



ADER Pilot Phase 4 – ADESR

ERCOT Market Design

WMWG | September 25, 2026

New Phase

Phase 4 expands the ADER Pilot to enable nodal dispatch of aggregated distribution-connected energy storage.

New Model

The Aggregate Distributed Energy Storage Resource (ADESR): registered, modeled and dispatched substantially as a DESR, with targeted differences for an aggregation.

Where we are today

1. Today covers the proposed Phase 4 language
2. The draft is not yet posted – we are completing internal and external discussions
3. Posting in October, after those discussions and ahead of the October 19 DSWG

Key Takeaway

An update on the proposed Phase 4 language, and the items still being worked before the draft is posted.

Background and progression of the Pilot Project

The Pilot has run since 2022, expanding participation in stages. Phase 4 responds to what the earlier phases showed about the limits of the existing framework.

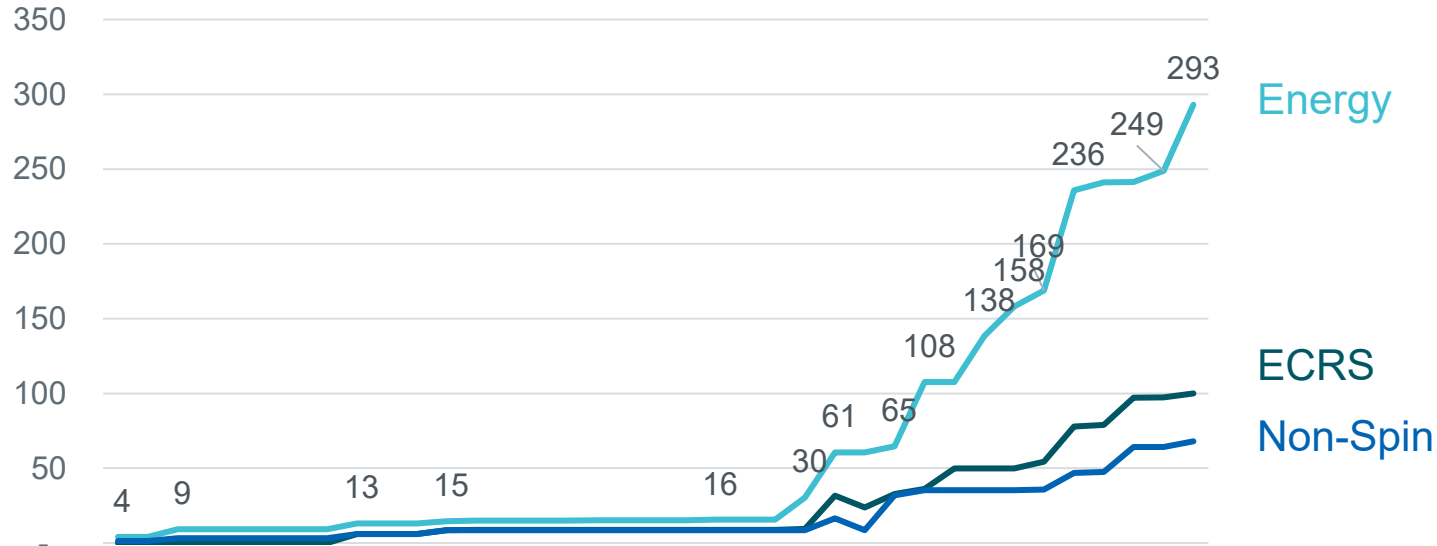
Phase	Timing	What the phase added
Phase 1	August 2023	Established the Pilot Project. ADERs register and participate as Aggregate Load Resources
Phase 2	February 2024	Added ECRS eligibility and refined the telemetry requirements
Phase 3	June 2025	Added the non-Controllable Load Resource option and raised the participation limits
Phase 4	December 2026 (proposed)	Adds the ADESR participation option, dispatched using nodal shift factors

