

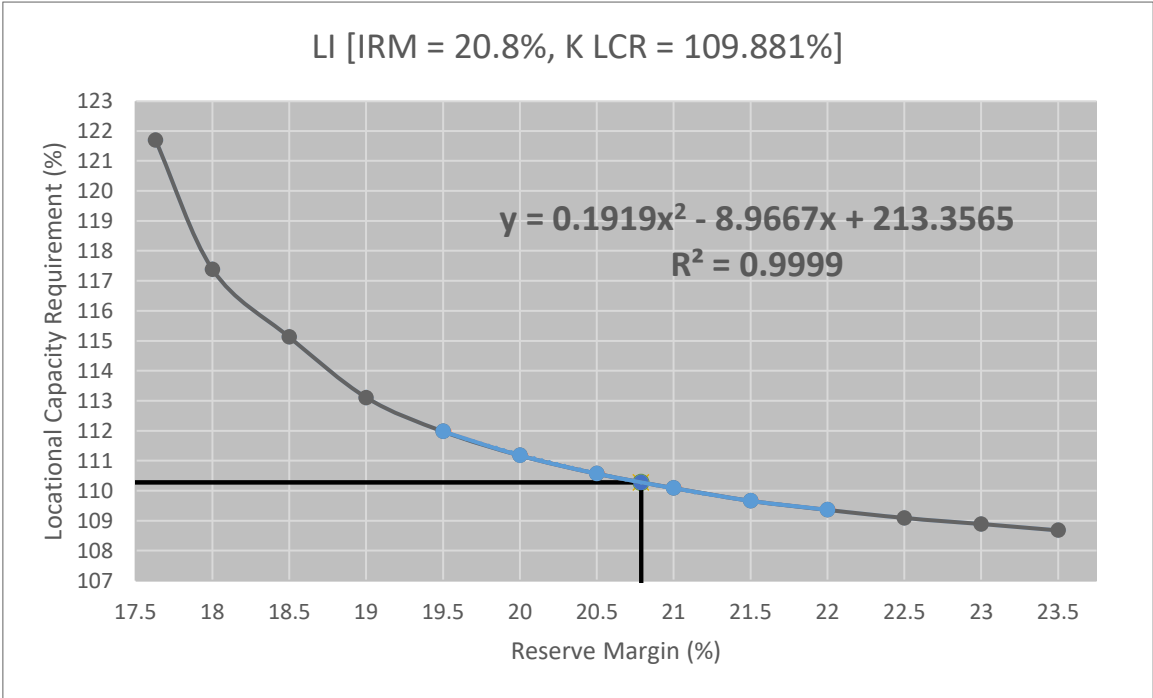
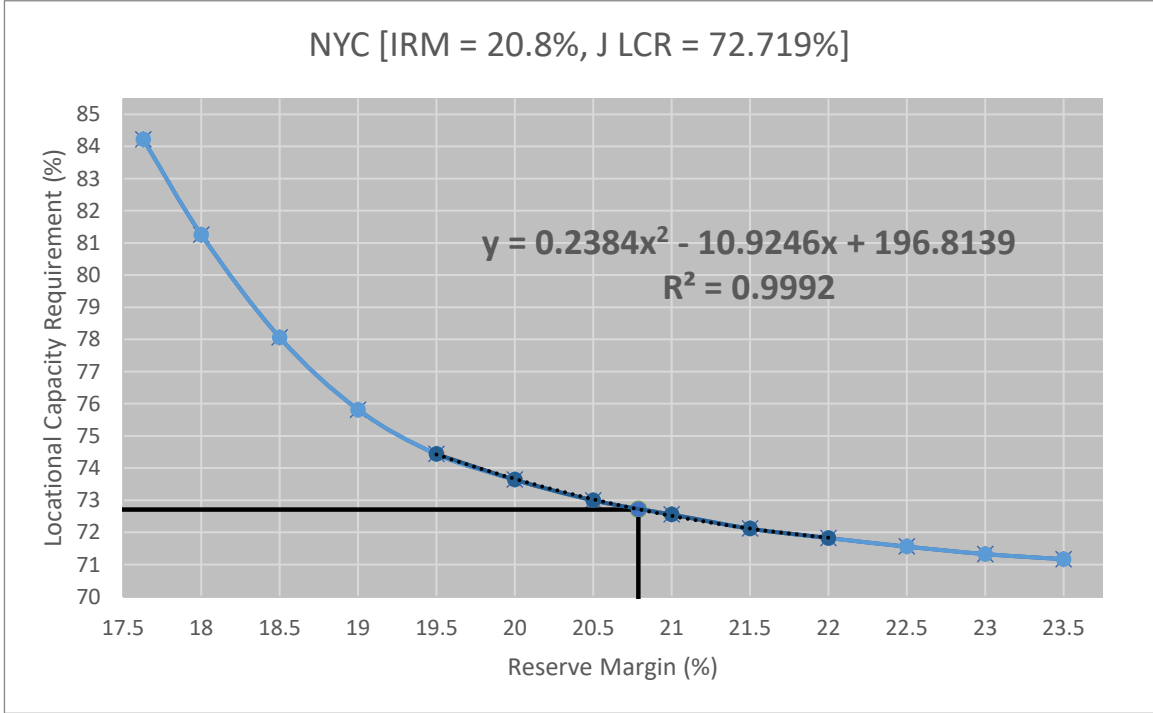
IRM 2024 Preliminary Base Case Parametric Results (as of 6/28/2023)						
Material Changes						
Number	Adjustment Type	Description	Impact on Margins			
			NYCA	NYC	LI	LHV
		IRM 2023 Final Base Case	19.9	78.2	107.4	88.5
1	A-F	Wind Shapes (2018-2022)	-0.11	0.00	0.00	0.00
2	A-K	RoR Shapes (2018-2022)	0.09	0.06	0.09	0.07
3	A-K	Thermal Outage Rate (2018-2022)	0.29	0.29	0.16	0.31
4	A-K	AC Transmission Topology	-0.36	-0.25	-0.36	-0.27
5	A-K	2023 Gold Book Load Forecast	-0.43	0.31	1.52	0.29
6	A-K	2023 Gold Book DMNC Updates	0.07	0.28	-0.97	0.09
7	A-K	Withholding Operating Reserves	0.17	0.12	0.17	0.13
8	A-K	Cable Transition Rate	0.19	0.26	0.37	0.29
9	A-F	New Generators (Solar)	0.23	0.00	0.00	0.00
10	G-K	New Generators (Offshore Wind)	0.13	-0.37	2.02	-0.40
11	G-K	2023 Peaker Rule Non-Deactivations	0.15	-0.30	1.47	-0.11
12	A-K	BTM Solar Load Shape Adjustment	-0.50	-0.36	-0.52	-0.39
13	A-K	Load Forecast Uncertainty	-0.14	-0.10	-0.14	-0.10
14	A-K	External Data + Policy 5 Adjustment	-0.37	-0.21	-0.38	-0.29
		Sum of Material Changes	-0.59	-0.25	3.43	-0.40
		Non Material Changes	-0.07	0.63	-0.37	0.30
		Preliminary Base Case Parametric Results **	19.24	78.58	110.46	88.45

