**BALANCING CODE NO. 6 (BC6)**

**MARI PROCESSES**

**CONTENTS**

(This contents page does not form part of the Grid Code)

Paragraph No/Title Page Number

[BC6.1 INTRODUCTION 2](#_Toc58365335)

[BC6.2 OBJECTIVE 2](#_Toc58365336)

[BC6.3 SCOPE 2](#_Toc58365337)

[BC6.4 REQUIREMENTS FOR BM PARTICIPANTS WHO WISH TO PARTICIPATE IN MARI 2](#_Toc58365338)

[BC6.4.1 All **BM Participants** who wish to participate in **MARI** must have successfully completed the prequalification process to be a mFRR provider as detailed in BC6. 2](#_Toc58365339)

[BC6.4.2 All **BM Participants** who wish to participate in **MARI** must have the following capabilities;- 2](#_Toc58365340)

[BC6.4.3 Prequalification Timelines 3](#_Toc58365341)

[BC6.4.4 Requalification criteria 3](#_Toc58365342)

[BC6.5 SUBMISSION OF MARI RELATED DATA BY BM PARTICIPANTS 3](#_Toc58365343)

[BC6.5.1 Communication from **BM Participants** to The Company 3](#_Toc58365344)

[BC6.5.2 mFRR Provider Data submissions before MARI Gate Closure 4](#_Toc58365345)

[BC6.5.3 Re-submission of parameters by BM Participants before MARI Gate Closure 5](#_Toc58365346)

[BC6.5.4 Defaulting rules for MARI Bids 5](#_Toc58365347)

[BC6.6.1 Cases where a MARI Bid will be Restricted 5](#_Toc58365348)

[BC6.7 Instructing BM Participants 5](#_Toc58365349)

[BC6.7.1 Communication from The Company to BM Participants 5](#_Toc58365350)

[BC6.7.2 Creating mFRR Instructions from mFRR Acceptances 5](#_Toc58365351)

[BC6.7.3 Cases where mFRR Instructions may not be issued 6](#_Toc58365352)

[BC6.7.4 Infeasibility of mFRR Acceptances 6](#_Toc58365353)

[BC6.8 Publication of MARI Data 6](#_Toc58365354)

[BC6.8.1 Publication of Data at the European level 6](#_Toc58365355)

[BC6.8.2 Publication of Data at the National level 6](#_Toc58365356)

[BC6.9 Outages of computer systems leading to the suspension of the MARI market 7](#_Toc58365357)

[BC6.10 MARI Market Suspension 7](#_Toc58365358)

# BC6.1 INTRODUCTION

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**Balancing Code No 6 (BC6)** sets out the procedures for:

(a) prequalifation requirements for participation in **MARI** by **BM Participants**;

(b) submission of data by **BM Participants** wishing to take part in **MARI;**

(c) validation of data from **BM Participants** wishing to take part in **MARI;**

(d) issuing of  **mFRR Instructions**;

(e) publication of **MARI** related data.

# BC6.2 OBJECTIVE

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This procedure facilitates the participation of **BM Participants** in the **MAR**I market. Participation in  **MARI** is voluntary for **BM Participants**.

# BC6.3 SCOPE

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**BC6** applies to :-

1. **The Company**;
2. **BM Participants**;

(b) **Externally Interconnected System Operators**; and

(c) **Network Operators**.

# BC6.4 REQUIREMENTS FOR BM PARTICIPANTS WHO WISH TO PARTICIPATE IN MARI

**The Company** shall ensure that each relevant **Balancing Service** prequalification process shall, as a minimum, require the mFRR provider to submit a self-certification of the mFRR minimum technical requirements as defined in. BC6.4.1 and BC6.4.2.

### BC6.4.1 All **BM Participants** who wish to participate in **MARI** must have successfully completed the prequalification process to be a mFRR provider as detailed in BC6.

