GC0154

22 August 2023

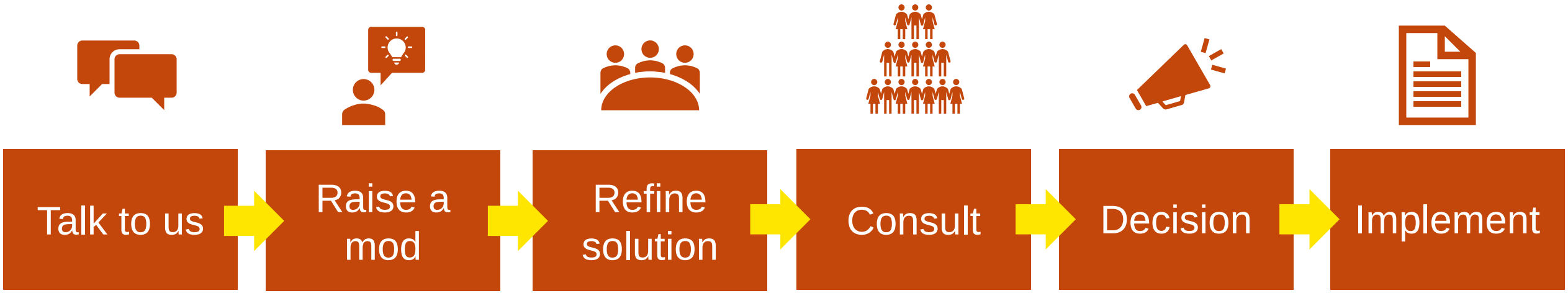
Meeting via Teams


WELCOME

Modification Process

Teri– National Grid ESO Code Administrator

Code Modification Process Overview



Forums

Panels

Workgroups
(Workgroup Consultations)

Ofgem/Panel

Workgroup Responsibilities

Teri– National Grid ESO Code Administrator

Expectations of a Workgroup Member

- Contribute to the discussion
- Be respectful of each other's opinions
- Language and Conduct to be consistent with the values of equality and diversity
- Do not share commercially sensitive information
- Be prepared - Review Papers and Reports ahead of meetings
- Complete actions in a timely manner
- Keep to agreed scope

Your Roles

- Help refine/develop the solution(s)
- Bring forward alternatives as early as possible
- Vote on whether or not to proceed with requests for Alternatives
- Vote on whether the solution(s) better facilitate the Code Objectives

Agenda

Teri– National Grid ESO Code Administrator

Agenda

#	Topics to be discussed	Lead
1.	Objectives and Aims of the meeting	Chair
2.	Review of Actions Log	Chair
3.	Review Workgroup Consultation Responses	Chair
4.	Draft Legal Text Review	Proposer
5.	Review of the Timeline	Chair
	Review of ToR	Chair
6.	Next Steps and AOB	Chair

Outstanding Actions

Teri – National Grid ESO Code Administrator

Actions

Action number	Workgroup Raised	Owner	Action	Due by	Status	Action number
4	WG10	ICs	To re-share with the Workgroup the current imbalance costs	ASAP	Open	4
6	WG12	ESO	WM to provide commentary and revert on query of if the cost savings identified in the NGESO recommended option are net of the additional costs to other parties	ASAP	Open	6
7	WG12	ESO	To share 'Interconnectors' Position Paper for ENTSO-E Discussion' dated 24th May 2023 –NGESO	ASAP	Open	7
8	WG12	ESO	Clarification on the underlying data used for Baringa data and processing	ASAP	Open	8
10	WG	ESO	Provide feedback on next meeting with EU TSO's (based in London)	ASAP	OPEN	10
11	WG12	Eleclink	Provide the draft alternative Workgroup solutions to the Grid Code modification inbox, to undertake work on the implementation of the proposed modification or alternative modifications, and to draft the associated legal text by the next working group	21st August 2023	Open	11
12	WG12	ESO	ESO to investigate whether further material on EUTSO engagement can be shared with the Workgroup	ongoing	Open	11
14	WG13	ESO	WM to speak to Baringa and see if they can share the methodology	ASAP	OPEN	
15	WG13	NV	WM to share CBA with ESO	ASAP	Open	
16	WG13	ESO	Louise/Lijja to share email to Workgroup for review			

Summary Of Workgroup Consultation Responses

Teri – National Grid ESO Code Administrator

Draft Legal Text Review

Louise Trodden – Proposer

Legal Text

Current text in Grid Code for BMUs

BC1.A.1.1 Physical Notifications

For each **BM Unit**, the **Physical Notification** is a series of MW figures and associated times, making up a profile of intended input or output of **Active Power** at the **Grid Entry Point** or **Grid Supply Point**, as appropriate, except where a **BM Unit** is affected by a Stage 2 or higher **Network Gas Supply Emergency** load shedding event. For each **Settlement Period**, the first "from time" should be at the start of the **Settlement Period** and the last "to time" should be at the end of the **Settlement Period**.

