Revised: August 28, 2026

**Note: Includes corrections to certain values in Table 1.

2027-2028 IRM PBC Tan45 Points and Curves

For information at the 08/05/2026 NYSRC ICS Meeting #319

Executive Summary:

Overview of the final 2027-2028 IRM PBC Tan45 results and supporting reliability metrics. Included for ICS discussion.

Contents:

Contents Guide:

Section	Description
Tan45 Results (Tables 1-7)	Provides the final Tan45 results, comparison to last year, regression outcomes, and regression formulas used in the development of the Load Zone J and K Tan45 curves.
Tan45 Curve Visualizations (Fig. 1-4)	Illustrates the final Load Zone J and Load Zone K Tan45 curves and supporting graphical outputs.
Modeled Capacity and Margin Information (Tables 8, 9)	Provides summer and winter modeled ICAP, ICAP requirements at criteria, peak load assumptions, and the resulting reserve margins for the NYCA, Load Zone J, Load Zone K, and G-J Locality.
EOP Results (Tables 10, 11)	Summarizes annual and monthly EOP activations for the 2027-2028 IRM PBC Tan45 case.

Tan45 Results

Table 1.

Tan45 Results Comparison			
	2026-2027 IRM FBC Special Sensitivity Case	2027-2028 IRM Preliminary Base Case	Delta
IRM (%)	25.6%	30.8%	+5.2%
URM (%) [1]	8.3%	10.3%	+2.0%
LOLH (hours/yr) [2]	0.365	0.355	-0.010
EUE (MWhr/yr)	168.504	178.423	+9.919
Summer Risk (%)	85.2%	90.8%	+5.6%
Winter Risk (%)	14.8%	9.2%	-5.6%
Normalized EUE (Simple Method)	1.101	1.151	+0.050
Normalized EUE (Bin Method)	1.007	1.038	+0.031

Table 2.

2027 - 2028 IRM PBC Tan45				
	IRM	J LCR	K LCR	G-J
IRM Tan45	30.8	85.9	109.9	89.3

Table 3.

Standard Error and Confidence Interval of LOLE [3]			
	Relative Standard Error	Standard Error	95% Confidence Interval
2027-2028 IRM PBC (Final Parametric Case)	0.039	0.0039	0.1 ± 0.0076

[1] **Note:** Unforced reserve margin (URM) represents the reserve margin expressed in terms of Unforced Capacity (UCAP) rather than Installed Capacity (ICAP). The conversion from ICAP to UCAP is based on the applicable translation factors, which differ between the IRM study model and the capacity market. For IRM studies, translation factors are derived from the generator modeling assumptions used in MARS, including 5-year EFORd values for thermal resources and 5-year availability factors for intermittent resources.

[2] **Note:** The LOLH and EUE metrics reported here for information purposes only were requested by the NYS Reliability Council. The data used to calculate the LOLH and EUE were obtained from the GE MARS output. (See EUE Calculation Methods)

[3] As per policy 5 Standard Error is reported on at the conclusion of the PBC study before the 2027-2028 IRM PBC Tan45 run.

Table 4.

Low point and the 12 points on the Tan45 Curve		
IRM	**J LCR**	**K LCR**
28.55	94.51	112.76
29.00	91.40	111.99
29.50	88.90	111.22
30.00	87.41	110.60
30.50	86.34	110.11
31.00	85.67	109.76
31.50	85.01	109.46
32.00	84.66	109.22
32.50	84.33	108.99
33.00	84.11	108.80
33.50	83.93	108.65
34.00	83.71	108.52
34.50	83.57	108.42

Table 5.

J /K Individual Tan45 Regression Outcome			
	IRM	**J LCR**	**K LCR**
J - Tan45	**31.440**	**85.091**	
K - Tan45	**30.207**		**110.380**

Table 6.

J / K Regression Formula				
	ax^2	**bx**	**c**	**LCR**
J LCR	0.415	-27.104	526.879	**85.901**
K LCR	0.275	-17.622	391.638	**109.884**

Table 7.

