ESO

Electricity System Restoration (ESR) Competitive Procurement Event

Invitation to the SW & Midlands Tender: Expression of Interest (EOI) 8 January 2024

National Grid Electricity System Operator (ESO) has introduced a market mechanism for the procurement of Electricity Restoration Services[1] (ERS) contracts, in the form of a competitive tender process. As such, the ESO requests all interested parties to formally submit an EOI which is a mandatory prerequisite to participate in this tender.

Background and instructions for completing an Expression of Interest

The ESO has an obligation to maintain the capability to restore the National Electricity Transmission System (NETS) of Great Britain (GB) from a full or partial black out event. To do this, the ESO must demonstrate that the ESR Capability procured maintains an acceptable level of provision, but at a cost which is economic and efficient.

The ESO will hold a competitive procurement event to procure against our restoration requirement for the SW & Midlands region for services commencing on 1st August 2027, or earlier at the discretion of the ESO, for a five-year contract. We invite and encourage those interested in participating in the procurement event to submit an EOI for consideration.

This tender will include the output from the Distributed ReStart Project to enable potential Distribution Restoration to complement the transmission-led restoration services.

The growth in Distributed Energy Resources (DER) presents an opportunity to develop a different approach to system restoration. Greater diversity in restoration provision will improve resilience and increase competition leading to reductions in both cost and carbon emissions.

This tender permits providers with the options of four different categories by which they can provide restoration services – see Categories section on page 2. Providers are able select for more than one category at EOI stage. Please note that the categories you choose should not be driven by your connection voltage level and instead by your technical capability. For the avoidance of doubt, a distribution connected asset can offer the Full/Anchor Generator/Primary Service, providing their solution can meet the minimum technical requirements.

We invite and encourage those interested in participating in this procurement event to submit an EOI for consideration.

Aims of the SW & Midlands tender

The key principles of this procurement event are to provide:

- a clear and transparent service requirement
- enablement of competition
- a reduction or removal of barriers to entry

The EOI process enables the ESO to identify and confirm eligible tenderers ahead of the formal invitation to tender (ITT), which allows all parties to resource and plan accordingly.

By seeking to incorporate Distributed ReStart type projects, reducing some of our conventional technical requirements and making allowances for more time in between the provider submission stages, the ESO are acting on stakeholder feedback to open these market services to more and newer providers as part of the target to meet net zero by 2030.

As a potential participant, please take your time to read all the published information before you make a submission.

[1] ESR was formerly known as Black Start. The previous reference ‘Black Start’ is still used if part of official documents or references.

Key dates for the procurement event

22 November 2023

Market engagement tender launch webinar

8 January 2024

EOI tender documents released

13 February 2024

ITT Part 1 tender documents released

13 August 2024

ITT Part 2 tender documents released

November 2025

Contract awarded

Categories within the tender

The ESO will be procuring against four separate requirements defined below.

1. Anchor Generator Service Providers (Primary/Full Service) – with the ability to self-start, can meet the full technical requirements to energise and block load at transmission level. **The ESO welcomes both transmission and distribution connected assets to participate in this category providing you can meet the minimum technical requirements.**
2. Top-up Services - not expected to have the ability to self-start but can meet some of the technical requirements outlined for a full service and further assist Restoration[2].
3. Anchor Generator (Distributed ReStart) – with the ability to self-start, establish an independent voltage source at distribution network level.
4. Top-up Services (Distributed ReStart) – can provide supplementary services required to fulfil the technical capability of a DRZ[3] such as energy (MWs), fast MW control, frequency control, voltage control and short circuit level (MVArs).

Note that the latter two terms above are associated with the design of the new Distribution Restoration process, which is intended to complement the Anchor Generator Primary/Full Service tender provisions.

For the new process (Distributed Restart) to work, an Anchor Generator (Dis Res) needs to be coupled with the relevant Top-up services Dis Res) to meet the technical requirements of a feasible DRZ. The potential DRZ will not be known until all the EOI bids are in and it is only after this point that we can share more on the assessment criteria we will use.

