

# Installed Reserve Margin (IRM), Forecast Pool Requirement (FPR), and Effective Load Carrying Capability (ELCC) for 2026/2027 BRA

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#### Recalculation of IRM and FPR for 2026/27

With FERC's approval of Docket # ER24-99, the Installed Reserve Margin (IRM) and Forecast Pool Requirement (FPR) for 2026/27 needed to be recalculated. They had originally been calculated as part of the 2023 RRS.

#### Relevant Provisions in Docket # ER24-99 for IRM and FPR

Calculation of the IRM using an hourly loss of load model and the LOLE criteria of 1 day in 10 years where IRM is based on the total installed capacity included in the model, reduced by the Capacity Benefit of Ties (CBOT).

Calculation of the Pool-Wide Average Accredited UCAP Factor is based on the ratio of total UCAP to total ICAP in the model

Calculation of the FPR is performed using the following formula:

FPR = (1 + IRM) x Pool-Wide Average Accredited UCAP Factor



# Highlights about Input Data for 2026/27 Calculations

#### 1. Notice of Intent to Offer

Planned resources that submitted a Notice of Intent for the 2026/27 BRA were included in the Assumed Resource Mix.

#### 2. Dual Fuel Attestation

Gas Units that submitted Dual Fuel Attestation under the revised rules recently approved by FERC (Docket No. <u>ER24-1988</u>) were included in the Gas CT Dual Fuel and Gas CC Dual Fuel ELCC Classes, as appropriate.

#### 3. Announced Deactivations

All units with Announced Deactivations scheduled to occur before June 1<sup>st</sup>, 2027 were removed from the Assumed Resource Mix

#### 4. Reliability Must Run (RMR) Units

Units with RMRs are included in the Assumed Resource Mix if the system upgrades required are scheduled to be completed after the 2026/27 Delivery Year

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## 2026/27 Assumed Resource Portfolio

ELCC Class	Effective Nameplate (MW)	Installed Capacity (MW)	
Onshore Wind	11,669	3,457	
Offshore Wind	Small Sample Size	Small Sample Size	
Solar Fixed Panel	2,670	1,228	
<b>Solar Tracking Panel</b>	13,082	8,462	
<b>Landfill Gas Intermittent</b>	172	125	
Hydro Intermittent	736	528	
4-hr Storage, 6-hr Storage, 8-hr Storage, 10-hr Storage	5,672	5,672	
Solar-Storage Hybrid	Small Sample Size	Small Sample Size	
DR	Not Applicable	7,954	
Nuclear	Not Applicable	32,181	
Coal	Not Applicable	35,809	
Gas CC (Single and Dual Fuel)	Not Applicable	57,735	
Gas CT	Not Applicable	11,115	
Gas CT Dual Fuel	Not Applicable	12,652	
Diesel	Not Applicable	333	
Steam	Not Applicable	9,857	
Hydro with Non-Pumped Storage	1,948	1,948	
Other Thermal	Not Applicable	3,048	



# 2026/27 ELCC Class Ratings

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ELCC Class	Final Rating
Onshore Wind	34%
Offshore Wind	61%
<b>Solar Fixed Panel</b>	8%
<b>Solar Tracking Panel</b>	13%
<b>Landfill Gas Intermittent</b>	54%
<b>Hydro Intermittent</b>	38%
4-hr Storage	57%
6-hr Storage	65%
8-hr Storage	68%
10-hr Storage	78%
DR	74%
Nuclear	95%
Coal	84%
Gas CC	78%
Gas CT	68%
Gas CT Dual Fuel	79%
Diesel	91%
Steam	74%

