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| Question 1 | Do you have any questions on the proposed data-derived metering option? |
| Question 2 | Do you have any comments on the proposed clarifications on availability? |
| Question 3 | Do you have any comments on the proposed updates to arming and disarming? |
| Question 4 | Do you have any comments on the proposed wording for Heartbeats? |
| Question 5 | Do you have any other comments on the proposed changes to the service terms? |

| Respondent | Q | Respondent 1-10 Response | ESO Response |
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| Respondent 1 | 1 | We are fully supportive of data derived metering option where needed and approved by NGESO. We however question requirement for half-hourly metered data for such dynamic services which rely on higher frequency data for reliable operation. | Metering Data The Metered Data definition in Section R of the BSC makes no reference to half-hourly metered data but for clarity the definition of metered data has been updated to include the definition in full. |
| | 2 | We appreciate the need for additional checks and flags to signal availability. We understand if a Unit becomes unable to provide in whole or in part during contracted service period solely on State of Energy, then will be seen as being available if we adhere to the process detailed – a. Notify of non -availability via operational or if directed by NG performance data b. Follow SOE Management Rules c. Use all reasonable endeavours to comply with Arming and Re-Arming Instructions | SoE management and availability Thank you for the feedback. We are keen to ensure our terms are clear and will continue to engage with our stakeholders to understand how we can improve. For your awareness we have made small changes from other feedback received as part of this consultation to clarify the different actions required for state of energy notifications and flags from contracted quantity (power output) limitations in clause 5.2. |
| | 3 | we do appreciate the need for fast acting Arming and Disarming if required by NG to control as much as possible response units. | Thank you for the feedback |

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| | 4 | We understand the need for heartbeat signals and are happy with the wording. | Thank you for the feedback |
| | 5 | It's imperative that NG have visibility and can gain some certainty around providers anticipated behaviours and availability. We welcome service guidance that improves clarity around SOE management and Ramp Rates. | SoE management and ramp rule Thank you for the feedback. We are keen to ensure our terms are clear and will continue to engage with our stakeholders to understand how we can improve. |
| Respondent 2 | 1 | The definition of metered data suggests that the methodology will be approved by NGENSO in line with Section R of the BSC. It is not clear from the revised service terms whether there is scope for this to include asset metering, such as CoP11 standards in the future. We would encourage the ESO to consult with providers and wider industry to ensure that this proposal can be developed alongside providers to ensure quick delivery of this change. | Metering Thank you for the feedback. The only use of Section R of the BSC was relating to the definition of Metered Data. Based on the feedback received the definition has been updated to include the relevant detail in full. We are beginning a review of metering standards required for balancing services and if there are suitable standards we are able to use this may be possible in the future. We would welcome further suggestions and discussions on this. |
| | 2 | We welcome the clarifications on availability, namely that "a response unit is deemed to be available even if it cannot deliver its contracted quantity if we have a) notified NGENSO b) complied with SoE Management rules c) taken all reasonable endeavours to comply with Re-Arming/Disarming". We have no further comments on this and this the new proposal makes availability status much clearer for providers. | SoE management and availability Thank you for the feedback. We are keen to ensure our terms are clear and will continue to engage with our stakeholders to understand how we can improve. For your awareness we have made small changes from other feedback received as part of this consultation to clarify the different actions required for state of energy notifications and flags from contracted quantity (power output) limitations in clause 5.2 . |
| | 3 | Disarming / Re-Arming – definition in 6.15 states that these instructions will be delivered "by electronic means". In order for Providers to know whether they can comply with the new requirements, NGENSO will need to issue more information on how these notifications will be issued and at what frequency. There will also need to be clarification on how these signals, and delivery of these signals, will differ for BM and non-BM units. | Arming/disarming signals Thank you for the feedback. For the purposes of this consultation, the frequency and method of delivery of these arming and disarming signals is not proposed to change from the initial introduction of the signals in Response Release 1. If there are any queries over the existing process these can be raised directly with your account manager. |

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| | | <p>We would strongly encourage the ESO to engage with industry on these technical changes as development work will be required by providers in order to deliver these proposals. More information is needed on how these signals will be delivered in order to answer some of the questions these changes raise, such as whether the proposed two (2) minutes to disarm / re-arm the unit is enough time and how this impacts performance monitoring or penalties.</p> | <p>Performance monitoring of arming/disarming We will be introducing additional disarming signals with the delivery of our Release 1B currently expected in summer 2024. The additional signals will allow the disarming of the high or low variant of each service individually (eg Dynamic Containment Low or Dynamic Moderation High). A full list of existing and planned future codes with examples can be found in our guidance document here: https://www.nationalgrideso.com/document/276606/download</p> |
| | <p>4</p> | <p>This is only required for non-BM units as BM units deliver this information via BMUs. However, it is not clear from the proposed service terms how this is expected to work in practice and how these signals will be sent/received. We would encourage NGENSO to provide further information on this, including a testing plan, at their earliest opportunity. It is anticipated that the implementation of heartbeat signals for non-BM units will require significant development time from internal IT teams, so it would be prudent to begin this work at the earliest opportunity.</p> | <p>Purpose of BM heartbeats From feedback received in this consultation we are withdrawing the proposed introduction of submission of heartbeats from balancing mechanism units (BMUs). We will proceed with the update to the Terms for non BMU heartbeat submission. We will continue to use the EDL connection to monitor the connection status for BMUs.</p> |
| | <p>5</p> | <p>Ramp rates are proposed to be calculated on PM data instead of operational baselines – this is a welcomed change as we believe this has made the intention and application of ramp rates clearer for all providers and allows a level playing field amongst providers.</p> <p>We note from the service parameters that these have been updated to confirm the ramp rates for baselines will be 5% maximum, or such higher integer as NGENSO may publish from time to time. Can the ESO clarify how changes to this parameter will be communicated to industry and how frequently does the ESO anticipate such changes to be made? It would also be interesting to know if there are any set circumstances in which these changes will be triggered.</p> <p>15.11 – states that units will be de-registered. Can ESO please clarify whether this is complete de-registration of a unit, rather</p> | <p>Process for updating ramp rate limit Thank you for the feedback and expressed support of these changes. We do not expect to be making regular changes to this limit and will ensure that thorough engagement is conducted in advance of any change and reasonable notice is given via direct communications and Response reform updates.</p> <p>De-registration expectations</p> |

