

## Security & Quality of Supply Standards

# Frequency Risk and Control Report

### Methodology – Summary of consultation responses

#### Overview

Six responses to the *Frequency Risk and Control Report (FRCR) Methodology* were received by the deadline on Wed 13 Jan 2021, with one further response after the deadline.

The feedback received covered the following key themes:

- Purpose and scope
- Timeline
- Metrics
- Analysis
- Outputs
- Future considerations
- Data transparency
- Accessibility
- General clarifications

More on each of these themes can be found below, including actions **NGESO** will take to address the feedback.

#### Purpose and scope

**Respondents:** *Northern Powergrid, Engie, Drax Group, E.ON UK/npower, EDF, Flexible Generation Group, Sygensys*

The SQSS definition of the *Frequency Risk and Control Report* states that:

- it sets out the results of an assessment of the operational frequency risks on the system
- it shall include an assessment of:
  - the magnitude, duration and likelihood of transient frequency deviations
  - the forecast impact
  - the cost of securing the system, and
  - confirm which risks will or will not be secured operationally by NGESO in accordance with paragraphs 5.8, 5.11.2, 9.2 and 9.4.2.

Some respondents noted that the *Methodology* did not consider a full range of possible alternative methods for managing frequency, or consider other broader topics such as wider system interactions, market design, whole-system costs and interactions with other markets; one respondent also appeared to be conflating the methodology and the FRCR itself which the methodology will be used to prepare.

The *FRCR* is not intended to develop the design of our future services and the scenarios are based on what we expect to have in place over the coming year. There are other projects ongoing to develop future services and to address these wider industry considerations.

The [FRCR](#) may help to inform these developments, and will certainly use them as inputs to future editions, but is not the main vehicle for these wider considerations.

The [FRCR](#) will be updated at least annually. As the projects develop we will need to consider if/how/when they will be included in future versions of the [Methodology](#).

More information on the development of new solutions can be found in the [Operability Strategy Report](#).

**Actions:** ○ [NGESO](#) will clarify the purpose and scope of the [FRCR](#) in the “Aims” section of the [Methodology](#), which will also include an “Out of scope” section.

## Timeline

**Respondents:** [Northern Powergrid](#), [EDF](#), [Flexible Generation Group](#)

A number of respondents noted the short timescale the first edition of the [FRCR](#) is due to be completed in, with one response stating this “is reasonable if there are no significant changes” to the current [NGESO](#) policy proposed in the recommendations.

The requirement for the [Frequency Risk and Control Report](#) is established in version 2.5 of the SQSS, as was approved by Ofgem in their decision on 10 Dec 2020 but which will take effect only when referenced in [NGESO](#)’s licence from the start of the RIIO-T2 period on 01 Apr 2021. The timetable for the [FRCR](#) is set by that update to the licence, and Ofgem’s requirement to minimise the period without a formal [FRCR](#) being approved by the [Authority](#).

Noting that a Frequency Risk Control Policy document, setting out the ESO’s current operational practices, was produced as part of the submission of modification GSR027, the first edition of the [FRCR](#) is deliberately limited in scope for this reason, and is focusing on the following key areas to build on existing policy:

- establishing a clear, objective, transparent process for assessing reliability vs. cost to ensure the best outcome for consumers
- making the assessment of the risk from the inadvertent operation of Loss of Mains protection transparent
- identifying quick, short-term improvements for reliability vs. cost, including:
  - the delivery of the Dynamic Containment and Accelerated Loss of Mains Change programmes,
  - assessing the frequency standard that different size loss risks are held to, and
  - the impact of transmission network outages on radial connection loss risks

**Actions:** ○ n/a

## Metrics

**Respondents:** [Northern Powergrid](#), [Engie](#), [E.ON UK](#)/[npower](#), [EDF](#), [Flexible Generation Group](#), [Sygensys](#)

Most responses broadly agree that outline metrics suggested in the [Methodology](#) are sensible with some encouragement to “keep it simple”. There was acknowledgement that VoLL is not

necessarily appropriate, though none of the consultation respondents suggested a specific metric to use as an alternative or quantified their issues with VoLL.