**** The LCR values reported are neither Tan 45 results nor LCR Optimizer results. The actual LCRs will be determined and approved by the NYISO's Operating Committee in January 2024 based upon the EC approved IRM and database model with modifications pursuant to Market Services Tariff Section 5.11.**

Non-Material Changes (Less than 0.05% delta on IRM)						
Number	Adjustment Type	Description	Impact on Margins			
			NYCA	NYC	LI	LHV
1	A-K	Database check	0.00	0.00	0.00	0.00
2	A-F	LFG Shapes (2018-2022)	0.00	0.00	0.00	0.00
3	A-K	Solar Shapes (2018-2022)	-0.01	0.00	-0.02	0.00
4	A-K	MARS Version Update (4.13)	-0.03	-0.02	-0.03	-0.02
5	A-K	Internal Topology Update	0.02	0.02	0.03	0.02
6	A-K	BTM:NG	0.02	0.74	-0.27	0.48
7	A-K	Preliminary SCRs	0.00	0.00	0.00	0.00
8	G-K	South Cairo Retirement	-0.02	-0.01	0.07	-0.07
9	A-K	Miscellaneous Data Correction	-0.05	-0.10	-0.15	-0.11
		Sum of Non-Material Changes	-0.07	0.63	-0.37	0.30

For review and approval at the 08/02/2023 NYSRC ICS Meeting

IRM 2024-2025 Preliminary Base Case Tan45



Step	EOP	Expected Implementation (Days/Year)
1	Require SCRs (Load and Generator)	7.6
2	5% manual voltage reduction	5.2
3	30-minutes reserve to zero	5.0
4	5% remote controlled voltage reduction	3.2
5	Voluntary load curtailment	2.4
6	Public appeals	2.0
7	Emergency purchases	1.9
8	10-minutes reserve to 350 MW	0.2
9	Customer disconnections	0.1

Note: The expected implementation days per year reported in each EOP step are the expected number of days that MARS calls for that EOP step. If an EOP step has a limitation on the number of days that it can provide relief, such as the 5 days per month limit for SCRs, it will provide no load relief after the 5th day.

