Workgroup Consultation Response Proforma

GC0154:
Incorporation of interconnector ramping requirements into the Grid Code as per SOGL Article 119

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@nationalgrideso.com by **5pm** on **03 August 2023**. 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 Catia Gomes catia.gomes@nationalgrideso.com or grid.code@nationalgrideso.com

Respondent details	Please enter your details	
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Which best describes your organisation?	☐Consumer body ☐Demand ☐Distribution Network Operator ☐Generator ☐Industry body	☒Interconnector ☐Storage ☐Supplier ☐Transmission Owner ☐Virtual Lead Party ☐Other

I wish my response to be:
(Please mark the relevant box) ☒Non-Confidential ☐Confidential

Note: A confidential response will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.

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 5 & 6) 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.

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?	Mark the Objectives which you believe each solution better facilitates:	
		Original	☐A ☐B ☐C ☐D ☐E ☐F ☐G
		WA(G)CM1	☒A ☒B ☒C ☒D ☒E ☒F ☒G
		BritNed Development Limited (hereafter BDL) believes WAGCM1 is a more future proof solution to a ramping problem in the light of flexibility being a key necessity in the energy transition. Next to this, the potential to develop a ramping service will give ESO a more future proof solution to the operational issues they raised.	
2	Do you support the proposed implementation approach?	☒Yes ☐No	
		The implementation of WAGCM1 can be done instantaneously as there is no operational/system change for BDL. The proposer's solution could need more time as the connecting EU TSOs need to confirm the new approach and interconnectors would be required to develop, test, and implement changes to existing control systems.	
3	Do you have any other comments?	While BDL recognises the challenges TSOs face in managing an increasingly complex electricity system, our strong view is that any steps to further restrict interconnector ramping must only be taken following a robust, comprehensive assessment of the impacts of any such proposals, undertaken in close cooperation with affected EU partners. The conducted CBA by NGESO is not complete enough to make such decisions as it does not consider the wider operational impact on connected markets, all cost impacts for end consumers and on trading costs on interconnectors as such. With the proposed approach interconnectors will need to consider restricting changes in market positions between hours to certain levels to no face increased imbalance costs. This again will introduce additional barriers to cross border trading and social welfare optimisation between Bidding Zones. BDL recommends an extension for the workgroup to be able to do an extensive CBA focussing on the potential impacts of the proposed solutions on the interconnectors and the EU TSOs/consumers to shape a solution that delivers operational certainty without harming social	

		welfare gains from interconnector trading or future investment into offshore grid projects.
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	☐Yes ☒No
		WAGCM1 was raised by the interconnector group in the workgroup, which BDL is a part of.
5	Do you agree with the Workgroup's assessment that GC0154 does impact the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Grid Code?	☒Yes ☐No
		Click or tap here to enter text.
6	Do you have any comments on the impact of GC0154 on the EBR Objectives?	☒Yes ☐No
		While in principle both options would be non-discriminatory and transparent, simply codifying a static ramp rate is not market based as mentioned under EBR art 3 (e). The proposed alternative solution addresses this by first codifying 100MW/min and start a new discussion on potential marked-based solutions to address the operational challenges raised by NGESO. Furthermore, we believe that the proposes solution does not fulfil as indicated the requirements on: - Lower bills than would otherwise be the case; - Benefits for society as a whole; - Improved quality of service. The proposed NGESO solution does have a negative impact on the wider connected energy system and its respective consumers leading to higher system charges for additional balancing and imbalances on GB and EU side. Additionally, it will force interconnectors to consider the implementation on flow change restrictions between hours and therefore limit the capacity available for trade to the market. This again will then lead to social welfare loses and a less well functioning market, especially when considering that more volatile green energy would require fast changing market positions to optimise its use.

		Finally, the proposal sends a negative investment signal to all future (Multi-Purpose) interconnector projects.

