

Installed Reserve Margin (IRM), Forecast Pool Requirement (FPR), and Effective Load Carrying Capability (ELCC) for 2025/2026 3IA

Josh Bruno Resource Adequacy Planning Planning Committee January 7, 2025



2025/26 Assumed Resource Portfolio

ELCC Class	Effective Nameplate (MW)	Installed Capacity (MW)	
Onshore Wind	11,486	2,293	
Offshore Wind	Small Sample Size	Small Sample Size	
Solar Fixed Panel	1,844	832	
Solar Tracking Panel	11,566	7,152	
Landfill Gas Intermittent	167	118	
Hydro Intermittent	736	519	
4-hr Storage, 6-hr Storage, 8-hr Storage, 10-hr Storage	5,609	5,609	
Solar-Storage Hybrid	Small Sample Size	Small Sample Size	
DR	Not Applicable	7,934	
Nuclear	Not Applicable	32,147	
Coal	Not Applicable	36,044	
Gas CC (Single and Dual Fuel)	Not Applicable	56,719	
Gas CT	Not Applicable	11,122	
Gas CT Dual Fuel	Not Applicable	13,117	
Diesel	Not Applicable	333	
Steam	Not Applicable	9,851	
Hydro with Non-Pumped Storage	2,034	1,969	
Other Thermal	Not Applicable	3,151	

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2025/26 ELCC Class Ratings

ELCC Class	Final Rating
Onshore Wind	42%
Offshore Wind	71%
Solar Fixed Panel	8%
Solar Tracking Panel	11%
Landfill Gas Intermittent	51%
Hydro Intermittent	37%
4-hr Storage	44%
6-hr Storage	53%
8-hr Storage	58%
10-hr Storage	67%
DR	68%
Nuclear	95%
Coal	83%
Gas CC	77%
Gas CT	59%
Gas CT Dual Fuel	78%
Diesel	92%
Steam	73%

pm2025/26 3IA Final ELCC Class Ratings vs 2025/26 BRA Ratings

ELCC Class	2025/26 3IA Rating	2025/26 BRA Rating	Change (%)
Onshore Wind	42%	35%	+7
Offshore Wind	71%	60%	+11
Solar Fixed Panel	8%	9%	-1
Solar Tracking Panel	11%	14%	-3
Landfill Gas Intermittent	51%	54%	-3
Hydro Intermittent	37%	37%	0
4-hr Storage	44%	59%	-15
6-hr Storage	53%	67%	-14
8-hr Storage	58%	68%	-10
10-hr Storage	67%	78%	-11
DR	68%	76%	-8
Nuclear	95%	95%	0
Coal	83%	84%	-1
Gas CC	77%	79%	-2
Gas CT	59%	62%	-3
Gas CT Dual Fuel	78%	79%	-1
Diesel	92%	92%	0
Steam	73%	75%	-2

- The majority of ratings for Unlimited Resource ELCC Classes saw no or small changes
- The majority of the rest of the ELCC Classes saw changes that are consistent with a greater share of winter risk (i.e. increases for the wind classes and decreases for all the other classes)

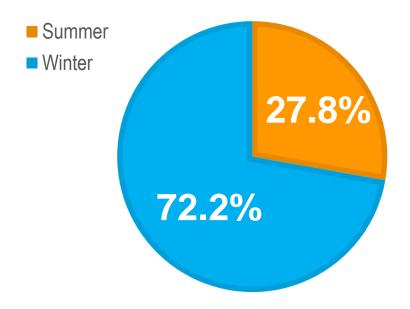
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Seasonal Changes in 25/26 3IA LOLE vs 25/26 BRA

