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Workgroup Consultation Response Proforma

GC0166: Introducing new Balancing Mechanism Parameters for Limited Duration Assets

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses to grid.code@nationalenergyiso.com by 5pm on 09 December 2024. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

If you have any queries on the content of this consultation, please contact Milly Lewis Milly.Lewis@nationalenergyiso.com or grid.code@nationalenergyiso.com

Respondent details	Please enter your details	
Respondent name:	Andrew Allan	
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Which best describes your organisation?	<input type="checkbox"/> Consumer body <input type="checkbox"/> Demand <input type="checkbox"/> Distribution Network Operator <input checked="" type="checkbox"/> Generator <input type="checkbox"/> Industry body <input type="checkbox"/> Interconnector	<input checked="" type="checkbox"/> Storage <input type="checkbox"/> Supplier <input type="checkbox"/> System Operator <input type="checkbox"/> Transmission Owner <input type="checkbox"/> Virtual Lead Party <input type="checkbox"/> Other

I wish my response to be:

(Please mark the relevant box)

☒ **Non-Confidential** (this will be shared with industry and the Panel for further consideration)

☐ **Confidential** (this will be disclosed to the Authority in full but, unless specified, will not be shared with the Workgroup, Panel or the industry for further consideration)

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For reference the Applicable Grid Code Objectives are:

- a) *To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity*
- b) *Facilitating effective competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);*
- c) *Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole;*
- d) *To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and*
- e) *To promote efficiency in the implementation and administration of the Grid Code arrangements*

For reference, (for consultation questions 6 & 7) the Electricity Balancing Regulation (EBR) Article 3 Objectives and regulatory aspects are:

- a) *fostering effective competition, non-discrimination and transparency in balancing markets;*
- b) *enhancing efficiency of balancing as well as efficiency of national balancing markets;*
- c) *integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security;*
- d) *contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector while facilitating the efficient and consistent functioning of day-ahead, intraday and balancing markets;*
- e) *ensuring that the procurement of balancing services is fair, objective, transparent and market-based, avoids undue barriers to entry for new entrants, fosters the liquidity of balancing markets while preventing undue market distortions;*
- f) *facilitating the participation of demand response including aggregation facilities and energy storage while ensuring they compete with other balancing services at a level playing field and, where necessary, act independently when serving a single demand facility;*
- g) *facilitating the participation of renewable energy sources and supporting the achievement of any target specified in an enactment for the share of energy from renewable sources.*

What is the EBR?

The Electricity Balancing Regulation (EBR) is a European Network Code introduced by the Third Energy Package European legislation in late 2017.

The EBR regulation lays down the rules for the integration of balancing markets in Europe, with the objectives of enhancing Europe's security of supply. The EBR aims to do this through harmonisation of electricity balancing rules and facilitating the exchange of balancing resources between European Transmission System Operators (TSOs). Article 18 of the EBR states that TSOs such as the ESO should have terms and conditions developed for balancing services, which are submitted and approved by Ofgem.

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Please express your views in the right-hand side of the table below, including your rationale.

Standard Workgroup Consultation questions		
1	Do you believe that the Original Proposal and/or any potential alternatives better facilitate the Applicable Objectives?	<p>Mark the Objectives which you believe the Original Solution better facilitates:</p> <p>Original <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E</p> <p>Neutral while waiting for fully defined and workable solution to be developed, as could introduce confusion and inefficiencies if implemented in current form.</p>
2	Do you support the proposed implementation approach?	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>The modification in its current form is neither fully developed to be applied for current operational portfolios, nor future proof with particular consideration of co-located assets which share Transmission Entry/Import Capacity – as is demonstrated in subsequent responses.</p> <p>Further, it is overly restrictive on the role and flexibility of market participants, by creating unnecessarily restrictive definitions as to why and when MDO/MDB can be changed within gate closure.</p>
3	Do you have any other comments?	
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	<p><input type="checkbox"/> Yes (the request form can be found in the Workgroup Consultation Section) <input type="checkbox"/> No</p> <p>RWE may raise a Workgroup Consultation Alternative Request if subsequent workgroup deliberations do not satisfactorily respond to the issues raised in this Workgroup Consultation response.</p>
5	Does the draft legal text satisfy the intent of the modification?	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>The legal text as drafted is not sufficiently clear to enable market participants to understand either its full intent, what data is required, how it should be submitted, or how it will be used; without relying on multiple guidance documents (which in themselves are insufficiently</p>

