

# BALANCING CODE NO. 5

(BC5)

## PREQUALIFICATION PROCESSES

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## BC5.1

### PREQUALIFICATION

**The Company** shall list the current status and dates of potential status changes of **Balancing Services** as **Frequency Containment Reserves (FCR)**, **Frequency Restoration Reserves (FRR)** or **Replacement Reserves (RR)** or existing **GB**.

Where a **Balancing Service** has been approved as a **Standard Product** or **Specific Product** providing **FCR**, **FRR** or **RR**, **The Company** shall ensure that prequalification processes for that **Balancing Service** follows the processes as set out here. **The Company** shall ensure that each relevant **Balancing Service** requires a formal application from the **FCR**, **FRR** or **RR** provider to prequalify.

Where the **Connection Conditions** or **European Connection Conditions** require the capability as a condition of connection, the connection application may be understood to fulfil this formal application if so requested by the connecting party. For the avoidance of doubt, this does not compel a party to pre-qualify as part of their connection conditions.

#### BC5.1.1 Prequalification Timelines

BC5.1.1.1 The following minimum timescales shall be apply to the **FCR**, **FRR** and **RR** prequalification processes;

- (a) Within 8 weeks of a formal application from the **FCR**, **FRR** or **RR** provider **The Company** shall confirm the application is complete or incomplete (from the perspective of information provision)
- (b) If the application is incomplete the **FCR**, **FRR**, or **RR** provider shall submit the additional required information within 4 weeks of a request from **The Company** or it will be presumed that the application has been withdrawn.
- (c) For units connected to distribution networks, **The Company** shall liaise with the relevant DNO(s) to identify potential limitations imposed on the proposed Balancing Services Provider by the distribution networks.
- (d) Within 3 months of confirming that all information has been provided, **The Company** shall confirm if the potential **FCR**, **FRR** or **RR** provider meets the requirements in BC5.2.1, BC5.3.1 or BC5.4.1 respectively.

BC5.1.1.2 **The Company** shall re-assess the qualification of **FCR**, **FRR** or **RR** providing units or groups:

- (a) at least once every 5 years;
- (b) in case the technical or availability requirements or the equipment has changed; and
- (c) in the case of **FCR** providing units or groups, in case of modernisation of the equipment related to **FCR** activation.

#### BC5.2 FCR PREQUALIFICATION PROCESS

**The Company** shall ensure that each relevant **Balancing Service** prequalification

process shall, as a minimum, require the **FCR** provider to submit a self-certification of the **FCR** Minimum Technical Requirements as defined in BC5.2.1.

A transitional period for the introduction of FCR Minimum Technical Requirements, as defined in BC5.2.1 and BC5.2.2, shall apply for those **FCR** providers who are not an **EU Code User**.

#### BC5.2.1 FCR Minimum Technical Requirements

Each **FCR** provider shall have the right to aggregate the respective data for more than one **FCR** providing unit if the maximum power of the aggregated units is below 1.5 MW and a clear verification of activation of **FCR** is possible.

Each **FCR** providing unit and each **FCR** providing group shall;

- (a) activate the agreed **FCR** by means of a proportional governor or load controller reacting to **Frequency** deviations or alternatively based on a monotonic piecewise linear power-frequency characteristic in case of relay activated **FCR**.
- (b) be capable of activating **FCR** within the **Frequency** ranges specified in the in CC.6.1.3 or ECC.6.1.2.1.2.
- (c) and comply with the following properties
  - (i) Maximum combined effect of inherent **Frequency Response Insensitivity** and possible intentional **Frequency Response Deadband** of the governor or load controller of the **FCR** providing units or **FCR** providing groups of  $\pm 15$  mHz
  - (ii) **FCR** full activation time of 10 s
  - (iii) **FCR** full activation **Frequency** deviation of  $\pm 500$  mHz
- (d) Specify the limitations of the energy reservoir of its **FCR** providing units or **FCR**.
- (e) Each **FCR** provider shall be capable of making available to **The Company**, for each of its **FCR** providing units and **FCR** providing groups, at least the following information:
  - (i) time-stamped status indicating if **FCR** is on or off;
  - (ii) time-stamped active power data needed to verify **FCR** activation, including time-stamped instantaneous **Active Power**; and
  - (iii) droop of the governor or load controller for **Type C Power Generating Modules** and **Type D Power Generating Modules** acting as **FCR** providing units, or its equivalent parameter for **FCR** providing groups consisting of **Type A Power-Generating Modules** and/or **Type B Power Generating Modules**, and/or **Demand Units** with **Demand Response Active Power**.
- (f) An **FCR** provider shall guarantee the continuous availability of **FCR**, with the exception of a forced outage of a **FCR** providing unit, during the period of time in which it is obliged to provide **FCR**.
- (g) Each **FCR** provider shall inform **The Company**, as soon as possible, about any changes in the actual availability of its **FCR** providing unit and/or its **FCR** providing group, in whole or in part, relevant for the results of this prequalification.

