



Item 7.1: Preview of ERCOT Recommendation regarding 2027 ERCOT Methodologies for Determining Minimum Ancillary Service Requirements

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Board of Directors Meeting

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Purpose

Provide a preview of the approach and the issues that ERCOT expects to address for the 2027 Ancillary Services (AS) Methodology.

Voting Item

Future voting item: A Board vote on the 2027 AS Methodology is anticipated during the September Board meeting.

Key Takeaways

- The 2026 AS Methodology implemented a probabilistic framework for ERCOT Contingency Reserve Service (ECRS) and Non-Spinning Reserve (Non-Spin).
- The 2027 review focuses on the appropriate criteria for AS procurement quantities.
- ERCOT plans to compare alternative criteria using AS quantity, estimated cost, and modeled reliability-risk metrics.
- ERCOT expects Regulation Up Service (Reg Up) + Responsive Reserve (RRS) restoration to remain a core reliability anchor for ECRS and Non-Spin quantities.

Background

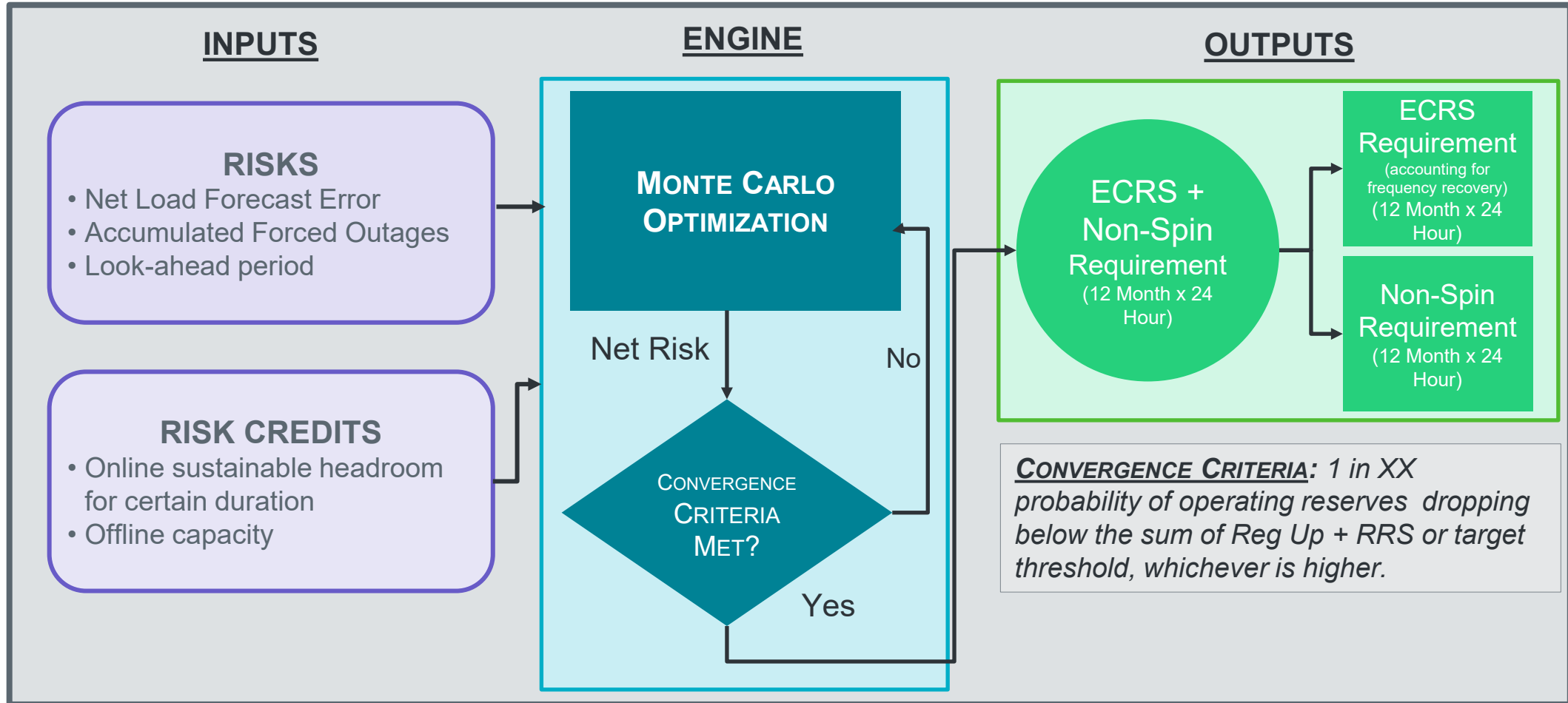
- To fulfill ERCOT Protocols Section 3.16, ERCOT reviews its AS Methodology annually; the Board reviews and recommends approval; and the Public Utility Commission of Texas (PUCT) approves the AS Methodology prior to implementation.
- The following findings in the PUCT’s 2024 Ancillary Services Study are relevant to the 2027 AS Methodology work.