These ratings have been posted in PJM's ELCC website



# 2026/27 Final ELCC Class Ratings vs 2025/26 Ratings

<b>ELCC Class</b>	2026/27 Rating	2025/26 Rating	Change (%)
Onshore Wind	34%	35%	-1
Offshore Wind	61%	60%	+1
<b>Solar Fixed Panel</b>	8%	9%	-1
<b>Solar Tracking Panel</b>	13%	14%	-1
<b>Landfill Gas Intermittent</b>	54%	54%	0
<b>Hydro Intermittent</b>	38%	37%	+1
4-hr Storage	57%	59%	-2
6-hr Storage	65%	67%	-2
8-hr Storage	68%	68%	0
10-hr Storage	78%	78%	0
DR	74%	76%	-2
Nuclear	95%	95%	0
Coal	84%	84%	0
Gas CC	78%	79%	-1
Gas CT	68%	62%	+6
Gas CT Dual Fuel	79%	79%	0
Diesel	91%	92%	-1
Steam	74%	75%	-1

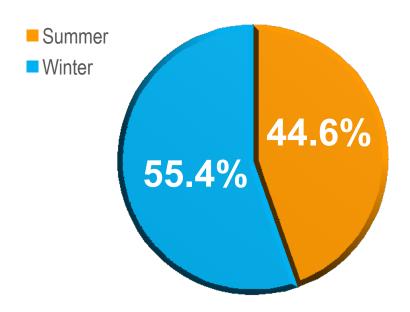
- The majority of ratings remained unchanged or moved by ± 1% or ± 2%.
- The majority of the above changes are driven by a slightly higher winter share of the loss of load risk
- The largest change was for the Gas CT class. The primary driver for this change is the announced deactivation of resources that previously belonged to this class.



