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BY EMAIL ONLY

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GC0154 workgroup consultation

ElecLink Limited ("**ElecLink**") welcomes the opportunity to respond to this consultation in relation to proposed Grid Code modification GC0154.

ElecLink is a 1000MW HVDC electricity interconnector between Great Britain and France, which commenced full commercial operations in May 2022. ElecLink has responded to the individual questions raised in the consultation paper in the pro forma provided, included below, but for ease of reference we have also summarised our key comments.

Summary of response

ElecLink has been an active participant in the GC0154 workgroup, attending each of the 14 meetings that have taken place to date and pursuing substantial additional engagement with NGESO and other key stakeholders in an effort to find a suitable enduring solution. However, a number of significant concerns with the Original Proposal remain. These are reflected throughout our responses to the specific consultation questions below and can be summarised as follows:

i. **Scope and evidence base**

The Original Proposal seeks to restrict interconnectors' maximum ordinary ramp rates, on the basis that doing so would mitigate certain operational challenges. While we recognise that NGESO is responsible for managing an increasingly complex electricity system, in order for GC0154 process to be fair, additional operational restrictions on interconnectors should only be introduced (a) in response to a clearly defined operational challenge, and (b) with the support of a robust, comprehensive assessment into the associated impacts.

In GC0154, while the Proposer has provided a handful of specific examples of the operational challenge posed by fast, simultaneous interconnector ramping, and has discussed the topic at a principled level, the workgroup has still not been presented with a specific, clearly-defined operational challenge that the proposed ramping restriction would address, including e.g. the current cost and frequency of balancing actions linked to interconnector ramping in recent years. Without this clarity and quantitative backing, it is

difficult to see how the workgroup or Ofgem can reasonably assess whether the proposed restriction on ramp rates is a proportionate solution, or in the overall interest of consumers.

Similarly, the CBA commissioned by NGESO to support its proposal presents only a partial view of the likely impact of its proposed solution, omitting for example (a) the impact on interconnector imbalance costs, despite the Proposer acknowledging in its modification proposal that the impact on interconnectors would likely be high, and (b) any assessment of the likely impact on balancing costs in connected EU markets. We similarly have a range of specific methodological concerns on the CBA, outlined briefly in our answer to question 14, including the need for other credible alternative solutions to be considered. Taken together, it is not possible to rely on the CBA's outputs with any real confidence.

ii. EU engagement

As interconnectors are inherently cross-border assets, any additional operational restrictions will have an impact on both connected markets. However, despite the GC0154 workgroup meeting regularly since January 2022, we remain concerned that there appears to have been limited engagement with EU TSOs regarding likely proposals until after a proposed solution had already been adopted by NGESO, leaving minimal opportunity for meaningful input and discussion with connecting EU TSOs. This means that the workgroup's ability to assess the impact of the Original Proposal on EU TSOs has been limited and, moreover, that operational changes being considered in parallel by EU TSOs have not been taken into account, most significantly including the shift to a 15-minute Market Time Unit (MTU).

More broadly, GC0154 takes place against a backdrop of fundamental market reform being considered both the EU and the UK, making consistent and clear communication between regulators and TSOs more important than ever. The GC0154 process presents an opportunity for GB TSOs to model effective co-operation in this respect; further EU engagement is required.

iii. Process and legal basis

The key legal driver for GC0154 was an Ofgem decision in 2019 on the implementation of the System Operation Guideline ('SOGL'), approving an interim GB LFC Block Operational Methodology submitted by NGESO.[1] That decision included a requirement to codify existing ramping arrangements into the Grid Code, with NGESO seeking to do so in GC0154.

As set out in our response to question 11 below, Ofgem's 2019 decision appears to have been based on an expectation that any subsequent Grid Code modification would codify existing arrangements, rather than implement any changes, and that any amendments in this regard should follow the applicable SOGL change process. Indeed, we note that the LFC Block Operational Methodology approved in the above Ofgem decision envisages a process whereby these amendments are agreed between NGESO, connecting EU TSOs and interconnector owners, which evidently has not taken place in GC0154. As such, while we would urge further EU TSO cooperation as a matter of best practice, the terms of Ofgem's 2019 decision also raise the possibility that EU TSO agreement is a legal

[1] See full decision here.

requirement for any changes to interconnector ramp rates. This does not appear to have been considered in the workgroups to date, so legal certainty on this point is needed prior to further consideration of any option altering current ramping arrangements.

The substantive concerns on points (i) and (ii) in particular have been raised consistently and repeatedly in this Workgroup, with the need for EU TSO engagement emphasised by email in July 2022 and the need for greater specificity and quantification of NGESO's operational challenge raised by email in June 2022. Similarly, almost all of the issues addressed in this response were raised in workgroup three (March 2022), as reflected in the 'mural board' used to record the outcomes of that meeting.