2024 AS STUDY TOPIC	2026 STATUS	2027 FOCUS
<p>PROBABILISTIC MODELING TO DETERMINE AS QUANTITIES</p>	<p>✓ Implemented for ECRS and Non-Spin</p>	<p>Refine 2026’s model and use it as analytical foundation or testing alternative procurement criteria</p>
<p>APPROPRIATE CRITERIA FOR AS PROCUREMENT QUANTITIES</p>	<p>✓ Capability developed to test alternative criteria; 2026 maintained an operating posture close to 2025 while additional sensitivity analysis was deferred to the 2027 review</p>	<p>Compare alternative target reserve levels and supporting assumptions using AS quantity, estimated cost, and modeled reliability-risk metrics</p>

Key Takeaway: 2026 built the probabilistic engine for ECRS and Non-Spin; 2027 will refine that engine and use it to compare to support the PUCT’s objective, data-based AS procurement criterion.

2026 Probabilistic Framework for ECRS and Non-Spin

2027 sensitivities will be applied to risk inputs, risk credits, and convergence criteria.



Key Takeaway: The 2027 review will test sensitivities within the existing probabilistic framework: risk inputs, risk credits, and convergence criteria.

Three Core Issues Expected to Remain Central in 2027

ERCOT has been collaborating with PUCT Staff and the Independent Market Monitor (IMM) and expects the three core issues from the 2026 AS Methodology review to remain central in 2027. ERCOT plans to evaluate these issues through sensitivity analysis before bringing a September recommendation.

ISSUE	SENSITIVITIES TO BE TESTED	ERCOT'S PERSPECTIVE
Target Reserve Level and Reg Up + RRS Restoration	<p>Target reserve level: Watch, EEA1, EEA2 OR Load Shed</p> <p>Restoration Criteria: Full Reg Up + RRS restoration as base with lower values as sensitivity</p>	<p>The target reserve level is fundamentally a question for the PUCT. ERCOT will evaluate alternative target reserve levels to help inform the PUCT's operating-posture determination. However, changing the target reserve level from Watch to EEA or Load Shed may not materially reduce ECRS + Non-Spin quantities in many hours because Reg Up + RRS restoration requirement in the convergence criteria may remain the binding driver.</p> <p>While ERCOT will test reduced-restoration cases as sensitivities, ERCOT expects to propose full Reg Up + RRS restoration as the base case because restoration of these fast-response reserves is critical to maintaining reliability and supporting compliance with NERC BAL requirements.</p>
Look-Ahead Period for Forecast Error and Forced Outage Risk	In hourly increments up to 6-hour prior to operating hour beginning	Lowering look-ahead period would reduce overall amount of ECRS + Non-Spin quantities but would likely increase number of Reliability Unit Commitments (RUCs) needed.
Headroom Credit including ESR MWh Duration in Headroom Criteria	<p>Credit: Current credit approach, and higher credit levels</p> <p>Duration: 4h and lower-value sensitivities</p>	<p>Historical headroom may reflect unit commitment inefficiencies that may not be available in future operating conditions; especially true with transition to RTC+B.</p> <p>ERCOT will test higher-credit sensitivities using updated data but does not expect to rely heavily on 100% of historically available headroom or depart from applicable Protocol-defined duration requirements.</p>

Key Takeaway: The 2027 review will test the same three core parameter issues raised in 2026 and show the resulting quantity, cost, reliability-risk, and operational trade-offs.

Full Reg Up + RRS Restoration Is Core to the Criterion

ERCOT can evaluate lower ECRS + Non-Spin quantities under different assumptions, but the proposed 2027 AS Methodology should preserve the ability to fully restore deployed Reg Up + RRS. ECRS and Non-Spin cover forecast error and forced outage risk and also backfill Reg Up and RRS so ERCOT's fast-response capability is restored until additional Resources can be committed.

