

CRP Responsible Transmission Owner Solutions Assessment

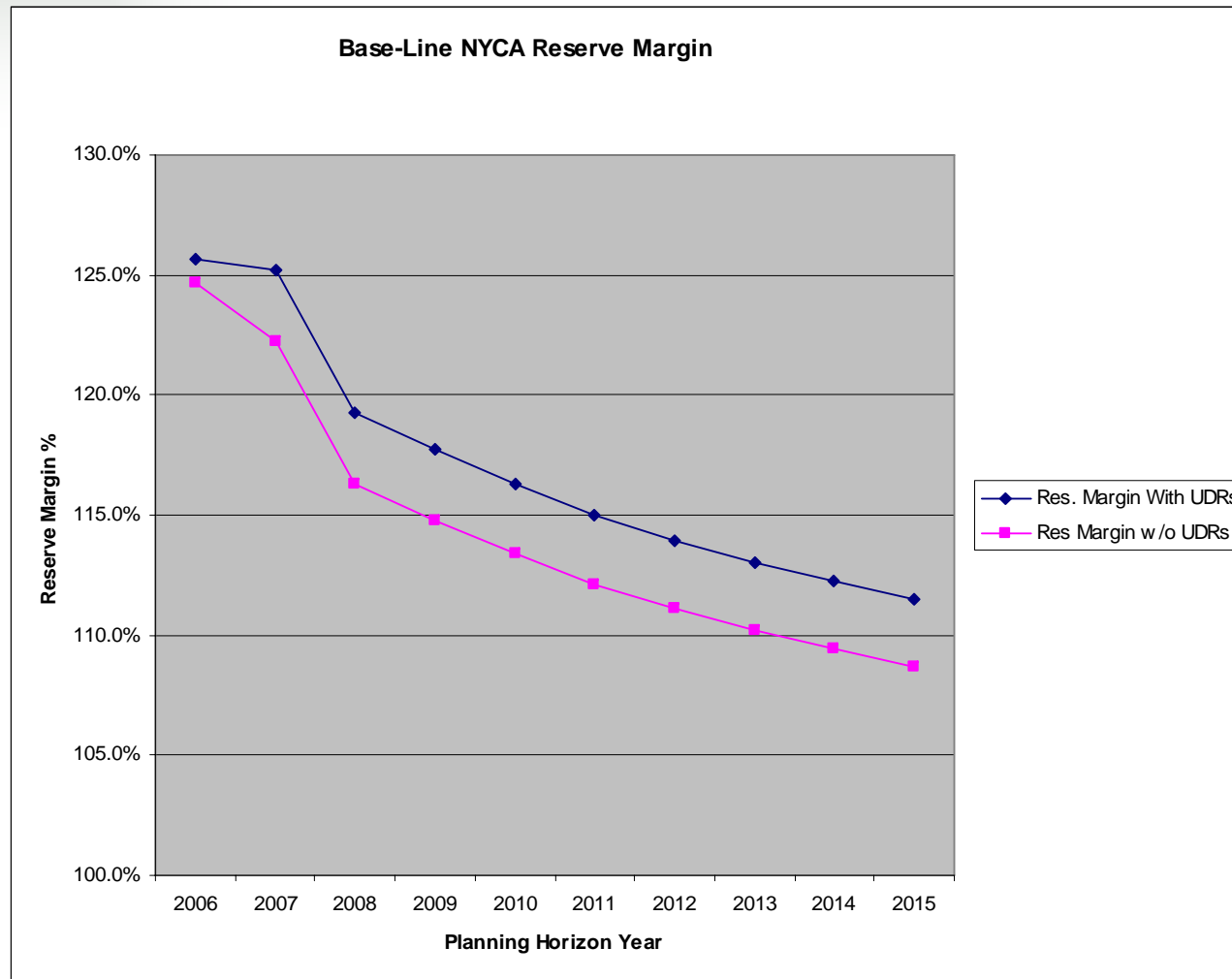
**Draft for Discussion Purposes Only
5/22/2006 – V.2**

