

SONI Limited

Demand Side Units

Grid Code Amendments Consultation Paper

1st November 2011

1. Introduction

- 1.1 Following the modification proposal issued in January 2011 relating to Demand Side Unit participation in the Single Electricity Market, and the discussions held at the Grid Code Review Panels on 6th June 2011 in Belfast and on 13th October 2011 in Dublin, SONI has prepared drafts of certain sections of the SONI Grid Code with proposed amendments to cover the issues raised regarding Demand Side Units.
- 1.2 The proposed amended texts of the Grid Code, with both clean and redlined versions of each relevant section showing all the changes made to the existing version of the Grid Code, can be found in the “Grid Code Drafts” section of SONI’s website. This consultation paper sets out a high-level summary of the proposed changes to the SONI Grid Code and SONI seeks comments from Users on any aspect of the proposed amendments.
- 1.3 Section 2 of this paper provides background information and a general overview of the proposed changes. Section 3 provides a detailed overview of the proposed changes. As explained in Section 4.1, the deadline for submission of comments is close of business on 15th November 2011.

2. Background and overview

- 2.1 A modification proposal (Mod 04_11) relating to Demand Side Unit (DSU) participation in the Single Electricity market (SEM) was submitted by Fingleton White & Co. to the secretariat of the Trading and Settlement Code on 18 January 2011. The title of the modification is “to remove the requirement for a DSU not to have an MEC”.
- 2.2 The modification proposal recommends that DSUs are allowed to have a Maximum Export Capacity (MEC) with a maximum value of no greater than 10 MW (or the de minimis threshold as defined in the Trading and Settlement Code). Following a meeting about this modification, it was determined that there were also Grid Code changes associated with this modification. The proposed Grid Code modifications outlined in this paper are intended to cover all the changes required in the Grid Code to allow this modification to proceed.
- 2.3 Certain other consequential changes are proposed which correct minor errors in the Grid Code relating to Demand and Demand Side Units. These are listed in Section 3 below.

3. Section by section Review

3.1 Introduction

A minor amendment is proposed for paragraph 4 of the Introduction to correct the reference to ‘Demand Side Unit Aggregators’. This should read as ‘Demand Side Units, Aggregators’.

3.2 Glossary

Changes have been proposed in the Glossary section to update the Grid Code DSU definitions to reflect the modification which allows the DSU to have an export capability. The DSU definition has also been updated to limit the Demand Side Unit MW Capacity of an Individual Demand Site within an Aggregated Demand Site to 10 MW.

- **Aggregated Demand Site:** amendments to this definition correct the reference to 'Demand Reduction Capability' to read 'Demand Side Unit MW Capacity', and confirm that each Individual Demand Site comprising an Aggregated Demand Site shall have a Demand Side Unit MW Capacity of no greater than 10MW.
- **Availability:** the amendment to this definition removes an existing reference to Demand Reduction and replaces it with Demand Side Unit MW Capacity.
- **Demand Side Unit Energy Profile:** this definition amends the existing definition of 'Demand Profile' and changes the reference to 'consumption in MW Demand' to read 'total Energy requirement'.
- **Demand Side Unit Export Capacity:** this new definition has been inserted to define the export value nominated by the relevant Dispatchable Demand Customer for each Individual Demand Site within its Demand Side Unit.
- **Demand Side Unit Import Capacity:** this new definition has been inserted to define the import value nominated by the relevant Dispatchable Demand Customer for each Individual Demand Site within its Demand Side Unit.
- **Demand Side Unit MW Availability:** this definition amends the existing definition of 'Demand Reduction' and changes the reference to 'reduction in MW Demand' to read 'forecasted change in Active Power'.
- **Demand Side Unit MW Capacity:** this definition amends the existing definition of 'Demand Reduction Capability', and sets out the basis on which the maximum change in Active Power for a Demand Side Unit may be calculated.
- **Demand Side Unit MW Response:** this new definition has been inserted to cover the proportion of the Demand Side Unit MW Capacity that is delivered at a given time following a dispatch instruction from the TSO, and that this value will be set at zero unless dispatched by the TSO.
- **Demand Side Unit:** an amendment to this definition corrects the reference to 'Demand Reduction Capability' to read 'Demand Side Unit MW Capacity'.
- **Dispatchable Demand Customer:** an amendment to this definition clarifies that the Demand Side Unit operated by the Dispatchable Demand Customer has a Demand Side Unit MW Capacity of not less than 4MW.
- **Individual Demand Site:** this definition has been amended to reflect amendments to other definitions, and to reflect that an Individual Demand Site may now have both an export and import capacity.
- **Initial Demand Side Unit Response:** this definition amends the existing definition of 'Initial Demand Reduction', to ensure that it refers to Demand Side Unit MW Response rather than Demand Reduction.