Why an ADESR – from the Governing Document

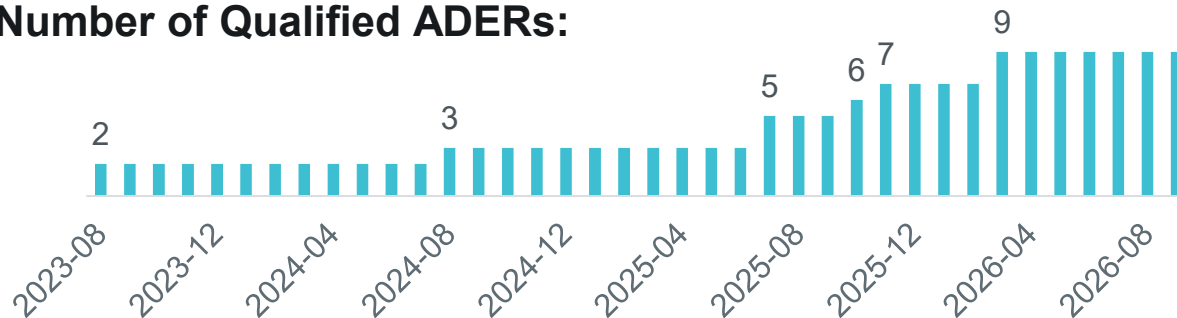
“The ADER Pilot has grown rapidly, driven in significant part by residential battery installations. The existing ALR participation option has been successful insofar as it has demonstrated the ability of aggregate resources to be dispatched in SCED and provide Ancillary Services. The existing frameworks do have some limitations. For instance, these Resources are modelled using Load Zone shift factors and the ALR framework does not provide ERCOT with the State of Charge visibility or the representation of charging and discharging capability of the aggregate Resource.”

ADER Pilot participation has grown rapidly

Qualified ADER Capacity (MW):



Number of Qualified ADERs:



Key Observations

- Participation growth driven largely by residential battery installations
- Pilot now nearly fully subscribed under current participation caps
 - ECRS fully subscribed
 - Non-Spin ~68% utilized
- 293 MW of the 500 MW energy capacity limit

Scope of the Phase 4 Governing Document revisions

Phase 4 revises the Pilot Governing Document to add a single participation option. The options established in prior phases, and the obligations that accompany them, are unchanged.

- The ADESR is added – how it is registered, modeled, dispatched, settled and evaluated
- New Phase 4 objectives and areas of evaluation
- Participation as an ALR or NCLR continues unchanged, with the same requirements, limits and Ancillary Service eligibility
- No new NPRR is required. The revisions are to the Governing Document only
- A significant portion of the redline is editorial: scoping provisions to identify the participation option they apply to, aligning defined terms, and restructuring for readability

Phase 4 objectives and areas of evaluation

SECTIONS 1 AND 2 · INTRODUCTION, AND PHASE 4

Phase 4 extends the purpose of the Pilot to the nodal dispatch of aggregated storage, and carries forward the objectives established in the earlier phases.

“ERCOT and stakeholders have identified a new opportunity within the Pilot to... evaluate the impact of aggregated distribution-connected energy storage with nodal dispatch. This effectively would expand the ability of ADERs beyond the provision of energy and Ancillary Services to help relieve local transmission congestion.”

Areas of evaluation in Phase 4

- Evaluate the dispatch of ADESRs at a nodal level using nodal shift factors, including the benefits for transmission congestion management
- Continue to evaluate the impacts to transmission system congestion management associated with the dispatch and Settlement of ADERs that participate as ALRs or NCLRs at a zonal level

ADESR definition and sizing parameters

SECTION 5.a · BASIC PROGRAM PARAMETERS

The core design parameters are settled. An ADESR is defined by its mapping to a single CIM Load, and is sized by its aggregate injection capability. Because it is dispatched nodally and provides State of Charge visibility, exposure is managed through the interconnection process and DSP approval.

“An ADER participating as an ADESR is an aggregation of distribution-connected energy storage devices that map to the same CIM Load (substation transformer). ADESRs will be modeled in substantially the same manner as a DESR.”

“For an ADER participating as an ADESR, the aggregation must have a minimum aggregate injection capability of 1 MW, with no cap on aggregate injection capability imposed by this Governing Document.”