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		<p>developed and do not cover a reasonable breadth of scenarios).</p> <p>Of particular note:</p> <ul style="list-style-type: none"> - legal text definitions for MDO/MDB should for completeness also include exclusion of contracted energy dispatch (FPN) as well as ancillary commitments - legal text or guidance must be adequately developed ensuring there is clarity on the intention for how to consider ancillary commitments in (a certain number of) periods following the Balancing Mechanism Window Period - There should be further exceptions listed for re-declaring MDO/MDB – for example, MEL redeclaration related to weather (co-located) which could drive a change from “unlimited” to “limited” status - There is no definition in legal text of which assets are eligible to use default parameters. A further definition is required to make this clear. There is also no definition of what limited / unlimited means and whether they are intended to be derived for assets / asset classes / or whether an asset might fall in and out of this definition based on it's State of Energy and the maximum energy that could be requested in a Balancing Mechanism Window Period, based on MEL/MIL. Based on Workgroup consultation wording, definition of unlimited/limited would be necessary to define defaulting rules <p>There is interaction between this modification proposal and the developing ancillary markets for response and reserve, including for example the dynamic frequency suite and new quick reserve etc.</p> <p>The ancillary service auction will take place day ahead at ca. 14:00 for the EFA day beginning 23:00. These ancillary commitments are at that point locked in, and the asset must be available to deliver.</p>
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6	Do you agree with the Workgroup's assessment that the modification does impact the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Grid Code?	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>It is so far unclear if the proposer has fully considered how the mod would work for Aggregated Energy Storage portfolios or Demand Side Response BMUs for which it may be challenging to submit the requested data</p>
7	Do you have any comments on the impact of the modification on the EBR Objectives?	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

Specific Workgroup Consultation questions

8	Do you agree with the Proposer that the solution should be technology neutral or with several Workgroup members who thought the solution should be based on asset type?	<p><input checked="" type="checkbox"/> Technology neutral <input type="checkbox"/> Based on asst type</p> <p>It would have been preferable to have a solution based on the asset types that are really of interest, given the complexity that is introduced which it is design as a technology neutral solution.</p> <p>However, it is understood that with the number of configurations of hybrid/multi-technology BMUs which include storage (eg. aggregated portfolios, DSR, ybrid</p>
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		<p>generation/storage sites etc.) that preparing a technology neutral solution may be most appropriate as defining who it applies to otherwise is too complex.</p> <p>That said, a technology neutral solution must therefore be very clear as to what is expected and must work for all technologies. In particular, there needs to be much greater clarity in the legal text with respect to defaulting rules, and which circumstances an asset may use these. What limited/unlimited means.</p> <p>It is recommend final report demonstrates consideration of all asset classes and how they might be affected – this includes for example hybrid DSR, aggregated portfolios, as well as Transmission and Distribution connected assets and hybrid/co-located renewable & storage assets.</p> <p>The design must be consistent with current market and asset classes as well as future proof for what is reasonably foreseen to come.</p>
9	Are you clear on what is meant by limited/unlimited?	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p> <p>There is no definition of limited/unlimited at any point in the Modification, and reference to “precedent” is quite unhelpful as there are several quite different definitions related to duration. Which serve very different purposes.</p> <p>Definition of what is mean by Limited / Unlimited and whether or not an asset can fulfil the intended requirements is necessary, and to understand eligibility to use default parameters (which is also not defined in legal text)</p> <p>Duration limited / unlimited is also likely the wrong terminology, given it’s use in other contexts. Perhaps rather reference to being “Energy constrained, with respect to delivery up to MEL/MIL in the Balancing Mechanism Window Period” would be more helpful.</p>

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10	Do you agree that MDO/ MDB are technical dynamic parameters	<div> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div> <p>It is difficult to define a solely technical parameter when it comes to asset dispatch. All parameters are defined considering some level of technical risk, with some level of associated cost, and therefore have a commercial angle. So it is impossible in a single data point submission to have a wholly technical parameter.</p> <p>For example, making available the last 2-5% of the State of Energy is technically possible, but comes at substantial asset health cost, and there may indeed be contractual limitations from the Original Equipment Manufacturer related to this. There is currently not a way to price for selling these last MWhs in the BM, as the system is based on unlimited MWs. As such, different asset managers will choose to declare different MDO available energy based on their risk appetite for fully discharging.</p>
11	Do you see there being an interaction between MIL/ MEL between MDO and MDB?	<div> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </div> <p>Fundamentally the definition of limited/unlimited should be explicitly linked to MEL/MIL - as it's related to energy that can be delivered/instructed within a BM Window Period.</p> <p>RWE also believes that it should be possible to redeclare MDO/MDB should there have been an necessary change to BMU MEL/MIL</p>
12	Is it clear from the definition of FSoE that this should be calculated at the point where it can be imported/ exported to the Total System?	<div> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div> <p>This is not defined in the legal text, and there should be a drive to minimise the number of associated guidance documents that need read in order to understand the legal text. We would like to see this explicitly defined.</p>
13	Is it credible for the proposed level of	<div> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div>

