SONI Limited

Intraday Trading

Grid Code Amendments Consultation Paper

APPENDIX: Proposed Grid Code Modifications

It is proposed to amend the Grid Code by adding in the text in red and by deleting the text in blue strikethrough.

GLOSSARY AND DEFINITIONS (GD)

Gate Window	The period of time within which data transactions may be submitted and accepted for use in the associated market scheduling and pricing software run, as set out in the **TSC**. There are three **Gate Windows** and three corresponding **Trading Windows** associated with each **Trading Day**, denoted EA1 (Ex-Ante 1), EA2 (Ex-Ante 2), and WD1 (Within-day 1).
Gate Window Closure	The time prior to which data transactions may be submitted and accepted for use in the associated market scheduling and pricing software run, as set out in the **TSC**.
Gate Window Opening	The time after which data transactions may be submitted and accepted for use in the associated market scheduling and pricing software run, as set out in the **TSC**.
Intra-Day Trading	The facilitation of trading of unallocated capacity on the **Interconnectors** within the **Trading Day** by means of additional **Gate Windows**.
Trading Window	This is the contiguous number of **Trading Periods,** excluding the starting overlap optimisation period and ending overlap optimisation period, for which the relevant market scheduling and pricing software run will determine the market schedule quantities

SCHEDULING AND DISPATCH CODE NO.1

SDC1.4.1.5   Intra-day Trading

There are three **Gate Windows**, denoted EA1 (Ex-Ante 1), EA2 (Ex-Ante 2), and WD1 (Within-day 1), and three associated **Trading Windows**. The rules for **Users** to submit new or revised data related to the three associated **Trading Windows** are set out in the **TSC**.

The timings of the key events for **Intra-Day Trading** are set out in the table below.

Gate Window	**EA1**	**EA2**	**WD1**
Gate Window Opening	06:00 on D-29	09:30 on D-1	11:30 on D-1
Gate Window Closure	09:30 on D-1	11:30 on D-1	08:00 on D
Trading Windows			
Start of **Trading Window**	Start of **Trading Day** (**Trading**	Start of **Trading Day** (**Trading**	**Trading Period** starting 18:00

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	Period starting 06:00)	**Period** starting 06:00)	
End of **Trading Window**	End of **Trading Day** (**Trading Period** Starting 05:30)	End of **Trading Day** (**Trading Period** Starting 05:30)	End of **Trading Day** (**Trading Period** Starting 05:30)

SDC1.4.1 **Availability Notice**

SDC1.4.1.1 Requirement

    (a)   Each **User** shall, by not later than the EA1 **Gate** ~~Closure~~ **Window Closures** each day, notify the **TSO** by means of an **Availability Notice** (in such form as the **TSO** may reasonably notify from time to time or in the form published on the **TSO** website) of changes to the **Availability**, available transfer capacity and/or **Demand Side Unit MW Availability** (as the case may be) of each of its:

        (i)   **CDGUs**;

        (ii)   **Controllable WFPSs**;

        (iii)   **Pumped Storage Plant Demand**;

        (iv)   **Interconnectors** (to be submitted by the **Interconnector Owner**);

        (v)   **Demand Side Units**; or

        (vii)   **Aggregated Generating Units** as the case may be.

    (b)   A **User** may satisfy this obligation by submitting the data under the **TSC**, unless the **TSO** requires, by notice to the **User**, the data to be submitted to it directly under the **Grid Code**.

    (c)   A **Generator Aggregator** will satisfy the obligation in this SDC1.4.1.1 by notifying to the **TSO** in an **Availability Notice** in the form described in paragraph (a) above the **Availability** of its **Aggregated Generating Units** as the case may be.

SDC1.4.2 **Additional Grid Code Availability Notice**

The following items are required to be submitted by each **User** by no later than the EA1 **Gate Window Closure** each day, with the exception of **Aggregators** and **Dispatchable Demand Customers**, direct to the **TSO**, regardless of whether these have to be submitted under the **TSC**. The requirements in SDC1.4.1 in relation to data apply to this SDC1.4.2 as if repeated here.