### BC6.4.2 All **BM Participants** who wish to participate in **MARI** must have the following capabilities;-

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1. **BM Participants** must have the ability to submit data and receive instructions by the use of electronic data communication facilities as provided for in CC.6.5.8 or ECC.6.5.8. In addition, **BM Participants** who wish to participate in **MARI** are also required to install **Control Telephony** (irrespective of whether they form part of a **Large** **Power Station**) in accordance with the requirements of CC.6.5.2 – CC.6.5.5 or ECC.6.5.2 - ECC.6.5.5
2. **BM Participants** must be capable of following an **mFRR Instruction** issued by **The Company**
3. **BM Participants** must be able to provide **Physical Notifications**
4. **BM Participants** must be able to provide asubset of **Dynamic Parameters** (as detailed in BC6.5.2)
5. **BM Participants** must provide operational metering for their total output and for any individual component that may have an output greater than 1MW. This metering must have the following accuracy;
   1. For a **BM Unit** with either **Generation Capacity** greater than 100MW or **Demand Capacity** greater than 100MW, a metering accuracy better than 0.5%
   2. For a **BM Unit** with a **Generation Capacity** greater than 10MW but less than or equal to 100MW or a **Demand Capacity** greater than 10MW but less than or equal to 100MW, a metering accuracy better than 1%
   3. For all other **BM Units**, an accuracy better than 2.5% is required
   4. The requirements of the operational metering scheme shall be specified in the **Bi-lateral Agreement**
6. **BM Participants** must have the ability to inform **The Company** if their availability changes using **Export and Import Limits**
7. For **BM Participants** connected within a **User System**, **BM Participants** must be capable of informing **Network Operators** of their availability and activation in realtime if required

### BC6.4.3Prequalification Timelines

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**European Regulation 2017/1485** gives the following minimum timescales for the prequalification process.

(a) Within 8 weeks of a formal application from the **BM Participant**, **The Company** shall confirm the application is complete (from the perspective of information provision).

(b) If the application is incomplete, the **BM Participant** shall provide the missing evidence within 4 weeks of the request from **The Company** or it will be presumed that the application has been withdrawn.

(c)Within 3 months of confirming that all information has been provided, **The Company** shall confirm if the potential **BM Participant** meets the requirements in BC6.4.2. For the avoidance of doubt – **The Company** will not carry out independent tests but will review the evidence provided.

### BC6.4.4 Requalification criteria

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Under certain conditions, an **BM Participant** must requalify

(a) Every five years, a **BM Participant** must requalify to the technical requirements in BC6.4.2 and according to the timescales in BC6.4.3.

(b) If at any time, a **BM Participant** becomes aware of changes to the configuration forming the **BM Unit** that means the minimum technical requirements in BC6.4.2 can no longer be met, that **BM Participant** must withdraw from **MARI** and must requalify.

# BC6.5 SUBMISSION OF MARI RELATED DATA BY BM PARTICIPANTS

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### BC6.5.1 Communication from **BM Participants** to The Company

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(a) Submission of data specified in BC6.5.2 will be by use of electronic data communications facilities, as provided for in CC.6.5.8 or ECC.6.5.8.

(b) In the event of a failure of the electronic data communication facilities, the data used in the **MARI** auction will be based on the most recent data received and acknowledged by **The Company**. In the event of missing data, it will be assumed the **BM Participant** did not wish to submit data for the relevant **MARI Auction Period**.

(c) **Planned Maintenance Outages** will normally be arranged to take place during periods of low data transfer activity.

(d) Upon any **Planned Maintenance Outage**, or following an unplanned outage described in BC6.5.1 (b) (where it is termed a "failure") in relation to a pre- **MARI Gate Closure**:

(i)If a **BM Participant** has submitted **Physical Notifications** and a **MARI Bid** for a **MARI Auction Period**,the **BM Participant** should continue to act in relation to any period of time in accordance with the **Physical Notifications** current at the time of the start of the **Planned Maintenance Outage** or the computer system failure in relation to each such period of time subject to the provisions of BC2.5.1. Depending on when in relation to **MARI** **Gate Closure**, the planned or unplanned maintenance outage arises, **MARI Bids** will either be in preparation for the relevant output in real time, or will be in operation in real time. No further submissions of **BM Participants** data should be attempted. **Plant** failure or similar problems causing significant deviation from **Physical Notification** should be notified to **The Company** by the submission of a revision to **Export and Import Limits** in relation to the  **mFRR Provider** so affected;

(ii) No data will be transferred from **The Company** to the **Balancing Mechanism Reporting Agent (BMRA)** until the communication facilities are re-established.

### BC6.5.2 mFRR Provider Data submissions before MARI Gate Closure

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To participate in a **MARI** auction, a **BM Participant** must have prequalified and must submit a  **MARI Bid** covering at least one of the  **MARI Activation Periods** within the  **MARI Auction Period**.

In addition to a valid  **MARI Bid**, a sub-set of **Balancing Mechanism** parameters are also required covering the  **MARI Auction Period** and the **Settlement Periods** immediately before and after the  **MARI Auction Period** (to allow ramping before and after).

If a **BM Participant** is active in the **Balancing Mechanism**, the only additional data needed to participate in a  **MARI**  auction is a valid **MARI Bid** covering the relevant times.

