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Date: 08/06/2022

Our Ref: NET/E/TH/525

Dear Marie Therese

**RE: Request to the Authority<sup>1</sup> by SONI for a decision on a Condition 16 Grid Code modification regarding the “Reduction of Aggregator limits from 4MW to 1MW”.**

Thank you for your email received 22 March 2022 in regards to the proposed modification to the SONI Grid Code, for the Reduction of the Aggregator Limit from 4MW to 1MW. Your email contained a Final Modification Report, including representations received by SONI from the modification consultation.

### The Modification

On 14 October 2021, SONI received a modification proposal to the SONI Grid Code definitions of Aggregated Demand Site, Aggregated Generating Unit, Demand Side Unit, Demand Side Unit Operator and Generator Aggregator. The modification proposal was submitted to SONI by Powerhouse Generation Limited. Representing Federation of Energy Response Aggregators (FERA).

The modification sets out to modify the definitions of the below units within the SONI Grid Code:

<b>Aggregated Demand Site</b>	A group of <b>Individual Demand Sites</b> represented by a <b>Demand Side Unit Operator</b> , which together are capable of a <b>Demand Side Unit MW Capacity</b> equal to or above <b>41 MW</b> (and which is therefore subject to <b>Central Dispatch</b> from the TSO). Each <b>Individual Demand Site</b> comprising an <b>Aggregated Demand Site</b> shall be in one currency zone and shall have a <b>Demand Side Unit MW Capacity</b> of no greater than <b>10 MW</b> . Unless otherwise specified, information submitted in respect of an <b>Aggregated Demand Site</b> shall always be at an aggregated level.
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<sup>1</sup> In this letter the words “we”, “us” “our” and Authority are used interchangeably to refer to the Northern Ireland Authority for Utility Regulation.

<b>Aggregated Generating Unit</b>	A group of <b>Generating Units</b> represented by a <b>Generator Aggregator</b> , each of which must not have a <b>Registered Capacity</b> greater than 10MW. An <b>Aggregated Generating Unit</b> with a total <b>Registered Capacity</b> of <b>41 MW</b> or more shall be subject to Central Dispatch, <del>but one with a total Registered Capacity of less than 4 MW may be subject to Central Dispatch subject to agreement with the TSO.</del> Unless otherwise specified by the TSO or otherwise in the <b>Grid Code</b> , information submitted in respect of an <b>Aggregated Generating Unit</b> shall always be at an aggregated level.
<b>Demand Side Unit</b>	An <b>Individual Demand Site</b> or <b>Aggregated Demand Site</b> with a <b>Demand Side Unit MW Capacity</b> of at least <b>41 MW</b> . The <b>Demand Side Unit</b> shall be subject to <b>Central Dispatch</b> .
<b>Demand Side Unit Operator</b>	A person who operates a <b>Demand Side Unit</b> , with an aggregated <b>Demand Side MW Capacity</b> not less than <b>41 MW</b> .
<b>Generator Aggregator</b>	A person who represents several <b>Generating Units</b> , each of which does not have a <b>Registered Capacity/Contracted Capacity</b> greater than 10 MWMW and the combined <b>Registered Capacity/Contracted Capacity</b> of which is equal to or greater than <b>41 MW</b> , by in particular preparing notices under SDC1, in relation to those <b>Generating Units</b> and receiving <b>Dispatch Instructions</b> in relation to those <b>Generating Units</b> under SDC2.....

The justification for the modification proposal is as follows, stated by Powerhouse Generation Limited:

- The response of Demand Side Units (DSU) and Aggregated Generator Units (AGU) can be less than 1MW and is a reflection of the Individual Demand Sites or individual Generating Units that support the provision of the dispatch service.
- No other technology has a minimum limit and the requirement for aggregators should have a similar approach.
- With further introduction of Renewables there is an increased requirement to balance the system through control of demand. More Demand aggregation, below the existing 4MW limit, shall assist the ability to incorporate Renewables.
- Provision of Demand Side Response, under Ancillary Services and Energy shall not be maximised.

- The increase in Renewable generation the lack of demand side response shall result in curtailment of renewables. Reducing the 4MW limit shall allow more Demand Side response, less reliance on large conventional plant and thus less curtailment of Renewables.

The proposed modification was presented by Powerhouse Generation Limited, representing FERA at the November Joint Grid Code Review Panel meeting and further discussed at the SONI Grid Code Meeting. The Panel agreed that this modification would progress to consultation stage, however SONI commented within the November joint and SONI grid code meeting that *“they cannot be supportive of this modification at this time.”*

UR noted within the November SONI Grid Code Review panel meeting that *“there may be licence condition conflicts within the SONI Grid Code definitions that would need to be considered / investigated”*

### The Consultation

Under Licence Condition 16(2), Reviews of the Grid Code,

- the Licensee shall (in consultation with electricity undertakings and the Republic of Ireland System Operator, to the extent such persons are liable to be materially affected thereby) periodically review (including upon the request of the Authority) the Grid Code and its implementation

SONI consulted upon the proposed modification from December 21 2021 to February 082022. SONI received one response to the Modification from DRAI supporting the FERA Modification.

Following any such review, the Licensee, shall send to the Authority:

- (a) a report on the outcome of such review;
- (b) any proposed revisions to the Grid Code from time to time as the Licensee (having regard to the outcome of such review) reasonably thinks fit for the achievement of the objectives referred to in paragraphs 1(b) and (c); and
- (c) any written representations or objections from any electricity undertakings or the Republic of Ireland System Operator (including any proposals by such persons for revisions to the Grid Code not accepted by the Licensee in the course of the review) arising during the consultation process and subsequently maintained.