Specific Workgroup Consultation questions		
7	Does the Original proposal or the alternative impact EU TSOs?	☒Yes ☐No BDL believes the EU TSOs need to be included in the workgroup as a change in ramp rate will directly affect the market parties and end consumers on both sides of the interconnectors. The alternative proposal will not impact the EU TSOs because the current ramp rate will not change. The original proposal could create operability mismatches and risks damaging relations, where effective co-operation will be essential going forward to a net-zero future.
8	Has there been sufficient effort taken to seek and obtain European engagement? Other- if other what else could have been done?	☐Yes ☒No BDL did not see enough EU TSO engagement during this workgroup. Since the beginning of the working group process and the earlier workgroups, work group members have raised this concern and requested on multiple occasions for a log of all EU TSO engagement on this topic to date. The conclusion of this query was that there has been minimal engagement. Moreover, when an ENTSO-e representative was invited to the workgroup to discuss their communication with the ESO, they mentioned that it would be good to pause this workgroup because of the upcoming change to 15MTU on the European side and that the process had “felt rushed” so far. No steps seem to have been taken on the ESO side since this development. As an example: if there is a full swing, a change from maximum import to maximum export, on the BritNed cable (2000MW) under the proposed 50MW/min ramp rate and 15 min MTU, this would take 4 hours to complete. During a 10-minute ramping window with ramp rate of 50MW/min, this comes to a maximum ramp of 500MW per hour. Currently, a full swing can be done during one ramping period, and thus one hour. Additionally, and identifying further limitations to the Baringa CBA that was conducted, the CBA did not include the impacts to EU consumer or the EU TSO side of operations. A such, our concerns centre on the fact

		that a GB-centric process seems to progress measures and limitations on interconnected assets which are usually to be agreed with all the connected TSOs. It is vital that EU TSOs are involved in this process to enable the implementation of any solution(s) with such a significant cross-border impact. We are concerned that if this is not ensured, other UK/EU market development projects might suffer due to the lack of engagement and cooperation shown by the UK side in this matter.
9	Does the Original proposal / alternative allow for GB to reach its net zero targets?	☐Yes ☒No BDL sees the original proposal as a step back in flexibility on the interconnectors. The alternative proposal will initially have a neutral impact as there is no change to the ramping rate. Although, there is the possibility for positive impacts once a market-based ramp service is developed. Interconnectors are often highlighted as a key enabler to share surplus renewable energy, but also offer the flexibility to react quickly to intermittent power supplies. We see from our customers and stakeholders a general movement toward shorter market timeframes to help with managing this increased renewable power intermittency. EU TSOs, such as TenneT, are currently preparing to move to shorter lead times on all NL borders, which is supported by NL energy associations such as Energie Nederland. It is also understood that in the future the market is going to move towards lower MTUs to better handle the variability of Renewable Energy Sources. A lower ramp rate would restrict the market in its ability to function optimally, as some flow changes would not be possible as a result. The benefit of flexibility and interconnector flexibility, primarily in managing the growing level of wind generation in GB, was highlighted by the ESO themselves in NGESO's 'Future of Interconnection' study, where NGESO-commissioned analysis conducted by Afry stated that "ramping constraints in the system at each side of the interconnector" are a barrier to realising the system flexibility benefits interconnectors can offer. We are concerned by feedback that we have received from EU counterparts, and the practical impact of ramping constraints alongside EU fixed ramping periods for the viability of cross-border infrastructure. In particularly, this could make it more difficult to deliver the complex offshore infrastructure with our European partners in the North Sea that will be essential to deliver the UK and EU's renewable targets.