In EOIs for categories three and four, simply state what provisions your asset can contribute, (or could contribute with a further investment) as either an Anchor Generator (Dis Res) or as Top-up services (Dis Res).

The table on page 7 of this document has definitions from Distributed ReStart on Anchor Generator (Dis Res) and Top-up services (Dis Res), plus some examples of asset types.

Please note, that we are only accepting one submission per provider per category[4].

More information on this can be found in the 'tender rules' Appendix 6 within the tender documents.

The deadline for submitting your information is 29th January 2024

Eligibility and assumptions

To be eligible to participate in this competitive procurement event, providers must meet the technical requirements, which are clearly defined in Appendix 1 - Technical Requirements & Assessment Criteria Document.

For the Anchor Generator (Full/Primary) Service:

- if a potential provider has a limitation on one of the technical requirements, but can meet the others, the EOI can still be submitted. It will be entirely at the discretion of the ESO to confirm whether a provider not meeting all the requirements will be eligible to participate after assessing the remainder of the potential bids.
- if a potential provider has a limitation on one of the technical requirements that it intends to bring up to the required level through the competitive procurement process, (for example, the addition of auxiliary units), this

[2] The ESO will be seeking to enhance the resilience of Restoration Service Providers. Under a National Power Outage (NPO) all instructions issued to Generators should be treated as an Emergency Instruction and Generators are expected to follow them on a best endeavours basis. By introducing this capability, the ESO is expecting to have further assurance around the availability of Generators at different stages of restoration (Example: Generator available to start and contribute to the Restoration effort with external supplies re-established 48h after the NPO).

[3] Distribution Restoration Zone (DRZ) – a power island in the distribution network used for restoration purposes

[4] What we cannot accept as an example, is a provider bidding unit 1 for full service and units 2 & 3 for Top-up services. We would expect one application for either Full Service (which could be for multiple or all of the units 1,2 & 3), or as Top-up service.

must be specified in the EOI. The provider must also indicate whether they intend to recover capital costs for the works (rules on capital are covered further in the assessment criteria).

- if a party cannot meet the technical requirements on their own but may be able to combine with another party to do so, we will allow tenders where one 'lead' party contracts with ESO and will have its own contractual arrangements with the secondary party/parties (though ESO will need to understand the contractual basis between the lead and secondary parties). This may also include interconnectors, where an agreement for provision of active power with the respective TSO[5] will need to be in place ahead of tender submission deadline.
- aggregated submissions will also be considered, providing that all assets are aggregated to one point of delivery and must at that point of delivery still be able to meet all the technical requirements.

For Top-up Services:

- we expect the minimum technical requirements to be met for any of the Top-up services, however if a provider can do more than the minimum stated, please indicate this in the EOI as it will be considered during the assessment scores.

For Distributed ReStart Projects:

- if you can provide the technical requirement as a self-starting Anchor Generator and/or any of the Top-up services, please specify this in your EOI submission form.
- you are not required to know if your service provision is combinable with other assets nearby for a feasible DRZ. The ESO will do this as part of their assessment. However, if you want to enter the tender as a combined bid with other parties to provide more of the technical requirements, then the ESO will permit this with the 'lead party'.
- aggregated submissions will also be considered, providing that all assets are aggregated to one point of delivery and must at that point of delivery still be able to meet all the technical requirements at distribution level.

To participate in the EOI please complete the Microsoft form HERE or via the QR code on or before 29th January 2024. The form will be available to complete from 8th January.

If you have any questions about any of the information provided, please submit them by email titled 'Tender Query' using Appendix 4 – Query Form to commercial.operation@nationalgrideso.com and CC alexander.unitt@nationalgrideso.com

Purpose of the EOI Tender Documents

Document	Purpose of Document	Action
This document – Invitation to the SW & Midlands tender: expression of interest	Use this document for: • Knowing the background and context around the ESR tender requirements	Read ahead of filling in any information
Appendix 1 – Technical requirements and assessment criteria	Use this document for: • Understanding the functional requirements and related parameters, why they are important to the service and why they are set at the agreed limits	Read ahead of filling in any information

