ESO
Relevant Balancing Services Guidelines

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Relevant Balancing Services Guidelines

These Relevant Balancing Services Guidelines ("the RBS Guidelines") have been published by National Grid Electricity System Operator (NGESO) in its role as Electricity Market Reform (EMR) Delivery Body pursuant to Schedule 4 of the Capacity Market Rules 2014 ("the Rules"), as amended from time to time.

The RBS Guidelines:

    (a) define which services are Relevant Balancing Services and thus are eligible for a β adjustment (Part 1); and

    (b) set out the terms "Declared_Availability" and "Contracted_Output" for a Capacity Market Unit (CMU) that is not also a Balancing Mechanism (BM) Unit, depending on which balancing service the CMU is providing (Part 2).

Part 1: Relevant Balancing Services

    (i) A balancing Service entered into by NGESO pursuant to the licence condition C16 of its transmission licence, must be classified as a "Relevant Balancing Service" for the purposes of the Rules if and only if it is included in below.

    (ii) Relevant Balancing Services are:

- "Short Term Operating Reserve"
- "Fast Reserve"
- "Enhanced Frequency Response"
- "Firm Frequency Response"
- "Constraint Management Service"
- "Frequency Control by Demand Management"
- "Category 2 Intertripping Scheme"[1]
- "Category 4 Intertripping Scheme"[2]
- "Dynamic Containment"
- "Dynamic Regulation"
- "Dynamic Moderation"
- "Constraint Management Pathfinder"
- "Balancing Reserve (BR)"
- "Local Constraint Markets (LCM)"

"β" for the purposes of Schedule 4 of the Rules means: 1 in any Settlement Period where any of the above services are being provided by a CMU.

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[1] As defined in the Grid Code: https://www.nationalgrideso.com/industry-information/codes/grid-code/code-documents

[2] As defined in the Grid Code: https://www.nationalgrideso.com/industry-information/codes/grid-code/code-documents

Part 2: Non-Balancing Mechanism Adjustment Formulae

For the purposes of the formulae in Capacity Market Rule 8.5.2(b), the variable "Declared_Availability" and "Contracted_Output" will be defined as follows:

Short Term Operating Reserve

"*Declared Availability*"	"*Declared Availability*" 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}", "*Contract Availability Windows*", "*Pre-Window Instruction Periods*", "*Post-Window Ramping Periods*" and "*Contracted Optional Windows*" are as defined in Anexure 1 to Section 3 of the Short Term Operating Reserve Standard Contract Terms – Issue 8, November 2013; and, STOR Site "*s*" is equivalent to CM Unit "*I*"
"*Contracted Output*"	"*Contracted Output$_{jj}$*" will be equal to "R_{sj}" where "R_{sj}" is as defined in Annexure 1 to Section 3 of the Short Term Operating Reserve Standard Contract Terms – Issue 8, 23 November 2013.

Enhanced Frequency Response

"*Declared_Availability$_{ij}$*"	Declared_Availability$_{ij}$" for unit "I" in settlement period "j" will be equal to: "CCj x 0.5". Where "CCj" (Contracted Capacity) is defined in Appendix 7 of the provider's "Agreement Relating to the Provision of an Enhanced Frequency Response Service" shown in the most recent relevant "Invitation to Tender" documentation or equivalent published by the system operator.
"*Contracted_Output$_{ij}$*"	"Contracted_Output$_{ij}$" will be equal to "($\Sigma Envelope\ Lowers_{js}$) x CCj x 0.5". Where those terms are defined in Appendix 7 of the provider's "Agreement Relating to the Provision of an Enhanced Frequency Response Service" shown in the most recent relevant "Invitation to Tender" documentation or equivalent published by the system operator."

Frequency Control by Demand Management

"*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, for CMU "I" and during Settlement Period "j".
"*Contracted_Output$_{ij}$*"	"*Contracted_Output$_{ij}$*" will be equal to the Response required of CMU "I" according to the terms of the relevant FCDM contract, during Settlement Period "j".

