

Proposal for a Capacity Market Rules Change



Making a positive difference
for energy consumers

Reference number (to be completed by
Ofgem): CP222

Name of Organisation(s) / individual(s):

Association for Decentralised Energy

Date Submitted:

11.11.2016

Type of Change:

Amendment

Addition

Revoke

Substitution

If applicable, whether you are aware of an alternative proposal already submitted which this proposal relates to:

Proposal summary (short summary, suitable for published description on our website)

The definitions for relevant balancing services in Schedule are either missing or do not adequately account for how STOR sites interact with the Capacity Market. This proposal modifies some definitions and inserts new ones so that Schedule 4 does not impede the flexibility afforded to Capacity Providers under Rule 8.5.2(b).

What the proposal relates to and if applicable, what current provision of Rules the proposal relates to (please state provision number):

Definitions of relevant balancing services in Schedule 4.

Description of the issue that the change proposal seeks to address:

National Grid estimates that 2,634 MW of DSR capacity participated across their portfolio of balancing products and services in 2015. Considering only user-led demand management and on-site generation participating in the Balancing Services, the amount of DSR used for balancing the system in 2015 was approximately to 708 MW.

As we look to electrify heat and transport while increasing the amount of intermittent renewable generation, the challenge of keeping the system in balance at a reasonable cost to bill payers is growing. Consequently, National Grid will require increasing amounts of user-led demand response to ensure the system stays in balance. Likewise, with coal power plants all expected to close by 2025 and an ageing nuclear fleet reaching retirement, we are also losing significant amounts of generation that might have filled in the gaps. The result will be a greater interaction of ensuring security of supply and balancing the grid, and therefore the need for capacity to effectively participate in both the Capacity Market and balancing services.

However, the current definitions for balancing services in the Rules do not adequately account for the different balancing services in Schedule 4 as well as the different configurations of sites that participate in the Capacity Market and STOR. The exclusion of these sites puts them at a competitive disadvantage and acts a barrier to entry in the following ways:

1) The definitions for STOR availability and contracted output in Schedule 4 do not account for the case where a CMU site does not exactly correspond to a STOR Site.

Specifically, the definition of “*Declared_Availability_{ij}*” for STOR provides only for the case where STOR Site “s” is equivalent to CM Unit “i”, which is valid only where there is a one-to-one correspondence between CMU and STOR Site. This leaves the quantity undefined for aggregated cases.

We propose appending to the definition of “*Declared_Availability_{ij}*”:

(or, where STOR Site "s" contains CMU Components of CM Unit "i", $Declared_Availability_{ij}$ will be adjusted pro-rata to the proportion that the capacity of the CMU Components (as determined by DSR Tests) bears to the capacity of STOR Site "s").

A similar adjustment is required in the definition of $Contracted_Output_{ij}$ which may be achieved by appending to that definition:
(adjusted pro-rata to the proportion that the capacity of the CMU Components (as determined by DSR Tests) bears to the capacity of STOR Site "s").

The quantities and identities required in this calculation are already available. CMU Component capacities are determined at CMU Component level by EMRSB and/or EMRDB prior to the issue of DSR Test Certificates, because the Proven DSR Capacity is given by the sum of the test results for each CMU Component. STOR Site capacities are defined in the STOR contracts which define all STOR terms (such as metering, to which the Rules already make reference). The identity of the CMU Components is also known because MPANs are provided in the Appendix 8 forms which admit a STOR Sub-Site (CMU Component) into a STOR Site.

2) Frequency Control by Demand Management (FCDM), Fast Reserve, and Constraint Management Service are not defined despite being listed as a Relevant Balancing Service. Specifically there is no definition for " $Declared_Availability_{ij}$ " and " $Contracted_Output_{ij}$ " for these services.

We have prepared a drafting of the definition for FCDM, and would welcome the opportunity to work with Ofgem and National Grid to develop appropriate definitions for Fast Reserve, and Constraint Management Service.

If applicable, please state the proposed revised drafting (please highlight the change):

Schedule 4

1) Short Term Operating Reserve

"Declared_Availability_{ij}":

"Declared_Availability_{ij}" will be equal to $0.5 \times CM_{sj} \times FF_{sj} \times FM_{sj}$ in all Settlement Periods j that are in "Contracted Availability Windows", "Pre-Window Instruction Periods", "Post-Window Ramping Periods" and (where relevant) "Contracted Optional Windows" where the terms CM_{sj} , FF_{sj} , FM_{sj} , "Contracted Availability Windows", "Pre-Window Instruction Periods", "Post-Window Ramping Periods" and "Contracted Optional Windows" are as defined in Annexure 1 to Section 3 of the Short Term Operating Reserve Standard Contract Terms - Issue 8, 23 November 2013; and, STOR Site "s" is equivalent to CM Unit "i" (or, where STOR Site "s" contains CMU Components of CM Unit "i", $Declared_Availability_{ij}$ will be adjusted pro-rata to the proportion that the capacity of the CMU Components (as determined by DSR Tests) bears to the capacity of STOR Site "s").

"Contracted_Output_{ij}":

"Contracted_Output_{ij}" will be equal to Rs_j where Rs_j is as defined in Annexure 1 to Section 3 of the Short Term Operating Reserve Standard Contract Terms - Issue 8, 23 November 2013 (adjusted pro-rata to the proportion that the capacity of the CMU Components (as determined by DSR Tests) bears to the capacity of STOR Site "s").

2) Frequency Control by Demand Management

The parameters " $Declared_Availability_{ij}$ " and " $Contracted_Output_{ij}$ " for Frequency Control by Demand Management will be:

"Declared_Availability_{ij}":

"Declared_Availability_{ij}" will be equal to the Response made available during periods of Accepted Availability, as defined in the FCDM Contract between the Provider and National Grid, of those CMU "i" (or those components of CMU "i" that are covered by the FCDM agreement), during Settlement Period "j".

"Contracted_Output_{ij}":

"Contracted_Output_{ij}" will be equal to the Response to be provided following a fall in System Frequency below the Pre-Set Frequency Level, as defined in the FCDM Contract between the Provider and National

Grid, of those CMU “i” (or those components of CMU “i” that are covered by the FCDM agreement), during Settlement Period “j”.

Analysis and evidence on the impact on industry and/or consumers including any risks to note when making the revision - including, any potential implications for industry codes:

The proposal will ensure that capacity contracted for balancing services is adequately covered by the definitions for Relevant Balancing Services in the Rules, allowing aggregated sites to participate and increasing the participation of such flexible sites. Greater participation will increase competition and ultimately reduce the cost to consumers of the capacity auctions. These changes are necessary because mixed configurations of aggregated CMUs are permitted under the Rules; in particular, such configurations are in no way restricted under Rule 8.5.2(b).

Further, providing full definitions for Frequency Control by Demand Management, Fast Reserve, and Constraint Management Service will enable participants that provide those services to National Grid to fully understand their participation in the Capacity Market, and avoid negative interactions between settlement for the different services.

Details of Proposer *(please include name, telephone number, email and organisation):*

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