

2022 Reserve Requirement Study (RRS) Final Results

Patricio Rocha Garrido Resource Adequacy Planning Members Committee November 16, 2022



- Study results will re-set the FPR and IRM for 2023/24, 2024/25, 2025/26 and establish initial IRM and FPR for 2026/27.
- Capacity model built with GADS data from 2017-2021 time period for all weeks of the year except the winter peak week.
 - For the winter peak week, the capacity model is created using historical actual RTOaggregate outage data from time period DY 2007/08 – DY 2021/22 (in addition, data from DY 2013/14 was dropped and replaced with data from DY 2014/15)
- PJM and World load models based on 2002-2012 time period and 2022 PJM Load Forecast.
- Study assumptions were endorsed at June, 2022 PC meeting.
- Load Model selection was endorsed at August, 2022 PC meeting.



2022 RRS Results vs 2021 RRS Results

2022 RRS Study results:

	Delivery Year	Calculated	Recommended	Average	Recommended
RRS Year	Period	IRM	IRM	EFORd	FPR*
2022	2023 / 2024	14.87%	14.9%	4.87%	1.0930
2022	2024 / 2025	14.75%	14.8%	4.83%	1.0926
2022	2025 / 2026	14.72%	14.7%	4.81%	1.0918
2022	2026 / 2027	14.70%	14.7%	4.81%	1.0918

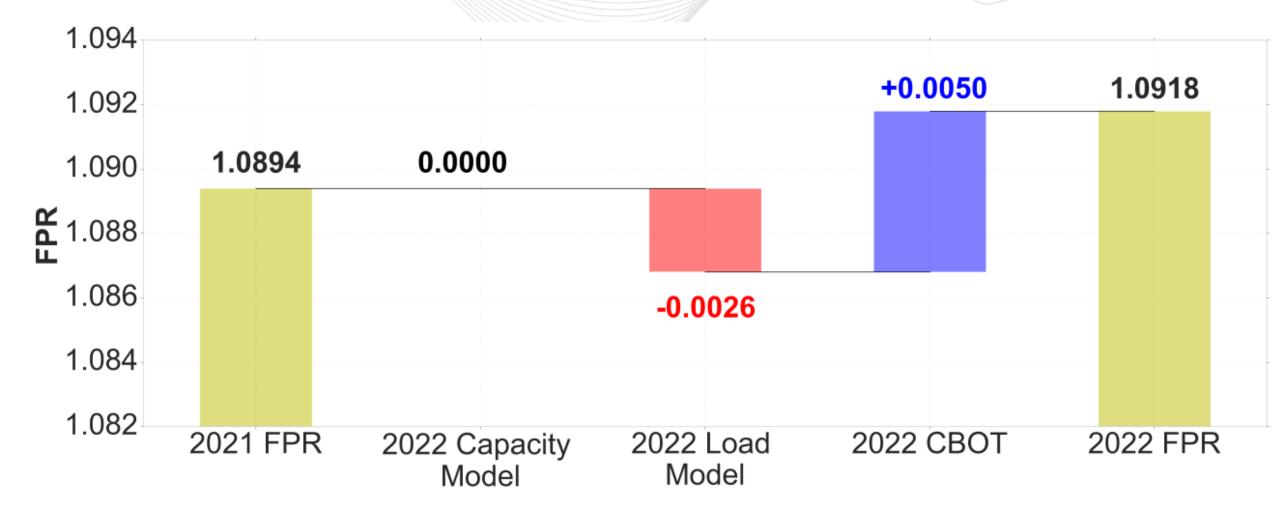
2021 RRS Study results:

	Delivery Year	Calculated	Recommended	Average	Recommended
RRS Year	Period	IRM	IRM	EFORd	FPR*
2021	2022 / 2023	14.93%	14.9%	5.08%	1.0906
2021	2023 / 2024	14.76%	14.8%	5.04%	1.0901
2021	2024 / 2025	14.68%	14.7%	5.02%	1.0894
2021	2025 / 2026	14.66%	14.7%	5.02%	1.0894