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| | | <p>than a temporary suspension. This seems extremely punitive, and we would therefore challenge whether this is the correct approach from the ESO.</p> <p>The new service terms state that ABSVD will continue to only be applied to BM assets. NGESO needs to approach ABSVD in the same way for both BM and non-BM assets. Applying ABSVD to BM only will cause disparity in market participants pricing, which in a Pay as Clear market could result in a higher overall cost of service.</p> | <p>This may be used as a temporary suspension or complete de-registration depending on the severity or regularity of the failure. The intent is to have further recourse available in the case of severe or repeated breaches particularly where this is perceived to have been conducted in bad faith where other forms of resolution are not possible. Communications will be issued in advance of the application of any de-registration and warnings will be issued where possible and where a further failure would not risk system security.</p> <p>ABSVD alignment timelines</p> <p>Thank you for the feedback on this topic. We are working to make changes to our systems to allow us to apply ABSVD equally for BM and non-BM assets. Whilst many of the pre-requisite changes have been identified and some changes delivered, there are still challenges with resolving the remaining requirements. As an active project and a priority to resolve we are working through these as quickly as possible and hope to have identified a path and timeline to resolution soon. Account Managers will signpost the changes to Service Providers at the appropriate time and we will publish guidance material ahead of any changes on the ESO website.</p> |
| <p>Respondent 3</p> | <p>1</p> | <p>We strongly support the introduction of data derived metering for performance monitoring purposes. We encourage ESO to continue consulting with industry and Respondent 3 that has developed this proposal in order to ensure it is delivered as quickly as possible, recalling that this topic has been under discussion for over three years already.</p> | <p>Timelines and support for delivery of data derived metering</p> <p>Thanks for feedback and your support in development of this solution.</p> <p>Over the next 6 months we are intending to run a project to develop a performance monitoring solution to explore the feasibility of introducing data derived metering for Response services. We are planning to continue our engagement with interested industry parties throughout this period to ensure the matter is progressed as quickly and efficiently as possible for</p> |

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| | | | both service providers and ESO. At the end of the 6 month development window the proposed solution must be assessed to ensure that we can be confident it accurately validates service delivery. If the solution does meet the requirement we will proceed with the review and approval of any prepared methodologies for data derived metering. |
| | 2 | N/A | N/A |
| | 3 | N/A | N/A |
| | 4 | N/A | N/A |
| | 5 | <p>We are extremely disappointed at the announced delay to Quick and Slow Reserve, especially since ancillary service reform is a key action within government's Smart Systems and Flexibility Plan 2021. It is also somewhat shocking that despite these services being in a design phase for the best part of 2 years, only now have 'a series of challenges and risks associated with delivering the changes on [ESO's] legacy systems' been identified. With the OBP not set for completion until 2027 there is a risk that Reserve reform will spectacularly miss its RIIO-2 timelines. However, an even more worrying issue arises as IT issues we generally associate with the BM creep into ancillary services. We recall Zuhlke's findings that ESO's IT investment plans are far from convincing in relation to adaptability and the risk of locking-in products unnecessarily in conflict with Government's own standards for CNI. Therefore, we must ask whether the OBP will be any more adaptable than legacy systems and whether we will encounter the same unjustifiable timelines for reform in five or</p> | <p>Q&S Reserve timelines We note your disappointment with the delay to the launch of Quick and Slow Reserve services. These have been delayed in light of the significant changes that would have been required in our existing, legacy balancing systems and processes, given the complexity of the new service designs. At present, we are still re-examining our proposed service design options and evaluating our IT solutions. The Reserve Reform team plan to share and seek feedback on these developments in September.</p> <p>OBP OBP is being delivered in an agile way (following the SAFe methodology). The aim is to replace legacy functionality gradually over a number of years. The first release of OBP is planned for the end of 2023. We will then have regular releases out to 2027. Functionality in OBP will be delivered according to</p> |

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| | | <p>ten years time. Although we are supportive of the changes to baselining, given the lack of opportunity to consult on these delays elsewhere we thought it best to raise here.</p> | <p>priorities and we expect support for new reserve products to be much earlier than 2027.</p> <p>OBP is built on modern cloud based technologies using microservices – this way of developing is the most flexible available to the IT industry. In addition, we have endeavoured to make OBP configurable so avoiding the need to develop software from scratch.</p> <p>I hope this assures you that we are doing everything we can to support new services as quickly as possible.</p> |
| Respondent 4 | 1 | N/A | - |
| | 2 | N/A | - |
| | 3 | <p>Currently, the Performance Monitoring CSV File Format document dated Jan-22 (https://www.nationalgrideso.com/document/225776/download) states that the Arm / Disarm flag is optional. Is this to be changed to mandatory? This is not clear from the new terms.</p> <p>Currently, there is only 1 Disarm signal via EDT. Please can you clarify if these signals are being changed.</p> | <p>Arm/disarm flag optional</p> <p>Thank you for highlighting this. We will be updating this document to reflect the mandatory service requirement for the arming/disarming flag. We will ensure reasonable notice is given before the system changes are made to reflect this.</p> <p>Timeline for introduction of new disarming signals</p> <p>We will be introducing additional disarming signals with the delivery of our Release 1B currently expected in summer 2024. The additional signals will allow the disarming of the high or low</p> |