SDC1.4.4.1 **Technical Parameters**

(a)   (i)   By not later than the EA1 **Gate Window Closure Closure**, each **User** shall in respect of each:

- **CDGU;**

- **Controllable WFPS**;

- **Aggregated Generating Unit**,

- **Pumped Storage Plant Demand**; and/or

- **Demand Side Unit**,

submit to the **TSO** a **Technical Parameters Notice** in such form as the **TSO** may reasonably notify to each **User** or in the form published on the **TSO** website from time to time, containing the **Technical Parameters** to apply for the following **Trading Day**.

(ii)   A **User** may satisfy this obligation by submitting the data under the **TSC**, unless the **TSO** requires, by notice in writing to the **User**, the data to be submitted to it under the **Grid Code**.

(iii)   Subsequent revisions to the **Technical Parameters Notice** may be submitted according to the technical offer data submission provisions as set out in the **TSC.** If there is a change to the data submitted under the **TSC**, the **User** shall notify the **TSO**.

(b)   Flexibility:

(i)   In the case of any **Technical Parameters** as to which the **User** should, acting in accordance with **Prudent Operating Practice**, have some flexibility either in the revision itself or in the time at which the revision is to take effect the **TSO** may, acting reasonably, suggest an amended data figure and/or an amended time at which the data figure is to take effect.

(ii)   Insofar as it is able to do so without breaching any obligations regarding confidentiality contained either in the **TSO Licence** or in any agreement, the **TSO** shall notify the **User** of the reasons for such flexibility request in such degree of detail as the **TSO** considers reasonable in the circumstances.

(iii)   If the **User** agrees to such suggestion (such agreement not to be unreasonably withheld) the **User** shall use reasonable endeavours to accommodate such suggestion and submit a revised **Technical Parameters Notice** accordingly. In any event, the **TSO** may require such further information on the revision as is reasonable and the **User** shall give the **TSO** such information as soon as reasonably practicable.

A **User** shall notify the **TSO** as soon as it becomes aware, acting in accordance with **Prudent Operating Practice**, that any of the data submitted under SDC1.4.4.1 changes.

SDC1.4.4.4 **Other Relevant Data**

(a) By not later than the EA1 **Gate Window Closure** each day, each **User** in respect of each of its **Plant**, shall in respect of the following **Trading Day** submit to the **TSO** in writing in the form set out on the **TSO** website or in such other form as the **TSO** may reasonably notify to each **User** from time to time), details in relation to the following **Trading Day** of any newly arisen special factors, including abnormal risk to loss, which in the reasonable opinion of the **User** may have a material effect on the likely **MW Output** or **Demand Side Unit MW Response** of such **Plant** (including, for a **CCGT Installation** in relation to each of the **CCGT Modules** therein). The notice shall be consistent with the **User's** obligations under SDC1.4.3.2. The provisions of this paragraph also apply to **Interconnector Owners** in relation to their **Interconnector Filters**.

(b) Where a **CDGU** is capable of firing on different fuels, then the **Generator** shall submit details in respect of each fuel for the **CDGU**. Each set of details shall contain the information set out in (a) above for each fuel and each shall be marked clearly to indicate to which fuel it applies.

A **User**, acting in accordance with **Prudent Operating Practice,** shall notify the **TSO** as soon as it becomes aware that any of the data submitted under SDC1.4.4.4 has changed.

SDC1.4.4.5 **Commercial Offer Data**

(a) Each:
- **Generator**;
- **Pumped Storage Generator**;
- **Interconnector User**;
- **Dispatchable Demand Customer**; and
- **Generator Aggregator,**

shall in respect of:

- each of its **CDGUs**;

- each of its **Pumped Storage Plant Demand**;

  - each of its **Interconnector Units**;

  - each of its **Demand Side Units**; and

  - its **Aggregated Generating Units**,

submit to the **TSO**, either directly or by means of an **Intermediary** on its behalf, **Commercial Offer Data** by the **Gate** Closure **Window Closures** for the following corresponding **Trading** Day **Windows** in

accordance with the **TSC**. If no new **Commercial Offer Data** is submitted, the last accepted data will be used.