#### BC5.2.2 In addition to the requirements in BC5.2.1, where a relevant Balancing

Service is provided by reserve providing groups or units located in the distribution systems, **The Company** shall ensure that the prequalification process requires the following to be specified;

- (a) voltage levels and connection points of the reserve providing units or groups;
- (b) the DNO(s) who operate the distribution **systems** to which the reserve providing units or groups are connected;
- (c) the type of **Active Power** reserves;
- (d) the maximum reserve capacity provided by the reserve providing units or groups at each connection point; and
- (e) the maximum rate of change of **Active Power** for the reserve providing units or groups.

The relevant DNOs will identify potential distribution network restrictions, based on technical reasons, on the provision of the proposed Balancing Service by the reserve providing groups or units.

#### BC 5.3 FRR PREQUALIFICATION PROCESS

**The Company** shall ensure that each relevant Balancing Service prequalification process shall, as a minimum, require the **FRR** provider to submit a self-certification of the **FRR** Minimum Technical Requirements as defined in BC5.3.1 and BC5.3.2.

##### BC5.3.1 FRR Minimum Technical Requirements

Each **FRR** providing unit and each **FRR** providing group shall;

- (a) activate **FRR** in accordance with the setpoint received from **The Company**;
- (b) ensure that the **FRR** activation of the **FRR** providing units within a reserve providing group can be monitored. For that purpose the **FRR** provider shall be capable of supplying to **The Company** real-time measurements of the connection point or another point of interaction agreed with **The Company** concerning:
  - (i) time-stamped scheduled **Active Power** output;
  - (ii) time-stamped instantaneous **Active Power** for:
    - each **FRR** providing unit,
    - each **FRR** providing group, and
    - each **Power Generating Module** or **Demand** unit of a **FRR** providing group with a maximum **Active Power** output larger than or equal to 1.5 MW;
- (c) a **FRR** providing unit or **FRR** providing group for automatic **FRR** shall have an automatic **FRR** activation delay not exceeding 30 seconds;
- (d) be capable of activating its complete manual reserve capacity on **FRR** within the **FRR** full activation time;
- (e) fulfil the **FRR** availability requirements;
- (f) fulfil the ramping rate requirements
- (g) inform **The Company** about a reduction of the actual availability of its **FRR** providing unit or its **FRR** providing group or a part of its **FRR** providing group as soon as possible.

- BC5.3.2 In addition to the requirements in BC5.3.1, where a relevant **Balancing Service** is provided by reserve providing groups or units located in the distribution systems, **The Company** shall ensure that the prequalification process requires the following to be specified;
- (a) voltage levels and connection points of the reserve providing units or groups;
  - (b) the DNO(s) who operate the distribution systems to which the reserve providing units or groups are connected;
  - (c) the type of **Active Power** reserves;
  - (d) the maximum reserve capacity provided by the reserve providing units or groups at each connection point; and
  - (e) the maximum rate of change of **Active Power** for the reserve providing units or group

The relevant DNOs will identify potential distribution network restrictions, based on technical reasons, on the provision of the proposed Balancing Service by the reserve providing groups or units.

#### BC5.4 RR PREQUALIFICATION PROCESS

**The Company** shall ensure that each relevant **Balancing Service** prequalification process shall, as a minimum, require the **RR** provider to submit a self-certification of the **RR** Minimum Technical Requirements as defined in BC5.4.1 and BC5.4.2.

##### BC5.4.1 RR Minimum Technical Requirements

Each **RR** providing unit and each **RR** providing group shall;

- (a) activate **RR** in accordance with the setpoint received from **The Company**;
- (b) ensure activation of complete reserve capacity on **RR** within the activation time defined by **The Company**;
- (c) ensure de-activation of **RR** according to the setpoint received from **The Company**;
- (d) ensure that the **RR** activation of the **RR** providing units within a reserve providing group can be monitored. For that purpose, the **RR** provider shall be capable of supplying to **The Company** real-time measurements of the connection point or another point of interaction agreed with **The Company**:
  - (i) the time-stamped scheduled **Active Power** output, for each **RR** providing unit and group and for each **Power Generating Module** or **Demand** unit of a **RR** providing group with maximum **Active Power** output larger than or equal to 1.5 MW;
  - (ii) the time-stamped instantaneous **Active Power**, for each **RR** providing unit and group, and for each **Power Generating Module** or **Demand** unit of a **RR** providing group with a maximum **Active Power** output greater than or equal to 1.5 MW;
- (e) ensure fulfilment of the **RR** availability requirements

- (f) inform **The Company** about a reduction of the actual availability or a forced outage of its **RR** providing unit or its **RR** providing group or a part of its **RR** providing group as soon as possible.

BC5.4.2

In addition to the requirements in BC5.4.1, where a relevant **Balancing Service** is provided by a reserve providing groups or units located in the distribution **systems**, **The Company** shall ensure that the prequalification process requires the following to be specified;

- (a) voltage levels and connection points of the reserve providing units or groups;
- (b) the DNO(s) who operate the distribution systems to which the reserve providing units or groups are connected;
- (c) the type of **Active Power** reserves;
- (d) the maximum reserve capacity provided by the reserve providing units or groups at each connection point; and
- (e) the maximum rate of change of **Active Power** for the reserve providing units or groups.

The relevant DNOs will identify potential distribution network restrictions on the provision of the proposed Balancing Service by the reserve providing groups or units.

**< END OF BALANCING CODE 5 >**