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| | | <p>If EFA 1,2,3 5,6 are contracted for DC and EFA 4 is contracted for DM, will NGENSO issue a Rearm signal at the end of EFA 3 and then Disarm again at the end of EFA 4? How will this type of scenario be handled with a mixture of ancillary service contracts over a full day?</p> | <p>variant of each service individually (eg Dynamic Containment Low or Dynamic Moderation High). A full list of existing and planned future codes with examples can be found in our guidance document here: https://www.nationalgrideso.com/document/276606/download</p> <p>Examples for arming/disarming Instructions may be sent to the unit in any period for which it is contracted. In the example given the unit could be sent an instruction to disarm for Dynamic Moderation (DM) in any of contracted EFAs 1-6. If the DM disarm instruction were sent in EFAs 1-3 the unit should be disarmed for DM prior to delivery in EFA 4. If the DM disarm instruction is sent in EFA 4 then the unit should acknowledge and disarm DM within 2 minutes. If the unit is disarmed for DM after EFA 4 then the unit should continue to await the DM re-arm instruction throughout any EFAs contracted for Dynamic Containment (DC), DM or Dynamic Regulation (DR). If the unit is contracted to deliver DM for any period or periods before the re-arm instruction is received the unit should continue to operate in a disarmed state until the re-arm instruction is received. Further examples have been included in our guidance document here: https://www.nationalgrideso.com/document/276606/download</p> |
| | <p>4</p> | <p>The proposed service terms state that guidance will be given for BMU participating units: ‘1, Heartbeat Signals guidance for Response Units that are BM Participating is to be provided by NGENSO in due course.’ Please, can this be provided.</p> | <p>Purpose of BM heartbeats From feedback received in this consultation we are withdrawing the proposed introduction of submission of heartbeats from balancing mechanism units (BMUs). We will proceed with the update to the Terms for non BMU heartbeat submission. We will continue to use the EDL connection to monitor the connection status.</p> |

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| | 5 | Where there is mention of operational metering are all the terms aligned with the operational metering if delivered via a means for a transmission connected or large BM units using TS 3.24.100, Operational Data Transmission? https://www.nationalgrideso.com/document/119766/download . | Metering Data The requirements stated in the operational data transmission document are for providing operational metering data for balancing mechanism units. The requirements for data submission for Frequency Response services for all units are covered in the Service Terms and referenced documents along with the requirements for operational baselines submission and performance data. |
| Respondent 5 | 1 | Removed for confidentiality. | Removed for confidentiality. |
| | 2 | Removed for confidentiality. | Removed for confidentiality. |
| | 3 | Removed for confidentiality. | Removed for confidentiality. |
| | 4 | Removed for confidentiality. | Removed for confidentiality. |
| | 5 | Removed for confidentiality. | Removed for confidentiality. |
| Respondent 6 | 1 | Can NG confirm if this change is made to allow more complex sites with complex configurations to be able to deliver the services in an easier way with less complex metering setup? For our current sites currently Respondent 6 believes this change should not make a difference but would require more time to verify with our control partner. This could however have an impact in the future if sites are more complex | Purpose of data derived metering Correct, the intention is to provide an opportunity for participation from units which have other deliverables that cannot be removed from directly metered data. The obligation would remain to demonstrate that the service delivery and provide the data to the same requirements (frequency, latency, accuracy) as conventionally metered data with the change being that it can be processed/separated by the provider. |

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| | | <p>Respondent 6 believes it is a positive impact if this allows more complex sites to be connected and if this remove barriers linked to metering requirements.</p> <p>Could NG confirm if our interpretation of the change is correct?</p> | |
| | <p>2</p> | <p>We would like NG to confirm that if for a Settlement Period a participant declares an asset to be unavailable, then settlement payment would simply be £0/MW/h for this settlement period without any impact from where auction cleared (positively or negatively)? Would a participant still be able to be unavailable for a specific Settlement Period but still be able to deliver the service for the rest of the EFA block (it seems to be the case with the updated way settlement value is calculated in Schedule 3)? How are unplanned outages considered? How long does a participant have to declare an unplanned outage? Are re-submissions 5 days after the end of the month still possible? Is Availability always submitted by the participant or can sometimes NG calculate (unscheduled) unavailability themselves looking at operational data, state of energy, heartbeat signals etc.?</p> <p>The documents are slightly confusing as the New Response Services Service Terms – Compare document is showing in Schedule 3 the EAC updated calculation of settlement value. However, the document New Response Services - Provider Guidance v.2 in slide 9 still shows the old way of current non-EAC way of calculating the settlement value. We understand that changes here are based on the EAC version of the document, but it would have been useful to see an updated version of the slides as well.</p> | <p>Settlement payment for unavailability in negative auction</p> <p>Yes the settlement payment would be £0/MW/h for Settlement Periods of unavailability</p> <p>Participants would be able to be unavailable for a specific Settlement Period but still be expected to deliver for the other Settlement Period in that Contracted Service Period.</p> <p>Unplanned outages should be communicated as soon as possible and reflected in an unavailable flag in operational and performance data.</p> <p>There is currently no set timescales for outage notifications but may be challenged on a case by case basis, particularly with planned enhancements to monitoring and visibility.</p> <p>Re-submissions are still possible up to 5 days after the end of the month.</p> <p>Guidance information for settlement value</p> <p>Thank you for highlighting this point on the calculation of the settlement value, we have introduced a new slide at the bottom of the guidance document pack to detail the EAC changes to this calculation and when the EAC changes are live we will ensure this is reflected in the main performance monitoring section.</p> |