Sections on J and K Curves for the final Tan45 Results			
J Curve Section		**K Curve Section**	
First Point	Last Point	First Point	Last Point
30.00	**32.00**	**29.50**	**31.00**

Tan45 Curve Visualizations

Fig 1. 2027-2028 IRM PBC Tan45 – Load Zone J Curve

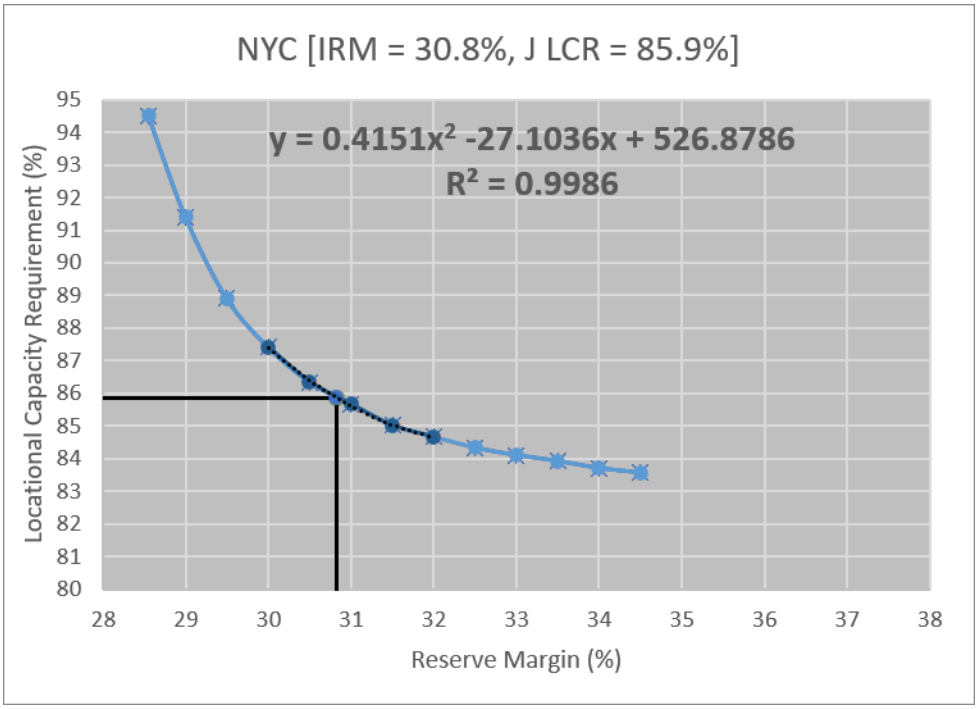


Fig 2. 2027-2028 IRM PBC Tan45 – Load Zone K Curve

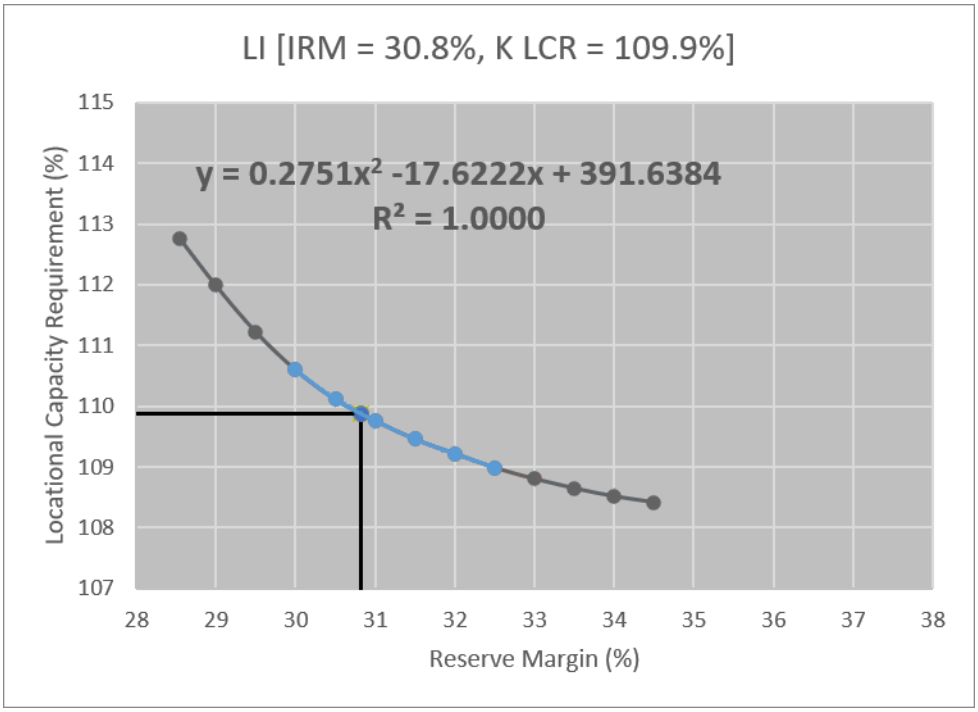


Fig 3.