		This would be at odds with the recent direction taken by the UK Government and their signature of the Ostend Declaration in April 2023 and the Government's post-Brexit priority of engagement with the North Sea Energy Co-operation platform as agreed in a Memorandum of Understanding in December 2022. It is crucial we keep a collaborative engagement with EU partners on North Sea energy infrastructure.
10	Do you believe the Original proposal or alternative impacts the interconnector business model? (Please consider any commercial and operational impacts)	☐Yes ☒No The alternative solution will not change anything to the interconnector business model as the ramp rate will not change until further work and more in-depth analysis has been conducted. The original proposal will have an impact and will cause follow up considerations and reactions. Firstly, it will lead to a shift of costs to be incurred for system operation e.g. for balancing activities, towards interconnectors, connected TSOs and therefore end consumers. Furthermore, it will force interconnectors to consider introducing limitations on hour-to-hour flow changes which will lead to less flexibility for renewable integration and less capacity available for trade. Finally, it will hinder market developments towards shorter cross border MTU for interconnectors trades and therefore block new suitable approaches to enable more cross border renewable energy trading across the interconnectors.
11	Does the Original proposal / alternative meet the requirements of Ofgem's August 2019 decision on the implementation of the SOGL? (Check if this is incorporated in grid code objectives)	☒Yes ☐No Yes, the alternative fully meets the requirements of the 2019 decision. The original does meet the requirements to the extent that something will be codified, although Ofgem states in its letter that "… the current provisions contained into the Grid Code or in the proposed intermediate methodology cannot be deemed to constitute a change to existing GB requirements and arrangements."
12	Do you believe that the Original/alternative solves the operational challenges faced by the ESO as a result of fast simultaneous interconnector ramping?	☐Yes ☒No We do not believe that the raised operational challenges are solely caused by Interconnector ramping but more so by the lack of suitable balancing services (especially cross border) to counteract the inertia issues the GB grid faces. If the ramping in line with market demand is seen as the driving issue for system stability in GB it would be in conclusion questionable in how far future

		interconnector and offshore grid projects should be continued. However, given the undisputable benefits of these projects and their renewable input it seems that more is required to establish the right balancing products and to secure sufficient network reserves, rather than limiting cross border directions and therefore the optimal functioning of markets. The alternative solution is proposing exactly this approach. It suggests no further general untargeted limitation of cross border flows while working on a more flexible tool for the usage of grid security and balancing requirements.
13	Do you believe the Original proposal or alternative proposal/s impacts or is impacted by the EU 15 MTU change?	☒Yes ☐No When GB follows the EU implementation of 15 min MTUs, which is advisable for further renewable integration, we believe that lower ramp rates will have a negative impact on interconnector businesses and end consumers. The reason being that market positions would change more frequently, and additional ramping would be required to closely follow the demand. With the limited 50 MW/min and 15 min MTUs it will be difficult and, in some cases, impossible for interconnectors to reach their scheduled market position on time or even within that MTU at all. This will impact imbalance prices and therefore all other market parties and end consumers on both sides of the interconnectors. If the 15 MTU is implemented, there is the possibility for a ramp to spill into next period. This is not calculated or analysed in the CBA, and it is not known what would happen in such an instance. BDL urges for both the NGESO and EU TSOs (ENTSO-e) to closely work together on this to ensure this would not lead to major challenges both on the EU, GB, or interconnector side.
14	Do have any comments on the reliability of the CBA conducted by Baringa? If available, please provide any analysis supporting your response.	☒Yes ☐No BDL sees this CBA as a one-sided analysis that focuses primarily on the ESO side. Ultimately, the work produced was a CBA conducted by Baringa for the ESO, not necessarily with the wider working group considerations at the centre of it. As such, it is not clear what the effects will be on the EU or interconnector side. More analysis will need to be done to examine the full effect of the proposed solutions. To summarise our key concerns: - The cost of equivalent balancing actions taken by connected EU system operators does not appear to have been considered in this CBA.

		- The overall modelling approach on assessing the impact of each option on GB balancing costs remains opaque in a number of important areas. This is a critical output of this CBA, but the basis of Baringa's conclusions in this respect is unclear and, as such, cannot be confidently relied on at this stage. - Inconsistency in the assumptions used for all options. These need to be consistent for the results to be comparable. - The Increased balancing reserve option has been omitted from the CBA study. - Operational risk quoted by ESO needs to be quantitatively defined. - Implementation must be more thoroughly assessed, for example, the IT systems cost for ESO, interconnector and the opposite TSO. These impacts need to be considered so that any enduring solution can be robust and future proof.
15	Are there any considerations for implementation on the Original proposal /alternative proposals? (e.g., IT impacts or considerations)	☐Yes ☒No The alternative proposal has no considerations for implementation for BDL as there is no change in the ramp rate. However, BDL would be keen to invest time to work further from this basis on and backed up with a more detailed CBA to develop flexible and fit for purpose ramp arrangements that will satisfy support operational SO balancing while limiting any negative market or end consumer impact. The original proposal will need operational, system and regulatory changes. The main implementation challenge for the original proposal lies at EU TSO side to agree and potentially change grid code/operational protocols.