SCR Calls Per Month	
Month	Days/Month
JAN	0.0
FEB	0.0
MAR	0.0
APR	0.0
MAY	0.0
JUN	0.3
JUL	2.6
AUG	3.1
SEP	1.5
OCT	0.0
NOV	0.0
DEC	0.0

2024-2025 IRM PBC

- *Tan45 Results*

Henry Fox

Resource Adequacy

ICS Meeting # 279

August 02, 2023

2024-2025 PBC Tan45 Results

Results	2023 FBC	2024 PBC	Delta
IRM	19.900	20.800	0.900%
NY J	78.200	72.719	-5.481%
NY K	107.400	109.880	2.480%
GRP G-J	88.548	84.252	-4.296%
NYBA EOP (Days/Yr.)	6.91	7.55	0.64

Case	LOLE	LOLH	Normalized LOEE (EUE) "Simple Method" ppm	Normalized LOEE (EUE) "Bin Method" ppm
2023 IRM FBC	0.1	0.358	1.264	1.102
2024 IRM PBC	0.1	0.337	1.188	1.031

Observation

- **The NYISO investigated the lower-than-anticipated J LCR in the Tan45 results and identified two major drivers:**
 - Transfer capability improvement due to AC Transmission ("AC Tx") project
 - Improvement of outage rate for cables connecting to downstate
- **Therefore, two additional Tan45 runs were conducted to understand the individual impacts from these two drivers**

Impact of AC Transmission Project

- AC Tx project increases the transfer limits towards downstate by about 1500 MW (*AC Tx Topology Update*)
- A test case was conducted to revert the transfer limits improvement due to the AC Tx project, with following impacts compared to the PBC:
 - IRM: -0.25%
 - J LCR: +1.27%
 - K LCR: +0.83%

Margin	2024 PBC (Tan45)	Test Case Reverting AC Tx (Tan45)	Delta
IRM	20.8	20.550	-0.25%
J LCR	72.719	73.990	1.27%
K LCR	109.880	110.709	0.83%
G-J	84.252	85.183	0.931

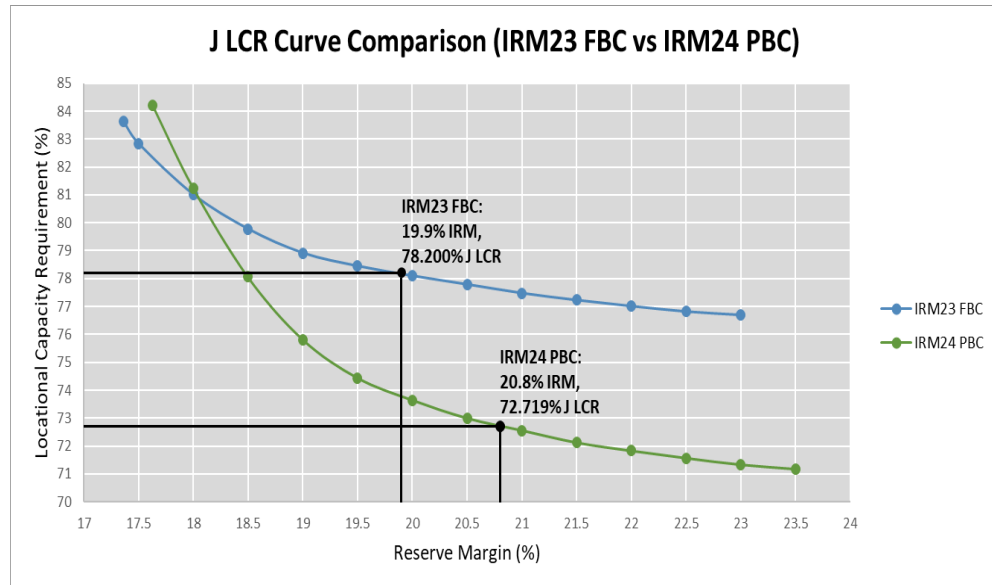
Impact of Cable Outage Rate Improvement

- The outage rate of all cables is reduced from 7% to 4.8% in this year's PBC (*Attachment E4 in AM*)
- A test case was conducted to revert the cable outage rate improvement, with following impacts compared to the PBC:
 - IRM: -0.59%
 - J LCR: +2.99%
 - K LCR: -0.42%

Margin	2024 PBC (Tan45)	Test Case Reverting Cable Outage Rate (Tan45)	Delta
IRM	20.8	20.211	-0.59%
J LCR	72.719	75.706	2.99%
K LCR	109.880	109.461	-0.42%
G-J	84.252	86.439	2.187

Combined Impacts

- Both AC Tx project and improved cable outage rate help increasing the transfer into J and therefore creating downward pressure for J LCRs
 - AC Tx lowers J LCR by 1.27% and improved cable outage rate lowers J LCR by 2.99%
- As the J Curve moves down, the Tan45 point would be pushed out, hence increasing the IRM, as demonstrated in the J curves comparison.



Questions?