(b) Each **Generator** shall in respect of each of its **Energy Limited Generating Units** submit an **Energy Limit** as well as the **Commercial Offer Data** by **Gate Window Closure** for the ~~following~~ corresponding **Trading ~~Day~~Window**.

(c) Each **Pumped Storage Plant** will, with respect to its **Pumped Storage Plant Demand**, submit its **Target Reservoir Level** by **Gate Closure** for the following **Trading Day**. If no new data is submitted, the last accepted data will be used.

The **TSO** may require, by notice to the relevant **User**, the data referred to at SDC1.4.4.5 (a) to (c) to be submitted to it directly under the **Grid Code.** All data items submitted under this SDC1.4.4.5 are to be at levels of **MW Output** at the **Connection Point**.

SDC1.4.5.2 **Technical Parameters** and **Additional Grid Code Characteristics**

(a) **Technical Parameters:**

(i) A **User** must, as soon as reasonably practicable after it becomes aware of a change in its **Technical Parameters** in real time, submit, via **Electronic Interface** or in such other form as the **TSO** may reasonably notify each **User** from time to time, a declaration of its actual real time **Technical Parameters**.

(ii) If any of the data submitted to the **TSO** under SDC1.4.4.1, SDC1.4.4.3 and the relevant provisions of Appendix B to this SDC1 and SDC1.4.4.4 changes, a **User** shall, as soon as reasonably practicable after it becomes aware of a change to the information in a **Technical Parameters Notice** and subject to SDC1.4.3, (in the case of data submitted under SDC1.4.4.1 by means of a **Technical Parameters Notice**) submit a **Re-declaration** to that **Technical Parameters Notice** via **Electronic Interface** or in such other form as the **TSO** may reasonably notify to each **User** from time to time. The **User** must notify the **TSO** via **Electronic Interface** of any new **Other Relevant Data** of which it becomes aware as soon as reasonably practicable after it becomes aware of such data.

(b) **Additional Grid Code Characteristics**:

(i) A User must, as soon as reasonably practicable after it becomes aware of a change in its Additional Grid Code Characteristics in real time, submit, via Electronic Interface or in such other form as the TSO may reasonably notify each User from time to time, a declaration of its actual real time Additional Grid Code Characteristics.

<table>
<tr><td></td><td></td><td>(ii)</td><td>A User must, as soon as reasonably practicable after it becomes aware of any changes to the information in an Additional Grid Code Characteristics Notice submitted to the TSO under SDC1.4.4.2, submit a Re-declaration to such Additional Grid Code Characteristics Notice via Electronic Interface or in such other form as the TSO may reasonably notify to each User from time to time.</td></tr>
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        (c)   **Energy Limits** for **Hydro Units**: A **Generator** in respect of its **Hydro Units** shall resubmit **Energy Limits** on the **Trading Day** regardless of whether the **Energy Limits** have changed since the EA1 **Gate Window Closure**. Revised **Energy Limits** for **Hydro Units** may be submitted at any time up until 18.00 hours on the **Trading Day** in writing per unit basis.

SDC1.4.6   (a)   <u>Defaults</u>:

             (i)   Insofar as any data submitted or deemed to have been submitted on any particular day in any **Availability Notice**, **Technical Parameters Notice** (such notice not being relevant to an **Interconnector Owner**), or notice of **Other Relevant Data** or any revision thereto is inconsistent with any other data in any other such notice, then the most recently submitted data which, if substituted for the inconsistent data, would make the data in such notices consistent, shall apply for the next following **Trading ~~Day~~Window**.

             (ii)   Insofar as an **Availability Notice** is not submitted, the **User** shall be deemed to have submitted an **Availability Notice** by **Gate Closure** stating that the **Availability** of the relevant **CDGU**, **Controllable WFPS**, **Demand Side Unit** and/or the **Aggregated Generating Units** for the whole of the following **Trading ~~Day~~ Window** will be the level of **Availability** and **Operating Mode** declared in respect of the final **Trading Period** of the current **Trading ~~Day~~Window**.

             (iii)   Insofar as not submitted or revised, the applicable **Standing Technical Offer Data** for **Technical Parameters** shall apply for the next following **Trading Day**.

