## Draft work product of the RAWG 9/2/2021

	IRM 2022 Preliminary Base Case Parametric Results on LOLH and EUE								
	With Material Changes on Magins								
Group	Group Description	Cases	Margin Change	Mover	Movement of LOLH and EUE				
			NYCA (pct pts)	NYCA LOLE	NYCA LOLH	NYCA EUE			
			<b>NTCA</b> (per pis)	(Days/yr)	(Hours/yr)	(MWH/yr)			
0	Starting Point	IRM 2021 Final Base Case	20.70	0.10	0.36	243.68			
	MARS Versions & GE Code Updates	Change only (delta)		0.24	0.77	114.10			
1	WARS VEISIONS & OL COUE Opuates	Drastic change in EUE due mainly	to updating ene	ergy limitations in Ontario's model <sup>1</sup> .					
		Adjust to LOLE Criteria (delta)	-0.16	N/A	0.00	3.26			

	New Summer LFU	Change only (delta) - -0.03 -0.11 -133.48					
2		Drop in all indices aligned with lower IRM					
		Adjust to LOLE Criteria (delta)-1.23N/A0.00				-0.92	

ſ		Thermal Outage Rates (2016-2020)	Change only (delta)0.01 -0.04 -14.43				
	3	mermai Outage Nates (2010-2020)	Drop in all indices aligned with lower IRM				
			Adjust to LOLE Criteria (delta)	-0.32	N/A	0.00	9.91

ſ			Change only (delta)	-	0.00	0.00	-2.38		
	4	Wind Shapes (2016-2020)	A drop in unserved energy should align with a lower IRM. This mismatch in IRM vs other me could be explained by the addition of the year 2020 wind shape having better <i>off peak</i> assist than the on peak hours, compared to the dropped year 2015. The shifting method could also						
			than the <i>on</i> peak hours, compared to the dropped year 2015. The shifting method could also be involved.						
			Adjust to LOLE Criteria (delta)	0.09	N/A	0.00	-7.16		

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	ROR Shapes	Change only (delta) - 0.00 0.00 -4.25				-4.25
5	(2016-2020)	Drop in all indices aligned with lower IRM				
		Adjust to LOLE Criteria (delta) -0.06 N/A 0.00 -1.1				-1.18

	DMNC Value Update per Gold Book	Change only (delta) - 0.00 0.00 7.71				7.71
6	2021	Mismatch in IRM lowering while EUE increases needs to be explained.				
		Adjust to LOLE Criteria (delta) -0.34 N/A 0.00 9.75				9.75

ſ		Update to ELR Units	Change only (delta)		0.00	0.00	-4.50
	7	Opuale to ELK Offics	Drop in all indices aligned with lower IRM				
			Adjust to LOLE Criteria (delta)	-0.05	N/A	0.00	-1.42

	New Reserve Allocation	Change only (delta)	-	0.00	0.00	0.04
8		This EUE recently changed. Mismatch in IRM and EUE needs to be explained.				
		Adjust to LOLE Criteria (delta)	0.09	N/A	0.00	-6.04

		Change only (delta)	-	0.00	0.00	-3.06
9	New Wind Resource	The addition of any resource with no co addtion is less effective on peak than m higher. Not sure if this pattern is confir	nore traditional r	esources, ma	king the adjus	
		Adjust to LOLE Criteria (delta)	0.47	N/A	0.00	1.55

	Topology	Change only (delta)	-	0.00	0.00	-0.81
10	Topology	Marginal mismatch is not of concern				
		Adjust to LOLE Criteria (delta)	0.03	N/A	0.00	-0.81

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11	2021 Gold Book Forecast for 2022	Change only (delta)	-	-0.02	-0.06	-36.44
		The increase in the other metrics may be due to the zone K requirement going up despite the				
		statewide IRM going down. We should ask about whether the zonal risk (LOLH and EUE) can be				
		determined from the model.				
		Adjust to LOLE Criteria (delta)	-0.68	N/A	0.00	4.51

Preliminary Base Case Parametric Results**/***			TBD	TBD	

1. NYISO may have an explanation for this case.

The following LOLH and EUE metrics are reported for information only, as requested by the NYSRC.

The reported metrics were obtained as part of the 2021 IRM parametric studies for the Preliminary Base Case (PBC), and therefore the metrics are reported in groups consistent with the parametric studies results.

Each group contains one or more changes to the study database and these changes are similar in nature as indicated in the group description.

The parametric studies are conducted on an incremental basis, and therefore, the outcomes from a later group may include the database changes performed in earlier groups.

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The IRM movement due to the database changes of the entire group is included in the column "Margin Change" for reference. These results are consistent with the PBC results presented at the June 29 ICS meeting.

The reported metrics aim to demonstrate the isolated impacts due to the group of database changes, to the extent possible. Therefore, the movement of LOLH and EUE, i.e. the delta, compares the at-criteria results against the previous at-criteria case results before the database changes are applied.

The results are based on parametric analysis. The Tan45 process will be conducted on the final PBC database, and the LOLH and EUE statistics are expected to change post Tan 45 process.