

Electricity System Restoration (ESR) Competitive Procurement Event – Wind Tender 2022

FAQs

Executive summary

To ensure equal access to information and to support Tender participants we have included all questions and answers below that were asked during the Market Engagement Webinar held on the 28th of June. During the request for feedback period on previous tenders ran by the ESO we answered several questions from potential participants, we have included the ones still relevant below. Once the tender is launched this will be replaced by a formal clarification submission process.

Questions and Answers

*Questions marked with 'W' were asked during the Market Engagement Webinar and relevant to the Wind Tender.

*Questions marked with 'G' are generic to this tender.

*Questions marked with 'P' were asked during tenders that we have ran previously and are still relevant.

*Questions marked with 'E' were asked during the Expression of Interest stage of the tender process.

*Questions marked with 'C' were asked during the provider calls.

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| W | 1 | How does the wind tender interact with the region-specific tenders? e.g., can parties submit for both and what's the implication? | Yes, parties can submit for both if they can meet the minimum technical requirements. |
| W | 2 | Will you track MW output over the year (outside declared outage periods) to verify 80% 'availability' of the declared MW? | ESR availability is carried out on a trust basis and ESR providers should only declare themselves available if they can meet the technical parameters as per their Commercial Services Agreement. |
| W | 3 | What involvement do you expect OFTOs to have in this tender process? | The purpose of this tender is to procure restoration services from windfarms. OFTOs will be able to participate in the tender if they don't have the obligation under the SO-TO |

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| | | | Code combining with an offshore windfarm. Therefore, if there is no obligation, they could offer a restoration service combining with an offshore windfarm to provide either a full service or a top-up service. We would expect the offshore windfarm providers to have this early engagement with the OFTOs. |
| W | 4 | Could you elaborate how stack ability with balancing services work? Does it mean the ESR volume needs to be taken out when parties bid into the balancing market? | No ESR volume is ringfenced and therefore parties can still provide other balancing services whilst being contracted for ESR |
| W | 5 | Can you please clarify launch and submission dates for consultation and EOI? | The EOI will be launched on the 8th August and the submission date will be the 5th September |
| W | 6 | Do you have a minimum MW capacity in mind for the 'regional' tenders? Presumably the 80% availability and 10MW block load criteria both would still apply | The criteria for the region-specific tender will be shared as part of the ITT Tender Part 1, correct for wind providers the 80% availability and 10MW block load will apply. |
| W | 7 | Are providers paid as bid? per MW? | Yes, pay as bid, but we ask for an availability payment that we will be paid monthly. The only consideration on MWs is during the technical criteria assessment, i.e., the more MW you can offer the greater score you will get in this assessment. More details on technical criteria and weighting will be provided in the tender documents. |
| W | 8 | Would all locations carry the same weighting / score equally e.g., onshore, offshore, England, Scotland? | Yes, in short, all locations will carry the same weighting. |
| G | 1 | How do I get paid in the event of a National Power Outage? | Like as it happens currently. There is a process for generators to get cost recovery of any fuel utilised by their asset to provide restoration. This process is covered in the Balancing and Settlements code. |

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| G | 2 | How will the role of OFTO be managed in the provision and contracting of the restoration service? | <p>Whilst we appreciate the independent nature of OFTO and the complexities offshore wind generators may have with these bodies, for the purpose of entering a commercial tender to provide restoration service providers should provide the study solution until GEP (Grid Entry Point) level at a single point of deliver, and it is strongly recommended that the provider should consider extending the study up to Grid Interface Point and taking into account the impact of OFTO network.</p> <p>As providers do not have control over the technical parameters at the OFTO level, we do not require them to include these arrangements in their ITT F2 reports. In the same way as we deal with TOs and DNOs in existing restoration contracts, the OFTO will be a part of the Local Joint Restoration Plan (LJRP) development which is done after the contract award and before the service goes live. Remember that in the event of a power outage, the market is suspended and therefore the generator will not need to provide any other services to the OFTO.</p> <p>Providers should inform us which OFTO is linked to their asset(s) and we encourage early engagement between the provider and the OFTO to understand if there are any potential red flags to service delivery. The ESO will not broker these engagements between the provider and the OFTO prior to any contract award.</p> |