* FPR = (1 + IRM)*(1 - Average EFORd)

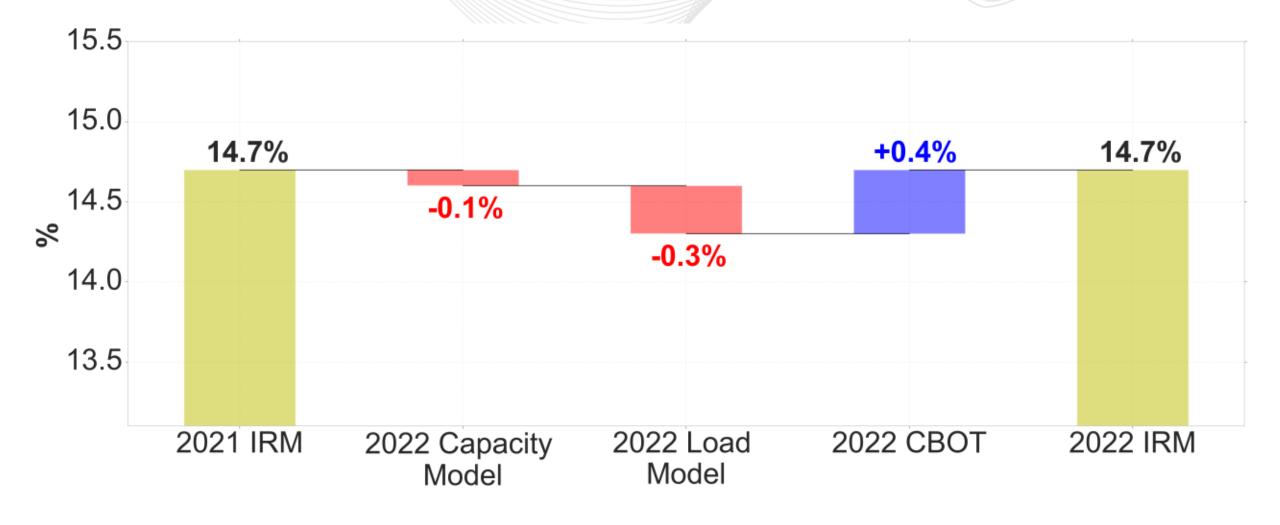


2022 FPR – Waterfall Chart





2022 IRM – Waterfall Chart





Explanation of Changes

- The 2022 Load Model, relative to the 2021 Load Model, puts downward pressure on both the FPR and the IRM
 - Variability of the annual peak load distribution is less in 2022 RRS than in 2021 RRS
- The 2022 Capacity Benefit of Ties (CBOT), relative to the 2021 CBOT, puts upward pressure on both the FPR and the IRM
 - The CBOT decreased to 1.0% (2022 RRS) from 1.4% (2021 RRS).
 - The decrease is driven by a higher PJM peak load at the time of the World's peak (96.7% of the annual peak in 2022 while in 2021 it was 92.1%)
- The 2022 Capacity Model, relative to the 2021 Capacity Model, puts downward pressure on the IRM.
 - The Average EEFORd in the 2022 RRS (for DY 2026) is 5.70% whereas in the 2021 RRS (for DY 2025) was 5.80 %



2022 RRS Report – Additions/Changes/Deletions

- The 2022 RRS Report has been posted alongside this presentation
- No major additions/changes/deletions are included in the 2022 RRS Report



Next Steps

- For FPR and IRM
 - Dec, PJM Board: final approval of FPR and IRM



Requested MC Action

 Endorsement of the Recommended FPR and IRM values in bold in the table below

	Delivery Year	Calculated	Recommended	Average	Recommended
RRS Year	Period	IRM	IRM	EFORd	FPR
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SME/Presenter:

Patricio Rocha-Garrido

Patricio.Rocha-Garrido@pjm.com

2022 Reserve Requirement Study

Member Hotline (610) 666 – 8980 (866) 400 – 8980 custsvc@pjm.com