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| | | <p>Previous response shared by Respondent 6's Control Partner:</p> <ul style="list-style-type: none"> • Could Grid clarify if a non-BMU loses some availability while delivering stacked services (and therefore required to redeclare availability via ASDP, with a combination of MW and product), how do we decide which product to redeclare? • Example: a 12MW site doing DCL (2MW), DCH (2MW), DRH (4MW), DML (4MW), partial outage of 8MW occurs, what do we redeclare? • Our Control Partner would have concerns over providers just choosing the product with the least economic impact instead of based on what Grid requires – and could be open to gaming by providers. | <p>Currently partial availability is not allowed. A unit should declare themselves either available or unavailable for the contracted services.</p> <p>The performance factor K, is calculated on a unit basis so the risk of a participant underperforming on the least valuable service and overperforming on the most valuable is mitigated. Therefore, we do not expect stacking/splitting to present any opportunities for gaming. Prior to Market Trials, the new market clearing algorithm will undergo functional testing to verify the efficiency of clearing the new market design.</p> |
| | 3 | <p>National Grid needs to provide more information about how arming/disarming will work within updated EAC, as this has still not been confirmed for now.</p> | <p>Arming/disarming in EAC</p> <p>The proposal to introduce new disarming and rearming codes is currently under development. We expect to go-live with stacking at the same time as we launch the new EAC platform, and the new disarming and rearming codes will follow at a later date. We will update market participants with our detailed proposal when it has been developed further. We have added some further details and examples in the guidance document for performance monitoring and EAC.</p> |
| | 4 | <p>NG is not currently providing much detail on what Heartbeat signals as shown in the footnote page 14. This makes it difficult for Respondent 6 to comment on this change without having full details. However, if those submissions are the same as the ones currently done already by our Control Partner, then this should not impact Respondent 6.</p> | <p>Purpose of heartbeats</p> <p>From feedback received in this consultation we are withdrawing the proposed introduction of submission of heartbeats from balancing mechanism units (BMUs). We will proceed with the update to the Terms for non BMU heartbeat submission. We will continue to use the EDL connection to monitor the connection.</p> |

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| | | Regarding clause 15.11, it seems NG can de-register an asset if participant fails to provide those correct signals on time. Could NG clarify what threshold would mean they deregister the asset, a warning process would be needed prior to de-registration with a remediation period. | <p>De-registration expectations</p> <p>The intent is to have further recourse available in the case of severe or repeated breaches particularly where this is perceived to have been conducted in bad faith where other forms of resolution are not possible.</p> <p>Communications will be issued in advance of the application of any de-registration and warnings will be issued where possible and where a further failure would not risk system security.</p> |
| | 5 | Do participants still need to comply with ramp rates rules? Is there any penalty for not following ramp rates? Respondent 6 has had different views on this topic and would like to confirm if any technical changes need to be implemented. It also seems that NG can change (increase only) the ramp rate from time to time, it would be good to understand how much notice NG would give participants ahead of such a change as it would have technical response impacts but also impacts in our auction strategy and revenue forecast. Respondent 6 needs more time to confirm if it is an issue or not for our Control Partner if ramp rate needs to be changed from 5% to a higher number. | <p>Ramp rate changes and timelines</p> <p>The ramp rate requirement remains in our service terms however our communication that penalties will not be issued for this requirements remains.</p> <p>We recognise some participants' concerns that current ramp restrictions are increasing bid prices. At the same time, we need to ensure our changes to restrictions account for any associated increases in other costs to securely operate the system. This flexibility allows us to act quickly following analysis and engagement we are carrying out in the autumn.</p> |
| Respondent 7 | 1 | No. | - |
| | 2 | No. | - |
| | 3 | We welcome the additional clarity. We would prefer that the ESO only send simple DR 're-arm' instructions which mean 'provision of the applicable Auction Product is resumed'. Doing this removes the complexity associated with having to interpret different DR, DRL & DRH messages relative to our contracted service. | <p>Arming/disarming</p> <p>Thank you for the suggestion. This functionality to arm and disarm high and low auction products is expected to be beneficial when identifying sources of issues on the system. Additionally it reduces the volume of Response services not</p> |

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| | | <p>Under the terms of service, the service provider is responsible for initiating the required service for the corresponding EFA block, with the ESO having an ability to override this service provision with a Disarm message. This Disarm message is for all services i.e. DRL, DRH or both.</p> <p>The only contractual relationship between the ESO and the service provider is for the service(s) agreed at the auction. There is no agreement in place for anything other than the agreed service(s) to be 're-armed'.</p> <p>The currently defined Reason codes (DR, DRL & DRH) theoretically allow the ESO to send a re-arm instruction for a service that has not been agreed in the auction. It is not clear what either party should do in these circumstances. Should the service provider reject the re-arm instruction for instance if the service provider did not win the provision of that service in the auction?</p> <p>The currently defined re-arm Reason codes conflict with the service terms, under which it is the responsibility of the service provider to initiate the service provision. We would therefore suggest that the DRL & DRH reason codes are removed, such that the single 'DR' reason code instructs the service provider to resume the services won at auction.</p> | <p>operating which in turn reduces the risk. Therefore it is our expectation that this requirement will remain.</p> <p>For absolute clarity whilst in contracted service periods units are expected to monitor arming and disarming signals for all services they are qualified to deliver and respond according to the prevailing arm or disarm instruction for each service. Eg if a unit is contracted for DRH in EFA 1 and DML in EFA 2 then a disarming instruction for DML sent in EFA 1 should be acknowledged within two minutes of receipt. A subsequent re-arm instruction received for DML in EFA 1 should result in the unit commencing with the delivery of DML at the start of EFA 2. More detailed information can be found in our guidance document: https://www.nationalgrideso.com/document/276606/download</p> |
| | 4 | <p>We are concerned about the lack of guidance provided for BM units. This is a new requirement and will require new functional changes to our systems.</p> <p>We would like to understand what the content of the Heartbeat message is expected to be, the frequency with which the message is sent and to which ESO system(s). Further clarification as to whether this is expected to be a high availability solution will be key considerations, alongside understanding the ESO</p> | <p>Purpose of heartbeats</p> <p>From feedback received in this consultation we are withdrawing the proposed introduction of submission of heartbeats from balancing mechanism units (BMUs). We will proceed with the update to the Terms for non BMU heartbeat submission. We will continue to use the EDL connection to monitor the connection</p> |