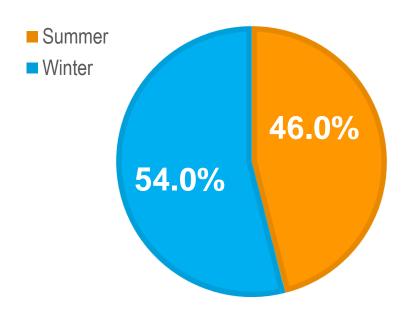
25/26 3IA Results

Seasonal Share of LOLE = 0.1 days/year



25/26 BRA Results

Seasonal Share of LOLE = 0.1 days/year

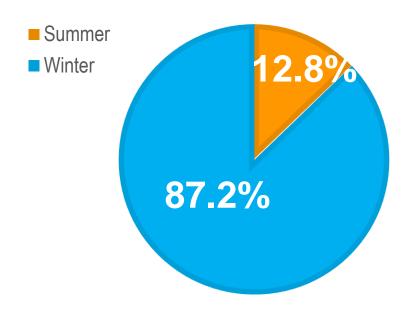




Seasonal Changes in 25/26 3IA LOLH vs 25/26 BRA

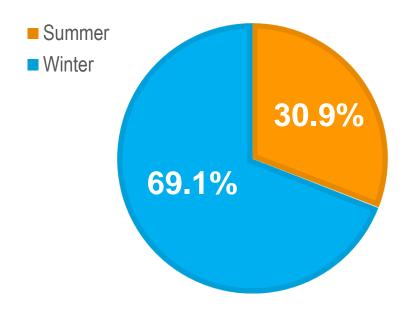
25/26 3IA Results

Seasonal Share of LOLH = 0.41 hours/year



25/26 BRA Results

Seasonal Share of LOLH = 0.323 hours/year

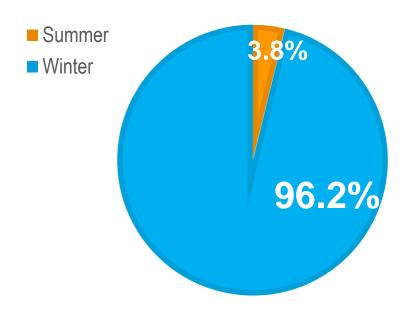




Seasonal Changes in 25/26 3IA EUE vs 25/26 BRA

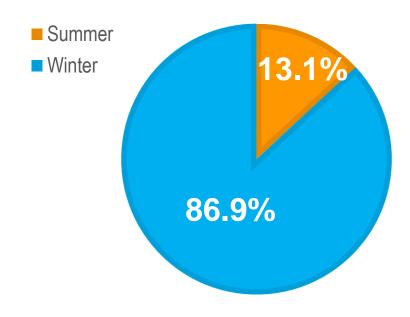
25/26 3IA Results

Seasonal Share of EUE = 2280.0 MWh/year



25/26 BRA Results

Seasonal Share of EUE = 1452.6 MWh/year





2025/26 3IA IRM and FPR

- The total amount of ICAP in the model is 188,920 MW
- The **peak load** ("solved load") that the above amount of ICAP can serve while meeting the LOLE criteria of 1 day in 10 years is **157,382 MW**
- The Capacity Benefit of Ties (CBOT) is assumed to be 1.5%, the same value used in previous
 calculations
- Therefore, the 2025/26 3IA IRM equals 18.5%:
 - IRM = [(188,920 / 157,382) 1] 1.5%
 - IRM = [1.200 1] 0.015 = 18.5%
- The total amount of Accredited UCAP in the model is 147,680 MW
- The **Pool-Wide Average AUCAP Factor** is 147,680 / 188,920 = **0.7817**
- Therefore, the 2025/26 3IA FPR equals 0.9263
 - FPR = $(1 + 0.185) \times 0.7817 = 0.9263$



2025/26 3IA IRM and FPR vs 2025/26 BRA

Parameter	2025/26 3IA Value	2025/26 BRA Value	Change
ICAP	188,920 MW	191,693 MW	-2,773 MW
"Solved Load"	157,382 MW	160,624 MW	-3,242 MW
СВОТ	1.5%	1.5%	0
IRM	18.5%	17.8%	+0.7%
Accredited UCAP	147,680 MW	152,765 MW	-5,085 MW
Pool-Wide Average UCAP			
Factor	0.7817	0.7969	-0.0152
FPR	0.9263	0.9387	-0.0124

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Endorsement of the following values for 2025/26 3IA

- IRM = 18.5%
- FPR = 0.9263



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FPR, IRM, & ELCC for 25/26 3IA



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