# Proposal for a Capacity Market Rules Change

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**Reference number** *(to be completed by Ofgem)*: **CP224**

| **Name of Organisation(s) / individual(s):** | **Date Submitted:** |
|---|---|
| Tim Collins, Centrica | 11 November 2016 |

| **Type of Change:** | **If applicable, whether you are aware of an alternative proposal already submitted which this proposal relates to:** |
|---|---|
| ☒ **Amendment**<br>☒ **Addition**<br>☐ **Revoke**<br>☐ **Substitution** | CP163, CP164 |

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

We propose that, prospectively, a Generating CMU that is a Storage Facility should have its de-rating factor calculated on a revised basis, which reflects both its Technology Class Weighted Average Availability and its evidenced delivery duration characteristics.

For the avoidance of doubt, the new de-rating factor calculation would apply to auctions taking place after this rule change has been implemented. There would be no ex-post changes to de-rating factors for Capacity Agreements struck prior to this change being implemented.

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

The proposal relates to the calculation of de-rating factors for Generating CMUs falling into the Generating Technology Class, Storage. The principal changes are an amendment to Rule 2.3.4 and a new Rule 2.3.4A. We also propose a provision requiring documentary evidence of a Storage Facility's delivery duration capability: to this end, we propose an amendment to Rule 3.4.6.

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

Current de-rating factors for the Generating Technology Class, Storage (~96%) are unsuitable for Storage Facilities with short duration characteristics. In practice, a short duration Storage Facility may not be able to deliver the required Connection Capacity x ~96% for more than, say, a Settlement Period.

Under the status quo, as more Storage Facilities succeed in future CM auctions, security of supply risks will increase, as a growing share of the CM supply stack may be unable to deliver their Capacity Obligations for the duration of a plausible Stress Event (~3 hours, based on the 4-7pm high demand winter periods when Stress Events are most likely). Current de-rating factors for Storage could also lead to inefficient allocation of Capacity Agreements, as the implied security

of supply provided by Storage (Connection Capacity x ~96%) overstates (and therefore over-remunerates) the actual security of supply provided by a short duration Storage Facility. Rather than mandate a [two] hour minimum delivery duration of Connection Capacity x ~96%, effectively the approach of CP163 and CP164, we believe it is more efficient to scale the de-rating factor assigned to a Storage Facility, such that a short duration Storage Facility gets a smaller Capacity Obligation (and lower potential revenue) than a long duration Storage Facility. The practical effect of this scaling is all Storage Facilities will be capable of sustaining their Capacity Obligations for at least 3 hours, the duration of a plausible Stress Event.

We propose that a Storage Facility capable of at least 3 hours' delivery of its Connection Capacity x ~96% would continue to be awarded that level of de-rated Capacity Obligation. However, a Storage Facility that could only deliver its Connection Capacity x ~96% for a sub 3 hour period would have its de-rating factor reduced proportionately. For example, a Storage Facility capable of delivering its Connection Capacity x ~96% for only one hour would be de-rated to [Connection Capacity x ~96% x 1/3] and so on.

Our approach allows storage developers to make rational judgements about the costs and benefits of investing in long and short duration solutions, rather than forcing them to deliver Connection Capacity x 96% for [two] hours, irrespective of the economic merits of that design choice. Our proposed introduction of scaled de-rating factors for Storage Facilities means future Capacity Agreements will reflect the varying levels of security supply different Storage Facilities provide.

To reiterate, the new de-rating factor calculation would apply to Capacity Market auctions taking place after this rule change has been implemented. There would be no ex-post changes to de-rating factors for Capacity Agreements struck prior to this change being implemented, as that would constitute unreasonable retrospective change and potentially penalise Storage Facilities assigned a de-rating factor they had no choice over.

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

Indicative legal drafting – changes in red:

2.3.4. A De-rating Factor is:

(a) for CMUs in a Generating Technology Class other than Storage, the Technology Class Weighted Average Availability ("TCWAA") of that Generating Technology Class;

(b) for DSR CMUs, the Average Availability of Non-BSC Balancing Services ("AABS"); and

(c) for an Interconnector CMU, the Equivalent Firm Interconnector Capacity ("**EFIC**") of that CMU.

(d) for CMUs in the Generating Technology Class, Storage, the Technology Class Weighted Average Availability ("TCWAA") of that Generating Technology Class multiplied by the Duration Factor ("DF");

2.3.4A The Duration Factor ("DF") referred to in 2.3.4 (d) will be calculated as follows:

DF = min( 1 , SRC / (CC x 3))

Where:

SRC is the Storage Reserve Capacity of the CMU, expressed in MWh, declared by the Applicant pursuant to Rule [3.4.6].

CC is the Connection Capacity of the Generating CMU pursuant to Rule [3.5]

3.4.6. ~~Not used~~ Storage Facilities

For a Generating CMU that is (or, when completed, will be) a Storage Facility, the Applicant must declare the Storage Reserve Capacity ("SRC") in MWh that the Storage is capable of storing (or, when completed, will be capable of storing) and provide documentary evidence to the Delivery Body of the value declared.

**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:**

As set out in our description of the issue, our proposal to scale de-rating factors for Generating CMUs that are Storage Facilities would enhance security of supply and ensure that Capacity Agreements awarded following implementation of this change reflect the security of supply benefits different Storage Facilities provide. Our proposal will enhance effective competition in the Capacity Market and ensure future Storage projects are developed and priced efficiently.

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

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