[5] Transmission System Owner

Document	Purpose of Document	Action
	• Understanding the assessment criteria, a high-level summary of the proposed feasibility assessment process and some of the contract principles • The information contained in this document is still a work in progress and will be updated following feedback.	
Appendix 2 – EOI Tender submission and technical requirement declaration form Via Microsoft form provided	Use this form for: • Completing your submission depending on which category you wish to bid for.	For mandatory completion and to be submitted back to the ESO. **please complete the Microsoft form HERE or via the QR code on or before 29th January 2024. The form will be available to complete from 8th January.**
Appendix – 3 Non-disclosure agreement	Use this document for: • Participation within this event. Please sign and return this document along with your **ITT1 submission on the 22nd April 2024** – failure to do so will result in a non-compliant submission.	For review and mandatory completion and to be submitted back to the ESO by 22nd April 2024
Appendix 4 - Query form	Use this document for: • Any provider queries during the event. We expect to anonymise queries and share the responses on our website as far as possible. If you believe your query is confidential, please state this on the query form along with your justification. Where the ESO does not agree that a query should be confidential, they will present two options to the provider, either for the response to be shared, or for the provider to withdraw the question.	Can be completed and sent to the ESO at any point during the tender process
Appendix 5 – FAQs	Use this document for: • Collating all questions & Answers during each stage of the event. This will be a live document so please keep up to date with it and ensure you review this prior to submitting a query.	Read ahead of filling in any information
Appendix 6 – Tender Rules	Use this document for: • This document contains comprehensive tender rules applicable to all providers who wish to participate in any ESR Tender event. Please ensure you have read, understood, and agree with the tender rules in this document prior to participating in any ESR event.	Read ahead of filling in any information
Sample ESR contract terms	Use this document for: • An overview of what an ESR (formerly Black Start Service Terms) contract might contain. The final contract outlines will be shared around the ITT F1 stage for both the Full Service and Distribution Restoration services.	Read for information about future requirements.
F1 and F2 study requirement brochure	Use this document for: • An indication of what will be required as part of the next stage following the EOI. More information will be shared for the ITT F1 stage for those that successfully complete the EOI shortlist.	Read for information about future requirements.

SW & Midlands Tender procurement timelines

Stage	Date	Detail
Launch webinar	22 November 2023	Inform industry about the upcoming restoration tender, key messages, timescales, process overview and next steps. Provide an opportunity for interested parties to ask questions and share their feedback.
Request for EOI	8 January 2024 (3 weeks)	The first part of the process for potential bidders to outline their detail and high-level capabilities to be eligible to continue in the tender process. This is a light-touch application process with pass/fail criteria for entry level.
EOI deadline	29 January 2024	To allow the ESO to determine the level of interest in the tender. Any late entries after this will not be considered.
EOI assessment period	30 January – 12 February 2024 (2 weeks)	The ESO in collaboration with the DNO will assess and shortlist all the potential providers that pass the criteria for entry level to this tender.
Invitation to tender	13 February 2024	The formal invitation to tender will be released to all providers who have met the EOI submission deadline and accepted and met the minimum/mandatory criteria. At this stage, all other tender documentation will be available, and the feasibility process will commence.
F1 and F2 scope submission period	13 February - 22 April 2024 (10 weeks)	The first stage of the tender requires submission of the F1, along with a scope of works for the more detailed F2. The F1 should summarise the known information about the plant, and its capability or potential to provide a service that meets the technical requirements of one of the service categories. In parallel to the F1 report, a scope of work for the F2 (F2 Scope) should be produced. The F2 Scope will include details of the works required to prove the Restoration capability of the plant, along with details of associated costs.
F1 and F2 scope deadline	22 April 2024	All documents must be submitted by this date, submissions made after this may not be considered.
F1 and F2 scope assessment period	23 April 2024 – 12 August 2024 (16 Weeks)	After reviewing the submissions (in collaboration with the DNO for Distributed ReStart type applications), those providers who meet the agreed standard outlined in the assessment criteria and receive budgetary approval will proceed to the next stage of the tender. This will be formalised with a side letter contracting the terms of the agreement, and an instruction to proceed with the F2. The full requirements for the F2 will be detailed in the F2 outline document, available to review during this period.

