

## GRID CODE MODIFICATION FORM

### Application Form Data

This modification is required to give clarity to DSU Operators on the data requirements of the TSO and DSO in relation to applications for DSUs. Following consultation with industry through the Demand Side Unit Joint Grid Code Working Group and NIE through TSO-DSO engagement the following modification was unanimously agreed among Demand Side Unit Joint Grid Code Working Group members at the 5th meeting which took place via teleconference on 09/05/2014.

**GRID CODE SECTION(S) AFFECTED BY PROPOSAL: Definitions, PC.A3.4.3, PC.B3.3.3**

**Please note, this modification proposal was amended on 29<sup>th</sup> April 2015 following a meeting of the Joint Grid Code Working Group on 27<sup>th</sup> April 2015 at which UREGNI and CER provided a minded-to position on the requirement of the DSU Operator to seek DNO consent. See PC.B3.3 (a) (xvii) below.**

**Demand Side Unit MW Capacity**

The maximum change in **Active Power** that can be achieved by a **Demand Side Unit** on a sustained basis for the duration of the **Demand Side Unit's Maximum Down Time** by totalling the potential increase in on-site **Active Power Generation** and the potential decrease in on-site **Active Power Demand** at each **Individual Demand Site**.

**DSU Short-term Synchronous Operating Mode**

The operation of **Generating Unit(s)** at an **Individual Demand Site** of a **Demand Side Unit** where the **Generating Unit(s)** supplies **Demand Customer's** or **DSO Demand Customer's Load** while not **Synchronised** to the **Transmission System** or **Distribution System**. The **Generating Unit(s)** is(are) **Synchronised** to the **Transmission System** or **Distribution System** for short periods of time at **Start-Up** and **Shutdown** of the **Generating Units(s)** to facilitate a smooth transfer of power.

**Maximum Export Capacity**

The value (in **MW, MVA, kW** and/or **kVA**) provided in accordance with the **User's Connection Agreement** or **DNO Demand Customer's DNO Connection Agreement**.

**Maximum Import Capacity**

The values (**kW** and/ or **kVA**) provided in accordance with the **User's Connection Agreement** or **DNO Demand Customer's DNO Connection Agreement**.

**PC.A3.4.3 Demand Side Unit Operators**

For each **Demand Side Unit Operator**, the following information shall be provided for each **Individual Demand Site** connected to the **Transmission System**:

- (a) General Details
  - (i) name of **Demand Side Unit**;
  - (ii) address of the **Demand Side Unit Control Facility**;
  - (iii) address of each **Individual Demand Site(s)** comprising the **Demand Side Unit**;
  - (iv) Irish Grid Co-ordinates of the Connection Point of each **Individual Demand Site** comprising the **Demand Side Unit**;
  - (v) Meter Point Reference Number for each **Individual Demand Site** comprising the **Demand Side Unit**;

- ~~(vi) the name of the **Bulk Supply Point**(s) to which each **Individual Demand Site** comprising the **Demand Side Unit** is/are normally connected;~~
- (vii) single line diagram for each **Individual Demand Site**;
- (viii) details of the operating regime of each **Individual Demand Site** comprising the **Demand Side Unit**, e.g. avoided **Demand** consumption only, combination of avoided **Demand** consumption and operation of **Generation Units**, operation of **Generation Units** only or other;
- (viii) details of the operating mode of the **Generation Units** where the **Generation Units** form part of the **Individual Demand Sites** operating regime, e.g. **Non-Synchronous Generating Unit**, short term **Synchronous Generating Unit**, continuous **Synchronous Generating Unit** or other;
- (ix) details of all **Generation Units** used as part of the **Demand Side Unit**, including the make, model, capacity, MVA rating, fuel type, protection settings and whether it will be used as a standby plant;
- (x) whether a change is required to the **Maximum Export Capacity** or **Maximum Import Capacity** of **Individual Demand Sites** comprising the Demand Side Unit;
- (xi) details of the current operation of **Protection** installed to to disconnect **Generation Units** from the **Distribution System** during abnormal system conditions;
- (xii) details of all **Demand** loads with **Demand** reduction capability of 5 MW or greater, including size in MW and **Demand** reduction capability from load;
- (xiii) Maximum Import Capacity of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);
- (xiv) Maximum Export Capacity of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);
- ~~(xvi) proof of a valid **Connection Agreement** for each Demand Customer and proof of a valid **DNO Connection Agreement** for each **DNO Demand Customer** that comprises the **Demand Side Unit** clearing showing **Maximum Import Capacity** and **Maximum Export Capacity** (if applicable)~~