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| P | 1 | Will submissions that deviate from the technical requirements be allowed? | <p>We want to remove or minimise barriers to entry and are proposing to consider EOI submissions where the provider can meet almost all of the technical requirements. Where this is the case, EOI submissions are not guaranteed to be accepted, and it will be at the discretion of ESO assess whether the provider would be able to contribute to a restoration. Where applicable, reduced capability will be scored appropriately in the technical assessment (and may be given a zero score for that section).</p> |
| P | 2 | We note that the block loading requirements have been revised, can you provide the context for this? | <p>The block loading requirements have been revised to:</p> <ul style="list-style-type: none"> - Reflect the current capability of DNOs to switch in smaller sections of network. - Reduce risk to plant <p>Reduce/remove barriers to entry</p> |
| P | 3 | How is shutdown defined with respect to the 2-hour restart time? Is the time from a blackout or from the point a station can safely shutdown systems? | <p>As per the Grid Code Definition, this is "... the ability to Start-Up from Shutdown and to energise a part of the System and be Synchronised to the System upon instruction from The Company, within two hours, without an external electrical power supply".</p> |
| P | 4 | Is the funding cap across both F1 and F2 studies? | <p>As per the current process, the provider is expected to fund the F1 study themselves.</p> |
| P | 5 | What happens to the tender process if there are less bids than demand? | <p>We will know at EOI stage how many tenderers to expect and will be able to assess</p> |

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| | | | then, however, we don't expect this to be the outcome |
| P | 6 | What information on tender responses will be published during the process? | We won't disclose any information that could identify a ESR provider, but will aim to publish information about awarded contracts, for example, technology types, total MWs, total cost etc. |
| P | 7 | How will the feedback on the commercial submissions work in practice? Will there be a chance for resubmission of a Best and Final Offer? | We will aim to share feedback on total costs and may employ a third party to scrutinise designs and capital costs. We are currently proposing that there will be the opportunity to resubmit the commercial element after clarifications - all providers will be given the same opportunities. |
| P | 8 | Is it expected that all capital costs will be recovered through the commercial offer, or can this be defined by the bidder? | <p>We expect the capital costs to be open book, and to be recovered based on invoice evidence. Capital costs should not be recovered through the availability fee.</p> <p>If the provider does not wish to recover all of the capital costs (for example, will partially recover via another revenue stream), they should still state the full costs of all associated works in the commercial submission for review.</p> |
| P | 9 | We have previously done a F1/F2 Scope/F2 study that you approved earlier in the year; can you confirm it is still valid? | <p>If you wish to participate in the tender and have already completed one or more steps of the process, please notify us with your EOI, ESO will formally respond to confirm the validity of your study.</p> <p>We will minimise rework as far as possible.</p> |
| P | 10 | Will I be able to ask technical queries confidentially? | Yes, you will be able to use the query form and mark your query as confidential. ESO will provide comment where we |

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| | | | <p>can but will not input into or steer decisions.</p> <p>Queries submitted marked as confidential will be reviewed, if ESO does not agree that it is appropriate to respond bilaterally, we will notify the tenderer that we will anonymise the answer and publish it and will give the tenderer the option to retract their question.</p> |
| P | 11 | I've already completed an F2 which I think will be valid. I think I could offer a better value solution in line with the revised technical requirements, but this would need design rework. Can I request funding for further design rework? | <p>Please notify us within your EOI. ESO will assess whether further funding for rework is justified, and if so, you will be asked to submit a scope for the additional work by the F1/F2 scope deadline.</p> <p>ESO will have no obligation to accept requests for further funding and will reject proposals for work that could create a competitive advantage.</p> |
| P | 12 | Will the tender programme be impacted if another tenderer falls behind? | The timeline will be fixed, and ESO will ask all interested parties to commit at EOI stage to meeting it. The overall timeline will not be impacted if one tenderer does not meet it. |
| P | 13 | Is there a standard contract duration or is it up to the bidder to propose? If so, what are the parameters? | <p>The contract duration will be standard, though if a provider can commence the service earlier, we invite them to notify us during the tender, and if efficient to do so, they may be able to extend their contract forwards.</p> <p>We are currently considering 5 years for the contract durations.</p> |
| P | 14 | What exactly is the definition of Sequential Start-ups? | Following a ESR event and during the re-instatement period the Power Island created by a ESR Service Provider may collapse. The expectation is that a ESR |