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| | | <p>expectations as to the source of the Heartbeat e.g. from SCADA / PLC.</p> <p>Until we have clarity on what the Heartbeat requirements are, we suggest the clauses do not take effect until industry has been consulted on the requirements. The Service Terms could be amended to state that Heartbeat requirements do not take effect until such point that the Heartbeat signal guidance has been consulted on. It would be similar to the approach taken to the Response Procurement Rules which only terminate at the EAC Go Live Date.</p> | |
| | <p>5</p> | <p>We reiterate below the comments we made as part of our response to the EBR Article 18 Consultation for Enduring Auction Capability regarding the application of the Deadband.</p> <p>Following discussions with the ESO, it has become apparent that the Frequency Response Service Terms as currently drafted exclude synchronous plant from participation in the Dynamic Regulation Service. Specifically, paragraphs 6.7 iv, 6.11 vi, Schedule 2 (Capability Data Tables) and Schedule 5 (Testing) Part 3 (Dynamic Regulation Test Requirements), refer to units providing equivalent Mode A Frequency Response capability in the Deadband. This is not possible for synchronous plant. We do not believe it was the intent of the ESO to prevent synchronous plant from participation where the technical capability exists. This issue was previously acknowledged by the ESO in the earlier DR consultation document entitled “You Said, We Did” (dated 13 January 2022) but, unfortunately, the current drafting has not resolved this. Therefore, we propose that the Deadband provisions are amended to state a Response Unit which is not Energy Limited may operate with a zero Deadband such that the response requirement becomes a straight line starting at -0.2Hz, 100% and ending at +0.2Hz, -100%. However, we are open to alternative drafting changes which will remove this restriction on participation for synchronous plant.</p> | <p>Deadband operation</p> <p>Thank you for the feedback on this and your engagement with us as we progress this topic. We have made every effort to include your requested changes as part of our post-consultation changes but there are some unaddressed concerns raised regarding the potential impacts this may have on the effectiveness of Response delivery. Without more thorough testing we are unable to conclusively determine that a scenario where this change was more broadly used by service providers would not have a negative impact on the service delivery. In order to explore these concerns we are investigating the option of running a limited trial to gather information and real-world data on the effects of this change. Conducting this trial would be subject to receiving the necessary internal approvals. On completion of the trial we would have the evidence necessary to decide on the enduring solution for this topic.</p> |

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| | | <p>The drafting change must be made as soon as possible to facilitate the entry of synchronous plant into the DR market. We note that the Balancing Reserve proposal was recently rejected by Ofgem in part because it excluded a significant quantity of otherwise technically capable assets. We believe the precedent and Ofgem’s expectations have therefore been clearly set that all technically capable plant should be enabled to compete for Balancing Services.</p> <p>We understand that the ESO now intends to propose the necessary changes to the Service Terms to correct this issue. We keenly await the provision of the proposed drafting changes to assess its effectiveness.</p> <p>Separately, we are still unclear at what point we submit a unit unavailability declaration. Is it only during the EFA Block contracted or before then? e.g. if contracted for EFA6, if the unit becomes unavailable (unit trip for example) in EFA5 do we declare the unit unavailable immediately in EFA5 or at the start of the contract in EFA6?</p> | <p>Units should declare their availability status through operational and performance metering. The unit will be performance monitored for Response delivery from the start of its contracted period (in this example at the start of EFA 6 so only availability declarations from this time will be considered for the performance monitoring and settlement of Response delivery.</p> |
| <p>Respondent 8</p> | <p>1</p> | <p>Respondent 8 currently believes this option is not well explained enough in the current service terms to provide any substantial feedback</p> <p>We would therefore like to understand this option in more detail if the ESO can provide some clear documentation</p> <p>If possible this documentation needs to outline how it would impact the current site set ups and then how it may aid or hinder more complex sites which could occur in the future?</p> <p>Overall, however, Respondent 8 would be surprised if this new option caused any issues, but would like to confirm this after further documentation is provided</p> | <p>Purpose of data derived metering</p> <p>Existing options for units remain unchanged. The intention is to provide an opportunity for participation from units which have other deliverables that cannot be removed from directly metered data. The obligation would remain to demonstrate that the service delivery and provide the data to the same requirements (frequency, latency, accuracy) as conventionally metered data with the change being that it can be processed/separated by the provider.</p> <p>Whilst ESO could stipulate how this will be done we would like input from industry to ensure that the options are practicable and efficient.</p> |