Base-line Load and Resource Table

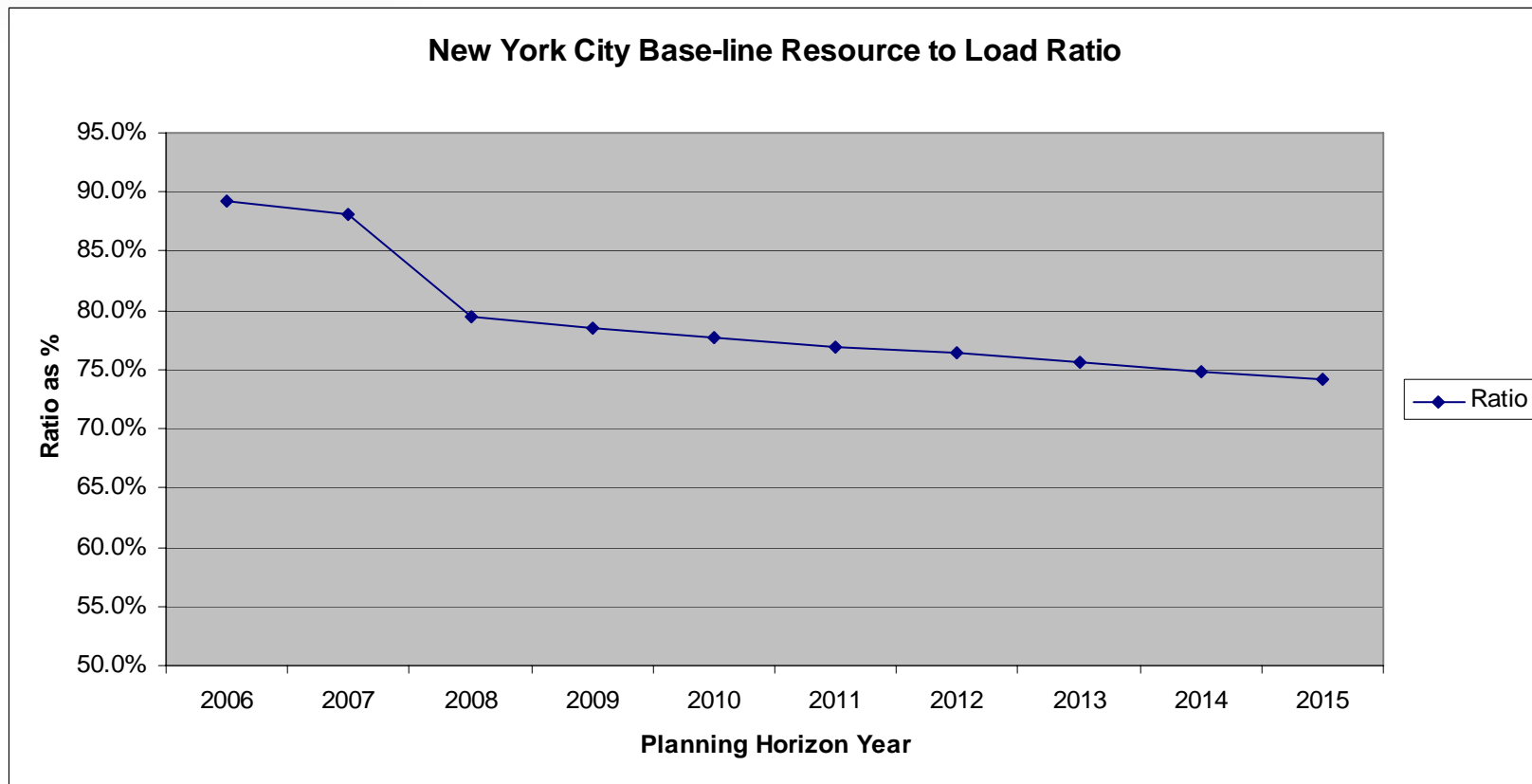
RNA Baseline Load and Resource Table

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Peak Load										
NYCA	32,400	32,840	33,330	33,770	34,200	34,580	34,900	35,180	35,420	35,670
Zone J	11,505	11,660	11,805	11,965	12,090	12,217	12,294	12,426	12,559	12,648
Zone k	5,320	5,410	5,500	5,580	5,680	5,779	5,879	5,981	6,085	6,112
Resources										
NYCA										
"-Capacity"	39,420	39,160	37,794	37,794	37,801	37,801	37,801	37,801	37,801	37,801
"-SCR"	975	975	975	975	975	975	975	975	975	975
"-UDR"	330	990	990	990	990	990	990	990	990	990
Total	40,725	41,125	39,759	39,759	39,766	39,766	39,766	39,766	39,766	39,766
Zone J										
"-Capacity"	10,102	10,102	9,217	9,217	9,217	9,217	9,217	9,217	9,217	9,217
"-SCR"	172	172	172	172	172	172	172	172	172	172
"-UDR"	0	0	0	0	0	0	0	0	0	0
Total	10,274	10,274	9,389	9,389	9,389	9,389	9,389	9,389	9,389	9,389
Zone K										
"-Capacity"	5,340	5,340	5,340	5,340	5,340	5,340	5,340	5,340	5,340	5,340
"-SCR"	98	98	98	98	98	98	98	98	98	98
"-UDR"	330	990	990	990	990	990	990	990	990	990
Total	5,768	6,428	6,428	6,428	6,428	6,428	6,428	6,428	6,428	6,428
NYCA Res. Margin %	125.7%	125.2%	119.3%	117.7%	116.3%	115.0%	113.9%	113.0%	112.3%	111.5%
Zons J Res/Load/ Ratio	89.3%	88.1%	79.5%	78.5%	77.7%	76.9%	76.4%	75.6%	74.8%	74.2%
Zons K Res/Load Ratio	108.4%	118.8%	116.9%	115.2%	113.2%	111.2%	109.3%	107.5%	105.6%	105.2%
NYCA LOLE	0.002	0.002	0.318	0.692	2.166					
In-State Capacity Res. Margin	121.7%	119.2%	113.4%	111.9%	110.5%	109.3%	108.3%	107.5%	106.7%	106.0%

