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

Nemo Link welcomes the opportunity to respond to the Code Administrator Consultation on GC0154: Incorporation of interconnector ramping requirements into the Grid Code as per SOGL Article 119.

Nemo Link has been an active member of the GC0154 workgroup and has provided our feedback throughout workgroup meetings together with the previous Workgroup consultation. As such, the views in this letter are in addition to the points that have been raised previously and please also refer to our previous response to the Workgroup consultation for detailed answers to each question.

In this Code Administration Consultation, we would like to emphasise the following summary concerns over the implementation of the Original Proposal, and to reiterate the benefits of implementing the alternative proposal known as WAGCM1.

1. The Ofgem's August 2019 decision does not conclude that Ofgem envisaged a change to interconnector ramp rates. Instead, Ofgem in their Decision Letter set out that interconnector ramping arrangements should be incorporated into the Grid Code to allow clarity for stakeholders. Our interpretation is that the Ofgem 2019 decision was to provide clarity on this existing regime, and support transparency within the Grid Code with the expectation of no major change such as the one now included in the Original Proposal.

2. NGESO would like, through GC0154, to address some of the operational issues at hand that according to the ESO, due to fast simultaneous Interconnector ramping. While Nemo Link recognises the challenges faced by NGESO in managing an increasingly complex electricity system, it is not clear to us whether Interconnector ramping is the core problem that leads to high balancing actions, hence increasing balancing costs for the ESO. Nemo Link also does not agree that reducing the ramping restrictions to 50MW/min can solve the operational issues that the ESO is facing; on the other hand, it could lead to wider negative impacts to GB and EU markets. This has been backed up by the AFRY report included in the Appendix of the Consultation.

3. Nemo Link appreciates that the AFRY report was completed closer to the workgroup report being finalised due to results only made available at that point in time. However, Nemo Link feels that it was appropriate that the AFRY results were shared so that alternative views compared to the Baringa CBA could be added for the wider industry to review and consider in this consultation.

In particular, the AFRY report give a quantitative assessment that further reinforces our concerns and doubts that we raised previously naming:

- Balancing costs saving:

The high correlation between IC cumulative ramping and balancing volumes presented in the Baringa CBA assessment could not be replicated based on AFRY's understanding of the methodology from available information. AFRY conducted a historic review of year 2022 and they do not find particular correlation between these two conditions. The analysis ARFY have conducted suggests that there is little impact on IC ramping rate on overall balancing actions performed by the ESO.

In addition, AFRY report highlights that the Baringa CBA had not taken into account expected changes that may be secured in the future (i.e. growth of batteries, new reserve and response products). With more than 6GWs of additional batteries that will be commissioned in the next few years, balancing IC ramping could be done at low additional costs.

Hence, it is our view that the justification of moving towards 50MW/min ramp rate that would result in £865m of balancing costs for the period of 2023-2030 is not proven.

- Impact on system flexibility:

It remains our strong view that reducing ramping limit on Interconnectors to 50MW/min would undermine the well-established benefits to system flexibility and security of supply provided by interconnectors. The AFRY report also highlights that based on the expectation that future needs for flexibility will increase, potential negative impacts of limiting IC ramping in these regards may be more significant in time.

4. Even though there has been some engagement with the EU TSOs, this was done at the very late stage of the process with no option to influence the setup of the CBA assumptions and methodology nor were sufficient detailed info shared. More importantly, no detailed assessment on the impacts on the EU side has been carried out in order to ensure the frequency quality on both sides to remain within the targets as specified by SOGL. Such an assessment is crucial as a precondition prior to enforcing any change to the current ramping agreements, as otherwise it could result in an unsecure system exploitation.

We also concern that isolated and unilateral movement by the ESO in GB would encourage reciprocal behaviour from the EU member states and their respective TSOs. This could lead to a broader scale degenerative situation, which is against the direction of travel that would be advantageous to the whole industry and may impede the progress on implementing key aspects of the Trade and Cooperation Agreement in the future.

5. Nemo Link would like to stress that any ramping solution should not envisage potential negative future welfare impacts. It is expected that the Day Ahead and Intraday power markets will move to lower MTUs towards the future (e.g., EU will move to 15 minutes at DA in 2025) which will result in a need for more frequent ramping. Lowering the ramp rate to 50MW could negatively impact the flexibility of the market and as a result lead to welfare destruction. Moreover, Nemo Link considers that by moving to the 15-minute MTU, this will lower the size of the problem; and allow most efficient granularity of products to solve the operational challenges of fast simultaneous Interconnector ramping.

6. WAGCM1 effectively codifies current ramping arrangements and provides additional transparency to all market parties that fulfil the legal requirements and at the same time 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 that can be addressed in another forum that will run across multiple areas to ensure a holistic solution to the issue can be found.

In line with our previous response to the Workgroup Consultation, Nemo Link believes that there are wider solutions that can be developed outside of the ramping restriction context to help the issues that NGESO are facing but at the same time do not have the negative impacts of the original proposal that are highlighted in this response. These solutions should be developed with all involved synchronous areas' sides to ensure a correct and exhaustive system analysis from both sides.