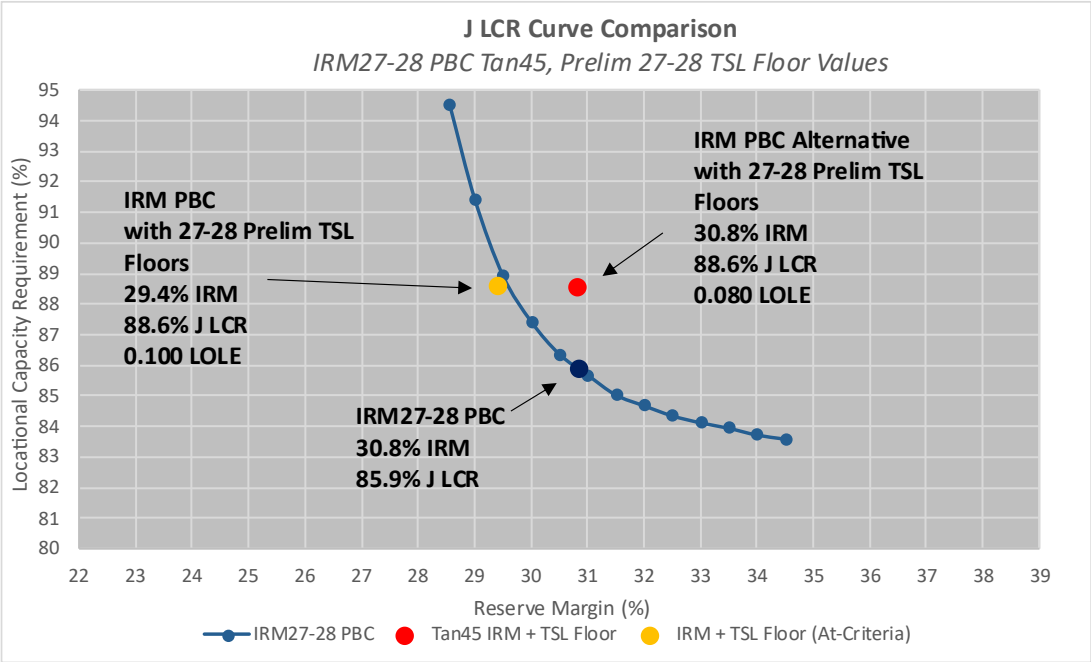
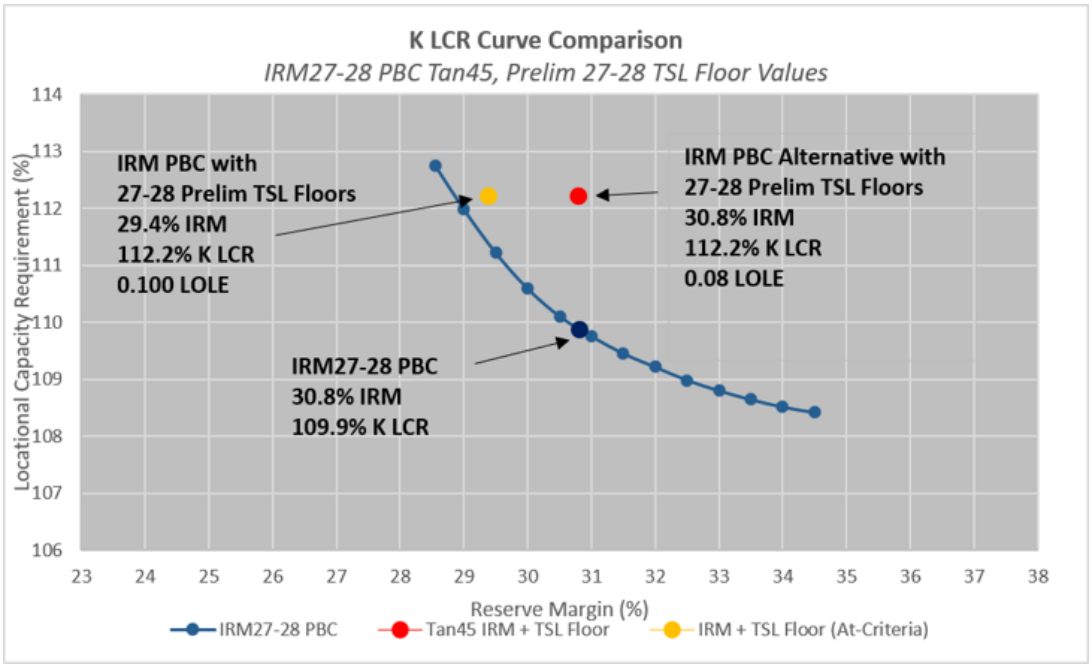

J LCR Curve Comparison
IRM27-28 PBC Tan45, Prelim 27-28 TSL Floor Values
Locational Capacity Requirement (%)
95
94
93
92
91
90
89
88
87
86
85
84
83
82
81
80
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
Reserve Margin (%)
IRM PBC
with 27-28 Prelim TSL
Floors
29.4% IRM
88.6% J LCR
0.100 LOLE
IRM PBC Alternative
with 27-28 Prelim TSL
Floors
30.8% IRM
88.6% J LCR
0.080 LOLE
IRM27-28 PBC
30.8% IRM
85.9% J LCR
IRM27-28 PBC
Tan45 IRM + TSL Floor
IRM + TSL Floor (At-Criteria)

Fig 4.


