

## 2023 IRM Study - Sensitivity Cases (based on PBC)

Case	Description	IRM (%)	NYC (%)	LI (%)	IRM% Change from Base
0	<b>2023 IRM Preliminary Base Case</b>	20.1	80.1	104.4	-
	These are the Base Case technical results derived from knee of the IRM-LCR curve				
1	<b>NYCA Isolated</b>	27.7	85.3	112.0	+7.6
	Track Total NYCA Emergency Assistance – NYCA system is isolated and receives no emergency assistance from neighboring control areas (New England, Ontario, Quebec, and PJM). UDRs are allowed				
2	<b>No Internal NYCA transmission constraints</b>	18.1	78.7	102.4	-2.0
	Track level of NYCA congestion with respect to the IRM model – internal transmission constraints are eliminated and the impact of transmission constraints on statewide IRM requirements is measured				
3	<b>No Load Forecast Uncertainty</b>	11.9	74.5	96.2	-8.2
	Shows sensitivity of IRM to load uncertainty, assuming that the forecast peak loads for NYCA have a 100% probability of occurring				
4	<b>No Wind Capacity</b>	14.0	80.1	104.4	-6.1
	Shows wind impact and can be used to understand EFORD sensitivity; performed by freezing J & K at base levels and adjusting capacity in the upstate zones (Shifting performed across Zones A - F)				
5	<b>No SCR Capacity</b>	17.2	76.9	104.7	-2.9
	Shows sensitivity of IRM to SCR program				
6	<b>Energy Limited Resource (ELR) (fixed output shapes)</b>	20.3	80.2	104.6	+0.2
	Modeling ELRs using the historical output shapes to show comparison with the GE MARS ELR functionality				
7	<b>Operating Reserve at Load Shedding (not maintaining OR at load shedding)</b>	18.6	79.1	102.9	-1.5
	Sensitivity of not maintaining the 350 MW Operating Reserve at Load Shedding				
8	<b>New Load Shapes (Tan45)</b>	19.8	77.8	102.0	-0.3
	Show impact of implementing new load shapes, replacing the current 2002, 2006 and 2007 load shapes with 2013, 2017 and 2018 load shapes				
9	<b>Y49 Outage</b>	20.7	80.9	105.6	+0.6
	Sensitivity of reduced transfer capability on Y49 due to outage being potentially extended beyond June 2023				
10	<b>Y49 Outage</b>	19.6	79.5	103.5	-0.5
	Model Y49 with an updated outage rate based on the new line				

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