

Capacity Market Code Modifications

Working Group 10

21 November 2019



CMC_08_19 – General Housekeeping Modification

- Upon working through the Provisional Capacity Qualification decisions the Capacity Auction Monitor noticed a number of typographical errors in formula set out in the CMC.
- The RAs propose to make changes to the formula contained within E.8.2.5 and E.8.2.8 and thus correct the typographical errors.
- E.8.2.5 – Sets out the formula to be used by the System Operator to determine to the calculation of Gross De-Rated Capacity (New) of a Generator Unit (other than an Aggregated Generator Unit) which is a Variable Generator Unit
 - $GDRCN = \text{MAX}[0, \text{MIN}[\text{DRFT} \times \text{ICT} \times (1 + \text{INCTOL}), \text{NDRVE} + \text{NDRVN}]] - \text{GDRCE}$
 - Surplus bracket “]” contained within the formula shown in E.8.2.5 which will require removal
 - Removal of additional “]” is required to ensure there is no ambiguity in regards to the calculation.

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➤ E.8.2.8 – Sets out the formula to be used by the System Operator to determine the Gross De-Rated Capacity (New) of an Aggregated Generator Unit. There are two issues with this section that require modification:

1. The brackets within the formula do not balance. In its current state has a material effect on checks that are required to be carried out by the Auction Monitor:

$$\text{GDRCN} = \text{MAX}[0, \sum_{i \neq \text{VU}} \text{MIN}[\text{DRFT}_i \times \text{ICT}_i \times (1 + \text{INCTOL}_i), \text{MAX}[\text{DRFT}_i \times \text{ICT}_i \times (1 - \text{DECTOL}_i), \text{NDRVE}_i + \text{NDRVN}_i]] + \sum_{i = \text{VU}} \text{MIN}[\text{DRFE}_i \times \text{ICE}_i \times (1 + \text{INCTOL}_i), \text{NDRVE}_i + \text{NDRVN}_i] - \text{GDRCE}]$$

2. Formula comprises two elements where the second replicates E.8.2.5. It makes reference to the existing initial capacity (ICE) and the applicable existing capacity de-rating factor (DRFE). This is not appropriate for determining the New Gross De-rated Capacity (GDRCN). This should refer to total initial capacity (ICT) and the applicable total capacity de-rating factor (DRFT)

$$\text{GDRCN} = \text{MAX}[0, \sum_{i \neq \text{VU}} \text{MIN}[\text{DRFT}_i \times \text{ICT}_i \times (1 + \text{INCTOL}_i), \text{MAX}[\text{DRFT}_i \times \text{ICT}_i \times (1 - \text{DECTOL}_i), \text{NDRVE}_i + \text{NDRVN}_i]]] + \sum_{i = \text{VU}} \text{MIN}[\text{DRFT}_i \times \text{ICT}_i \times (1 + \text{INCTOL}_i), \text{NDRVE}_i + \text{NDRVN}_i] - \text{GDRCE}]$$