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| | | | Service Provider will be capable of, consecutively, re-starting and re-establishing the collapsed Power Island a minimum number of times (3). |
| P | 15 | Who will pay for conducting the F1 & F2 studies? | The F1 is a short study that we aim to streamline with our submission template, and is a summation of current knowledge, we expect the tenderers to cover the costs. Subject to an approved F1 and F2 scope, and once contractually in a formal agreement, ESO will fund the F2 report up to a cap of £150,000 for a primary service, which will be reimbursable following completion of the study (including responses to clarifications) and following submission of invoices and evidence of costs incurred. |
| P | 16 | Are we able to meet the requirements by aggregating services? If this is a yes, then would they need to be in the same location? | Aggregated submissions will also be considered, providing the contracted Service is delivered and can meet the technical requirements at one point of delivery. |
| P | 17 | What information on tender responses will be published during the process? | We will not publish any tender responses or submissions. We will, where possible, publish anonymised metrics that may include total cost, number of contracts agreed, number of participants, technology types, MWs etc. |
| P | 18 | How would ESO interact with group-parties during this process, when dealing with joint proposals? | We advise that any combined proposal follows a 'lead party' structure, where the lead party is the point of contact, and organises any supporting contracts necessary with other parties. |
| P | 19 | How will the status of acquiring required planning permission for potential providers be assessed? | We ask that during the F1 submission, providers are to provide proof of engagement with relevant authorities regarding consents (to be |

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| | | | included as part of the submission template). |
| | | | In addition to the evidence provided in the F1, we also ask for evidence of application(s) being made as part of the F2 submission (will also be included as part of the F2 submission template). |
| P | 20 | What do you mean by 'network assessments' at the EOI stage? | This will be performed by NG ESO in the event that your EOI submission highlights areas of limitation in the technical requirements. ESO will assess whether the specific proposal will still be able to contribute to a restoration when considering the limitation. No action will be required from the provider. |
| P | 21 | Should a potential Service Provider disclose its admissible rate of block loading (example: 20MW every 2 minutes)? | The actual rate will be driven by the providers needs along with the local DNO's switching ability. This will however be detailed/confirmed throughout the F1 & F2 stages (sizes of blocks, time between blocks, any hold points, etc.) |
| P | 22 | Will there be provision to recover costs for testing? | It would not be economical to carry out testing for each proposal at F2 stage. We ask that a Statement of Capability from the OEM is provided as part of the F2, in lieu of pre-contract testing. |
| P | 23 | Is there the ability to drop out of the process following making an EOI? | You can withdraw from the tender process at any point (prior to a contract being signed). We do however ask that you give us notice of this withdrawal. If you would like to withdraw from the process during the F2 study, we advise that you ensure you complete and deliver the study to remain eligible for reimbursement. |
| P | 24 | Is mutual agreement required by both National Grid ESO and the party who is proposing the service in selecting the Study provider? | NG ESO will not approve study providers, but do, as part of the process, agree on a scope of works. We do expect the study provider to have the relevant knowledge and |