             (iv)   Insofar as not submitted or revised, the last notice relating to **Other Relevant Data** to have been submitted shall apply for the next following **Trading Day**.

             (v)   In respect of **Hydro Units**, the **Energy Limit** that applied to the previous **Trading Day** will be used.

        (b)   As a general requirement, the **User** shall ensure that the data in any **Availability Notice, Technical Parameters Notice,** or notice of any **Other Relevant Data** or any revision thereto is consistent with its obligations under SDC1.4.3.2 and SDC1.4.3.4.

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SDC1.4.8.2   **Merit Order**

Subject as provided below, a **Merit Order** will be compiled by the **TSO** (in conjunction with the **Other TSO**) for each **Trading** ~~Day~~ **Window** from the **Price Quantity Pairs**, **Start-Up Cost**, **Shutdown Cost** and **No-Load Cost** (which together shall be known as the "**Price Set**") and, subject as provided in this SDC1, used to determine which of the **CDGUs, Controllable WFPSs**, **Pumped Storage Plant Demand**, **Demand Side Units**, **Aggregated Generating Units** or **Interconnector** tranche to **Schedule** and **Dispatch** in relation to their **Price Sets**. The **Merit Order** will be on the basis of ascending prices so that once committed the **CDGU, Controllable WFPS**, **Pumped Storage Plant Demand**, **Demand Side Unit, Aggregated Generating Unit Price Set** or **Interconnector** tranche **Price Set** at the head of the **Merit Order** will be that which has the lowest **Incremental Price** per **MWh**, and that at the foot of the **Merit Order** shall be the one with the highest **Incremental Price** per **MWh** and taking into account the average **CDGU, Pumped Storage Plant Demand**, **Demand Side Unit**, **Aggregated Generating Unit Price Set** or **Interconnector Output**. Each **CDGU, Controllable WFPS**, **Pumped Storage Plant Demand**, **Demand Side Unit**, **Aggregated Generating Units** and/or **Interconnector** tranche shall appear in the **Merit Order** for each **Price Set** submitted.

SDC1.4.8.9   Issue of **Indicative Operations Schedule**

(a)   The **Indicative Operations Schedule** associated with the EA2 **Trading Window** will be published for access by **Users** (or where in relation to a **CDGU** the **User** does not have access to where it would be published, shall, subject to agreement with the **TSO** (such agreement not to be unreasonably withheld or delayed), be sent by the **TSO** to that **User**) by 1600 hours each day preceding the relevant **Trading Day** and the **Indicative Operations Schedule** associated with the within-day WD1 **Trading Window** will be published for access by **Users** by 1330 hours each day on the relevant **Trading Day**, provided that all the necessary information from the **Users** was made available by not later than **Gate Window Closure**. However, if on any occasion the **TSO** is unable to meet ~~this time~~these times, the **TSO** also reserves the right to extend the timescale for the issue of the ~~first~~ **Indicative Operations** ~~Schedule~~ **Schedules** to the extent necessary. Following the issue of the **Indicative Operations Schedule** preceding the relevant **Trading Window**, the **TSO** may issue revised **Indicative Operations Schedules** up until one hour before the start of the **Trading Window**.

(b)   The **TSO** may issue **Dispatch Instructions** to **Users** in respect of **CDGUs, Controllable WFPSs, Pumped Storage Plant Demand** and/or **Demand Side Units** and/or **Aggregated Generating Units** and/or **Interconnector** transfers before the issue of the **Indicative Operations Schedule** for the **Trading Day** to which the **Dispatch** instruction relates if the length of **Notice to Synchronise** the relevant **CDGUs** and/or **Controllable WFPSs, Pumped Storage Plant Demand** and/or **Demand Side Unit** and/or **Aggregated Generating Unit** requires the **Dispatch** instruction to be given at that time. When the length of the time required for **Notice to Synchronise** is within 30 minutes of causing the **CDGU** and/or

Controllable WFPSs and/or **Pumped Storage Plant Demand** to be unable to meet the indicative **Synchronising** time in the **Indicative Operations Schedule** or a subsequent indicative **Synchronising** time and no **Dispatch Instruction** has been received, the **Generator** shall inform the **TSO** without delay.