

Item 2: Proposed Maximum Daily Resource Planned Outage Capacity Methodology (Related to NPRR1108)



Shun Hsien (Fred) Huang
Director, Operations Support

Technical Advisory Committee Meeting

ERCOT Public
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Status Update

- One joint comment was submitted by Market Participants after the May 25, 2022 TAC meeting. ERCOT has reviewed this comment and made changes to the draft methodology.

Data Inputs for the Maximum Daily Resource Planned Outage Capacity Calculation (Example)

Components included in the Maximum Daily Resource Planned Outage Capacity Calculation	Spring	Summer	Fall	Winter
installed thermal Generation Resource seasonal capacity is consistent with the calculation used in Protocol Section 3.2.6.2.2 for the applicable seasons, and excludes IRRs, Generation Resources in industrial generation facilities, ESRs, and DGR/DESRs, and peak average capacity of hydroelectric Generation Resources is consistent with the calculation used in the Protocol Section 3.2.6.2.2 for the applicable seasons	66134	64153	64655	67933
SWGR capacity available to ERCOT is consistent with the calculation used in Protocol Section 3.2.6.2.2 for the applicable seasons	3133	3056	3081	3294
available mothballed capacity is consistent with the calculation used in Protocol Section 3.2.6.2.2 for the applicable seasons	378	588	0	0
capacity from private use networks (PUN) is consistent with the calculation used in Protocol Section 3.2.6.2.2 for the applicable season	2875	3210	2743	3549
DC Tie capacity is consistent with the calculation used in Protocol Section 3.2.6.2.2 for the application seasons	720	850	720	720
targeted reserve level is consistent with the Outage Adjustment Evaluation (OAE) in the Advance Action Notice (AAN) process described in Protocol Section 3.1.6.9	6500	6500	6500	6500
installed IRR capacity is determined based on the 10th percentile of hourly historical wind and solar output for the peak load hours of the same season for the previous three years	9402	4883	6990	4299
capacity of planned thermal Generation Resources is determined based on the thermal Generation Resources that meet the requirements of Planning Guide Section 6.9, the associated maximum sustainable capacity and the planned in-service date for each Resource identified in the unit registration process	reference: Monthly Generator Interconnection Status Report, https://www.ercot.com/misapp/GetReports.do?reportTypeId=15933			
capacity of planned IRRs is determined based on the installed capacity of those IRRs that meet Planning Guide Section 6.9, the planned in-service date for each IRR identified in the unit registration process, and the IRR's expected power production for the relevant season				
the forecasted Demand reduction provided by price-responsive Demand is consistent with the Outage Adjustment Evaluation (OAE) in the Advance Action Notice (AAN) process described in Protocol Section 3.1.6.9	1500	1500	1500	1500
unplanned outage capacity for thermal Generation Resources is calculated based on the 99th percentile of unplanned outages for the same season in the preceding 3 years	13567	8316	11364	10226
long term Load forecast is determined for the study years based on the 50th percentile of the historical load profile, smoothed using a rolling 7-day average.	reference: Long-Term Load Forecast Report, https://www.ercot.com/files/docs/2022/02/10/2022_LTLF_Hourly.xlsx			

Annual Review of Methodology

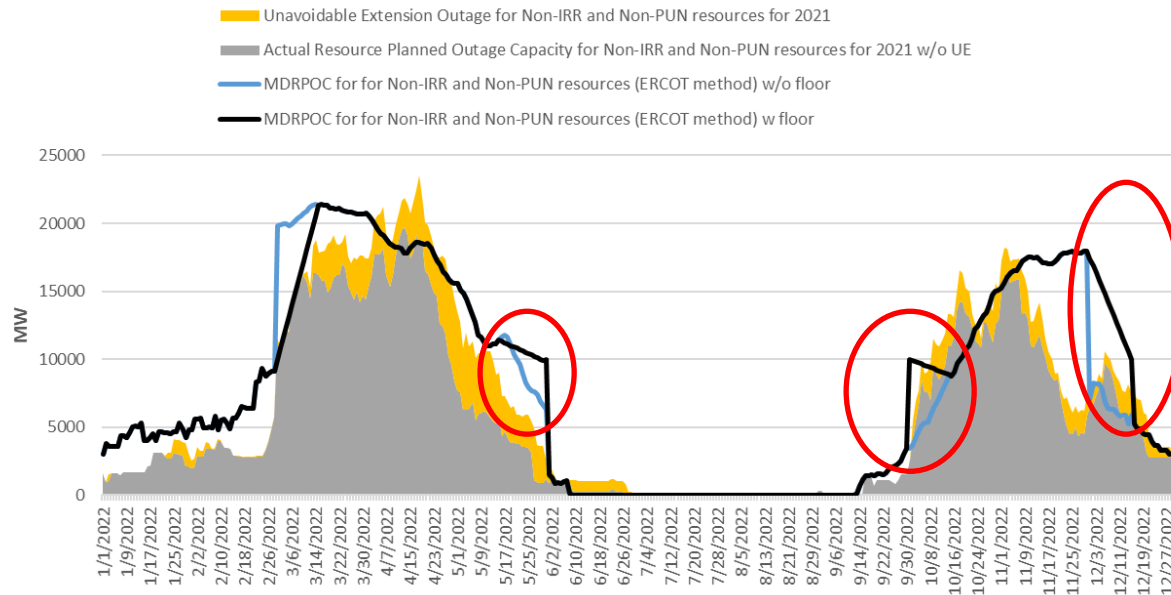
- ERCOT agrees with the joint commenters' proposal for an annual review of the methodology. This language has been incorporated into the methodology document.