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| | | | expertise to undertake the study, which is covered in the F2 side letter and terms. The obligation is on the potential provider to ensure the study provider is appropriate. |
| P | 25 | How is extra redundancy valued – multiple units providing the Service compared to a site with only 1 unit? | We require a high service availability (≥90%) to cover for planned/unplanned outages. We also ensure that we have sufficient Service Providers contracted within each zone to cover for random faults. |
| E | 1 | With respect to offshore wind providers, please confirm the point at which the ESO shall measure and validate any reactive lead contributions, in terms of the NETS/OFTO? | Windfarms will have to meet the requirements at the Grid Entry Point, as specified in the BCA. OFTO's must meet the requirements at the Transmission interface point as stated in the grid code. |
| E | 2 | For the avoidance of doubt, is this aimed at existing generation plant that can have equipment added to it, or new plant with that capability? | Either options (existing or planned assets) are eligible for the tender, provided they can meet or be designed to meet, the technical requirements and can provide service by December 2026 at the very latest. |
| E | 3 | Why are anchor generator and top up service provider requirements not included in wind EOI tender? | Through the wind tender, the ESO is seeking to provide additional resilience requirements for restoration services, to bridge any potential technology gaps and by working with the industry, demonstrate that the provision of a 'full service' from Wind is feasible." The capability of providing anchor generator or top up services is open through the regular region-specific restoration tenders for any technology types, so long as they can provide the service by the stipulated deadlines. Another primary driver for full-service provision from wind is to tap into the 50 GW of offshore wind generation forecast for 2030. We are interested to hear back from potential wind providers around what they |

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| | | | can provide so far as the full-service technical requirements go, and what investments they may need to add, in order to be able to meet those requirements and start the contract by December 2026 at the very latest. |
| E | 4 | Inertia Definition for Converter-Based Technology | <p>The Active Inertia Power is now defined by in the updated Grid Code.</p> <p>The inertial response must be provided from a Grid Forming Plant for frequency changes in both directions. Inertia shall be defined as in the following equation:</p> $\text{Inertia (MWs)} = \frac{\Delta P \times f_0}{2 \times \text{RoCoF}}$ <p>Where:</p> <p>ΔP is the Active Inertia Power of the Grid Forming Plant for a frequency event of 1Hz/s (MW).</p> <p>For frequency ramps events, ΔP must be calculated using the following formula:</p> $\Delta P = [\text{Average MW provided by the plant at Grid Entry Point across all recorded samples over the frequency ramp period}] - [\text{Initial MW provided by the plant prior to the event}].$ <p>RoCoF is the Rate of Change of Frequency (RoCoF) in Hz/s.</p> <p>f_0 is the pre-fault System Frequency (Hz).</p> <p>The above equation gives acceptable inertia calculation accuracy for both synchronous machines and Grid Forming Converters for a 1Hz/s RoCoF events lasting for 1 sec.</p> |
| E | 5 | Determination of Minimum Inertia for a Grid Forming Converter | In order to determine the minimum inertia for a GFC it is required to apply in time domain simulation 8 events and calculate the inertia for each of the events. The simulation time step should not exceed 1ms. The frequency events must be |

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| | | | modelled as a change in the grid source frequency. The minimum inertia from these 8 events is “minimum guaranteed inertia”. More details can be found in the updated Appendix 1 |
| E | 6 | How to decide the service availability calculation with a forward window>10hrs | Full details are yet being finalised. Further details will be shared as soon as possible. |
| E | 7 | Clarify how coordinated sequencing requirements across different technologies/service providers would be considered in the wind tender with respect to the time to connect requirement | We will take this into consideration, and this will be addressed further into the process. |
| E | 8 | Is the wind restoration service to be provided at the offshore point of connection or at the onshore point of connection? | The contracted service is measured at the Grid Entry Point. |
| E | 9 | How is the role of the OFTO foreseen in the provision and contracting of the restoration service? | OFTOs will be relevant. The framework is being reviewed for further clarity and further details will be shared as quickly as possible. |
| C | 1 | Service commencement date: flexibility/penalties for delays (due to suitable dates for installation of equipment; test dates; delays in procuring equipment/caused by manufacturers) | ESO's expectation is that project plans are designed to meet service commencement dates of Friday 4th December 2026 and Friday 1st December 2028. Earlier go-live is incentivised but we may not permit later start dates as this impacts on future tender service commencement cycles. |
| C | 2 | Outages for installation of equipment: any compensation for loss of income; flexibility regarding service commencement date? | Installation of equipment needs to be planned prior to service commencement. The project team will need to keep ESO informed of all progress and to mitigate any potential delays to service commencement. |
| C | 3 | Commissioning & capability tests: process for agreeing test dates; test scope; will the cost of the tests need to be factored into the commercial submission or will ESO compensate based on an agreed methodology? | The cost of both ESR tests needs to be factored in the commercial submission. The ESO shares a formula in the Commercial Service Agreement. |
| C | 4 | Joint Venture (JV) assets – what reassurance do ESO need around separateness of sites? | One point of contact for one service provider should be provided. If the ESR service |

