

Conleth McAteer SONI Limited Castlereagh House 12 Manse Road Belfast BT6 9RT

05 December 2023 Ref: NET/E/DH/760

Dear Conleth,

RE: Proposed Revision to the Grid Code - Application for Approval under Condition 16 (3) of the SONI TSO Licence - Requirements for ESPS (SPID_03_2022)

Thank you for your email of 9 June 2023 (the 9 June email) attaching a Grid Code Modification Report (the Modification Report) dated 9 June 2023 with the following supporting documents:

- (a) Grid Code Modification Proposal Form (**the Proposal Form**) dated 9 November 2022 published for consultation on 25 November 2022¹
- (b) spreadsheet type document (**the Consultation Response Document**) setting out a consultation response (**the Consultation Response**) from ESI and SONI comments on the Consultation Response on the proposed modifications set out in the Proposal Form
- (c) revised documents (the Revised Documents) showing the modification now proposed for approval (the Now Proposed Modification) following SONI consideration of the Consultation Response.

Approval for proposed revisions to the Grid Code may be granted by the Authority² under Condition 16 (3) of SONI's Transmission System Operator (**TSO**) Licence³ (**the Licence**) which provides that:

Revision of the Code

3. Revisions to the Grid Code proposed by the Licensee and sent to the Authority pursuant to [Condition 16(2)] shall require the Authority's approval before they may be made.

¹ Microsoft Word - SONI Consultation on Incorporation of Battery Energy Storage.

² In this email we use "Authority" "The Utility Regulator" (us" "our" and "the UR" interchangeably to refer to the Northern Ireland Authority for Utility Regulation.

³ 2022-11-18 SONI TSO Consolidated.pdf (uregni.gov.uk).



Technically, Condition 16(3) deals with "revisions" to the Grid Code. The Modification Report refers to proposed "modifications". There is nothing in this. We view "modifications" and "revisions" as being synonymous for present purposes. We shall refer to "modifications" from now on noting that this is the term used by SONI in the Modification Report.

Condition 16(2) sets out the procedure that should be followed where SONI proposes modification/s to the Grid Code for approval under Condition 16(3). The procedure under Condition 16(2) includes a consultation. As mentioned above the Modification Report includes details of relevant consultation. Supporting documentation is provided. We are satisfied that the Modification Report sets out modification (to the Grid Code) proposed pursuant to Condition 16(2) for approval under Condition 16(3).

The Proposal Form outlines that section "CC.S2" of the Grid Code (Reactive Power Control and Reactive Capability, Ramp Rates and Frequency Response, and PPM Setting Schedule) will be (primarily) impacted by the modification proposed by SONI. Consultation on the Proposal Form took place between 25 November and 23 December 2022. The proposed modification concerns Energy Storage Power Stations (**ESPS**).

In the Proposal Form SONI states that ESPS are

"already on the NI system and more in development,"

and the proposed modification is

"aimed at bringing clarity as to the Grid Code requirements for such units."

SONI states that the purpose of the modification proposal is to

"incorporate version 3 of SONI and EirGrid's Battery ESPS Grid Code Implementation Note into the Grid Code and to incorporate SONI Battery ESPS Compliance Test Procedures and SONI Signal List for Battery ESPS into the PPM Setting Schedule."

The Proposal Form explains that it is proposed to amend the (Grid Code) definition of ESPS to ensure it only applies to Battery Storage Units so that the definition reads:

"A collection of one or more ESU(s) that can automatically act upon a remote signal from the TSO to change its Active Power output."

SONI states that:



"By taking an existing definition which is also part of a Controllable PPM when acting as a generator, the impact on the main body of the Grid Code of introducing the requirements of the Battery Implementation Note, is limited."

We also note the update to the Power Park Module (**PPM**) Setting Schedule that has been supplied. SONI states this update to the PPM Module is being undertaken:

"even though Battery Storage is currently excluded from RfG. . . . It is also understood that storage will be included in a future update of RfG, therefore, this decision ensures the PPM Setting Schedule remains the up-to-date schedule for new connections. The compliance procedures and signal list for ESPS have been added in their own chapter/appendix to maintain the separation between RFG and non-RfG generation."

