

Attachment #4.1.2
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2027-2028 Installed Reserve Margin (IRM) Study - Sensitivity Cases

Note: All results are calculated by adding/removing capacity from Load Zones A - K unless otherwise noted

Case	Description	IRM (%)	NYC (%)	LI (%)	IRM (%) Change from Base	Winter LOLE (%)	Summer LOLE (%)	LOLH (hrs/yr)	EUE (MWh/yr)
0	2027-2028 IRM Preliminary Base Case (PBC)	30.8	85.9	109.9	-	9.15%	90.85%	0.355	178.423
	These are the Base Case technical results derived from knee of the IRM-LCR curve								
1	NYCA Isolated	35.3	89.3	113.9	4.5	5.89%	94.11%	0.301	171.066
	Track Total New York Control Area (NYCA) Emergency Assistance (EA) – NYCA system is isolated and receives no emergency assistance from neighboring control areas (New England, Ontario, Quebec, and PJM). Unforced Capacity Deliverability Rights (UDRs) are allowed								
2	No Internal NYCA transmission constraints	27.7	83.5	107.1	-3.1	14.95%	85.05%	0.357	322.033
	Track level of NYCA congestion with respect to the IRM model – eliminates internal transmission constraints and measures the impact of transmission constraints on statewide IRM requirements								
3	No Load Forecast Uncertainty	24.7	81.2	104.4	-6.1	3.54%	96.46%	0.283	63.989
	Shows sensitivity of IRM to load uncertainty, if the forecast peak loads for NYCA have a 100% probability of occurring								
4	No Wind Capacity	23.1	87.1	108.8	-7.7	14.44%	85.56%	0.354	186.351
	Shows wind impact for both land-based and off-shore wind units and can be used to understand Equivalent Demand Forced Outage Rate (EFORD) sensitivity								
5	Fuel Availability with Firm Fuel Characteristic Elections (Tan45)	29.5	85.9	110.1	-1.3	0.01%	99.99%	0.366	212.574
	Shows the impact of modeling winter fuel availability in each Load Zone based on firm fuel character elections for the 2027-2028 Capability Year								

Case	Description	IRM (%)	NYC (%)	LI (%)	IRM (%) Change from Base	Winter LOLE (%)	Summer LOLE (%)	LOLH (hrs/yr)	EUE (MWh/yr)
6	Empire and Sunrise Wind Included (Tan45)	34.0	88.5	122.8	3.2	10.30%	89.97%	0.361	188.065
	Shows the impact of including the Empire and Sunrise Wind units in the 2027-2028 IRM study. For the PBC, these units are not included in the study.								
7	No New Generator Inclusion (Tan45)	27.6	85.5	110.0	-3.2	8.37%	91.63%	0.353	175.542
	Shows the impact of modeling an alternative assumption in which no new generator additions are included in the 2027 2028 IRM study (i.e., removes the new generator additions modeled as part of the PBC).								
8	2020-2024 Thermal EFORD Data (Tan45)	29.7	83.6	108.4	-1.1	10.01%	89.99%	0.354	186.035
	Shows the impact of modeling thermal generator EFORD values based on the 2020–2024 outage data set instead of the 2021–2025 outage data set used in the PBC.								

2026-2027 and 2027-2028 IRM Study - Sensitivity Cases Comparison[†]

Results Based on Preliminary Base Case	IRM (%)	NYC (%)	LI (%)	IRM% Change from Base
Preliminary Base Case				
2026-2027	27.3	80.6	106.9	-
2027-2028	30.8	85.9	109.9	-
<i>Delta</i>	3.5	5.3	3.0	-
S01: NYCA Isolated				
2026-2027	32.1	84.3	111.5	4.8
2027-2028	35.3	89.3	113.9	4.5
<i>Delta</i>	3.2	5.0	2.4	-0.3
S02: No Internal NYCA Transmission Constraints				
2026-2027	25.1	78.9	104.8	-2.2
2027-2028	27.7	83.5	107.1	-3.1
<i>Delta</i>	2.6	4.6	2.3	-0.9
S03: No LFU				
2026-2027	21.7	76.3	101.5	-5.6
2027-2028	24.7	81.2	104.4	-6.1
<i>Delta</i>	3.0	4.9	2.9	-0.5
S04: No Wind Capacity				
2026-2027	20.5	81.8	106.0	-6.8
2027-2028	23.1	87.1	108.8	-7.7
<i>Delta</i>	2.6	5.3	2.8	-0.9

† The comparison is only for sensitivity cases 0-4.

IRM Trends: A Three-Year Historical Comparison[†]

[†] The comparison is only for sensitivity cases 0-4.

Case	2025-2026		2026-2027		2027-2028	
	IRM (%)	IRM Change From Base	IRM (%)	IRM Change From Base	IRM (%)	IRM Change From Base
IRM PBC	23.6	--	27.3	--	30.8	--
S01: NYCA Isolated	29.1	5.5	32.1	4.8	35.3	4.5
S02: No Internal NYCA Tx Constraints	21.7	-1.9	25.1	-2.2	27.7	-3.1
S03: No LFU	18.5	-5.1	21.7	-5.6	24.7	-6.1
S04: No Wind Capacity	17.0	-6.6	20.5	-6.8	23.1	-7.7