For a **BM Participant** that is not active in the **Balancing Mechanism**, the following subset of parameters are required with exceptions as noted below:

(a) Physical Notifications

**Physical Notifications** follow the same format and rules as covered in **BC1** and **BC2** with the following exceptions;

1. **A BM Participant** that is not active in the **Balancing Mechanism** but wishes to participate in **MARI** is only required to have submitted **Physical Notifications** covering the **MARI Auction Period** and the **Settlement Periods** immediately before and after the  **MARI Auction Period** for which they have submitted a **MARI Bid**.
2. Defaulting rules as described in the **Data Validation, Consistency and Defaulting Rules** will only apply to **Settlement Periods** for which the **BM Participant** previously submitted **Physical Notifications** for the previous Operational Day.

(b) Export and Import Limits

For a **BM Participant** that is not active in the **Balancing Mechanism** but wishes to participate in **MARI**, these are the same as described in BC1 and BC2

1. Run Up Rate and Run Down Rates

For a **BM Participant** that is not active in the **Balancing Mechanism** but wishes to participate in **MARI** these are the same as described in BC1 and BC2

1. For a **BM Participant** that is not active in the **Balancing Mechanism** but wishes to participate in **MARI** the other **Dynamic Parameters** listed in BC1.A.1.5 are not required

**MARI Bids** must follow the formats and rules in the **MARI Data Validation and Consistency Rules**.

### BC6.5.3 Re-submission of parameters by BM Participants before MARI Gate Closure

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The rules outlined in BC1 and BC2 for the revision of **Physical Notifications**, **Export and Import Limits**, **Run Up Rates** and **Run Down Rates** also apply for **MARI**.

**MARI Bids** can be revised up to  **MARI Gate Closure** in order to be used in the **MARI** auction (as described in the **MARI** **Data Validation and Consistency Rules**).

### BC6.5.4 Defaulting rules for MARI Bids

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**MARI Bids** will not be defaulted using previously submitted values. This is due to the ability to link **MARI Bids** and the re-use of sequence numbers. Hence a **BM Participant** wishing to participate in a particular  **MARI** auction must submit  **mFRR Bids** specifically covering the relevant  **MARI Activation Periods**.

BC6.6 Processing of MARI Bids before passing to the MARI Central Platform

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### BC6.6.1 Cases where a MARI Bid will be Restricted

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**MARI Bids** will be passed to the **MARI Central Platform** but will be flagged as **Restricted** under the following cases;

1. Data within the submission does not conform to formats required as detailed in the  **MARI Data Validation and Consistency Rules** (e.g. missing or incorrect keywords, data in the wrong order, corrupted files etc.)
2. If a **MARI Bid** does not have a corresponding **Physical Notification** the  **MARI Bid** will be flagged as **Restricted**
3. If a **MARI Bid** will result in violating a **System Constraint** it will be flagged as **Restricted**
4. If a **BM Participant** has already been instructed for an **Ancillary Service** or for **Reserve**, a  **MARI Bid** may need to be flagged as **Restricted**. For the avoidance of doubt – participation in **MARI** does not exclude an **BM Participant** from offering other services to **The Company** but on occasions if there are conflicts between services**,** **The Company** may have to flag these  **MARI Bids** as **Restricted**.

# BC6.7 Instructing BM Participants

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### BC6.7.1 Communication from The Company to BM Participants

For the purposes of communication an **mFRR Instruction** will follow the same format as a **Bid-Offer Acceptance** and so the rules of BC2.7 also apply for **mFRR Instructions**.

### BC6.7.2 Creating mFRR Instructions from mFRR Acceptances

Results from the  **MARI Central Platform** are returned to **The Company** in the form of **mFRR Acceptances.**

**mFRR Acceptances** do not include physical ramps and so **Run Up Rates** and **Run Down Rates** will be used to create **mFRR Instructions**.

In order to comply with all of the **mFRR Acceptances** for a **BM Participant** several **mFRR Instructions** may be required**.**

**mFRR instructions** will ramp **BM Participants** from their **Committed Level**,hold them at the required output level, and then return the **BM Participant** back to the **Committed Level**.

The **MARI** market wishes to incentivise **mFRR Instructions** which ramp within +/-5 minutes of the start and end of the **MARI Activation Periods**. Hence, where possible, Run Up Rates and Run Down Rates will be applied so that ramping is symmetric around the start and end of the  **MARI Activation Periods**.

However the **MARI Product** allows for up to 12.5 minute ramping to and from full activation and so for the first and final ramps up to 12.5 minutes of ramping can be used for creating an **mFRR Instruction**.

Details of how **mFRR Instructions** will be created can be found in the **NGESO MARI Reference .**

### BC6.7.3 Cases where mFRR Instructions may not be issued

In the time between receiving **MARI Bids** and the **mFRR Acceptances** being returned to **The Company**, system conditions may require the issuing of a **Bid Offer Acceptance** to the **BM Participant** for which the **mFRR Acceptance** applies.