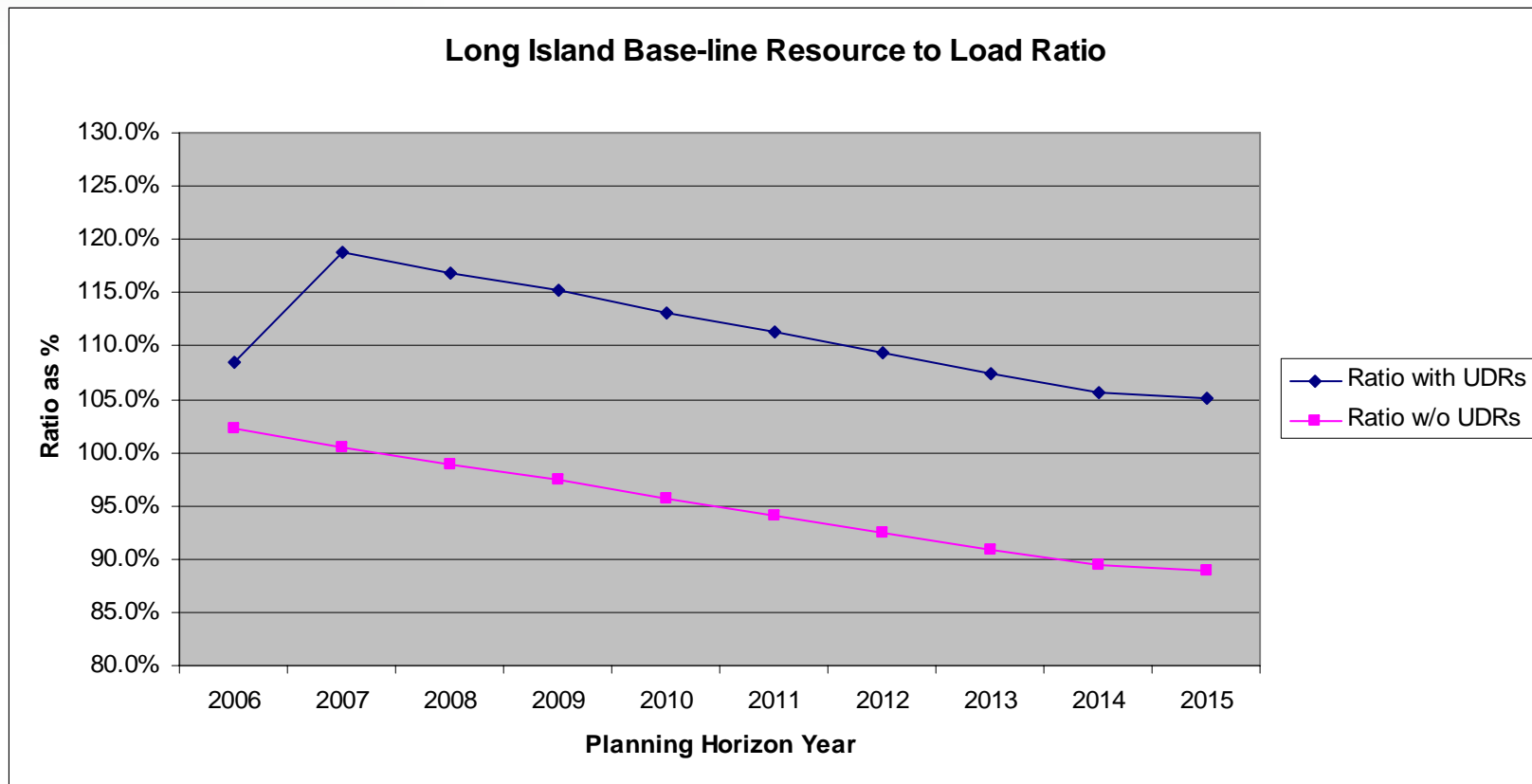
Base-line Load and Resource – Cont



Base-line Load and Resource – Cont



Base-line Load and Resource – Cont



Transmission Owner Solutions

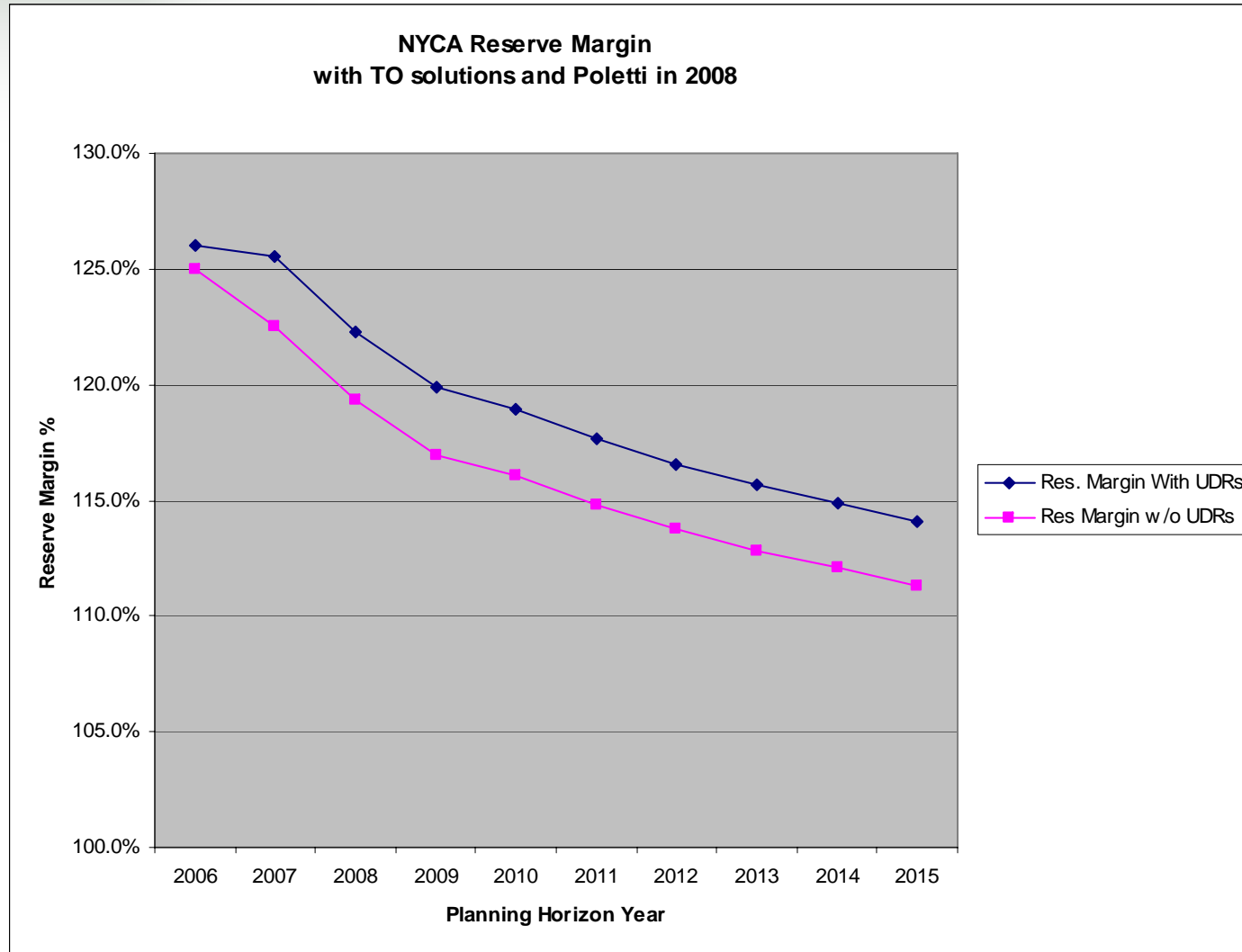
Transmission Owner's Proposed Solutions to Identified Reliability Needs

Updated Plans	Regulated Backstop
<ul style="list-style-type: none"> • DSM & SCRs <ul style="list-style-type: none"> ○ 340 MW In Zone J by 2010 <ul style="list-style-type: none"> ▪ Peak reduction 75 MW ▪ Balance is SCRs ○ LIPA Edge Program 109 MW 	<ul style="list-style-type: none"> • Cap Banks <ul style="list-style-type: none"> ○ 100 MVARs
<ul style="list-style-type: none"> • Transmission <ul style="list-style-type: none"> ○ Sprainbrook to Sherman Creek <ul style="list-style-type: none"> ▪ M29 Project ○ Neptune and CSC Modeled as UDRs 	
<ul style="list-style-type: none"> • Generation (Zone K 2009) <ul style="list-style-type: none"> ○ Caithness 326 MW ○ Off-Shore Wind 140 MW 	
<ul style="list-style-type: none"> • Cap Banks <ul style="list-style-type: none"> ○ 926 MVARs 	