- ~~(xvii)~~ details of restrictions to the Operation of **Individual Demand Sites** comprising the **Demand Side Unit** (e.g. Northern Ireland Environmental Agency Licence or planning conditions);
- (xviii) whether each **Individual Demand Site** comprising the **Demand Side Unit** is currently participating as or part of any **Aggregated Generator Unit**, ~~or~~ other **Demand Side Unit** or any **demand side management scheme**;
- (xvii~~x~~) proposed effective date in **Single Electricity Market** for first-time applicants; and
- ~~(xviii~~x~~)~~ proposed date for **Grid Code Compliance Testing**;

(b) Technical Details

- (i) total **Demand Side Unit MW Capacity** (MW) of the **Demand Side Unit**;
- (ii) **Demand Side Unit MW Capacity** (MW) of each **Individual Demand Site** comprising the **Demand Side Unit**;
- (iii) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from on-site Generation (MW) operating as a continuous **Synchronous Generating Unit**;
- (iv) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from on-site Generation (MW) operating as a continuous **Synchronous Generating Unit**;
- (v) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from avoided **Demand** consumption (MW) and on-site **Generation** (MW) operating in **DSU Short-term Synchronous Operating Mode**;
- (vi) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from avoided **Demand** consumption (MW) or on-site **Generation** (MW) operated as a **Non-Synchronous Generating Unit** or as a short term **Synchronous Generating Unit**;
- (vii) **Demand Side Unit MW Response Time** of the **Demand Side Unit**;
- (viii) **Demand Side Unit Notice Time** of the **Demand Side Unit**;
- (ix) **Minimum Down Time** of the **Demand Side Unit**;
- (x) **Maximum Down Time** of the **Demand Side Unit**;

- (xi) **Minimum off time of the Demand Side Unit;**
- (xii) **Maximum Ramp Up Rate of the Demand Side Unit;**
- (xii) **Maximum Ramp Up Rate of the Demand Side Unit;**

PC.A3.4.43 **Interconnector Owners**

**Interconnector Owners** shall submit to the **TSO Planning Data** of the nature required from other **Users** under the **Planning Code**. This obligation shall be satisfied as at 1 November 2007 by the **Planning Data** already submitted as at that date by the **Interconnector Owner**. This PC.A3.4.3 will be superseded once the **Planning Code** has been updated to include specific data requirements from **Interconnector Owners**.

**APPENDIX B**

**PLANNING DATA REQUIREMENTS FOR USERS CONNECTED TO THE  
DISTRIBUTION SYSTEM**

PC.B3.3.2 **Generator Aggregators**

**Aggregators** shall, upon request by the **TSO**, provide to the **TSO** any connection site and **User System** data which the **TSO** may reasonably deem necessary.

PC.B3.3.3 **Demand Side Unit Operators**

For each **Demand Side Unit Operator**, the following information shall be provided for each **Individual Demand Site** connected to the **Distribution System**:

- (a) **General Details**
  - (iii) name of **Demand Side Unit**;
  - (iv) address of the **Demand Side Unit Control Facility**;
  - (iii) address of each **Individual Demand Site(s)** comprising the **Demand Side Unit**;
  - (iv) Irish Grid Co-ordinates of the Connection Point of each **Individual Demand Site** comprising the **Demand Side Unit**;
  - (v) Meter Point Reference Number for each **Individual Demand Site** comprising the **Demand Side Unit**;
  - (vi) the name of the **Bulk Supply Point(s)** to which each **Individual Demand Site** comprising the **Demand Side Unit** is/are normally connected;
  - (vii) single line diagram for each **Individual Demand Site**;