Taken together, while we continue to seek to resolve the above concerns, the workgroup is currently in a position where there remains substantial ambiguity around the operational challenge that NGESO is seeking to solve with the Original Proposal, significant gaps in the assessment of its impacts, inadequate engagement with key affected stakeholders, and insufficient weighting placed on the policy consequences for GB and the EU at this critical stage of the decarbonisation transition. On this basis, even without considering the legal uncertainty noted in point (iii) above, it is exceedingly difficult to see how the Proposer's solution could be accepted and implemented with any confidence at this stage. As such, ElecLink is strongly opposed to NGESO's proposed solution.

Resolution and next steps

Instead, ElecLink supports the alternative proposal, which would codify the current maximum ordinary ramp rate of 100MW/minute. This would enable GC0154 to (a) solve the underlying requirement for SOGL compliance, which Ofgem made clear should be completed in a timely manner in its 2019 decision, and (b) enable further analysis and discussion on potential solutions to any operational challenges that NGESO are able to demonstrate, either in a separate working group or else in an extended GC0154 process, as needed.

The extended process envisaged in option (b) above would likely require GC0154 to be extended by approximately six months, in which time the workgroup would need to secure further EU TSO engagement, gain a clear view of any current operational challenge and, if necessary, consider a broader range of technical solutions, with a more complete analysis of the likely impacts. This would also enable a thorough consideration of interconnector ramping in its proper context, taking any broader system challenges into account and assessing the potential benefits that an alternative, even increased interconnector ramp rate could bring to GB and EU consumers in light of the growing need for enhanced system flexibility as the UK and EU transition to net zero.

If you have any questions on any of the contents of this consultation response, please contact regulation@eleclink.co.uk.

Kind regards,

Leo Michelmore
Regulatory Advisor

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

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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	Mark the Objectives which you believe each solution better facilitates:

	and/or any potential alternatives better facilitate the Applicable Objectives?	Original	☐A ☐B ☐C ☐D ☐E ☐F ☐G
		WA(G)CM1	☒A ☒B ☐C ☒D ☒E ☐F ☐G
		The Original Proposal could undermine the well-established benefits to system flexibility and security of supply provided by interconnectors and lacks an adequate evidence base to justify such a significant change, both in quantifying the challenge to be solved and in identifying the proposed solution. WAGCM1 effectively codifies current ramping arrangements and provides additional transparency to all market parties, supporting the effective operation of the GB system. It also does not preclude further wider discussions and analysis on the operational challenges highlighted by NGESO, which we would be very happy to participate in.	
2	Do you support the proposed implementation approach?	☐Yes ☐No	
		Click or tap here to enter text.	
3	Do you have any other comments?	Click or tap here to enter text.	
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	☐Yes ☒No	
		Click or tap here to enter text.	
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	
		Click or tap here to enter text.	

Specific Workgroup Consultation questions		
7	Does the Original proposal or the alternative impact EU TSOs?	☒Yes ☐No The alternative proposal maintains the status quo from an operational perspective, so does not impact EU TSOs in a practical sense, although market parties may benefit from the additional transparency provided by codification. The Original Proposal would constitute a significant operational change that would certainly impact EU TSOs, so a comprehensive understanding of this impact is required. For example, any potential savings in GB balancing costs would likely be reflected in increased balancing costs in EU connected markets. Similarly, slower interconnector ramping would inevitably have an impact connected EU TSOs' management of the security of their own systems, e.g. with regard to fluctuations in system frequency. This mutual reliance of EU and GB systems on one another is reflected in the emphasis placed on cross-border cooperation in the SOGL and approved Block Operational Methodology – an attempt by NGESO to unilaterally change a key operational parameter in this way risks encouraging equivalent unilateral changes being imposed by EU TSOs, undermining much-needed cross-border cooperation at a time of fundamental market reform.
8	Has there been sufficient effort taken to seek and obtain European engagement? Other- if other what else could have been done?	☐Yes ☒No The key additional step would have been to engage EU TSOs at an earlier stage – we recognise that, post-Brexit, there are fewer channels through which NGESO can discuss technical proposals with EU TSOs, but these channels do still exist (e.g. via ENTSO-E). Indeed, recent efforts to secure EU TSO engagement have been very welcome, particularly including the attendance of an ENTSO-E representative at a recent workgroup meeting. However the key response from EU TSOs has appeared to be that further time is required to understand the impact of the Original Proposal, making it difficult to effectively capture EU TSOs' perspective given the current projected timeline. This position could have been avoided with earlier engagement, as has been consistently proposed by the workgroup. Looking ahead, it is important that EU TSOs are engaged frequently and offered the opportunity to discuss any changes to interconnector ramp rates, noting that this is unlikely to be feasible in current timelines