WHAT THIS MEANS IN THE PROBABILISTIC MODEL

- ECRS and Non-Spin cover forecast error and forced outage risk.
- ECRS and Non-Spin also restore deployed Reg Up and RRS.
- The convergence criterion must explicitly preserve both functions as risk inputs, risk credits, and operating assumptions are tested.
- If restoration is not explicit, the model may cover modeled uncertainty while leaving fast-response Reg Up and RRS reserves depleted after deployment.

WHY ERCOT EXPECTS TO MAINTAIN IT

- ERCOT is an electrical island and cannot rely on synchronously connected neighbors for replacement reserves after a frequency event.
- NERC BAL standards establish performance obligations for frequency control, disturbance recovery, contingency reserve restoration, and frequency response.
- Lower ECRS + Non-Spin quantities should not compromise ERCOT's frequency-control capability after deployment.
- Shorter look-ahead periods or higher headroom credits may lower modeled ECRS + Non-Spin needs.
- Historically available headroom may not be available, deliverable, or persistent when conditions are tight.

Key Takeaway: Reg Up + RRS restoration is the reliability floor in the convergence criterion; sensitivities may change ECRS + Non-Spin quantities but should not compromise ERCOT's frequency-control capability.

Topics for September Recommendation and Related Work

ERCOT expects to return to the Board in September with a recommendation for the full annual AS Methodology, covering all four AS types. Most discussion is expected to focus on ECRS and Non-Spin because the sensitivity analysis will be run within the probabilistic framework. Related issues discussed below are important, but require additional modeling, RTC+B operating experience, or separate market-design evaluation.

AS DURATION AND ENERGY SUFFICIENCY EVALUATION

Revisit AS duration requirements with supporting analysis that considers:

- Real Time Co-optimization plus Batteries (RTC+B) operating experience;
- impacts to AS quantities and reliability outcomes;
- how Dispatchable Reliability Reserve Service (DRRS) layers with ECRS and Non-Spin; and
- how the probabilistic model should account for both MW and MWh needs.

Why: Duration requirements are closely linked to AS procurement quantities, the relative reliability value reflected in ASDCs, and how reliability needs are met across ECRS, Non-Spin, DRRS, and other AS products. Because the probabilistic model does not yet fully account for MWh needs and RTC+B operating history remains limited, ERCOT does not believe the impact of changes to AS duration requirements can be fully evaluated at this time.

IMM ITEMS TO TRACK SEPARATELY

- AS demand curve calibration / alignment with AS Plan;
- Shortage pricing and broader price-formation concerns;
- RUC / operator intervention impacts on market signals; and
- Out-of-market programs and broader resource-adequacy design concerns.

Why: These issues are important, but they relate to price formation, market signals, and resource adequacy concerns.

Key Takeaway: The September recommendation will focus on the 2027 minimum AS quantity methodology. Duration/energy modeling and IMM price-formation items remain important but require separate or follow-on evaluation.

Stakeholder Engagement

- ERCOT has shared the proposed review timeline for the 2027 AS Methodology with TAC. Based on TAC's feedback, ERCOT has included July WMS and ROS meetings to this timeline.
- ERCOT will provide methodology details during working group discussions and will consider stakeholder comments on additional sensitivities and risk modeling as it refines the 2027 AS Methodology.
- Interested stakeholders are encouraged to attend working group and subcommittee meetings and provide feedback before the September Board recommendation.

PROPOSED REVIEW TIMELINE

- ✓ May 19, 2026 – TAC kickoff
- June 17, 2026 – Performance, Disturbance, Compliance Working Group (PDCWG)
- June 29, 2026 – Wholesale Market Working Group (WMWG)
- *July 08, 2026 – Wholesale Market Subcommittee (WMS)*
- *July 09, 2026 – Reliability and Operations Subcommittee (ROS)*
- July 22, 2026 – PDCWG (Proposed)
- July 27, 2026 – WMWG (Proposed)
- July 28, 2026 – Operations Working Group (OWG) (Proposed)
- August 05, 2026 – WMS (Vote)
- August 06, 2026 – ROS (Vote)
- August 26, 2026 – TAC (Vote)
- September 15, 2026 – Board (Vote)
- Nov, Dec 2026 – PUCT (Vote)

Key Takeaway: ERCOT will use the June and July stakeholder process to refine the sensitivity set before bringing the September recommendation to the Board.