- (viii) details of the operating regime of each **Individual Demand Site** comprising the **Demand Side Unit**, e.g. avoided **Demand** consumption only, combination of avoided **Demand** consumption and operation of **Generation Units**, operation of **Generation Units** only or other;
- (ix) details of the operating mode of the **Generation Units** where the **Generation Units** form part of the **Individual Demand Sites** operating regime, e.g. **Non-Synchronous Generating Unit**, short term **Synchronous Generating Unit**, continuous **Synchronous Generating Unit** or other;
- (x) details of all **Generation Units** used as part of the **Demand Side Unit**, including the make, model, capacity, MVA rating, fuel type, protection settings and whether it will be used as a standby plant;
- (xi) whether a change is required to the **Maximum Export Capacity** or **Maximum Import Capacity** of **Individual Demand Sites** comprising the Demand Side Unit;
- (xii) details of the current operation of **Protection** installed to to disconnect **Generation Units** from the **Distribution System** during abnormal system conditions;
- (xiii) details of all **Demand** loads with **Demand** reduction capability of 5 MW or greater, including size in MW and **Demand** reduction capability from load;
- (xiv) Maximum Import Capacity of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);
- (xv) Maximum Export Capacity of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);
- (xvi) proof of a valid **Connection Agreement** for each Demand Customer and proof of a valid **DNO Connection Agreement** for each **DNO Demand Customer** that comprises the **Demand Side Unit** clearly ~~ing~~ showing Maximum Import Capacity and Maximum Export Capacity (if applicable);
- (xvii) whether the **Distribution Network Owner** has been informed about the intention of the **Demand Side Unit Operator** to operate a **Demand Side Unit** (the **Demand Side Unit Operator** is obliged to inform ~~and seek the consent of~~ the **Distribution Network Owner**);
- (xviii) details of any special operating or network limitations placed by the **Distribution Network Owner** on the **Demand Side Unit**;

- (xix) details of restrictions to the Operation of **Individual Demand Sites** comprising the **Demand Side Unit** (e.g. Northern Ireland Environmental Agency Licence or planning conditions);
- (xx) whether each **Individual Demand Site** comprising the **Demand Side Unit** is currently participating as or part of any **Aggregated Generator Unit**, other **Demand Side Unit** or any **demand side management scheme**;
- (xxi) proposed effective date in **Single Electricity Market** for first-time applicants; and
- ~~(xxii) proposed date for **Grid Code Compliance Testing**;~~

(b) Technical Details

- (i) total **Demand Side Unit MW Capacity (MW)** of the **Demand Side Unit**;
- (ii) **Demand Side Unit MW Capacity (MW)** of each **Individual Demand Site** comprising the **Demand Side Unit**;
- (iii) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from on-site Generation (MW) operating as a continuous **Synchronous Generating Unit**;
- (iv) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from on-site Generation (MW) operating as a continuous **Synchronous Generating Unit**;
- (v) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from avoided **Demand** consumption (MW) and on-site **Generation (MW)** operating in **DSU Short-term Synchronous Operating Mode**;
- (vi) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from avoided **Demand** consumption (MW) or on-site **Generation (MW)** operated as a **Non-Synchronous Generating Unit** or as a short term **Synchronous Generating Unit**;
- (vii) **Demand Side Unit MW Response Time** of the **Demand Side Unit**;
- (viii) **Demand Side Unit Notice Time** of the **Demand Side Unit**;
- (ix) **Minimum Down Time** of the **Demand Side Unit**;
- (x) **Maximum Down Time** of the **Demand Side Unit**;
- (xi) **Minimum off time** of the **Demand Side Unit**;

- (xii) **Maximum Ramp Up Rate of the Demand Side Unit;**
- (xiii) **Maximum Ramp Down Rate of the Demand Side Unit;**



**Approval**

Having regard to the outcome of the review described in the Consultation Report dated 6<sup>th</sup> February 2015, SONI proposes the revisions to the SONI Grid Code set out above, which revisions we reasonably think fit for the achievement of the objectives referred to in sub-paragraph (b) of paragraph 1 of Condition 16 of the Licence. SONI asks the Authority to approve these amendments to the SONI Grid Code pursuant to paragraph 3 of Condition 16 of the Licence.

SIGNED BY



..... 29 April 2015

for and on behalf of

SONI Limited