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| | | | contract is agreed and signed with a provider, that same provider will co-ordinate and be responsible for all the work related with JV partners. |
| C | 5 | Time to connect: how will the following be treated: time for fault clearance; TO/DNO switching | ESO/TO/DNO is responsible to make sure the transmission/ distribution lines connecting wind farms to grid is available to use in a restoration scenario. After confirming the network is ready to use, wind generators will make yourself available in 2hrs once instructed, to meet the contract agreement. |
| C | 6 | Availability: which methodology will be used? Availability based on number of settlement periods where power available exceeds the minimum to deliver the restoration service contracted capability or availability based on number of settlement periods with a forward window >10hr (or other stated resilience timescale of ESR Service) where sufficient wind power is available to deliver the restoration service contracted capability. | The declaration process hasn't been formalised in detail yet, the ESO is still having internal discussions. We will keep everyone updated once we agree a solution to move forward. It is also welcomed to hear what wind generators can do to achieve the restoration target. |
| C | 7 | Resilience of supply: is the following methodology acceptable: service availability based on a 10h forward wind availability to meet the technical requirements? | The suggestion is welcomed; however, the declaration process hasn't been formalised in detail yet, The ESO is still having internal discussions. We will keep everyone updated once we agree a solution to move forward. It is also welcomed to hear what wind generators can do to achieve the restoration target. |
| C | 8 | Reactive power: what active power set point does the reactive capability definition correspond to? | It will be the reactive power at no load or minimum load |
| C | 9 | Inertia: clarifications on latest definition in Appendix 1 and the Grid Code. - The “minimum guaranteed inertia” needs to be at least 400MWs (i.e. MJ), and is the minimum value obtained from Steps 1,2,5,6,7 & 8. According to the equation, 400MWs requires an average increase in active power of 16MW over the 1s frequency event (-1Hz/s from 50Hz to 49Hz in Step 1). If the grid forming converter (battery or wind turbines or combination) is already at maximum P and maximum Q then there can't be any increase, otherwise the converter's 1pu current limit would be exceeded. In this case the increase in active power | The minimum inertia criteria is to see if the wind generator can provide inertia to grid during a restoration event when instructed. It is the decision from developers whether to make investment to maintain the headroom ready for inertia provision at all times. |