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| | 2 | <p>Repeating the point Respondent 8 made for the EAC consultation, could Grid clarify if a non-BMU loses some availability while delivering stacked services (and therefore required to redeclare availability via ASDP, with a combination of MW and product), how do we decide which product to redeclare? Example: a 12MW site doing DCL (2MW), DCH (2MW), DRH (4MW), DML (4MW), partial outage of 8MW occurs, what do we redeclare? Respondent 8 would have concerns over providers just choosing the product with the least economical impact instead of based on what Grid requires – and could be open to gaming by providers Can Grid please clarify how unplanned outages will be considered under these proposed clarifications?</p> | <p>Currently partial availability is not allowed. A unit should declare themselves either available or unavailable for the contracted services. For clarity if the unit is facing a full or partial outage it should declare unavailable to deliver the stack of contracted services. The performance factor K, is calculated on a unit basis so the risk of a participant underperforming on the least valuable service and overperforming on the most valuable is mitigated. Therefore, we do not expect stacking/splitting to present any opportunities for gaming. Prior to Market Trials, the new market clearing algorithm will undergo functional testing to verify the efficiency of clearing the new market design.</p> |
| | 3 | <p>As part of the changes needed to put through for EAC, Respondent 8 will be able to support both site and product level arm/disarm instructions and therefore have no concerns</p> | <p>Arming and disarming delivery Great thank you for the confirmation and feedback</p> |
| | 4 | <p>Respondent 8 welcomes these changes as this will allow grid to have better visibility of non-BMUs and therefore allow them to be better managed/dispatched in the control room Respondent 8 has no major concerns regarding heartbeats as it already submits PN data for non-BMUs via ASDP, as well as heartbeats (according to the ASDP specification), and availability redeclarations following a service-impacting change in availability between contract and delivery time Overall, however, there is not sufficient detail on this extra wording for a heartbeat, so Respondent 8 struggles to give much deeper feedback. Further information would be appreciated</p> | <p>Purpose of heartbeats From feedback received in this consultation we are withdrawing the proposed introduction of submission of heartbeats from balancing mechanism units (BMUs). We will proceed with the update to the Terms for non BMU heartbeat submission. We will continue to use the EDL connection to monitor the connection</p> |
| | 5 | <p>Respondent 8's main concern is if increased ramp rates are related to the response curves of the DFR services then would this require retesting of assets that have already passed based on the old rate It would be a large piece of work to change these responses for all existing sites and there may be some concern over the maximum ramp rates of some assets.</p> | <p>Ramp rates application This reference to ramp rates relate to the maximum baseline ramp limit for units contracted to deliver Response (currently 5%/min of the contracted quantity). We are not anticipating that this will require retesting as changes would only be in the form of a higher maximum limit. Discussions are planned to be held in the next couple of months to assess the benefits of any change and communications will be issued if changes are</p> |

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| | | <p>If this is only relating to the ramped dispatches then there shouldn't be any issue.</p> <p>Some clarifications on how these ramp rates need to be complied to would therefore be useful. For example, if retesting is required, the timings of notifications for any ramp rate increases, or the ramifications for if this increase was not adhered to</p> <p>There are some referencing errors on page 35</p> | <p>agreed including an agreed reasonable notice before changes brought in.</p> |
| Respondent 9 | 1 | <p>We would like to thank National Grid ESO for the opportunity to respond to this consultation. Respondent 9 are eager to support ESO by delivering the highest quality service in the markets that we participate in. We are also always striving to pioneer new ways of delivering those services, such as providing different frequency response services back-to-back, to improve grid management, contribute towards our Net Zero ambitions and create a more affordable energy system for customers.</p> <p>Data Derived Metering</p> <p>As Respondent 9 understand it, all participants are now expected to provide Performance Data. Therefore, ESO should if possible, remove the various “as directed” or “where relevant” phrases regarding Performance Data from the terms, as they introduce ambiguity to the surrounding sentence. This currently appears in paragraphs 5.2, 5.3 and 6.4</p> <p>The change in paragraph 6.8 from “Operational Baselines shall observe the maximum ramp rate” to “Performance Data shall observe the maximum ramp rate” is surprising. Performance Data covers many things, and we would prefer that the terms were specific, for examples wording to the effect of: “Operational Baselines and Metered Power shall observe the maximum ramp rate”.</p> | <p>Data Derived Metering</p> <p>Thank you for the feedback on the wording used in relation to performance data. We have updated the wording in the terms in the areas highlighted.</p> |
| | 2 | <p>Availability</p> <p>Paragraph 5.6 has become very confusing for participants to interpret. It looks like the word “unavailable” has been removed from the paragraph, but the commitment to notify ESO by Operational/Performance data is re-emphasised, the language about “unable to provide in whole or in part the Contracted</p> | <p>Availability</p> <p>Thank you for the feedback on this wording and the additional time taken to discuss this directly with us. We will be making further updates to this section and would welcome your continued input.</p> |

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| | | <p>Response Energy Volume” is still there, however, 5.6.ii has had “no further management is possible such that the capability to provide REV is completely depleted” added, which is confusing by itself as a sentence. The last section on “deeming available” is also still not clarified - does this mean that even though the provider notifies in its Operational and Performance data as unavailable, ESO will assess its payment as though it were available?</p> <p>As Respondent 9 have raised before, without clarity on ESO’s intended behaviour with this paragraph, it is impossible to judge whether the language is achieving that intent accurately. To re-emphasise our previous conversations on this, we feel that this rule as written provides adequate latitude for ESO to forgive an asset depleting its REV when responding to a frequency event. We urge you to maintain and re-emphasise the requirement to maintain REV in other circumstances, or to be deemed unavailable and forfeit payment. Without this provision there is nothing in the terms stopping providers from cruising their assets just short of total exhaustion, collecting payment while not providing security to the grid.</p> | |
| | <p>3</p> | <p>Arming and Disarming</p> <p>We consider paragraph 6.4 to be confusing and the believe the proposed changes have exacerbated this. The text states: “no later than 60 minutes prior to the start of each relevant Settlement Period”, however, within the same sentence the following words state: “or by way of Performance Data” which is submitted after provision. Performance Data is not linked with ASDP and is not subject to its documentation.</p> | <p>Arming and Disarming</p> <p>Thank you for the feedback on this. We have updated the Terms to reflect the requirement for this to be sent as a non-BM data submission prior to gate closure.</p> |
| | <p>4</p> | <p>Heartbeats</p> <p>The addition of a plan for heartbeat data for BM units is surprising. It was our understanding that the role filled by ASDP heartbeats for non-BM units was met by the BM’s operational metering systems. What need is adding a heartbeat system intended to fill, and when can providers expect more information on the implementation? As always, it is hard to know how to</p> | <p>Heartbeats</p> <p>From feedback received in this consultation we are withdrawing the proposed introduction of submission of heartbeats from balancing mechanism units (BMUs). We will proceed with the update to the Terms for non BMU heartbeat submission. We will continue to use the EDL connection to monitor the connection.</p> |