The input or output reflected in the **Physical Notification** for a single **BM Unit** (or the aggregate **Physical Notifications** for a collection of **BM Units** at a **Grid Entry Point** or **Grid Supply Point** or to be transferred across an **External Interconnection**, owned or controlled by a single **BM Participant**) must comply with the following limits regarding maximum rates of change, either for a single change or a series of related changes :

- for a change of up to 300MW — no limit;
- for a change greater than 300MW and less than 1000MW — 50MW per minute;
- for a change of 1000MW or more — 40MW per minute,

unless prior arrangements have been discussed and agreed with **The Company**. This limitation is not intended to limit the Run-Up or Run-Down Rates provided as **Dynamic Parameters**.

Legal Text suggestion (first draft)

BC1.A.1.2 ~~Not Used~~ Interconnector Reference Programmes

For each **Interconnector** , the **Reference Programme** is a series of MW figures and associated times, making up a profile of intended input or output of **Active Power** at the **Grid Entry Point** or **User System Entry Point** , as appropriate. For each **Settlement Period**, the first "from time" should be at the start of the **Settlement Period** and the last "to time" should be at the end of the **Settlement Period**.

The input or output reflected in the **Reference Programme** for a single **Interconnector** must comply with the following limits regarding maximum rate of change, either for a single change or a series of related changes:

- Maximum rate of 50MW/min
- This maximum rate of change can only be exceeded in agreement with the **System Operator**.

unless prior arrangements have been discussed and agreed with **The Company**.

Or, instead of the second bullet we add:

- This does not apply to **frequency coupling**, **imbalance netting**, cross border activation of **FFR** or **RR** or when required to return one of the connected electricity systems to **normal state**.

unless prior arrangements have been discussed and agreed with **The Company**.

Ramping restriction for active power output
Article 137 (3) of SOGL

3. All connecting TSOs of an HVDC interconnector shall have the right to determine in the LFC block operational agreement common restrictions for the active power output of that HVDC interconnector to limit its influence on the fulfilment of the FRCE target parameter of the connected LFC blocks by agreeing on ramping periods and/or maximum ramping rates for this HVDC interconnector.

Those common restrictions shall not apply for imbalance netting, frequency coupling as well as cross-border activation of FRR and RR over HVDC interconnectors.

All TSOs of the GB synchronous area shall coordinate these measures within the synchronous area.

Text taken from the SOGL

LFC Block Operational Methodology for Article 119 (1) (c)

A119 Methodology text to map to codes	Supporting paper reference
1. Rules for ramping restrictions on the active power output of each HVDC interconnector between a LFC Block of another synchronous area and the GB LFC block, in accordance with SOGL Article 137(3):	N/A
a. 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. These ramping restrictions shall not apply to imbalance netting, frequency coupling, cross-border activation of FRR or cross-border activation of RR. These ramping restrictions shall not apply to any service aimed at maintaining or returning one of the connected electricity systems to a normal system state.	The ESO has sought to maintain simplicity of application in that compliant regimes already exist on all GB connecting HVDC interconnectors, where the ramping restrictions and manner in which they are applied is agreed and defined in the operational agreements

Text taken from the LFC block operational agreement

LFC Block Operational Methodology for Article 119 (1) (c)

A119 Methodology text to map to codes	Supporting paper reference
b. The ramping restrictions for each interconnector shall be applied in a non-discriminatory manner. The ESO shall ensure alignment of ramping restrictions between all HVDC interconnectors linking the same two synchronous areas, taking into account the technical capabilities of each HVDC interconnector;	The ESO wants to demonstrate that all interconnector parties are being treated fairly, but highlights that rules between different synchronous areas may differ as ramping-restrictions imposed from another synchronous area may, if more onerous that those sought by the ESO, result in different rules for those particular interconnectors.
c. A summary of the ramping-restrictions to be applied to HVDC interconnectors connecting to the GB LFC Block, shall be published by the ESO on its website at least one week before the rules are enforced, in accordance with the obligations in SOGL Article 8;	Transparency and fairness is demonstrated by publishing a summary of the ramping-restrictions being applied to GB interconnectors on the internet.