Under Licence Condition 16(2), SONI submitted a “Final Modification Report” and written representations to the Authority on 22 March 2022.

SONIs Final Modification Report is the outcome of a review on their analysis and opinion of the modification proposal from a Transmission System Operator perspective. The Final Modification Report sets out SONIs recommendation to the UR for consideration.

SONIs Recommendation: *“SONI cannot support this Modification of ‘Reduction of Aggregator Limit to 1 MW’ at this time and as such recommend this proposal is not implemented.”*

### SONI Analysis & Opinion

The below sets out a summary of the analysis and opinions in which SONI have based their recommendation.

#### Capacity Adequacy

SONI has acknowledged that the proposal would result in greater levels of availability for services by better alignment of operational characteristics and access to new service providers, resulting in greater levels of competition and diversity of sources for system services.

There are real and tangible concerns about changing the characteristics of units to be more focussed on system services, resulting in less focus on those characteristics for units to provide consistent capacity and balancing response from a system security perspective, at a time when capacity and balancing are the primary concerns for system security rather than system services

#### Impact on dispatching of units

Concerns about the short-term practical impact of these changes on dispatch in the control centres. There is the potential for multiple additional small DSUs and Generator Aggregators to increase the amount of dispatch instructions required to attain the same overall MW level of response from a capacity and balancing point of view as would be possible with less instructions under the current approach.

A significant increase in the number of DSUs and/or Generator Aggregator Units to be dispatched for the same MW response would be detrimental to the dispatch process, especially at times of tight system margins, when these units are most likely required.

### Availability Declarations

Concerns around the practicality of dispatching units of such a small size if they are only declaring themselves available for part of their capacity.

### Shaping Our Electricity Future (SOEF)

Given that the level of system changes as well as the operational impact of this proposal, SONI believe that a holistic approach should be taken and that this proposal should be considered as part of the wider Demand Side Management (DSM) strategy under the “Shaping Our Electricity Future” Programme.

As part of SOEF, SONI, EirGrid, NIEN and ESNB will be working with industry to develop a Demand Side Management (DSM) strategy, which will include the participation of demand side resources in the energy, capacity and system services markets.

### Licence & Grid Code Conflicts

As highlighted within the November Joint and SONI Grid Code Review Panel meetings, UR commented that there may be a conflict between the text within licences and the definitions within the SONI Grid Code. This conflict is set out below.

There would be a difficulty arising with the licences referring to 4 MW and the relevant Grid Code provisions referring to 1 MW. If implemented there would then be inconsistencies between the licences and the Grid Code and, in practice, this would not be appropriate.

This is particularly in the context where the definitions in the licence refer to terms, which are not defined in the licence but in the Grid Code.

For example, while the definition of Demand Side Unit in the licence provides that it means “an Individual Demand Site or Aggregated Demand Site with a Demand Side Unit Capacity of at least 4MW”, the terms Individual Demand Site and Aggregated Demand Site (as used in the definition) are to have the meaning given to them in the Grid Code. This example could also be applied to the Generator Aggregator definition within an AGU licence.

Whilst we are aware that it is not always necessary for the definitions of the same terms to align with each other, however this is definitely not one of those cases. Therefore, in this case it is appropriate that the operating definitions within a DSU/AGU licence and the SONI Grid Code would require the appropriate alignment.

## Utility Regulator's Review

Under Licence Condition 16(2), SONI have submitted to UR a Final Modification Report, including written representations received via the consultation period. We acknowledge that SONI's Final Modification Report is the outcome of their review of the modification.

UR has also had full sight of all representations made throughout the consultation phase of the modification process.

Under Condition 16(3) of SONI's Transmission Licence, revisions to the Grid Code proposed by the Licensee and sent to the Authority pursuant to paragraph 2 shall require the Authority's approval before they may be made.

We recognise within SONI's Final Modification report, Section 1.2 and 6.4, SONI have stated:

Section 1.2 *"submit a report to the Authority, who will make a decision and direct the modification(s) that are to be made (if any)."*

Section 6.4 *"As is set out in Section 5 of this report, SONI cannot support this Modification of 'Reduction of Aggregator Limit to 1 MW' at this time and as such recommend this proposal is not implemented."*

As per Licence Condition 16(3), SONI as *"the Licensee"*, in the case of the modification proposed by Powerhouse Generation have not proposed to the Authority a *"revision(s)"* to the Grid Code. Consequently, as the licensee is not proposing a revision to the Grid Code, the Authority, as per 16(3) has no approval of a revision to consider.

However, Licence Condition 16(4), provides for the Authority to have regard to any written representations or objections referred to in sub-paragraph 2(c), and following such further consultation (if any) as the Authority may consider appropriate, the Authority may issue directions requiring the licensee to revise the Grid Code in such manner as may be specified in the directions, and the Licensee shall forthwith comply with any such directions.

UR recognises that for the development of the Transmission Network and the industries journey to net-zero, the opportunities and new ways of operating the Transmission System are and shall be extensively explored, tested and developed through various industry working groups, paving the way for new technologies to participate and achieving our net-zero targets.

UR acknowledges the modification proposal put forward by Powerhouse Generation, and recognise what the modification is seeking to achieve. However, the safe, secure and economical operation of the Transmission system is the main priority of the TSO and therefore the importance of Security of Supply, with decreasing margins is and will always

remain paramount when considering modification to the operation of the Transmission System.

Therefore, in the case of the modification proposed by Powerhouse Generation, the Authority is not issuing SONI with a direction(s), requiring the Licensee to revise the Grid Code.

UR would encourage both parties to constructively engage with each other, to allow for further exploration and development of the proposed modification and its potential implementation within the future operation of the Transmission System

Yours sincerely,



**Tanya Hedley**  
**Director of Networks**