Stage	Date	Detail
F2 and commercial bid submission period	13 August 2024 – 19 May 2025 (42 weeks)	The F2 report will be accompanied by a technical and commercial bid submission which combined will form the tender submission. The F2 report itself should sufficiently prove that the provider's plant does have Restoration capability or will have Restoration capability subject to proposed changes detailed in the report. As with the F1, if confirmed in their EOI acceptance that a previous study is satisfactory, there will be no need to duplicate this work. Depending on the service bid for, the ESO is able to make a capped contribution of up to £150,000 towards these F2 studies (in line with historical spend) which will be contractually agreed with a side letter. Providers are expected to minimise these costs to reduce the impact on the end consumer and will only be reimbursed for costs once invoices and supporting evidence of costs incurred are received and validated by the ESO. Costs will be reimbursable following closure of the F2 assessment period and following satisfactory responses to all clarifications being issued by the ESO during the assessment period.
F2 and commercial bid deadline	19 May 2025	All documents must be submitted by this date, submissions made after this may not be considered.
Tender evaluation and clarifications	20 May 2025 to 31 October 2025 (24 Weeks)	Following tender submission, all tenders will be reviewed (in collaboration with the DNO for Distributed ReStart type applications), and technical clarifications specific to tendered information will be issued to individual providers. These clarifications will be documented as each submission is reviewed, but issued to all tenderers at the same time, to ensure no advantage is gained. All tenderers will be given the same amount of time to respond to clarifications on their tenders. During this period, feedback will also be given on the commercial submissions, and tenderers will be given the opportunity to provide clarification and refine their submission. All tenderers will be given equal opportunity and time to do so.
Contract award	November 2025	Contract/s will be awarded, and decision will be communicated to tenderers. Post-award, we expect to publish elements of the outcome of the tender, potentially including MW volume, technology type and price, in line with security requirements, the owners of the awarded contracts will not be revealed.
Build/Install	November 2025 to August 2027 (21 months)	At the discretion of the ESO, additional time for construction of assets can be agreed prior to service commencement. Where a provider can deliver a service ahead of the planned deadline without incurring excessive cost, we invite them to notify us within their submission, and where possible and economic, we may be able to agree an earlier target commencement date.
Service commencement	August 2027	Once construction has completed, the ESR contract will commence following successful completion of a commissioning test.
Assurance activities	Ongoing	Based on contract terms, providers will be subject to routine ESR tests which are scheduled normally after every three years.
Service expiry	July 2032	Providers will be contacted before the final date.

Distributed ReStart – Service definitions

Service	Requirement	Description	Potential providers
Anchor Generator (Dis ReS) **(Or power park)**	Essential	Only one Anchor Generator is required per power island. Can self-start and provide a controlled voltage source, able to energise the distribution network to reach the next resource.	Synchronous generator, or other technology with required capability. A single point of connection is required with the DNO network.
Fast MW control	Top-up service	May be required to supplement technical capability of anchor generator for example to enhance block loading.	Battery, load bank, flywheel, generator, others.
Inertia	Top-up service	Increase frequency stability of the DRZ and/or allow greater demand blocks to be picked up.	Synchronous generator, synchronous compensator (an inherent response is required without any measurement delays), others.
Frequency control	Top-up service	May be required to support the Anchor Generator to maintain frequency parameters during normal operation.	Synchronous generator, converter-based sources with appropriate control, others.
Voltage control	Top-up service	May be required to enhance the MVAr capability of the DRZ, to expand the island and energise to a higher voltage.	Wind farm, solar, battery, synchronous generator, Statcom, SVC, others.
Short circuit level	Top-up service	Increase the DRZ fault level. Facilitate protection operation at higher voltage levels, or converter DER to connect.	Synchronous generator, synchronous compensator, others.
Energy (MWh)	Top-up service	Enhance capability of the DRZ to restore demand above the capacity of the Anchor Generator. This could come from other any other generator sets on the island. (May be schedulable or intermittent.)	Schedulable MW - Synchronous generator (additional to the anchor), Intermittent resources (constrained and controlled by a set point), demand side management, others.