Text taken from the LFC block operational agreement

LFC Block Operational Methodology for Article 119 (1) (c)

A119 Methodology text to map to codes	Supporting paper reference
d. The ESO, in order to prevent the GB LFC block from entering into an emergency state, may restrict equitably the ramp rates of GB interconnectors between GB and the same connecting synchronous areas, in coordination with the affected national TSOs and affected interconnector operators according to the terms referred to paragraph (a) of this Article;	There is a need to be able to reduce the ramping-rates being applied to interconnectors when there is a current need or anticipated situation which, without action, would result in Great Britain entering an emergency state. Under these circumstances, the ESO will follow procedures to be determined in the operational agreements between parties to apply reduced ramp-rates to all market-based transfer programs on all the affected interconnectors.
e. Within 30 calendar days of an incident which restricted one or more of the HVDC interconnectors, under the process referred to in paragraph (d), the ESO shall prepare a report containing an explanation of the rationale, implementation and impact of this action and submit it to the relevant regulatory authority in accordance with Article 37 of Directive 2009/72/EC and neighbouring TSOs, and also make the report available to all significantly affected system users.	For transparency purposes, the ESO will publish information on the circumstances leading up to the need to reduce ramping-rates and the actions followed until operations were returned to normal ramping-rules.

Text taken from the LFC block operational agreement

Review of ToR

Teri Puddefoot – ESO Code Administrator

GC0154 ToR

Workgroup Term of Reference		Location in Workgroup Report (to be completed at Wo Report stage)
a)	Implementation and costs;	
b)	Review draft legal text should it have been provided. If legal text is not submitted within the Grid Code Modification Proposal the Workgroup should be instructed to assist in the developing of the legal text;	
c)	Consider whether any further Industry experts or stakeholders should be invited to participate within the Workgroup to ensure that all potentially affected stakeholders have the opportunity to be represented in the Workgroup. Demonstrate what has been done to cover this clearly in the report	
d)	Consider EBR Article 18 implications	
e)	The workgroup should fulfil the requirements of Ofgem's decision letter of 6 August 2019 approving the ESO's submission of Synchronous Area and LFC (Load frequency control area) Block Operational Agreement methodologies as required to comply with the System Operator Guideline, now forming retained GB Law, including the requirement to form a solution to incorporate interconnector ramping in the Grid Code.	
f)	The workgroup should consider how this code change will impact other cross border discussions and the ongoing work in relation to the Trade Cooperation Agreement (TCA).	
g)	The workgroup should consider how this change will be implemented for existing interconnectors, in progress interconnector connections and for future interconnector connections.	
h)	The workgroup is to note that this modification is only seeking to address SOGL Article 137 (3) (HVDC interconnector ramping) as referred to in (e) above. Ramping of BMUs is not in scope.	
i)	The workgroup is to consider that any solution follows the principles set out within the Intermediate GB LFC Block Operational Methodologies[1] which were developed to document those requirements already covered in the GB codes and outline the remaining obligations not covered by the GB codes. Use of the supporting document[2] developed to accompany the methodology text will support this; and	
j)	The workgroup is to identify and consider any viable alternatives, or combination of solutions to those mechanisms initially indicated, outlining key or conceptual principles, and moreover the benefits when tested against the grid code modification objectives. These alternatives if appropriately supported are to be considered in the concluding narrative of the working party report.	

Timeline Review

Teri Puddefoot – ESO Code Administrator

Timeline for GC0154

Milestone	Date	Milestone	Date
Proposal Presented to Panel	16 December 2021	Workgroup report issued to Panel	20 September 2023
Workgroup 1 – (discussion of the proposal) and solution (what has changed), agree timeline and review terms of reference	25 January 2022	Panel sign off that Workgroup Report has met its Terms of Reference	28 September 2023
Workgroups 2 -10 finalise solutions to be consulted on, consider alternatives		Code Administrator Consultation	02 October – 02 November 2023
Workgroup 11- (To discuss CBA findings)	09 May 2023	Draft Final Modification Report (DFMR) issued to Panel	15 November 2023
Workgroup 12 (Discuss solutions and implementation)	05 June 2022	Panel undertake DFMR recommendation vote	23 November 2023
Workgroup 13 (finalise workgroup consultation questions, and solutions)	19 June 2022	Final Modification Report issued to Panel to check votes recorded correctly (5 working days)	30 November 2023
Showstopper (optional to review consultation document)	26 June 2023	Final Modification Report issued to Ofgem	07 December 2023
Workgroup Consultation (15 Working Days)	03 July – 03 August 2023	Ofgem decision	TBC
Workgroup 14 (Assess and discuss high level consultation responses' key trends, review legal text and any potential alternatives)	22 August 2023	Implementation Date	10 working days after Ofgem decision
Workgroup 15 – (To agree that Terms of Reference have been met, Review Workgroup Report and hold Alternative and Workgroup Vote)	11 September 2023		
Showstopper (optional if vote not completed in previous workgroup)	14 September 2023		

Next Steps and AOB

Teri Puddefoot – ESO Code Administrator