K LCR Curve Comparison
IRM27-28 PBC Tan45, Prelim 27-28 TSL Floor Values
Locational Capacity Requirement (%)
114
113
112
111
110
109
108
107
106
23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Reserve Margin (%)
IRM PBC with
27-28 Prelim TSL Floors
29.4% IRM
112.2% K LCR
0.100 LOLE
IRM PBC Alternative with
27-28 Prelim TSL Floors
30.8% IRM
112.2% K LCR
0.08 LOLE
IRM27-28 PBC
30.8% IRM
109.9% K LCR
IRM27-28 PBC
Tan45 IRM + TSL Floor
IRM + TSL Floor (At-Criteria)

Modeled Capacity and Margin Information

Table 8.

2027-2028 IRM PBC Tan45 Modeled ICAP – Summer (July)					
Area	**Total ICAP (MW)**	**ICAP Adjusted (MW)**	**ICAP Requirement at Criteria (MW)**	**Peak Load (MW) [4]**	**Margin (%)**
NYCA	42,687.2	(799.3)	41,887.9	32,024.4	30.8%
J	10,507.4	(961.5)	9,546.0	11,117.4	85.9%
K	5,836.4	(149.6)	5,686.9	5,176.1	109.9%
G-J	14,772.4	(961.5)	13,811.0	15,460.4	89.3%

Table 9.

2027-2028 IRM PBC Tan45 Modeled ICAP – Winter (January)					
Area	**Total ICAP (MW)**	**ICAP Adjusted (MW)**	**ICAP Requirement at Criteria (MW)**	**Peak Load (MW) [5]**	**Margin (%)**
NYCA	42,181.6	(799.3)	41,382.3	25,254.4	63.9%
J	9,837.7	(961.5)	8,876.3	7,767.4	114.3%
K	6,269.0	(149.6)	6,119.4	3,365.1	181.8%
G-J	14,256.4	(961.5)	13,294.9	11,020.4	120.6%

Emergency Operating Procedure (EOP) Results

Table 10.

Emergency Operating Procedures			
Step	**EOP**	**2026-2027 IRM FBC Special Sensitivity Case (days/year)**	**2027-2028 IRM PBC Tan45 (days/year)**
1	Require SCRs (Load and Generation)	6.2	5.2
2	5% manual voltage reduction	5.2	4.5
3	30-minute reserves to zero	5.1	4.4
4	Voluntary load curtailment	3.1	2.8
5	Public appeals	2.7	2.7
6	5% remote controlled voltage reduction	2.6	2.6
7	Emergency purchases	2.1	2.0
8	10-minute reserves to 450MW	0.2	0.2
9	Customer disconnections	0.1	0.1

[4] 2027-2028 IRM PBC Assumptions Matrix (Item 1a)

[5] 2027-2028 IRM PBC Assumptions Matrix (Item 1b)

Table 11.

	Emergency Operating Procedures Monthly Activations (2027-2028 IRM PBC Tan45)								
	Margin State (Days/Month)								
	1	2	3	4	5	6	7	8	9
JAN	0.36	0.31	0.30	0.26	0.25	0.25	0.20	0.02	0.01
FEB	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
MAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUN	0.06	0.06	0.05	0.01	0.01	0.01	0.01	0.00	0.00
JUL	1.87	1.74	1.69	1.30	1.27	1.25	1.00	0.13	0.07
AUG	1.85	1.57	1.53	0.78	0.71	0.66	0.49	0.03	0.02
SEP	0.87	0.68	0.65	0.36	0.32	0.31	0.20	0.01	0.00
OCT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC	0.15	0.14	0.13	0.11	0.11	0.11	0.09	0.01	0.00

Key	
Margin State	**EOP**
1	Require SCRs (Load and Generation)
2	5% manual voltage reduction
3	30-minute reserves to zero
4	Voluntary load curtailment
5	Public appeals
6	5% remote controlled voltage reduction
7	Emergency purchases
8	10-minute reserves to 450MW
9	Customer disconnections