,312	33,359	-47	-0.1%

Note: SCR resources were activated on 8/12/2016, not the day of the NYCA peak.

The mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefit to consumers by:

- *Maintaining and enhancing regional reliability*
- *Operating open, fair and competitive wholesale electricity markets*
- *Planning the power system for the future*
- *Providing factual information to policy makers, stakeholders and investors in the power system*

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