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| | | would be zero, so the minimum would be zero, which is non-compliant. | No, we need the assurance that the wind generator can provide enough inertia at any running scenario, but those steps for importing MW can be missed. |
| | | - Is it acceptable to only simulate Steps 5 and 6, i.e., those with 0MW and max leading/lagging reactive power? | Whether to add the battery and how make it work for restoration services has to be decided by the developer yourself. It might be useful if you could also let us know what the inertia value is that you can get without adding a battery. |
| | | - If it is a requirement to simulate Step 1 and count it towards the 400MWs minimum, then that would suggest the addition of a grid forming battery to a wind site would be a requirement if it was to comply, and the converter's MVA rating would need to be higher than the battery's, so that it can accommodate the increased current during the event. Can NGESO confirm that's correct? | Yes, we will need MVar value for 0MW output, and for maximum contracted MW output. |
| | | - Can NGESO confirm what maximum leading and lagging reactive power refers to. Is it the converter's full MVA rating, but as MVar, or is it the value which corresponds to the maximum Q whilst at rated MW output (which I assume is what is meant in Step 1)? Also, does it include: | The MVar value quoted in the contract will be achieved at Grid Entry Point or User System Entry Point or Transmission Interface point as applicable. The Wind developer will decide what combination is the best solution to meet the minimum MVar capability requirement. If there is a need from grid following machines to contribute the reactive power, that is fine, but the service availability can be claimed only when all the required machines are in service. |
| | | 1) The sum of the reactive capability provided by grid forming converters only (wind turbines and battery), or | |
| | | 2) The sum of the reactive capability provided by all converters, grid forming and grid following. | |
| C | 10 | Is there a need to sign any form of declaration in the Phase 1 submission? | No signature is required at the ITT 1 stage |
| C | 11 | Section - General Description of the Service in the start-up sequence - is it required to get to the Minimum Stable operating Level? We believe that reaching the Minimum Regulation Level and providing contractual output is a more desirable approach | Minimum stable operating level may not be applicable to wind generators, but it can be changed to minimum contractual output |
| C | 12 | Short circuit level - our connection voltage to the relevant DNO network is 33kV, is this acceptable? There is a step up transformer owned by the relevant DNO network with the HV voltage being 132kV | We can consider the submission, and the final decision will be made by both the relevant DNO and the ESO |
| C | 13 | How are ESO dealing with availability and resilience criteria from an intermittent source like wind? | We have seen the challenge of uncertainty with wind power. However, the |

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| | | | declaration process hasn't been formalised in detail yet, the ESO is still having internal discussions. We will keep everyone updated once we agree a solution to move forward. It is also welcomed to hear what wind generators can do to achieve the restoration target. |
| C | 14 | Is the 10MW block loading appropriate for a wind farm? | Yes, please indicate the maximum block loading capability can be achieved. |
| C | 15 | For wind generators to meet the 80% availability requirement, a BESS will most probably be required. Will the CAPEX cost for the BESS and additional HW/SW updates required at the WF be covered as a lumpsum in the Wind Tender or will that need to be reflected in the £/SP cost of the tender? | Yes, the cost of all additional auxiliary units and equipment need to be included in the CAPEX. |
| C | 16 | Development of offshore wind capability to provide restoration services is in early stages and requires considerable work in terms of model and technology development. In F1 we may not be able to provide evidence for all the technical requirements, as some of the models still need to be developed as part of F2 to exactly show the OWF's technical capability. Will NG ESO be willing to accept F2 as the stage for complete technical submission for OWF with service start date of 2028? | Yes, that is acceptable. It is helpful to have some indication of what is the plan of your study, and what is expected to be achieved at F2. |
| C | 17 | Understanding the requirement of block loading this can be very impedance depending - will NGET be able to issue developers with the black start energisation sequence for an area to allow more area specific scenarios to be modelled? Is a description of the of the start up sequence available? | Not yet, but a detailed energisation sequence will be discussed with possible restoration route suggestion when required. |
| C | 18 | <p>Stage 1 Feasibility Document.</p> <p>Time to connect:</p> <p>The models will not be able to show the start up time (not now and not for F2).</p> <p>These calculations will have to be done based on simplified calculations by using the envelop curve, and not in detailed simulations.</p> <p>The specific scenario for energization will be described in F2.</p> | That is fine, it is also helpful if you could indicate a rough estimation about connection time in F1 stage. |
| C | 19 | <p>Stage 1 Feasibility Document</p> <p>Inertia Constant:</p> <p>This will be done by a calculation, detailed simulation will be done in F2.</p> | That is acceptable. It is also helpful if you could indicate that the unit does have the capability of inertia contribution in F1 stage. |