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| | | <p>respond to these terms when the intent of the changes hasn't been communicated.</p> <p>Given the migration to the OBP, we would expect to use existing mechanisms in the interim unless there were significant reasons otherwise to avoid unnecessary efforts & little additional value for both parties.</p> | |
| | <p>5</p> | <p>Market Monitoring Respondent 9 strongly believe that robust market monitoring is critical, particularly in the context of increased service stacking through the new EAC platform. ESO must start taking instances of breaking the market rules, for example by over-bidding, very seriously. Our understanding is the validation checks will be undertaken that account for an asset's power capacity, however request that the checks be extended to cover their energy requirements (i.e., do they have enough energy reserved to meet the minimum energy requirement for that service). Guidance and examples from ESO would also be welcomed, alongside clearly defining the requirements in the Service Terms.</p> <p>Respondent 9 are deeply concerned that current ambiguity around this presents a real risk to system security and ultimately drives up costs for consumers. In this respect, ESO must ensure that ambiguity within the service terms is stamped out with clear wording within the Service Terms Document and the accompanying Guidance Document.</p> <p>State of Energy Management Guidance We are disappointed not to see ESO producing any further guidance around the rules for the State of Energy (headroom and foot-room). This is something that we highlighted in last year's Frequency Response consultation, and we remain concerned that existing guidance is not currently in line with the Service Terms. To be clear, we are not advocating for relaxing the State of Energy rules, as we believe that maintaining robust rules ensures a high-quality service, however, further clarity and guidance is urgently needed.</p> | <p>Market Monitoring ESO firmly agrees in the requirement for robust market monitoring and so is progressing a significant update to deliver more visibility on unit behaviour and asset delivery to complement the work already undertaken by our Markets Monitoring and Contracts teams.</p> <p>The ambition of this update is to provide tracking and monitoring for a much broader range of metrics to support enforcement of the specific service term requirements and inform guidance where a range of approaches is currently permitted.</p> <p>State of Energy Management Guidance Thank you for this feedback we will aim to provide further guidance and clarity on these topics and would continue to welcome your feedback on any changes we propose.</p> |

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| | <p>Ramp Rate Parameters We would like to take the opportunity to highlight that the maximum ramp rate is still defined at 5% of a single service rather than the stacked services. Whilst we are sure this is just an omission rather than the intent, we request that ESO updates this accordingly.</p> <p>Ramp Rate Review Whilst we recognise that a Ramp Rate review is currently underway alongside this consultation, we would like to request that ESO provides a public update on the investigation into the review along with a proposed way forward to ensure all market participants are up to date. We will be providing comments setting out our views on ramp rates separately to this consultation.</p> <p>Technical issues with Operational Baselines Currently the Service Terms assume that the systems for submitting Operational Baselines (PNs and ASDP baselines) will be fully operational at all times. It would be helpful to have clarity on expectations when these systems are experiencing technical issues. We propose this addition to paragraph 6.5: [...paragraphs 6.3 or 6.4,] except where this is due to a planned or unplanned technical failure of the systems provided by NGEESO to receive Operational Baselines, [then for the purposes of paragraphs 5...]</p> | <p>Ramp Rate Parameters For total clarity, in the case of stacked services the ramp rate restrictions will be based on the sum of the contracted quantities</p> <p>Ramp Rate Review We have communicated our plans for engagement sessions in November and have run our request for feedback as part of Release 2 further work to support an internal review which we have completed prior to the sessions.</p> <p>Technical issues with Operational Baselines Operational Baseline systems are managed by the same teams with similar requirements for availability and uptime as the other mission critical IT systems that receive or process data submissions. Where there is a planned outage, or in the unlikely event of an unplanned outage, we have business continuity plans in place to support the continued management of the system. Where alternative actions are required from service providers this will be communicated out with as much notice as possible. In the absence of any alternative instruction the requirement would be to continue submitting data using the usual channels where possible. Specifically for Operational Baselines, if the systems are not available at any point prior to gate closure then ESO will take steps to resolve the outage whilst continuing to manage the system and assuming the outage is resolved in time for the submission of performance data that month. The performance data should allow the</p> |
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| | | <p>Partial availability If an asset could report “partially available” if they could only deliver part of contracted quantity, but can still deliver at all, Respondent 9 would be broadly supportive of this idea. We can provide whatever granularity is useful, whether that is just an on/off flag or the full number of megawatts available for LF/HF response.</p> | <p>settlement of any response deliveries. In the highly unlikely event that the outage prevents the submission of operational baselines and performance data that month we would expect alternative arrangements to be made for the submission of performance data, such as submission of the files via email.</p> <p>Partial Availability Thank you for this feedback, it is most helpful in our future reform planning. We will investigate this as an option and how this might be managed and would welcome further feedback on this once we have a proposal to share.</p> |
| Respondent 10 | 1 | It’s difficult to comment on whether the changes to the definition are sufficient in the absence of more information from NGESO on what options are under consideration. We’d be happy to have further engagement with the NGESO to better understand the proposals in order to provide more fulsome feedback. | <p>Purpose of data derived metering Thank you for this feedback, we take on board comments regarding the detail provided on the intention for the change and will aim to provide more clarity with future consultations.</p> |
| | 2 | No | |
| | 3 | No | |
| | 4 | It’s not possible to comment on the proposals for Heartbeats for BM Participating units without having the opportunity to review NGESO’s proposed ‘Heartbeat Signals guidance’. According to the ESO’s footnote in the draft service terms, the guidance ‘is to be provided by NGESO in due course’. This is of particular concern seeing as the proposed amendments to paragraph 7.3 suggest that if heartbeat signal data is not sent every 5 minutes, a unit may be deemed to be unavailable. However, the fact that a unit hasn’t communicated a heartbeat, (eg because of an internet | <p>Purpose of heartbeats From feedback received in this consultation we are withdrawing the proposed introduction of submission of heartbeats from balancing mechanism units (BMUs). We will proceed with the update to the Terms for non BMU heartbeat submission. We will continue to use the EDL connection to monitor the connection.</p> |

