

MODIFICATION PROPOSAL FORM



DSU APPLICATION FORM – MPID 253

FORM GC1, PROPOSAL OF MODIFICATION TO GRID CODE.

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MODIFICATION PROPOSAL ORIGINATOR:	EirGrid		
MODIFICATION PROPOSAL ORIGINATOR (CONTACT NAME)	Séamus Power	MODIFICATION PROPOSAL ORIGINATOR FAX NUMBER:	
MODIFICATION PROPOSAL ORIGINATOR TELEPHONE NUMBER:	01 2370522	DATE:	12/05/2014
MODIFICATION PROPOSAL ORIGINATOR E-MAIL ADDRESS:	seamus.power@eirgrid.com	MODIFICATION PROPOSAL NUMBER (EIRGRID USE ONLY)	MPID 253
GRID CODE SECTION(S) AFFECTED BY PROPOSAL:	PC.A6, Definitions		
GRID CODE VERSION :	Version 5		
MODIFICATION PROPOSAL DESCRIPTION (MUST CLEARLY STATE THE DESIRED AMENDMENT, ALL TEXT/FORMULA CHANGES TO THE GRID CODE. THE REQUIRED REASON FOR THE MODIFICATION MUST STATED. ATTACH ANY FURTHER INFORMATION IF NECESSARY.)	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 ESB Networks through TSO-DSO engagement the following modification was unanimously agreed among Demand Side Unit Joint Grid Code Working Group members at the 5 th meeting which took place via teleconference on 09/05/2014.		
IMPLICATION OF NOT IMPLEMENTING THE MODIFICATION	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.		
<i>Please submit the Modification Proposal by fax, post or electronically, using the information supplied above</i>			
EIRGRID REVIEWER			
EIRGRID ASSESSMENT			

Application Form Data Requirements**PC.A6: Demand Side Unit Operators**

For each **Demand Side Unit Operator**, the following information shall be provided:

- (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 **Transmission Station(s)** to which each **Individual Demand Site** comprising the **Demand Side Unit** is/are normally connected;~~
 - (vii) ~~single line diagram~~ classification of operation of each **Individual Demand Site** comprising the **Demand Side Unit** as one of:
 - avoided **Demand** consumption only,
 - combination of avoided **Demand** consumption and **Shaving Mode** operation of **Generation Units**,
 - combination of avoided **Demand** consumption and **Continuous Parallel Mode** operation of **Generation Units**,
 - combination of avoided **Demand** consumption and **Lopping Mode** operation of **Generation Units**,
 - combination of avoided **Demand** consumption and **Standby Mode** operation of **Generation Units**,
 - combination of avoided **Demand** consumption and **Automatic Mains Failure Mode** operation of **Generation Units**,
 - **Shaving Mode** operation of **Generation Units** only,
 - **Continuous Parallel Mode** operation of **Generation Units** only,
 - **Lopping Mode** operation of **Generation Units** only,
 - **Standby Mode** operation of **Generation Units** only,
 - **Automatic Mains Failure Mode** operation of **Generation Units** only;
 - (vii) current classification of operation of each **Individual Demand Site** comprising the **Demand Side Unit** if different to above;
 - ~~(viii)~~ (ix) details of all **Generation Units** used as part of the **Demand Side Unit** operated in **Continuous Parallel Mode**, **Shaving Mode** or **Lopping Mode**, including the make, model, **Capacity**, ~~the~~ MVA rating, fuel type, and protection settings ~~whether it will be used as a standby plant~~;
 - (ix) whether a change is required to the current **Maximum Export Capacity** or **Maximum Import Capacity** of **Individual Demand Sites** comprising the **Demand Side Unit**;
 - (x) whether the operation of **Embedded Generator Interface Protection** trips a **DSO-operated** interface circuit breaker, **DSO Demand Customer** main incomer, **Generation Unit LV** circuit breaker, **Generation Unit HV** transformer circuit breaker or other on a **Distribution System**-connected **Individual Demand Site** comprising a **Demand Side Unit** containing **Generation**;
 - (xi) the current operation **Embedded Generator Interface Protection** if different to above;
 - (ixii) details of all **Demand** loads with **Demand** reduction capability of 5 MW or greater, including size in MW and demand reduction capability from load;
 - ~~(x) **Maximum Import Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);~~
 - ~~(xi) **Maximum Export Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);~~