A couple of respondents sought clarity on the process for deciding the metrics and the overall decision. In the absence of specific, quantified suggestions from respondents, *NGESO* will provide a range of options expressed in terms of the cost of control actions and the likelihood of the defined **Impacts**, so that the decision makers can set the **Recommended** option in context and in relation to consumers' tolerability to each of the defined **Impacts**.

The *Authority* have the ultimate decision-making responsibility, following a recommendation from the SQSS Panel.

- Actions:**
- *NGESO* to update section **8.8.2 Cost value per avoided occurrence** to give further clarification on the applicability of current values for Value of Loss Load (VoLL)
  - *NGESO* to consider how to choose and apply metrics in the final *Report*.

## Analysis

**Respondents:** *Northern Powergrid, Engie, Drax Group, E.ON UK/npower, Flexible Generation Group, Sygensys*

Respondents were supportive of the approach, agreeing that using a half-hourly time-series was suitable given the nature of the risks and emphasising the importance of a meaningful, representative baseline and costs. One respondent suggested the inclusion of whole system costs and interactions with other markets, though as set out above (Purpose and Scope) this is beyond the current scope of the *FRCR*.

There were some specific notes which are covered by the following actions:

- Actions:**
- *NGESO* to emphasise the sensitivity of the results to the cost assumptions
  - *NGESO* to ensure the baseline data and the events and loss risks cover expected changes in the coming year, such as new large connections
  - *NGESO* to clarify the term "Control Scenarios"

## Outputs

**Respondents:** *Northern Powergrid*

One respondent sought more detail on how the results of the different scenarios would be presented and assessed to reach a recommendation.

In addition to a single **Recommendation**, the *Report* will provide a range of options expressed in terms of the cost of control actions and the likelihood of the defined **Impacts**, so that the decision makers can set the **Recommended** option in context and in relation to consumers' tolerance to each of the defined **Impacts**.

- Actions:**
- *NGESO* to ensure this is clear in the *Methodology*

## Future considerations

**Respondents:** Northern Powergrid, Engie, Drax Group, E.ON UK/npower, Flexible Generation Group, Sygensys, EDF

There was broad support for the “**Future considerations**” included in the *Methodology* and for future *Reports*, to follow as soon as is practicable (and noting that as set out in the new process within the SQSS, the FRCR will be produced at least annually).

Some areas were suggested as priority areas for the next edition:

- simultaneous events
- the impact of smaller frequency deviations on users, and how often they should be allowed to occur
- the assessment of the probability of events triggering more than LFDD stage
- relationship between frequency & voltage

**Actions:** ○ *NGESO* to consider all of these suggestions in future editions of the *Report*

## Data transparency

**Respondents:** E.ON UK/npower, EDF

There was a call for *NGESO* to publish all data and models used to perform the analysis in the production of the FRCR that will stem from the methodology so that any 3rd party could re-run the *FRCR* analysis.

In complying with the requirements of paragraph H15 of the SQSS, *NGESO* must have due regard to the need for excluding from the published FRCR any information that could cause security concerns or that would or might seriously and prejudicially affect the commercial interests of the owner of that information if published or might be expected to be incompatible with any legislation, rule of law or licence condition and will take due regard of any representations made by owners of such data.

There was also a request to state the source of input data and assumptions used with respect to controls (e.g. response volumes and prices) which *NGESO* will address this in the final *Report*.

**Actions:** ○ *NGESO* will be as transparent as possible within the reasonable constraints expressed in paragraph H15 of the SQSS

○ *NGESO* will confirm the source of input data and rationale for assumptions used in the final *Report*.

## Accessibility

**Respondents:** Northern Powergrid, Flexible Generation Group, Sygensys,

Respondents emphasised the importance of communicating the *Methodology* and *Report* in a way to maximise stakeholder and consumer input

**Actions:** ○ *NGESO* to aim to maximise the accessibility of the *Methodology* and *Report* and to look at further opportunities for engagement and communication such as the webinar that was run on the methodology on 6 Jan 2021.

## General clarifications

**Respondents:** *Northern Powergrid, E.ON UK/npower*

The need for a number of general clarifications was raised by respondents, all of which will be addressed in the *Methodology* and *Report*.

**Actions:** ○ *NGESO* to address these points of clarification