Nemo Link remains committed to assisting in this area and thus is happy to engage in any such further efforts, as required to arrive at a sensible conclusion.

Should you have any further questions or wish to discuss our responses in more detail, please do not hesitate to contact me at munti.nguyen@nemolink.co.uk.

Yours sincerely,

Munti Nguyen
Customer, Policy and Regulatory Manager
For and on behalf of Nemo Link Limited

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 **07 November 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@nationalgrideso.com or grid.code@nationalgrideso.com

Respondent details	Please enter your details	
Respondent name:	Munti Nguyen	
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Which best describes your organisation?	☐Consumer body ☐Demand ☐Distribution Network Operator ☐Generator ☐Industry body ☒Interconnector	☐Storage ☐Supplier ☐System Operator ☐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 Code Administrator Consultation questions			
1	Please provide your assessment for the proposed solution(s) against the Applicable Objectives?	Mark the Objectives which you believe the proposed solution(s) better facilitates:	
		Original	☐A ☐B ☐C ☐D ☐E
		WA(G)CM1	☒A ☒B ☒C ☒D ☒E
		In line with our response to the previous workgroup consultation, we view WAGCM1 as the approach that best meets the applicable objectives. WAGCM1 will allow interconnectors to continue to support the effective operation of the GB and EU systems with their technical capabilities while fulfilling the legal obligations and achieving compliance with SOGL article 119. The original proposal would restrict the flexibility and the speed of adapting to the market needs of interconnectors, which are vital assets that have been recognised as an important source of energy into GB in periods of highest need, and imports into GB are mostly expected to grow in absolute terms during periods of system stress1. Please refer to our response to the previous workgroup consultation for further details.	
2	Do you have a preferred proposed solution?	☐Original ☒WA(G)CM1	
		In line with our response to the previous workgroup consultation, we view WA(G)CM1 as the preferred solution.	
3	Do you support the proposed implementation approach?	☐Yes ☒No	
		In line with our response to the previous workgroup consultation and our cover letter attached, we consider	

1 Source: Interconnectors' role in transitioning to net zero | ESO (nationalgrideso.com)

		any implementation of the Original Proposal would result in complexity, especially with implementation on the EU side. We would like to stress again that implementation would also require analysis and potential adaptation of the synchronous area operational agreement (SA-OA) – which requires buy-in from ENTSO-E's System Operation Committee. Implementation feasibility on interconnector side is unclear and potentially infeasible - especially for those using explicit capacity sales (unlike implicit mechanism where ramping restriction can be embedded in the coupling algorithm). This is especially the case when ramping restrictions could lead to a structural mismatch of the commercial schedule and the physical flows. In any case interconnectors will face increased pre-programmed imbalances which cannot be fully avoided. It is worth mentioning that for some markets (for example, in Belgium), Balancing Responsible Parties are strictly required to be balanced at the Intraday timeframe. Having additional pre-programmed imbalances due to lower ramping rates would push Nemo Link into finding costly solutions in order to avoid structural imbalances (which themselves cannot be controlled).
4	Do you have any other comments?	Quantitative analysis as detailed in the AFRY report casts further doubt on the veracity of the results of the Baringa CBA, reinforcing comments that we made in our previous Working Group Consultation response (provided in answers to question 14). The AFRY report also highlights that as more renewable energy sources and demand-side response is implemented in GB, fast ramping IC could be used to balance fast-changing conditions on the system. Limiting IC ramping limits the flexibility of the system, as it restricts one of its fastest responding assets. Therefore, in our opinion, interconnectors are not the problem but are the solutions to facilitate the more intermittent generation by reacting to real-time changes in the system.

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
		As provided in the previous response to the Workgroup Consultation. In addition, we believe the following impacts to the EU side have not been analysed: • **Financial impact:** adaptation of ramping rate will affect the area control errors (ACE) which will have financial consequences via the financial settlement of unintended exchanges (FSUE) as well as potentially affect the dimensioning (and hence procurement costs) of frequency restoration reserves (FRR) for certain days. In addition, imbalance prices & balancing markets in general can be affected as a result of the real-time imbalance volumes created. • **Operational security impact:** changing the ramp rate could impact on frequency quality in Europe and GB which will have an impact on system stability & security.
6	Do you have any comments on the impact of GC0154 on the EBR Objectives?	☒Yes ☐No
		As mentioned above in the cover letter, the original proposal of GC0154 could impact the integration of balancing markets in GB and Europe as it directly impacts the system imbalance volumes and prices which will also impact all market participants, hence affect the efficiency of the electricity market on both sides. It is critical therefore that the impact is considered not just on ESO and GB stakeholders, but the EU TSOs and stakeholders on the other side of each interconnector. We understand that the EU TSOs do not feel that adequate analysis has been made to assess the impact on the financial and system security perspective to the EU side if the current ramping limit is reduced. We urge NGESO to take into accounts feedback from the EU TSOs, in particular the ENTSO-E System Operation Committee sub-group concerned with synchronous area

		interactions, either via direct bilateral engagement or from their responses to this consultation.