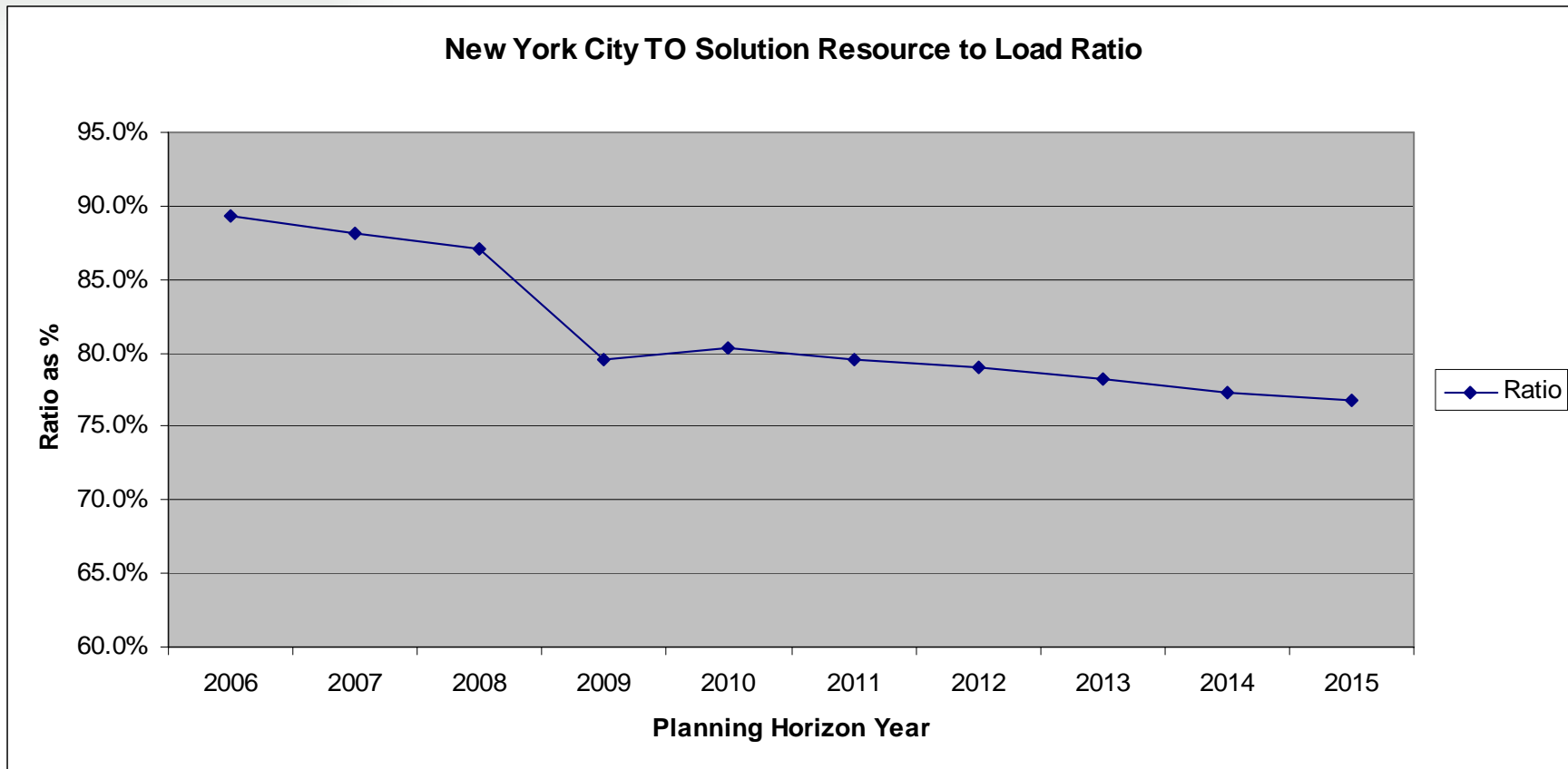
Transmission Owner Solution L&R Table

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Peak Load										
NYCA	32,400	32,840	33,330	33,740	34,125	34,505	34,825	35,105	35,345	35,595
Zone J	11,505	11,660	11,805	11,935	12,015	12,142	12,219	12,351	12,484	12,573
Zone k	5,320	5,410	5,500	5,580	5,680	5,779	5,879	5,981	6,085	6,112
Resources										
NYCA										
"-Capacity"	39,420	39,160	38,679	38,260	38,260	38,260	38,260	38,260	38,260	38,260
"-SCR"	1084	1084	1084	1189	1349	1349	1349	1349	1349	1349
"-UDR"	330	990	990	990	990	990	990	990	990	990
Total	40,834	41,234	40,753	40,439	40,599	40,599	40,599	40,599	40,599	40,599
Zone J										
"-Capacity"	10,102	10,102	10,102	9,217	9,217	9,217	9,217	9,217	9,217	9,217
"-SCR"	172	172	172	277	437	437	437	437	437	437
"-UDR"	0	0	0	0	0	0	0	0	0	0
Total	10,274	10,274	10,274	9,494	9,654	9,654	9,654	9,654	9,654	9,654
Zone K										
"-Capacity"	5,340	5,340	5,340	5,806	5,806	5,806	5,806	5,806	5,806	5,806
"-SCR"	207	207	207	207	207	207	207	207	207	207
"-UDR"	330	990	990	990	990	990	990	990	990	990
Total	5,877	6,537	6,537	7,003	7,003	7,003	7,003	7,003	7,003	7,003
NYCA Res. Margin %	126.0%	125.6%	122.3%	119.9%	119.0%	117.7%	116.6%	115.7%	114.9%	114.1%
Zons J Res/Load/ Ratio	89.3%	88.1%	87.0%	79.5%	80.3%	79.5%	79.0%	78.2%	77.3%	76.8%
Zons K Res/Load Ratio	110.5%	120.8%	118.9%	125.5%	123.3%	121.2%	119.1%	117.1%	115.1%	114.6%
NYCA LOLE					0.099					
In-State Capacity Res. Margin	121.7%	119.2%	116.0%	113.4%	112.1%	110.9%	109.9%	109.0%	108.2%	107.5%