The Glossary of Terms for the PPM Setting Schedule is proposed for modification so as to include new definitions of: an Energy Storge Unit; Active Power Control Set-Point Ramp rate; Capacity Limited Ramp Rate; and Capacity Limit.

We note that SONI states that storage devices

"will be included in the next update to the RfG in the near future and at that time, SONI expect to bring forward further Grid Code amendments to this document."

SONI has highlighted two implications of not implementing the proposed modification as follows:

"[First] The NI Grid Code would not take account of the technical capabilities and limitations of ESPS,"

and

"[Second] There could be the possibility of a divergence of requirements for users connecting to the all-island system."

Consultation

The Modification Report includes this:

"An overview of this proposed modification was presented to the Joint Grid Code Review Panel (JGCRP) in June 2022 and the full modification proposal was presented at the November 2022 JGCRP including red-line and green-line versions of the impacted documents."



A parallel modification proposal (recently approved) was introduced by EirGrid⁴, and presented to the Joint Grid Code Review Panel.

The Modification Report explains why some of suggested changes in the Consultation Response are accepted and reflected in the Now Proposed Modification (set out in the Revised Documents) and some are not.

SONI has accepted small amendments to the definitions and tables (including ESPS, Active Power Control Set-Point Ramp Rate) and wording suggestions for the PPM Settings Schedule. Concerns over a proposed requirement to demonstrate that the Capacity Limited Ramp Rate and Active Power Control Set-point Ramp Rate can be set over a range between 1% and 100% of Registered Capacity per minute are reflected in a developed new requirement for Capacity Limited Ramp Rate (maximum of 100%, with the minimum the lower of 10% of Registered Capacity, or 5MW). These changes are reflected in the Now Proposed Modification.

SONI did not agree with other suggestions made in the Consultation Response. The first of these was to change 'capacity' to 'energy' in the proposed definition of Capacity Limit and Capacity Limited Ramp Rate. SONI considers that the proposed change would be ambiguous. The second was to remove 'Ramp Rate' from the term Frequency Response Ramp Rate. The Consultation Response submitted that this was not a 'settable parameter'. SONI maintains that this is an existing defined term in the Grid Code. The third change not accepted by SONI was the submission that the new definition of 'Available Active Power' was unsuitable for ESPS. SONI disagreed. It maintained that the definition was generic for all types of Controllable PPMs.

Decision

We consider the application for approval of the Now Proposed Modification (as set out in the Revised Documents) with proper regard to:

- (i) The Modification Report and all associated documents (to specifically include the Consultation Document)
- (ii) Our duties and responsibilities under Art 12 of the Energy (NI) Order 2003
- (iii) The recent approval of a parallel application for modification to the EirGrid Grid Code.⁵

⁵ MPID304_CRUApprovalLetter.pdf (eirgridgroup.com)

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⁴ MPID304_Recommendation_Paper.pdf (eirgridgroup.com)
MPID304_CRUApprovalLetter.pdf (eirgridgroup.com)



The Authority recognises that ESPS are already on the system. Their number is likely to increase in future. ESPS are complex, with controllable generation and consumption functions. We agree that this modification provides greater clarity regarding the role of ESPS and the relevant Grid Code responsibilities and obligations. Greater clarity should be to the benefit of relevant stakeholders. It should assist SONI in discharging its role as TSO. We consider that the request for approval of the Now Proposed Modification is well founded for the reasons set out in the Proposal Form and the Modification Report. We further consider that the Now Proposed Modifications facilitates the attainment of the objectives (for the Grid Code) set out in Condition 16(1) of the Licence. We also factor the recent approval of the parallel modification to the EirGrid Grid Code.

Accordingly, the Authority hereby provides its approval (in accordance with Condition 16(3) of the Licence) for the modifications to the Grid Code reflected in the Now Proposed Modifications (set out in the Revised Documents) provided with the 9 June email.

The approval is effective from the date on this letter. SONI should proceed to publish the modified/updated version of the Grid Code as soon as practicable.

This letter shall be published.

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I trust this is satisfactory. Should you have any further queries please contact Jody O'Boyle.

Yours sincerely,

Donald Henry

Networks and Energy Futures Director