Marie Therese Campbell
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12 Manse Road
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Date: 08/06/2022 Our Ref: NET/E/TH/524

Dear Marie Therese

RE: Request to the Authority[1] by SONI for a decision on a Condition 16 Grid Code modification regarding SONI Grid Code Clause CC13.1

Thank you for your email, received 22 March 2022 in regards to the proposed modification to SONI Grid Code clause CC13.1 within the SONI Grid Code. Your email contained a Final Modification Report, including representations received by SONI from the modification consultation.

The Modification

On 13 October 2021, SONI received a modification proposal to the SONI Grid Code Clause CC13.1. The modification proposal was submitted to SONI by Demand Response Association of Ireland (DRAI).

The modification set out to remove the minimum time duration of the Maximum Down-Time for a Demand Side Units (DSU) operating capabilities, Grid Code Clause CC13.1

CC13.1 Each Demand Side Unit shall, as a minimum, have the following capabilities:
...
(e) ~~**Maximum Down- Time** not less than 2 hours;~~ [Not used]
...

Red-line Version of Impacted Grid Code Section

CC13.1 Each Demand Side Unit shall, as a minimum, have the following capabilities:

(e) [Not used]

Green-line Version of Impacted Grid Code Section

The justification for proposing the modification is as follows, stated by DRAI:

[1] In this letter the words "we", "us" "our" and Authority are used interchangeably to refer to the Northern Ireland Authority for Utility Regulation.

- Needless limitation of the range and volume of resources allowed to provide System Services, particularly Fast Frequency Response.

- Continuation of Illogical situation where the Capacity Market Code explicitly makes provision for DSUs with Maximum Down Times of less than 2 hours, but the Grid Code prevents their creation.

- Continuation of inconsistent treatment of batteries and DSUs, whereby the same asset with the same capabilities can participate as a front-of-meter dedicated resource, but not as part of a DSU.

The proposed modification was presented by DRAI 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."*

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 08 2022. SONI received one response to the Modification from DRAI supporting their own 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 to ‘Maximum Down Time’ at this time and as such recommend this proposal is not implemented.

SONI Final Modification Report Conclusion

SONI strongly contends that completely removing the “Maximum Down-Time not less than two hours” requirement would increase operational complexity, would be detrimental to the safe operation of the grid, and would substantially add to the operational burden on Control Room staff.

SONI Analysis & Opinion

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

Security of Supply

Given the operational challenges that the TSOs are facing this winter and foresee to be facing in subsequent winters, the TSOs are unable to support such fundamental operational changes in the short-term.

System security concerns, around the risk of the potential direct impact of capacity changes on system security in the current periods of low capacity margins. There are operational complexities in dispatching under such arrangements, and risks to system security metrics including frequency, voltage, congestion, scheduling results, in operating larger numbers of smaller units, and shorter duration responses, over the 2hr period important for maintaining system balance and capacity adequacy.

Capacity Margin

It is the TSOs view, this modification would change the focus away from the characteristics required for capacity and balancing to maintain a secure system in favour of focussing on the availability of system services, at a time when capacity and balancing are of primary concern for system security.

Future operational concerns

The key operational argument against removing the 'Maximum Down Time' requirement is that capacity is not just required across relatively short periods (10 min or less) but is required on a sustained basis (2 hours or more), and particularly over the evening peak, in order to maintain system security in balancing supply and demand, and in providing capacity adequacy in a secure manner.

Given this winter's capacity concerns, there is a potential counter argument to enhance system security by increasing the 'Maximum Down Time' beyond the current requirement of not less than 2 hours.

Impacts on system balance, frequency, voltage, congestion, and other indicators of system strength at a time when the system is generally less secure, would be more accurate with less risk of introducing insecurity when a consistent provision over a 2hr period is considered rather than considering the same level of MW provision through multiple different units in different locations ramping up and down multiple times over that period.

Impacts on the TSOs ability to carry out other actions required to maintain system security at times of tight margins due to the practicality of dispatching far larger volumes of dispatch instructions in order to maintain the same level of capacity, if the modification is too implemented.

IT and Market Systems considerations

The systems are not currently able to accommodate DSUs in a way that would not further complicate scheduling and dispatch operations for the control centre. Changes to the TSO's key operational systems are still under development and will need to be assessed in the context of wider system changes.

Scheduling Systems

Further investigation of the existing scheduling systems will be required to assess if they can manage the level of granularity of the scheduling intervals in their optimization if Maximum Down Times of less than two hours were used.

LTS and RTC schedules are capable of committing and de-committing plant (RTD is expressly MW instructions for system balancing), it is uncertain whether it would be feasible for units with lower maximum down times to be included in the scheduling systems.

Potential that the lower maximum down times may cause a conflict amongst the different scheduling tools ultimately leading to the production of insecure schedules. The relevant systems would need to be tested extensively to confirm the extent of these potential issues

and their impacts before any such change in the Grid Code requirement could be considered.

Shaping Our Electricity Future (SOEF)

SONI believe that the DRAI proposal should be considered as part of this wider review, rather than a standalone Grid Code Modification. A co-ordinated approach is required to ensure those resources can deliver the changes which would have the greatest impact in meeting the SOEF ambitions.

As part of SOEF, SONI, EirGrid, NIEN and ESBN 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.

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 SONIs 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 SONIs 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 SONIs 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 to 'Maximum Down Time' 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 DRAI, 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 DRAI, 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 DRAI, 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