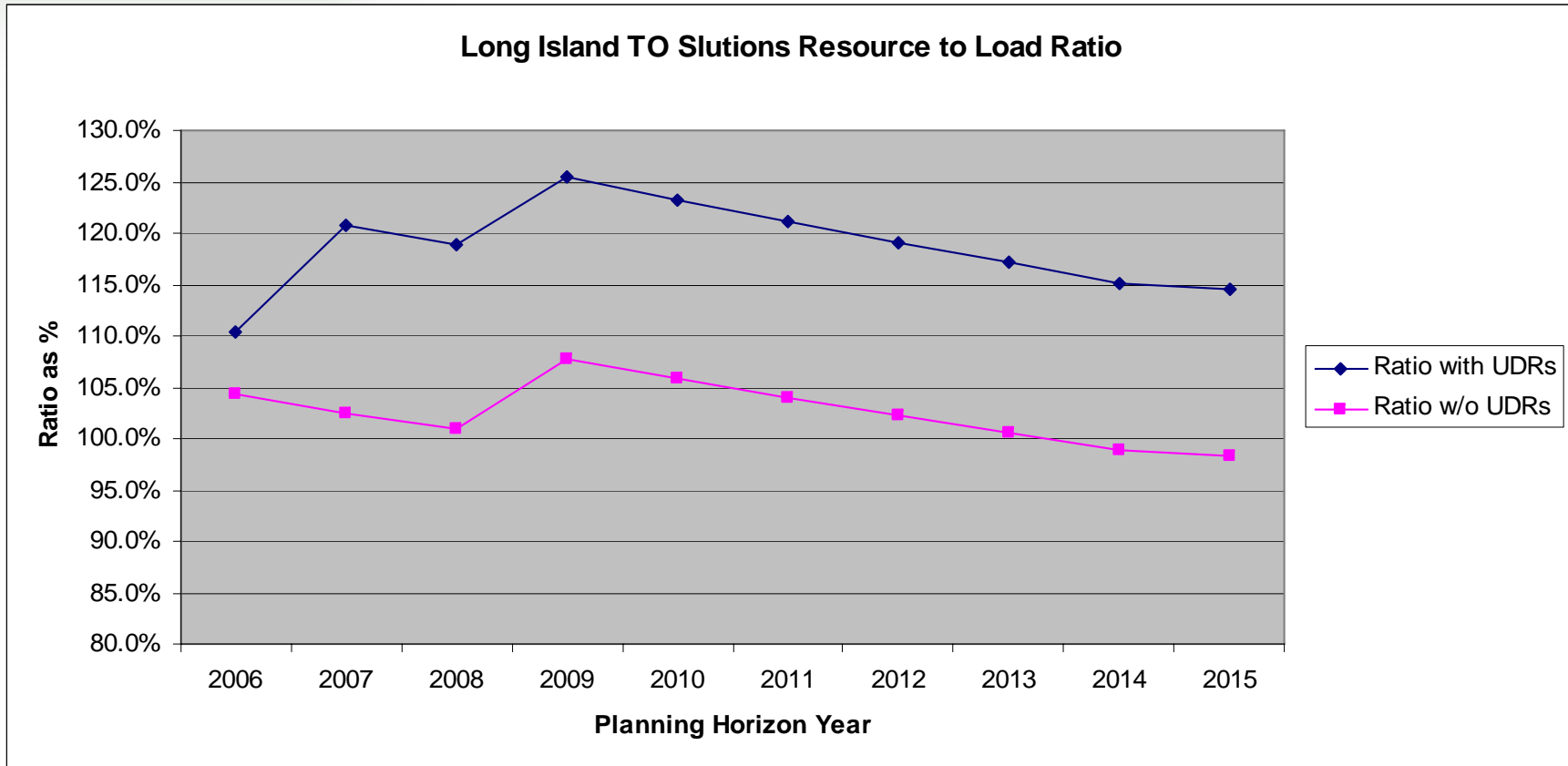
Transmission Owner Solutions - Cont



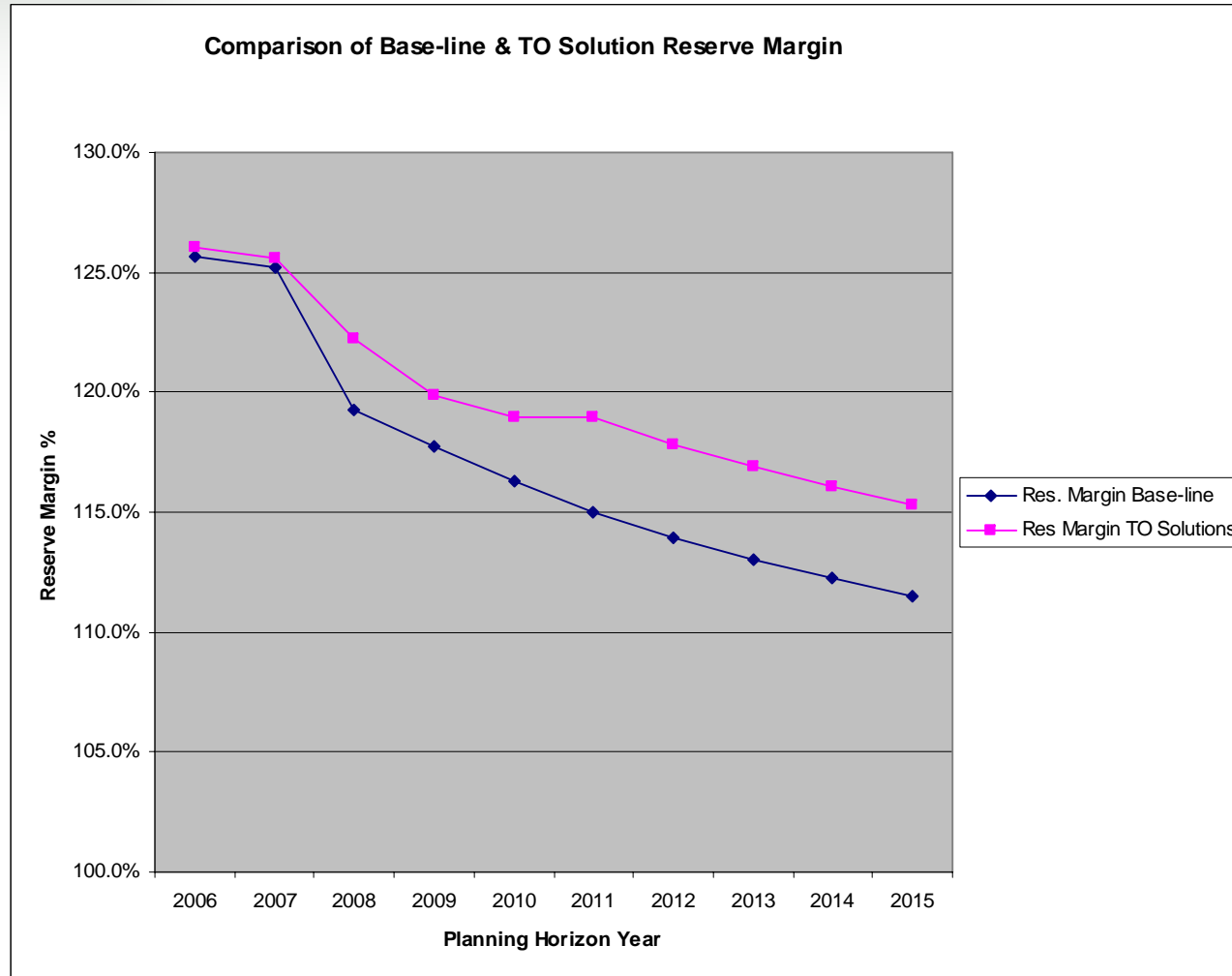
Transmission Owner Solutions - Cont



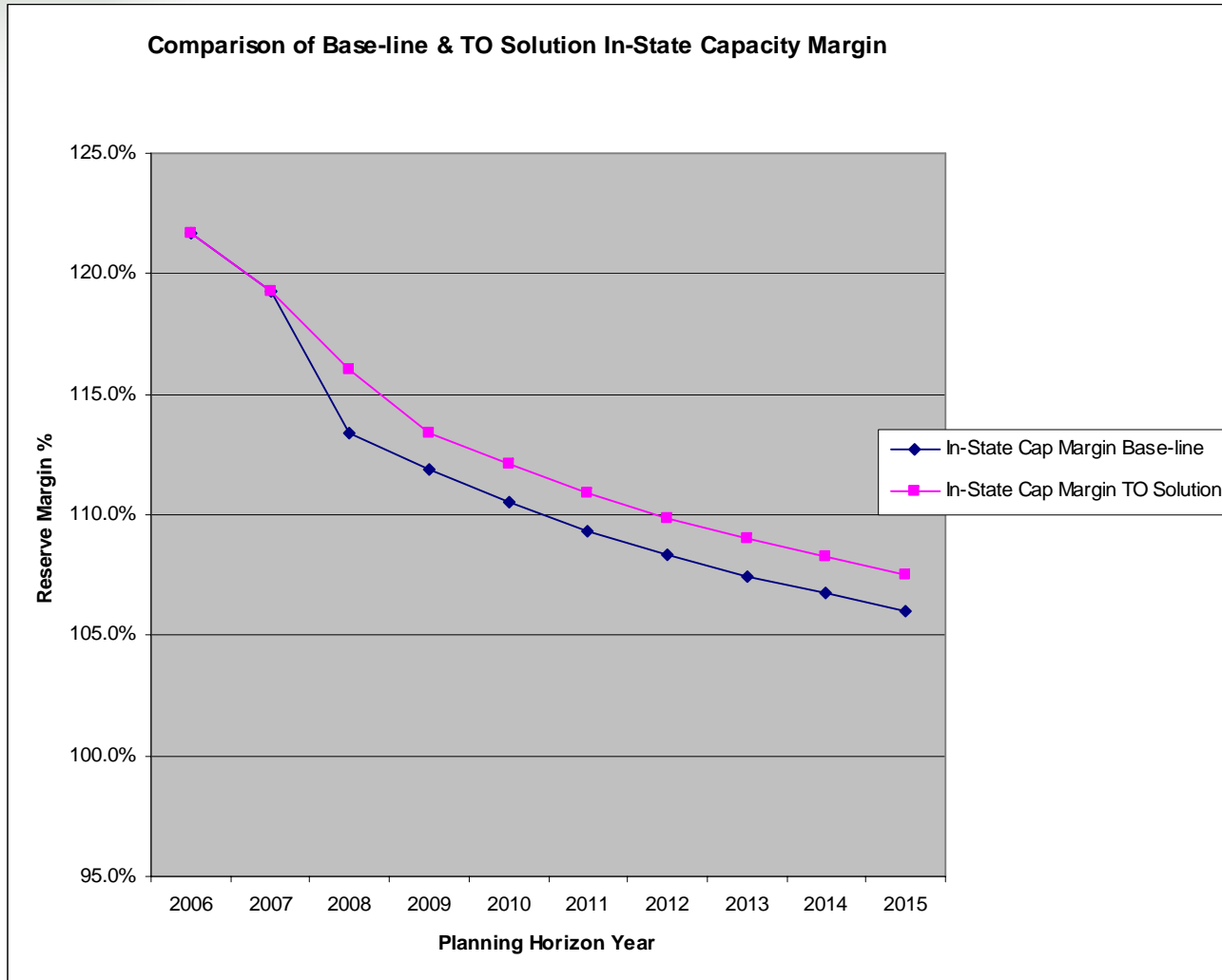
Transmission Owner Solutions - Cont



Comparison of Base-line and TO Solutions



Comparison of Base-line and TO Solutions



Summary of Findings & Conclusions

- ◆ Resource additions and resultant improvement in transfer limits particularly in the Lower Hudson Valley results in LOLE criteria being satisfied through 2010.
- ◆ However, the planned resource mix includes a higher proportion of demand response and external generation resources.
- ◆ In addition, local or non-bulk reliability concern was identified in the LHV and reflected in the analysis.

Summary of Findings & Conclusions - Cont

- ◆ Increasing reliance on external generating resources increases the importance of the Northeast Coordinated System Planning Process