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| | <p>outage, or other communications signal failure) doesn't mean that a unit loses its technical availability to independently detect system frequency deviations and provide the necessary response. Depending on a providers operating set up, this could be particularly problematic for providers utilising aggregations of small assets where participating devices may be set up to run autonomously without the need for active interventions, unless there is some other requirement to deviate from a planned operating mode.</p> <p>We would advise caution in imposing adding data submission requirements on providers for data that is ultimately not going to be used or is effectively a duplication of other existing data sources that creates new burdens with no additional benefits.</p> | <p>Issue with connectivity</p> <p>We would welcome further information on the issues you suggest regarding loss of communications as typically we would expect this to be managed via the same connection that manages arming/disarming so would be concerned</p> |
| 5 | <p><u>Maximum ramp rate rule</u></p> <p>We support NGESO's efforts to fundamentally rethink the maximum ramp rate rule for response and have been advocating for this for more than a year and a half. In particular, the rationale for restricting baseline changes according to a defined maximum ramp rate to address the Control Room's lack of operational visibility of response units simply doesn't make sense for BM Participating units. The Control Room has full visibility of the intended operating schedule of BM Participating units through the requirement that they submit PNs (Physical Notifications). Therefore, if the reason to have maximum ramp rate limits is due to lack of Control Room visibility, then this requirement should be restricted to non- BM participating units who do not submit PNs and the requirement completely removed for BMUs who submit PNs one hour in advance and in respect of which the ESO can BOAs should the ESO wish to alter a BM Participating unit's intended schedule. In this way, BM Participating units will only need to comply with the technical ramping limitations specified in the Grid Code without further modification via the Response Service Terms. In addition, per previous feedback to NGESO, we think:</p> <ul style="list-style-type: none"> • The rule is designed for an extreme event that is unlikely to materialise in the manner originally described, | <p>Ramp rates</p> <p>Thank you for the feedback and expression of support for the ramp rate review we are undertaking.</p> <p>I hope that the discussions we have had since around the intention of the ramp rate restrictions have been insightful for you as well as helpful for us in shaping our review.</p> <p>The two primary benefits we see from the current ramp limits are quite distinct:</p> <ul style="list-style-type: none"> - On a day to day basis our control room engineers see significant changes at the boundary between settlement periods. For slower conventional asset types these changes are over the period of several minutes as the units ramp up or down. For typical battery units and interconnectors these step changes can be immediate and considerable. As you highlight this vertical step change is exacerbated by the lack of visibility of uncontracted non-balancing mechanism units (nBMUs) and is somewhat a driver behind the Release 2 further work we are undertaking to improve visibility of uncontracted nBMUs. Even with visibility the only options available to control engineers for managing this step change when it is expected to exceed the response holding is either to contract additional mandatory |

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| | <ul style="list-style-type: none"> • The rule materially distorts normal battery trading in the wholesale market and BM every day • The rule reduces the service volume that providers can offer to the market (leaving value on the table for both providers and for the system), thus negatively impacting competition in the wholesale market, the Balancing Mechanism and response markets, leading to higher than necessary overall system costs. We note and support the proposed changes to the Service Terms to enable the ESO to increase the speed of the ramp rate limit without further need to amend the Service Terms. We think this is a pragmatic way of moving forward to implement a possible change by 1 April 2024 pending the outcome of NGESO’s priority review of the ramp rate limits in parallel to this consultation. Given the complexity of interactions between DC, DM and DR, we would urge that any change to the ramp rate limit be made consistently across all of the dynamic suite of response services to keep consistency and simplicity of implementation. We note that the ramp rate definition in page 23 (Schedule 1 – Defined Terms) still refers to Operational Baselines and doesn’t seem to have been updated to reflect the changes made to the definition of maximum ramp rates in paragraph 6.8. Could you update it so the two are consistent? | <p>frequency response or BOA the schedules both of which require manual intervention and represent inefficient solutions. Although this occurrence is not exclusive to energy limited assets contracted to Response by allowing contracted units to operate freely to recover energy would greatly increase the frequency and severity of the cases where the step changes could not be contained.</p> <ul style="list-style-type: none"> - The second and more severe risk would be following a significant frequency event where the fleet of contracted Response units would be required to recover energy to restore their response energy volume. In this event there would already be significant depletion of the Response assets potentially with many forced to report as unavailable due to exhaustion. In the efforts to quickly recover units’ state of energy operational baselines could be submitted to recover the largest volumes of energy. With the current ramp restrictions and a slow recovery rate this could be managed with mandatory frequency response and Reserve assets. If ramp restrictions were not to be in place there would be no possibility of containing this energy recovery step change. <p>The focus of the review will be to assess potential alternatives to the current rule, recognising the impact it has on participating units ability to operate in other markets, whilst maintaining enough visibility and control to prevent unacceptable risks to system security from the above scenarios. We would certainly welcome your continued input as we progress with our review. Regarding the final point on the definition for maximum ramp rate, it is our expectation that neither the operational baseline nor performance baseline should include baseline ramping exceeding the limits placed. 15.4vi details the equivalency of these two baselines.</p> |
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