9	Does the Original proposal / alternative allow for GB to reach its net zero targets?	☒Yes (alternative) ☒No (original proposal) The alternative proposal maintains current ramping arrangements and creates space for a broader discussion on interconnector ramping, which could include the consideration of new market-based tools to better make use of the flexibility of interconnectors. The Original Proposal would restrict the flexibility benefits offered by interconnectors as key facilitators of the GB and EU energy transition, as recognised by UK and EU Governments in recent months, thereby hampering GB's efforts to reach its net zero targets.
10	Do you believe the Original proposal or alternative impacts the interconnector business model? (Please consider any commercial and operational impacts)	The Original Proposal would certainly have an impact on interconnector imbalance costs, which have not been assessed by the CBA, but would need to be incorporated into any future interconnector business model. More broadly, if the Original Proposal were ultimately to be approved by Ofgem, over the strong objections of the affected market parties, there is a risk that this precedent would undermine market confidence in this element of the regulatory framework, given that the Grid Code was designed as being owned/run by the industry.
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 (alternative) ☒No (original – TBC pending further legal analysis) The alternative clearly meets the requirements of Ofgem's 2019 decision, codifying existing ramping arrangements. As regards the proposed - NGESO is seeking to use GC0154 to impose more onerous operational restrictions on interconnectors' ability to ramp, i.e. over and above the basic SOGL compliance requirement. On further review of Ofgem's 2019 decision, it appears that the basis for that decision was a clear expectation that the requirement to codify ramping arrangements would not '*constitute a change to existing GB requirements and arrangements*' and that any such change would need to follow the applicable process in the Block Operational Methodology and the SOGL Regulation. In this context, we note that the Block Operational Methodology provides that '*the ESO, and the connecting TSOs supervising a LFC block of an HVDC interconnector shall have the right to determine common ramping restrictions in the form of ramping periods and/or maximum ramping rates and shall enter into agreement with the TSOs responsible for operating the interconnector, to determine the processes and mechanisms by which these restrictions will be put in place*.'

		This highlights the need for legal clarity on the ability for NGESO to propose a change to interconnector ramp rates without the prior agreement of EU TSOs and interconnector owners, and further emphasises the need for meaningful EU TSO engagement.
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 As above, NGESO has yet to effectively define and quantify what the operational challenges are, so it is not possible to provide an informed answer to this question. It is noted that, in principle, in certain system conditions, fast, simultaneous interconnector ramping could prompt NGESO action, and ESO have provided a small number of specific examples of this. However, NGESO have not provided any comprehensive, quantitative evidence to suggest that IC ramping does in fact cause challenges of these nature with any frequency, and the workgroup has no sense of the cost of this. Clarity on the purported operational challenge is therefore still required. Similarly, interconnectors' ability to ramp quickly also delivers significant flexibility advantages to the GB system, which do not appear to have been appropriately reflected in NGESO's initial conception of the operational challenge. Given the complexity of the future system that a Future System Operator will be required to manage, a whole system approach is required when considering any significant regulatory operational change. Interconnectors are among the most flexible assets on the network – as GB comes to rely on an increasingly intermittent, low carbon generation mix, this flexibility should be used more, not less.
13	Do you believe the Original proposal or alternative proposal/s impacts or is impacted by the EU 15 MTU change?	☒Yes ☐No We understand that the details of the shift to a 15 minute MTU in the EU (a) are still in development, and (b) may differ in different EU markets, so it is difficult to identify the impact of any interaction with certainty, but at a high level it should be noted that the combined effect of the 15 minute MTU change and a lower interconnector ramp rate could materially restrict interconnector flows on some GB borders, so should be considered carefully prior to implementation of any GB regulatory change.
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 We have raised a number of questions throughout the workgroup meetings on NGESO's CBA, some of which were answered, for which we are grateful, but others remain outstanding. Key comments and queries at this stage are:

		• As above, the lack of a specific, quantitative assessment of the current operational challenge precludes a reliable recommendation of any associated change to the current ramping arrangements. • Despite multiple requests, the workgroup has not had sight of the data inputs or detailed assumptions underpinning Baringa's analysis. Without this, the outputs are impossible to validate and rely on. • Given that any change to the current ramping arrangements should be designed as an enduring solution, the 2030 time horizon used in this analysis is surprising. • The apparent use of 2022 figures to benchmark balancing cost savings outputs seems questionable, as this was an atypical year with extreme market conditions. • The absence of interconnector imbalance costs and EU balancing costs in the CBA outputs are significant omissions, meaning that the CBA presents an incomplete assessment of the impacts of the options considered. • We also consider that other long-listed options should have been assessed to ensure a full picture of credible alternatives, e.g. procuring increased frequency reserve. • The impact on decarbonisation, system flexibility and security of supply appears to have been assessed on a purely qualitative basis. At a minimum, further information on how those conclusions were reached is necessary, with the flexibility element in particular potentially also benefitting from further quantitative assessment, to incorporate the advantages of fast, simultaneous interconnector ramping, as well as any costs. Taken together, the current CBA cannot be seen as a reliable evidence base for the imposition of a significant operational restriction on interconnectors, omitting a number of relevant factors. This points to the likely need for further analysis ahead of the introduction of any change to current ramping arrangements, which could take place either (a) in a separate, dedicated industry working group, or (b) in an extended form of this code modification workgroup, noting that any such extension would likely need to be for 3-6 months.
15	Are there any considerations for implementation on the Original proposal /alternative proposals?	☐Yes ☐No Click or tap here to enter text.

	(e.g., IT impacts or considerations)	