For each calendar year, ERCOT will review the current methodology and the calculated Maximum Daily Resource Outage Capacity and report its findings to the Technical Advisory Committee (TAC). The findings will include, but not be limited to, the following:

- The aggregated hours of Resource Outages, including Planned Outages, Maintenance Outages, and Forced Outages, in the preceding calendar year.
- Comparison of the calculated Maximum Daily Resource Planned Outage Capacity and the aggregated hours of thermal Resource Planned Outages in the preceding calendar year.

Concerns with Outage Floor Proposal

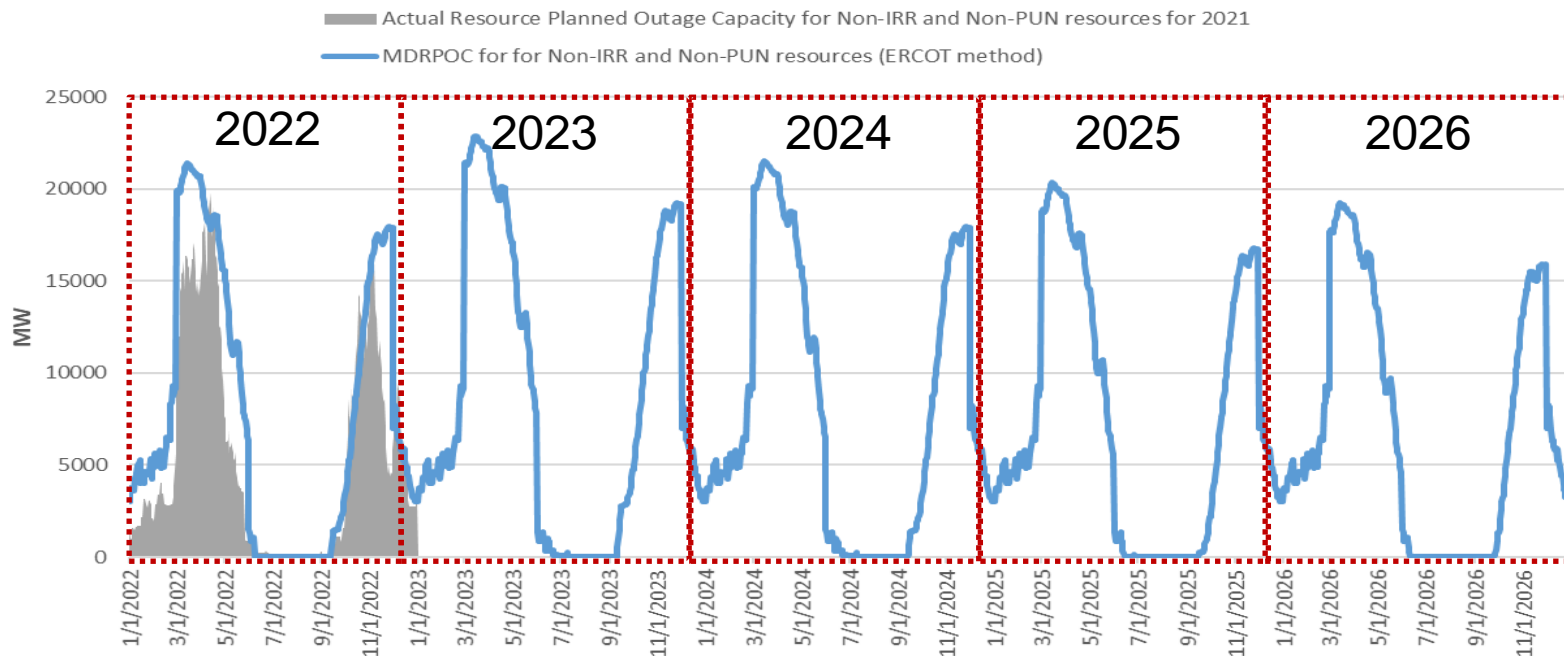
- Establishing a guaranteed minimum (or “floor”) for the methodology impairs ERCOT’s ability to ensure reliability by preventing ERCOT from ensuring sufficient generation capacity is available to meet expected conditions in cases where the floor exceeds the calculated maximum capacity.
- A floor is also unnecessary: ERCOT’s methodology will ensure sufficient outage headroom to conduct all needed generator maintenance.
- If expected operating conditions improve, ERCOT will increase the MDRPOC to allow more Planned Outages for a given day.



Maximum Daily Resource Planned Outage Capacity

- Using 2021 actual planned outages (which were highest outages since 2019), the methodology provides additional margin* for 2022-2026.

Y2022	Y2023	Y2024	Y2025	Y2026
38%	51%	40%	30%	22%



Impact of Input Assumptions in the Methodology

- Various input assumptions based on the received comments were tested to assess the impact to the methodology.
- The proposed ERCOT methodology would provide sufficient opportunities for all generators to take all needed planned outages each year.
- ERCOT will review the impact of this methodology and outage performance annually.

Maximum Daily Resource Planned Outage Capacity	IRR Capacity Contribution	Unplanned Outage Capacity	Summer/Winter Historical Outage Consideration	Additional Margin in Y2022*
ERCOT Methodology	10th percentile	99th percentile	105%	38%
Sensitivity 1	25th percentile	99th percentile	105%	73%
Sensitivity 2	10th percentile	75th percentile	105%	68%
Sensitivity 3	10th percentile	99th percentile	120%	42%
Sensitivity 4	25th percentile	75th percentile	105%	104%

Question