

2019 RRS Preliminary Assessment Results

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2019 Reserve Requirement Study (RRS)

- Study results will re-set the IRM and FPR for 2020/21, 2021/22, 2022/23 and establish initial IRM and FPR for 2023/24.
- Capacity model built with GADS data from 2014-2018 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 2018/19 (in addition, data from DY 2013/14 was dropped and replaced with data from DY 2014/15)
 - The Capacity Model is based on information as of June 1, 2019. This information will be updated in the coming weeks.
- PJM and World load models based on 2003-2012 time period and 2019 PJM Load Forecast.
- Study assumptions were endorsed at June, 2019 PC meeting.
- Load Model selection was endorsed at July, 2019 PC meeting.



2019 RRS Results vs 2018 RRS Results

2019 RRS Study results:

	Delivery Year	Calculated	Recommended	Average	Recommended
RRS Year	Period	IRM	IRM	EFORd	FPR*
2019	2020 / 2021	15.54%	15.5%	5.84%	1.0875
2019	2021 / 2022	15.26%	15.3%	5.65%	1.0879
2019	2022 / 2023	14.80%	14.8%	5.35%	1.0866
2019	2023 / 2024	14.74%	14.7%	5.33%	1.0859

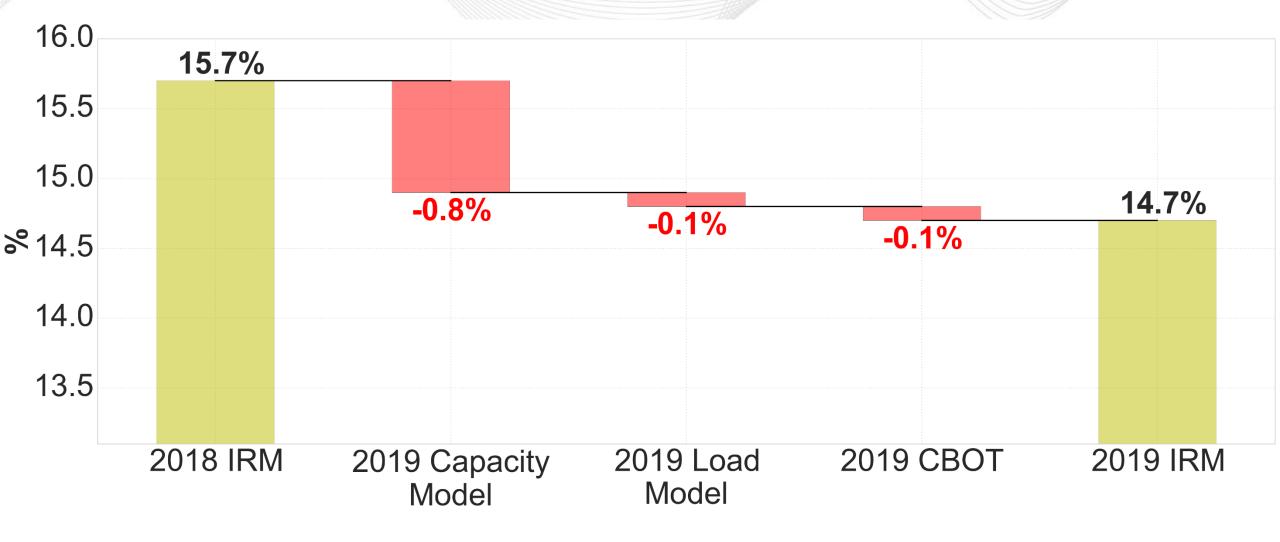
2018 RRS Study results:

	Delivery Year	Calculated	Recommended	Average	Recommended
RRS Year	Period	IRM	IRM	EFORd	FPR*
2018	2019 / 2020	15.97%	16.0%	6.08%	1.0895
2018	2020 / 2021	15.89%	15.9%	6.04%	1.0890
2018	2021 / 2022	15.84%	15.8%	6.01%	1.0884
2018	2022 / 2023	15.66%	15.7%	5.90%	1.0887

^{*} FPR = (1 + IRM)*(1 - Average EFORd)

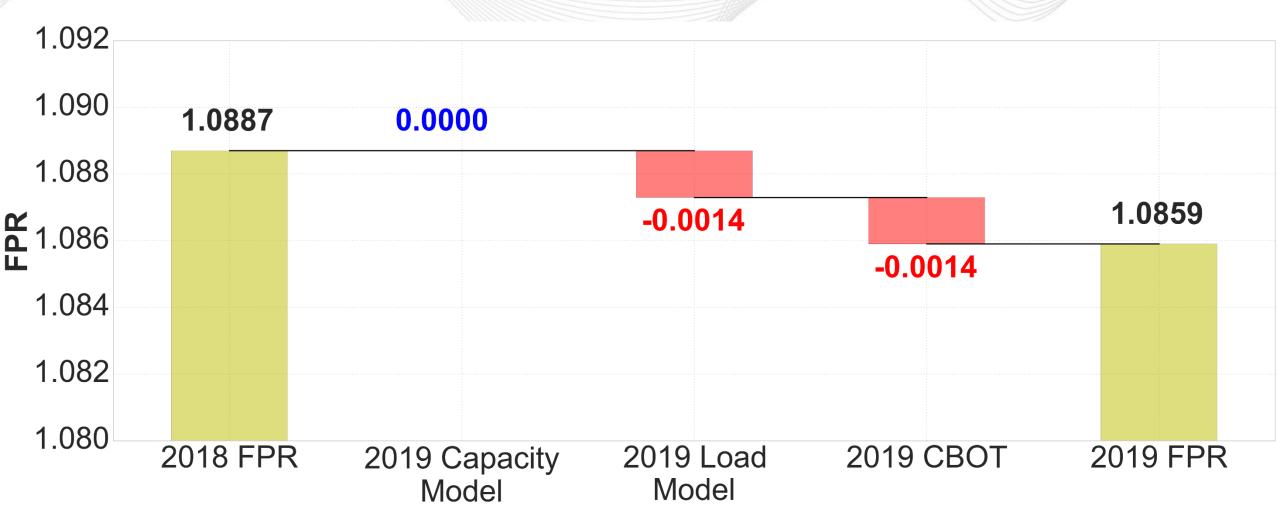


2019 IRM – Waterfall Chart





2019 FPR - Waterfall Chart





- The 2019 Load Model and the 2019 Capacity Benefit of Ties (CBOT) put downward pressure on both the IRM and the FPR
 - The August peak in the 2019 RRS is 96.5% of the July peak whereas in the 2018 RRS it was 97.0%
 - The CBOT increased from 1.5% (2018 RRS) to 1.6% (2019 RRS)
- The 2019 Capacity Model is driving the decrease in the IRM.
 - The Average EEFORd in the 2019 RRS (for DY 2023) is 6.03% whereas in the 2018 RRS (for DY 2022) was 6.66 %
 - The reason for the drop in Average EEFORd is the retirement of ~12,000 MW with average EEFORd of 11.83% and the addition of ~15,000 MW with average EEFORd of 4.12% (mostly Combined Cycle units)



- Sep 12, PC: review of RRS preliminary results
- Oct, RAAS: distribution of final report, request for endorsement of recommended IRM and FPR for DY's 2020, 2021, 2022, and 2023
- Oct. 17, PC: vote on IRM and FPR
- Oct-Nov, MRC and MC: review and vote on IRM and FPR
- Dec, PJM Board: final approval