# Seasonal Changes in 26/27 LOLE vs 25/26

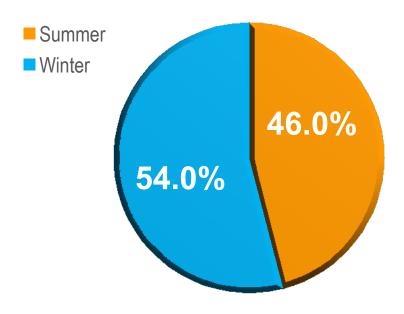
#### 26/27 Results

Seasonal Share of LOLE = 0.1 days/year



#### 25/26 Results

Seasonal Share of LOLE = 0.1 days/year

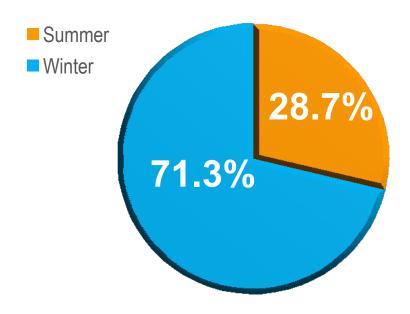




# Seasonal Changes in 26/27 LOLH vs 25/26

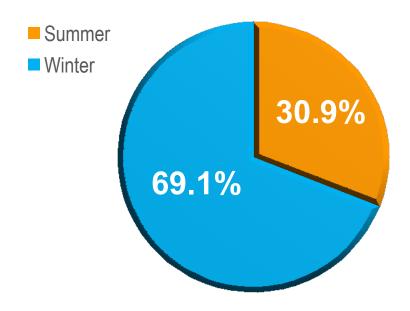
#### 26/27 Results

Seasonal Share of LOLH = 0.338 hours/year



#### 25/26Results

Seasonal Share of LOLH = 0.323 hours/year

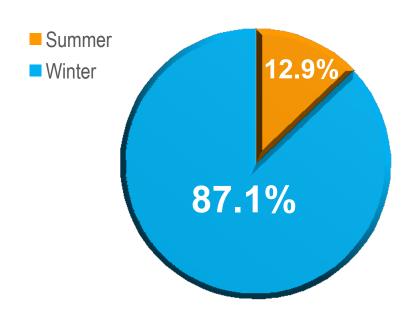




# Seasonal Changes in 26/27 EUE vs 25/26

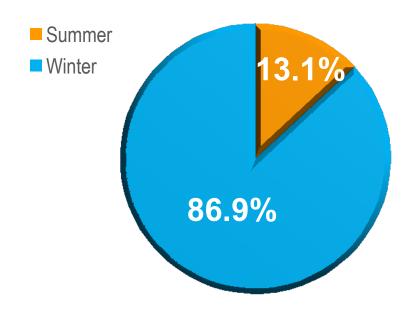
#### 26/27 Results

Seasonal Share of EUE = 1468.8 MWh/year



#### 25/26 Results

Seasonal Share of EUE = 1452.6 MWh/year





# Key Historical Load and Performance Days Based on LOLH contribution

Load Day	LOLH Share
1/18/1994	6.9%
1/21/1994	6.4%
1/20/1994	6.2%
1/19/1994	5.4%
1/15/1994	5.4%
2/15/2015	4.7%
2/19/2015	3.8%
1/18/1997	3.1%
2/16/2015	2.8%
1/7/2018	2.0%
2/3/1996	2.0%
7/29/2006	1.9%
1/16/1994	1.9%
1/6/2018	1.8%
7/21/2011	1.8%
1/8/2014	1.8%
7/15/2011	1.6%
7/27/2011	1.6%
7/27/2006	1.6%
7/8/1995	1.5%

About 64% of the LOLH is concentrated in 20 **load days**:

- 14 in the winter
- 6 in the summer

<b>Performance Day</b>	<b>LOLH Share</b>
1/7/2014	37.5%
12/24/2022	13.3%
1/8/2014	9.1%
1/22/2014	3.3%
7/18/2012	2.0%
12/25/2022	1.4%
12/23/2022	1.4%
1/31/2019	1.4%
12/26/2022	1.3%
7/17/2012	1.3%
6/29/2012	1.3%
1/28/2014	0.8%
7/25/2016	0.5%
7/26/2016	0.5%
1/23/2013	0.4%
6/29/2021	0.4%
8/25/2021	0.3%
8/24/2020	0.3%
7/18/2013	0.3%
7/17/2013	0.3%

About 77% of the LOLH is concentrated in 20 performance days:

- 10 in the winter
- 10 in the summer



# Key Historical Load and Performance Days Based on LOLH contribution

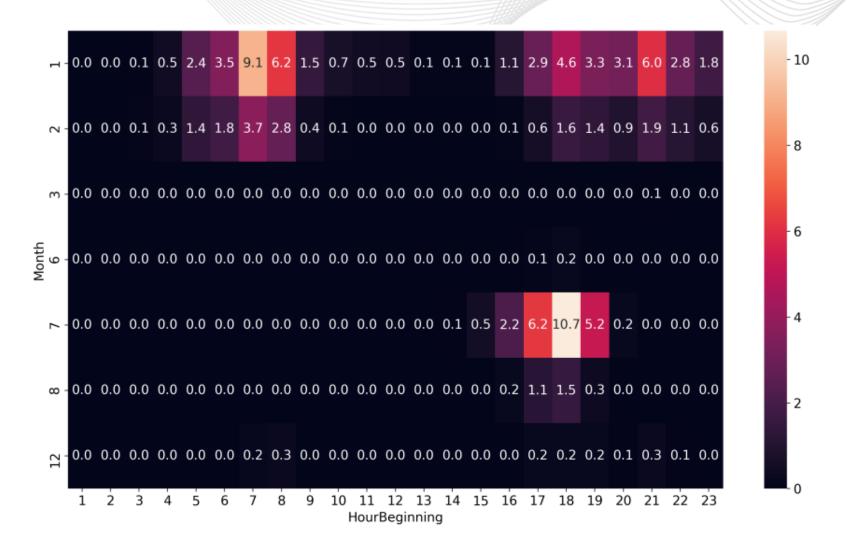
Load Day	Performance Day	<b>LOLH Share</b>
1/21/1994	1/7/2014	5.7%
1/20/1994	1/7/2014	5.5%
1/18/1994	1/7/2014	5.1%
1/15/1994	1/7/2014	4.6%
1/19/1994	1/7/2014	4.4%
2/16/2015	1/7/2014	2.7%
2/15/2015	1/8/2014	2.4%
2/19/2015	12/24/2022	1.9%
1/16/1994	1/7/2014	1.9%
2/19/2015	1/8/2014	1.7%
2/15/2015	12/24/2022	1.7%
1/7/2018	12/24/2022	1.7%
1/18/1997	1/8/2014	1.5%
1/28/2014	1/7/2014	1.5%
1/6/2018	12/24/2022	1.4%
2/3/1996	12/24/2022	1.3%
2/4/1996	1/7/2014	1.1%
1/19/1997	1/7/2014	1.1%
1/18/1994	1/22/2014	1.1%
1/18/1997	12/24/2022	1.1%