“There are no participation limits for ADERs participating as ADESRs. The above registration requirements and limitations concerning the Pilot Program’s energy, Non-Spin and ECRS limits therefore do not apply to ADESRs.”

- DSP study and approval of the Details of the Aggregation applies to an ADESR, as it does to any other ADER, irrespective of participation type

Proposed exceptions to ERCOT Protocol requirements

SECTION 5.b · EXCEPTIONS TO ERCOT RULES

An ADESR participates as a DESR in accordance with all Protocol requirements applicable to DESRs, except with respect to the following Pilot-specific treatment. Each exception arises from the Resource being an aggregation rather than a single facility.

1. Where a Resource Node is created for the ADESR, it is non-biddable in the DAM and CRR markets
2. An ADESR is not currently eligible to provide Ancillary Services
3. An ADESR is identified as an aggregation at the time of registration
4. An ADESR is not permitted to present statistical sampling for performance evaluation
5. Registration, qualification and commissioning reflect that the devices are already installed, energized and interconnected at the distribution level
6. The Details of the Aggregation uses an ADESR-specific form covering one CIM Load
7. An ADESR is not currently subject to the requirements of Protocol Section 3.8.6
 - Section 3.8.6 provides that Distribution Generation Resources and Distributed Energy Storage Resources on an interconnecting distribution circuit will not be disconnected during an EEA Level 3 or an under-frequency or under-voltage Load shedding event. The exception reflects that an ADESR is not providing Ancillary Services in Phase 4.

ADESR registration and qualification

SECTION 5.c · ELIGIBILITY AND QUALIFICATION

The registration path has been worked through with ERCOT's Resource Integration team. An ADESR registers through the existing RIOO application, identified as an aggregation, using an ADESR-specific Details of the Aggregation form.

“The Resource Entity must register the Resource through the Resource Integration & Ongoing Operations (RIOO) application using the process designated by ERCOT for an ADESR. The registration must identify the Resource as an aggregation.”

“The DOTA for an ADESR will be submitted using an ADESR-specific form. This form will cover one CIM Load and must identify the participating devices, the applicable DSP, and the aggregate charging, discharging and energy capability.”

“The Resource Entity and QSE are jointly responsible for maintaining the ADESR population information and for submitting updates for DSP and ERCOT approval.”

Settlement approach

No change to metering or Settlement is proposed in this draft.

“Zonal Settlement will be retained in Phase 4 while ERCOT evaluates possible metering specifications and Settlement approaches to implement future nodal Settlement.”

- An ADESR settles at the applicable Load Zone price, as ADERs do today
- No new metering is required – existing TDSP interval meter data is used
- The DSP wholesale settlement system is unchanged
- ERCOT will also evaluate alternative dispatch and pricing approaches, including consistency with 16 TAC § 25.501(h)
- Progress will be reported through the six-month reviews, and any proposed approach will be brought back to stakeholders before it is adopted

Items under continued development

The design is substantially complete. Four items carry substantive comments and are being worked ahead of posting. The remaining comments concern terminology, defined terms and document structure, and are being addressed separately. Views on any of these are welcome.

- 1. Scope of the TDSP review for an ADESR** How it relates to the System Impact Studies and registration reviews ERCOT already requires.
- 2. Adding and removing devices from an ADESR** Whether an aggregation may grow over time, and what process should govern changes to it.
- 3. RIOO workflow and registration timeline** The final workflow, the registration-to-participation timeline, and any ADESR-specific fields.
- 4. Telemetry validation thresholds** The two-step validation is drafted; tolerances and the evaluation period are being finalized.

Stakeholder process and timeline

The path to Board approval in December is unchanged. The additional time before posting is being used to complete discussions with stakeholders and to close the remaining items.

September	October 12	October 19	November 4	November 18	December 7
Continue internal and external stakeholder discussions	Draft Governing Document posted on the DSWG page	DSWG discussion of the draft	WMS review	TAC	ERCOT Board approval

Comments and questions may be sent to pilotprojects@ercot.com. ERCOT is available to meet individually with stakeholders on the draft.

Questions

Email: pilotprojects@ercot.com

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