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| C | 20 | <p>Stage 1 Feasibility Document: Short circuit level</p> <p>This is normal fault ride through for the Onshore AC network and will be demonstrated by the simulations.</p> <p>Our Understanding:</p> <p>T<80ms: provide 1pu current</p> <p>T>80ms: allowed to reduce to ~0.4pu current</p> | <p>Fault ride through study can be used to demonstrate the generator capability. The fault current for T<80ms is to get the fault current value at transient state, and fault current when T>80ms is to get the steady state fault current value</p> |
| C | 21 | What is the latest start date acceptable to ESO? | Friday 4th December 2026 and Friday 1st December 2028 |
| C | 22 | What is the ESO's budget for this? | There is no pre-determined budget for the tender, costs will be highlighted to Ofgem once the final shortlist is concluded. |
| C | 23 | Does the ESO need procure 1-2 per zone in order to ensure fairness in future regional ESR tenders? | Each zone's requirements are modelled based on what can be offered and therefore this determines how many per zone are required to meet Restoration Standards. |
| C | 24 | The ESO seems to secure 2-4 primary restoration providers per zone in the regional tenders (depending on size), what is the zonal requirement for this? | Each zone's requirements are modelled based on what can be offered and therefore this determines how many per zone are required to meet Restoration Standards. |
| C | 25 | Please provide more information regarding the basis for which we should declare ESR availability / unavailability, with respect to Active Power. | The declaration process hasn't been formalised in detail yet, the ESO is still having internal discussions. We will keep everyone updated once we agree a solution to move forward. It is also welcomed to hear what wind generators can do to achieve the restoration target. |
| C | 26 | Does the ESO accept that ESR may be declared available and unavailable on a daily basis, if the wind dictates? | The declaration process hasn't been formalised in detail yet, the ESO is still having internal discussions. We will keep everyone updated once we agree a solution to move forward. It is also welcomed to hear what wind generators can do to achieve the restoration target. |
| C | 27 | <p>Availability performance:</p> <ul style="list-style-type: none"> It was confirmed that a Generator will be required to declare their ESR capability to the ESO in | The declaration process hasn't been formalised in detail yet, the ESO is still having internal discussions. We will keep everyone updated once we |

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| | | <p>a similar way as is currently required for conventional assets.</p> <ul style="list-style-type: none"> It was confirmed that a Generator will not be penalised for any unavailability or clawbacks resultant from “the wind not blowing”. It was also stated that Generators could explore the use of batteries to complement their Wind Only ESR solution to help ensure the 80% availability hurdle is met. Further guidance is requested upon the definition of “Wind Only” and how other technologies may be incorporated, since there are evidently too many unknowns. Clearly, the 10 hour Resilience of Supply criteria is crucial for declaring ESR availability (where battery incorporation is not possible), so further guidance is needed on how this should be interpreted, for example: <ul style="list-style-type: none"> Does the wind forecast need to predict greater than Contracted ESR MW for each and all of the 20 subsequent Settlement Periods on a rolling half hourly basis in order for ESR to be declared available? Rather than each and every Settlement Period, perhaps the majority of Settlement Periods (>10) being above ESR Contracted MW within a rolling 10 hour forecast, could enable ESR capability? Could a rolling average forecast be used instead? Should metered output be used instead and ESR availability be declared in real-time? How can we avoid multiple declarations of ESR availability/unavailability per day during periods of changeable wind patterns? | <p>agree a solution to move forward. It is also welcomed to hear what wind generators can do to achieve the restoration target.</p> |
| C | 28 | <p>Main Contract Terms:</p> <ul style="list-style-type: none"> A revised set of draft Wind-specific General Terms and Conditions is required, rather than the generic set used for regional tenders, in order to cater for the nuances brought about from Wind generation. As written, the risk of significant contractual penalties due to an intermittent fuel source is currently unmanageable for a Generator. | <p>Agreed, a specific set of contract terms will be drawn up based on the boilerplate of the standard ESR terms and conditions</p> |

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| C | 29 | <p>OFTO Interface:</p> <ul style="list-style-type: none">• OFTOs must be involved in solution development, implementation and delivery of any offshore ESR service.• Generators are unable to influence OFTO investment pursuant to an ESR tender offering.• ESO should be aware that OFTO cost metrics, or indeed appetite for the process, may have a material bearing on the overall success or failure of a Wind farm's ESR tender. | <p>We will indeed endeavour to engage appropriately with an OFTO if they are part of the solution offered by a provider.</p> |