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- ~~(xii) — proof of a valid **Connection Agreement** for each **Demand Customer** and proof of a valid **DSO Connection Agreement** for each **DSO Demand Customer** that comprises the **Demand Side Unit** clearly showing **Maximum Import Capacity** and **Maximum Export Capacity** (if applicable);~~
 - (xiii) whether the **Distribution System Operator** 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 the **Distribution System Operator**);
 - ~~(xiv) — details of any special operating or network limitations placed by the **Distribution System Operator** on the **Demand Side Unit**;~~
 - ~~(xv) — details of restrictions to the **Operation of Individual Demand Sites** comprising the **Demand Side Unit** (e.g. EPA Licence or planning conditions);~~
 - (xiv) whether each confirmation that all **Individual Demand Sites** comprising the **Demand Side Unit** are ~~notis~~ currently ~~participating~~ ~~registered~~ or shall not be ~~registered~~ as or part of any **Aggregated Generator Unit** or other **Demand Side Unit**;
 - ~~(xvii) — whether any **Individual Demand Site** comprising the **Demand Side Unit** participates in any demand side management schemes;~~
 - ~~(xviii) — annual **Demand Side Unit MW Capacity** profile of the **Demand Side Unit** for each **Trading Period** of the year;~~
 - ~~(xix) — annual **Demand Side Unit Energy Profile** of the **Demand Side Unit** for each **Trading Period** of the year;~~
 - ~~(xx) — annual **Demand Side Unit Energy Profile** of each **Individual Demand Site** comprising the **Demand Side Unit** for each **Trading Period** of the year;~~
 - ~~(xxi) — detailed specification of the **Demand Side Unit** control system and method of aggregation, and the communications systems that will be in place between the **Demand Side Unit Control Facility** and the **Individual Demand Sites**;~~
 - ~~(xxii) — project milestones;~~
 - (xviii) proposed effective date in **Single Electricity Market** for first-time applicants; and
 - (xvi) proposed date for **Grid Code 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)** operated in **Shaving Mode** or **Continuous Parallel Mode**;
 - (iv) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from on-site **Generation (MW)** operated in **Shaving Mode** or **Continuous Parallel Mode**;
 - (v) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from avoided **Demand** consumption (MW) and on-site **Generation (MW)** operated in **Lopping Mode** and on-site **Generation (MW)** operated in **Standby 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 in **Lopping Mode** or on-site **Generation (MW)** operated in **Standby Mode**;
 - (vii) **Demand Side Unit MW Response Time** of the **Demand Side Unit**;
 - (viii) **Demand Side Unit Notice Time** of the **Demand Side Unit**;
 - ~~(viii) — **Demand Side Unit MW Response Time** of each **Individual Demand Site** comprising the **Demand Side Unit**;~~
 - (ix) **Minimum Down Time** of the **Demand Side Unit**;
 - ~~(x) — **Minimum Down Time** of each **Individual Demand Site** comprising the **Demand Side Unit**;~~
 - (xi) **Maximum Down Time** of the **Demand Side Unit**;

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- ~~(xii) Maximum Down Time of each Individual Demand Site comprising the Demand Side Unit;~~
- (xiii) Minimum off time of the Demand Side Unit;
- ~~(xiv) Minimum off time of each Individual Demand Site comprising the Demand Side Unit;~~
- (xiv) Maximum Ramp Up Rate of the Demand Side Unit;
- ~~(xvi) Maximum Ramp Up Rate of each Individual Demand Site comprising the Demand Side Unit;~~
- (xviii) Maximum Ramp Down Rate of the Demand Side Unit;
- ~~(xviii) Maximum Ramp Down Rate of each Individual Demand Site comprising the Demand Side Unit;~~

Automatic Mains Failure Mode	The operation of Generation Unit(s) at an Individual Demand Site of a Demand Side Unit where in the event of Disconnection , the Generation Unit(s) is(are) enabled and supplies(y) the Demand Customer's or DSO Demand Customer's Load while not Synchronised to the Transmission System or Distribution System . Upon sustained restoration of the connection to the Transmission System or Distribution System for a settable period of time, the Generation Unit(s) Synchronise to the Transmission System or Distribution System for a short period of time not exceeding 180 seconds to facilitate the smooth transfer of power prior to Shutdown of the Generation Unit(s) .
Continuous Parallel Mode	Unrestricted periods of Synchronised operation of Generation Unit(s) to the Transmission System or Distribution System at an Individual Demand Site of a Demand Side Unit .
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 .
Demand Side Unit Notice Time	The time as specified by the Demand Side Unit Operator in the Technical Parameter and is the time it takes for the Demand Side Unit to begin ramping to the Demand Side Unit MW Response from receipt of the Dispatch Instruction from the TSO .
Embedded Generator Interface Protection	Protection designed to disconnect Generation Units from the Distribution System during abnormal system conditions by tripping a dedicated circuit breaker or recloser located as close as practically possible to the interface between the DSO Demand Customer equipment and the Distribution System .
Lopping Mode	The operation of Generation Unit(s) at an Individual Demand Site of a Demand Side Unit where the Generation Unit(s) supplies the Demand Customer's or DSO Demand Customer's Load while not Synchronised to the Transmission System or Distribution System . The Generation Unit(s) is(are) Synchronised to the Transmission System or Distribution System for short periods of time not exceeding 180 seconds at Start-Up and Shutdown of the Generation Unit(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 DSO Demand Customer's DSO Connection Agreement .
Maximum Import Capacity	The values (kW and/ or kVA) provided in accordance with the User's Connection Agreement or DSO Demand Customer's DSO Connection Agreement .
Shaving Mode	The Synchronised operation of Generation Unit(s) to the Distribution System at an Individual Demand Site of a Demand Side Unit where the Generation Unit(s) supplies part of, or, the DSO Demand Customer's Load . Normally the Generation Unit(s) would operate for 2 hours per day as agreed with the DSO .
Standby Mode	The operation of Generation Unit(s) at an Individual Demand Site of a Demand Side Unit where the Generation Unit(s) supplies the Demand Customer's or DSO

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	<p>Demand Customer's Load while not Synchronised to the Transmission System or Distribution System. The Generation Unit(s) is(are) never Synchronised to the Transmission System or Distribution System.</p>
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