In these cases it may be necessary to not issue an **mFRR Instruction** to the **BM Participant** or to modify the **mFRR Instruction** so that it is compatible with the **Bid Offer Acceptance t**hat has been previously been issued to the **BM Participant**.

This situation can only arise for a **BM Participant** which is also active in the **Balancing Mechanism.**

The following may apply:

1. If the **Bid Offer Acceptance** is in the same direction as the  **mFRR Instruction** but the MW levels of the **mFRR Instruction** are less than the **Committed Level** after the **Bid Offer Acceptance** is applied, the  **mFRR Instruction** will not be issued.
2. If the **Bid Offer Acceptance** is in the same direction as the **mFRR Instruction** but the MW levels of the **mFRR** **Instruction** are greater than the **Committed Level** after the **Bid Offer Acceptance** is applied, the **mFRR Instruction** will be issued relative to the **Committed Level**.
3. If the **Bid Offer Acceptance** is in the opposite direction to the **mFRR Instruction** the **mFRR instruction** will not be issued.

### BC6.7.4 Infeasibility of mFRR Acceptances

If the **mFRR Acceptances** for an **BM Participant** are not consistent with the **Physical Notifications** and the Run Up Rates and Run Down Rates, then **The Company** will adjust the MW levels so that **mFRR Instructions** can be created using the declared parameters.

Details of how these infeasibility rules will be applied are contained in the **NGESO MARI Reference Document.**

# BC6.8 Publication of MARI Data

### BC6.8.1 Publication of Data at the European level

### BC6.8.2 Publication of Data at the National level

**The Company** shall provide data in accordance with the requirements of the **BSC**.The following data items will be provided:

1. **MARI Bids** and details of those restricted
2. **Final Physical Notifications**
3. **mFRR Activations**
4. **mFRR Instructions**
5. Interconnector Volumes per 12.5 minute period of the **MARI Activation Period**
6. The **MARI** clearing price
7. Volume of GB need met
8. **MARI** Available Transfer Capacity per 12.5 minute period of the **MARI** **Activation Period**
9. **MARI**  Desired Flow Range per 12.5 minute period of the **MARI Activation Period**

# BC6.9 Outages of computer systems leading to the suspension of the MARI market

The **MARI** market operates in short processing times meaning that **Planned Maintenance Outages** or unplanned computer system failures can result in the suspension of the **MARI** market.

Suspension of the **MARI** market in GB will occur in the following circumstances:

1. Loss of communication from **The Company** to the **MARI Central Platform**
2. Failure of the **MARI Central Platform** to produce **mFRR Acceptances**
3. (c) Loss of communication from the **MARI Central Platform** to **The Company**Loss of **electronic logging devices** to a large number of **BM Participants**

# BC6.10 MARI Market Suspension

The application of the **MARI** market shall be suspended in GB when one of the following circumstances arises:

1. Suspension of the **Balancing Mechanism** in accordance with OC9.4.6; or
2. Outages of computer systems leading to the suspension of the **MARI** market as provided for in BC6.9; or
3. Operators of the **MARI Central Platform** notify **The Company** that the **MARI** market has been or is to be suspended.

Where the **MARI** market has been suspended as a result of items (a), (b) or (c) above, **The Company** will as soon as reasonably practical, inform **Users** and the **BSCCo** that the **MARI** market is to be or has been suspended. **The Company** will notify **Users** and the **BSSCo** if the **MARI** market suspension arose as a result of a **Black Start** event or another condition in accordance with the requirements of the **BSC**.

**The Company** shall (as soon as is practicable) determine, in its reasonable opinion, the time and date from when the **MARI** market is to be suspended. **The Company** shall also notify **Users** and the **BSCCo** of the time of **MARI** market suspension and the reason for the suspension.

Where the **MARI** market has been suspended, it will not be resumed until the start of a defined **Settlement Period** which shall be determined:-

1. by the **BSC Panel** in accordance with section G3.1.8 of the **BSC** (in the case of a **Black Start** event); or
2. by section Q.5.A of the **BSC** (in the case of **MARI Market** suspension for any other reason other than **Black Start**).

In the case of **MARI Market** suspension as a result of a **Black Start** event, as provided for under BC6.10(a), **Users** shall use reasonable endeavours to submit **MARI Bids** ten hours prior to the start of the **Settlement Period** determined by the **BSC Panel** in accordance with paragraph G3.1.8 of the **BSC** and as notified by **The Company** to **Users** in preparation for return to resumption of the **MARI market**.

In the case of **MARI Market** suspension as a result of another event as provided for under BC6.10(b) or BC6.10(c), **Users** shall use reasonable endeavours to submit **MARI Bids** as soon as possible after notification from **The Company** of the **Settlement Period** from when the **MARI** market is to be re-established.