About 49% of the LOLH is concentrated in 20 load days & performance days:

- 20 in the winter
- 0 in the summer

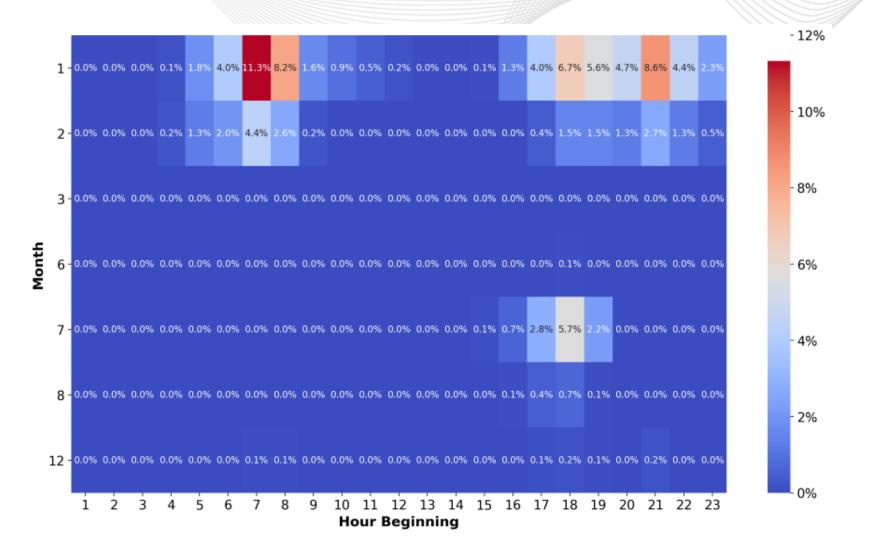


# LOLH Month/Hour Heatmap





# **EUE Month/Hour Heatmap**



## 2026/27 IRM and FPR

- The total amount of ICAP in the model is 192,547 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 160,351 MW
- The Capacity Benefit of Ties (CBOT) is assumed to be 1.5%, the same value used in the 2023 RRS
- Therefore, the 2026/27 IRM equals 18.6%:
  - IRM = [(192,547 / 160,351) 1] 1.5%
  - IRM = [1.201 1] 0.015 = 18.6%
- The total amount of Accredited UCAP in the model is 152,067 MW
- The **Pool-Wide Average AUCAP Factor** is 152,067 / 192,547 = **0.7898**
- Therefore, the 2026/27 FPR equals 0.9367
  - FPR = (1 + 0.186) x 0.7898 = 0.9367

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### 2026/27 IRM and FPR vs 2025/26

Parameter	2026/27 Value	2025/26 Value	Change
ICAP	192,547 MW	191,693 MW	+854 MW
"Solved Load"	160,351 MW	160,624 MW	-273 MW
СВОТ	1.5%	1.5%	0
IRM	18.6%	17.8%	+0.8%
Accredited UCAP	152,067 MW	152,765 MW	-698 MW
Pool-Wide Average UCAP			
Factor	0.7898	0.7969	-0.0071
FPR	0.9367	0.9387	-0.002

Relative to 2025/26, a greater amount of ICAP in 2026/27 can serve a lower "solved load" while meeting an LOLE of 0.1 days/year. This produces higher accreditation derates (i.e., a lower Pool-Wide Average UCAP Factor) and a slightly lower FPR.



Endorsement of the following values for 2026/27

- IRM = 18.6%
- FPR = 0.9367



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