SONI Grid Code
Modification Proposal Form

Email to gridcode@soni.ltd.uk

Title of Modification Proposal:

Modify minimum aggregation value in SONI Grid Code

SPID (SONI PROPOSAL ID) 01_2021

Date:	05/05/2021		
Company Name:	Powerhouse Generation Limited		
Applicant Name:	Brian Mongan		
Email Address:	brian@powerhousegeneration.com	**Tel:**	028 92612612
Grid Code Version:	SONI Grid Code version – **14th February 2020** **http://www.soni.ltd.uk/media/documents/SONI-GridCode-Version-Feb2020.pdf**		
Grid Code Section(s) Impacted by Modification Proposal:	Glossary and Definitions GD1 Pages 8 to 28		
Modification Proposal Justification:	The Demand Side aggregation units are now well established and operations of the same are well integrated into the market scheduling systems. The dispatch of any unit via the Electronic Dispatch Interface Logger (EDIL) has a resolution of 1MW. 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.		

Red-line Version of Impacted Grid Code Section(s) - show proposed changes to text:

Deleted text in ~~strike-through red font~~ and new text highlighted in blue font.

Aggregated Demand Site	A group of **Individual Demand Sites** connected to the **Transmission** or **Distribution System** and represented by a **Demand Side Unit Operator**, which together are capable of a **Demand Side Unit MW Capacity** equal to or above ~~4~~41 **MW** (and which is therefore subject to **Central Dispatch** from the **TSO**)**…..**
Aggregated Generating Unit	**…..** An **Aggregated Generating Unit** with a total **Registered Capacity** of 41 **MW** or more shall be subject to **Central Dispatch** (and shall therefore be a **CDGU**)~~, but one with a total **Registered Capacity** of less than 4 **MW** may only be subject to **Central Dispatch** subject to agreement with the **TSO**~~**…..**
Demand Side Unit	An **Individual Demand Site** or **Aggregated Demand Site** with a **Demand Side Unit MW Capacity** of at least ~~4~~41 **MW**. The **Demand Side Unit** shall be subject to **Central Dispatch**.
Demand Side Unit Operator	A person who operates a **Demand Side Unit,** with a **Demand Side MW Capacity** not less than ~~4~~41 **MW.**

Generator Aggregator	A person who represents several **Generating Units**, each of which does not have a **Registered Capacity/Contracted Capacity** greater than 10 MW**MW** and the combined **Registered Capacity/Contracted Capacity** of which is equal to or greater than ~~4~~1 **MW**, by in particular preparing notices under SDC1, in relation to those **Generating Units** and receiving **Dispatch Instructions** in relation to those **Generating Units** under SDC2**…..**

Green-line Version of Impacted Grid Code Section(s) - show proposed final text:

Aggregated Demand Site	A group of **Individual Demand Sites** connected to the **Transmission** or **Distribution System** and represented by a **Demand Side Unit Operator**, which together are capable of a **Demand Side Unit MW Capacity** equal to or above 1 **MW** (and which is therefore subject to **Central Dispatch** from the **TSO**). Each **Individual Demand Site** comprising an **Aggregated Demand Site** shall be in one currency zone and shall have a **Demand Side Unit MW Capacity** of no greater than **10 MW**. Unless otherwise specified, information submitted in respect of an **Aggregated Demand Site** shall always be at an aggregated level**.**
Aggregated Generating Unit	A group of **Generating Unit**s connected to the **Transmission** or **Distribution System** and represented by a **Generator Aggregator**, each of which must not have a **Registered Capacity** greater than 10 **MW**. An **Aggregated Generating Unit** with a total **Registered Capacity** of 1 **MW** or more shall be subject to **Central Dispatch** (and shall therefore be a **CDGU**). Unless otherwise specified by the **TSO** or otherwise in the **Grid Code**, information submitted in respect of an **Aggregated Generating Unit** shall always be at an aggregated level**.**
Demand Side Unit	An **Individual Demand Site** or **Aggregated Demand Site** with a **Demand Side Unit MW Capacity** of at least 1 **MW**. The **Demand Side Unit** shall be subject to **Central Dispatch**.
Demand Side Unit Operator	A person who operates a **Demand Side Unit,** with a **Demand Side MW Capacity** not less than 1 **MW.**
Generator Aggregator	A person who represents several **Generating Units**, each of which does not have a **Registered Capacity/Contracted Capacity** greater than 10 MW**MW** and the combined **Registered Capacity/Contracted Capacity** of which is equal to or greater than 1 **MW**, by in particular preparing notices under SDC1, in relation to those **Generating Units** and receiving **Dispatch Instructions** in relation to those **Generating Units** under SDC2. For the avoidance of doubt, a **Generator Aggregator** cannot aggregate a **Generating Unit** with an output equal to or above 10 **MW**.

Defined Terms (Bold):	None proposed for modification
Implication of Not Implementing the Modification:	Provision of Demand Side Response, under Ancillary Services and Energy shall not be maximised. With 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.
PHG Assessment	**Overview:** The current 4MW limit requires the grouping together of sites that may have different technical abilities, such as duration of response and speed of response. This is not maximising the abilities of these sites for the benefit of the System and for the consumer. **Analysis & Opinion** As the aggregated sites adjust their abilities, retire, join as new, then their abilities need to be grouped for ease of aggregation by the Aggregator. This shall benefit the Capacity Market and the Balancing Market scheduling as additional capabilities are not hampered due to sites being grouped with lesser sites, just to make up the volume to 4MW. The same grouping of abilities shall also benefit the Ancillary Services market. An **example** of this is: - 7 sites with each capable of 600kW each, equates to 4.2MW. this would match the current Grid Code requirements 3 of the sites (1.8MW) can perform Dynamic DS3 response, and the other 4 sites (2.4MW) can perform Static. The 4MW rule means that they can't be split out into separate units. The 4 sites have different duration capabilities. 1 site (0.3MW) can do six hours, 2 sites (1.2MW) can do three hours, and the remaining site (0.3MW) can do two hours. All sites are capable of contributing to system requirements in their own way but grouping them reduces that effectiveness. There may be an additional IT burden in the handling of additional units, but that cost is already covered within the registration process of the markets. **Conclusion:** PHG requests the Transmission System Operators support/decision on this modification and are open to providing further discussion.
	SONI Ltd., Castlereagh House, 12 Manse Road, Belfast, BT6 9RT Phone: +44 28 90 794336 Email: gridcode@soni.ltd.uk