Firm Frequency Response (Non-Dynamic Providers)

"*Declared_Availability$_{ij}$*"	"*Declared_Availability$_{ij}$*" will be equal to the "Maximum Available Output" or the "Maximum Available Demand" (as applicable) in each case multiplied by 0.5 and as defined in the provider's Firm Frequency Response Agreement.
"*Contracted_Output$_{ij}$*"	"*Contracted_Output$_{ij}$*" will be equal to the "Automatic Response Energy Deliverable" for unit "*i*" in settlement period "*j*" where such amount is calculated in accordance with the "Firm Frequency Response Standard Contract Terms Issue 5 – 23 December 2011".

Firm Frequency Response (Dynamic Providers)

Declared_Availability$_{ij}$"	"*Declared_Availability$_{ij}$*" will be equal to $\mathrm{Max(FRP, FRS)} + \mathrm{FRH}$ Where FRP is equal to the maximum volume of primary response that may be delivered as set out in the relevant "FFR Capability Data Tables" and FRS is equal to the maximum volume of secondary response that may be delivered as set out in the relevant "FFR Capability Data Tables" and FRH is equal to the maximum volume of high frequency response that may be delivered as set out in the relevant "FFR Capability Data Tables".
"*Contracted Output$_{ij}$*"	"*Contracted_Output$_{ij}$*" will be equal to $Re_{ij} - DRE_{ij}$ where "Re_{ij}" is as defined in the Connection and Use of System Code and "DRE_{ij}" is the response energy actually delivered by the balancing services unit "j" in the relevant settlement period "i".

Dynamic Containment

Declared_Availability$_{ij}$"	Equal to the Contracted Quantity of DC-low or DC-high (as applicable) multiplied by 0.5, for the settlement period(s) in question. Where Contracted Quantity has the same meaning as defined in the Dynamic Containment Glossary of Terms and Rules of Interpretation.
"*Contracted_ Output$_{ij}$*"	Is equal to the amount of energy (in MWh) actually delivered by the Response Unit for the settlement period(s) in question. Where such an amount can be calculated using the Dynamic Containment Performance Data (defined in the Dynamic Containment Service Terms) submitted by the Response Unit for the settlement period(s) in question.

Dynamic Regulation

$Declared\_Availability_{ij}$"	Equal to the Contracted Quantity of DR-low or DR-high or DR-high+low (as applicable) multiplied by 0.5, for the settlement period(s) in question. Where Contracted Quantity has the same meaning as defined in the Dynamic Regulation Glossary of Terms and Rules of Interpretation.
"$Contracted\_Output_{ij}$"	Is equal to the amount of energy (in MWh) actually delivered by the Response Unit for the settlement period(s) in question. Where such an amount can be calculated using the Dynamic Regulation Performance Data (defined in the Dynamic Regulation Service Terms) submitted by the Response Unit for the settlement period(s) in question.

Dynamic Moderation

$Declared\_Availability_{ij}$"	Equal to the Contracted Quantity of DM-low or DM-high or DM-high+low (as applicable) multiplied by 0.5, for the settlement period(s) in question. Where Contracted Quantity has the same meaning as defined in the Dynamic Moderation Glossary of Terms and Rules of Interpretation.
"$Contracted\_Output_{ij}$"	Is equal to the amount of energy (in MWh) actually delivered by the Response Unit for the settlement period(s) in question. Where such an amount can be calculated using the Dynamic Moderation Performance Data (defined in the Dynamic Moderation Service Terms) submitted by the Response Unit for the settlement period(s) in question.

Version Control

Version	Change Details	Change Date
1.0	New RBS Guidelines as per Ofgem's Decision on Amendments to the Capacity Market Rules	06/07/2021
2.0	New RBS Guidelines following annual review	01/04/2023

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