- **Initial Demand Site Unit Response Time:** this definition amends the existing definition of ‘Initial Demand Time, and amends the reference to ‘Initial Demand Reduction’ to the new definition ‘Initial Demand Side Unit Response’.
- **Maximum Down Time:** amendments to this definition replace the reference to ‘Demand Reduction’ with ‘Demand Side Unit MW Response’, and confirm that such Demand Side Unit MW Response at a Demand Side Unit may be greater than zero.
- **Minimum Down Time:** amendments to this definition replace the reference to ‘Demand Reduction’ with ‘Demand Side Unit MW Response’, and confirm that such Demand Side Unit MW Response at a Demand Side Unit may be greater than zero.
- **Outage:** the amendment to this definition removes the existing reference to ‘reduction’ in Demand Reduction capability to read as a ‘change’ in ‘Demand Side Unit MW Capacity’.

3.3 Planning Code

A minor amendment to the reference to ‘Maximum auxiliary demand in **MW** and **MVAr**’ in PC.A2.3.3(h) and PC.B2.2.2(h) is required. The amendment simply reflects that demand’ should be a defined term as follows: ‘Maximum auxiliary **Demand** in **MW** and **MVAr**’.

3.4 Operating Code

A minor change is required to the Operating Code to align it with the definition changes in the Glossary. This change simply replaces the old definition ‘**Demand Reduction**’ with the new definition ‘**Demand Side Unit MW Availability**’.

Minor changes are also required to ensure that references to ‘demand’ are replaced with reference to the defined term ‘**Demand**’ in OC1.5.1(d), OC2.1.1, OC3.4.1, OC3.4.2.1, OC3.4.6.1, and OC4.1.1

3.5 Scheduling and Dispatch Code

Minor changes are required to the Scheduling and Dispatch Code to tie in with the definition changes in the Glossary. The majority of the changes are simply to replace the old definition ‘**Demand Reduction**’ with the new definition ‘**Demand Side Unit MW Availability**’.

A minor change is also required in SDC1.2(d) and in SDC2.2 to ensure that the reference to ‘demand’ is replaced with reference to the defined term ‘**Demand**’.

Consequential amendments have also been made to Appendix A of the Scheduling and Dispatch Code to reflect the changes that have been made to the definitions.

3.6 Data Registration Code

A minor change to Schedule 1 of the Data Registration Code is required to ensure that the reference to ‘demand’ is replaced with reference to the defined term ‘**Demand**’. In Schedule 2 the reference to ‘**Demand Profile**’ is to be replaced with the new defined term ‘**Demand Side Unit Energy Profile**’, and the reference to ‘**Initial Demand Reduction Time**’ is to be replaced with the new defined term ‘**Initial Demand Side Unit Response Time**’.

4. Next Steps

- 4.1 The consultation period has been reduced to 2 weeks. Users are invited to send their comments to SONI **by close of business on 15th November 2011**. In the meantime, should any Users have any queries or require a meeting with SONI, they should contact Karen Creighton at SONI (Email: Karen.Creighton@soni.ltd.uk, Phone: 028 9070 7488).
- 4.2 Following receipt of comments from those whom it has consulted by this Consultation Paper and the expiration of the period for making comments, SONI will, in accordance with paragraph 2 of Condition 16 of its Licence, send to the Northern Ireland Authority for Utility Regulation (the “Authority”):
- 4.2.1 a report on the outcome of its review;
 - 4.2.2 the proposed revisions to the Grid Code which SONI (having regard to the outcome of such review) reasonably thinks fit for the achievement of the objectives of the Grid Code referred to in paragraph 1(b) and (c) of Condition 16 of the SONI Licence; and
 - 4.2.3 any written representations or objections from electricity undertakings or the Republic of Ireland System Operator (including any proposals by such persons for revisions to the Grid Code not accepted by SONI in the course of the review) arising during the consultation process and subsequently maintained.
- 4.3 Following the end of the consultation period and the discussions to be held with the Authority, revisions to the Grid Code will be finalised and published on the SONI website once approval has been received from the Authority.

SONI Limited
1st November 2011