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	FSoE accuracy to be achieved over the proposed time horizon (up to 33hrs)?	<p>It is unclear what the 'accuracy' being required is – is this the accuracy of the forecast or of the model? And how is it intended to validate/verify accuracy?</p> <p>Clearly an asset owner will be continually optimising asset dispatch throughout the day in the Wholesale, balancing and ancillary service markets. Which renders it impossible to submit a 4 hour accurate dispatch outlook for a 33hour period. And therefore not possible to have a similarly accurate Future State of Energy forecast.</p> <p>However it may be possible to have a model with sufficient accuracy with respect to asset operation (eg. defined parameters including charge/discharge efficiency etc.). In this scenario though, the asset owner would be reasonably concerned with assumptions NESO may be making which would differ from an optimal commercial dispatch of the asset.</p>
14	How do you think NESO can/ should use FSoE and Asset Specific models in their system planning, considering market activity also continues within day, and commercial interactivity with operational "limits"?	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>NESO should be careful to respect the role of market participants in dispatching assets. Storage is acknowledged as a complex asset class, especially with the number of ancillary service markets as well as opportunity for wholesale and balancing dispatch.</p> <p>Asset optimisation is becoming increasingly automated, and a manual tool/model trying to predict future state of energy of hundreds of individual assets will become an increasingly inaccurate method of predicting future energy available.</p> <p>RWE does not support the current proposed requirement for FSoE model as is described in the draft legal text.</p>
15	Is it clear whether FSoE is proposed or	<p><input checked="" type="checkbox"/> Technical parameter <input checked="" type="checkbox"/> Commercial parameter</p>

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	considered as either a 'technical' or 'commercial' parameter?	It is not clear. It is not defined or even suggested anywhere. However, RWE's view is that it is unavoidably both, as was described above response to Q10.
16	Is it clear from the definition of MDO and MDB that NESO can send multiple instructions up to the volume declared?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Click or tap here to enter text.
17	Is it clear that the services referenced within the definitions of MDO and MDB are only during the BM Window?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No The legal text states the definition of MDO/MBD as within the Balancing Mechanism Window Period. However, it remains unclear exactly how the parameters may/should interact with the subsequent period commitments and also whether redeclaration rules serve the intended purpose or unintentionally restrict MDO/MDB declaration, where there are existing PNs or ancillary contracts in subsequent periods. Considering for simplicity periods 1,2,3 and 4. It is of course possible to undertake wholesale trades and a change to a PN in period 4 right up until the end of Period 1, where Gate Closure will take effect and enter the new Balancing Mechanism Window Period 2-4. However any ancillary trades (frequency, reserve etc.) are already locked in at 14:00 previous day, for the EFA day. Case study, 100 MW, 1hr (100 MWh) storage, fully changed (assume perfectly efficient for simplicity etc). The asset has a positive PN in period 4 to export 100 MW (50 MWh of energy). It is understood that the definition of MDO/MBD should only apply within a BMWP, therefore the traded position in Period 4 should not affect the declared MDO/MDB for periods 1,2&3.

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		<p>So MDO would be 100MWh and MDB would be 0 for periods 1,2&3.</p> <p>However on moving into period 2, assuming no BOAs were issued in period 1, and no change to PN, the MDO for periods 2 and 3 would have to be reduced to 50 MWh to account for the now FPN in period 4.</p> <p>Currently redeclaration is only allowed for a change in PN. In this case, there has been no change to a PN but redeclaration for periods 2&3 would be required when PN outside of BMWP becomes FPN within BMWP.</p> <p>What is clear is that the draft legal text simply does not provide enough clarity as to what and how parameters should be declared and redeclared. It is further unhelpful that legal text or guidance does not make clear if or how to take into account commitments outside of the BMWP.</p> <p>Two case studies that will also need considered in ensuring the legal text adequately caters for all foreseeable eventualities are:</p> <ol style="list-style-type: none"> 1) where a BOA is accepted within say the last 5 minutes of the first half hour of the BMWP, which may not allow sufficient time to commercially trade the period following the BMWP, and 2) where there are ancillary volume commitments outside of the BMWP which cannot be commercially resolved through trading, in the event a BOA is accepted in the BMWP. eg.how many periods beyond the BMWP should be considered for ancillary commitments in calculation of MDO/MDB within BMWP.
18	Do the restrictions in BC2.5.3.4 strike the right balance between flexibility and operability?	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p> <p>It remains unclear how the interaction with committed ancillary services and traded position outside of the BMWP should be considered.</p>

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		<p>It is further unclear how this modification, which applies to all BMUs, would apply to several asset classes for example assets</p> <ul style="list-style-type: none"> - sitting behind Active Network Management schemes, which could then be curtailed and unable to operate - co-located with variable renewable energy generator - comprising aggregated hybrid demand side response units - that are run-of-river hydro with some storage capability - with environmental constraints (e.g. water cooling or NOx emissions limits) - <p>It is unclear how they should declare, and certainly insufficient redeclaration provisions have been included.</p>
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