



Frequency Risk and Control Report (FRCR)

2024 edition

Report consultation webinar

1 May 2024

We will start at 13:02

Agenda

- Introduction & housekeeping
- Consultation overview
- FRCR 2024 proposal

- Methodology
- Assessment and results
- Conclusions


- Q&A

House Keeping

- Sli.do will be used to record and process questions
- Where possible please post your question(s) early
- Please use your full name and company
- Upvoted questions will be prioritised
- We may need to take some questions away
- A full Q&A document will be produced after the webinar

Consultation

Milestone	Date
Consultation period	10 th April – 17 th May 2024
Webinar during industry consultation on combined report and methodology	1 st May 2024
SQSS Panel decision on recommendation of FRCR	June 2024
Submission of FRCR to Ofgem	30 th June 2024

 We are here

Consultation document can be found here

[Frequency Risk and Control Report \(FRCR\) | ESO \(nationalgrideso.com\)](https://www.nationalgrideso.com/frcr)

Consultation questions

#	Question
1	Overall, do you agree that the FRCR represents appropriate development in determining the way that the ESO will balance cost and risk in maintaining security of supply while operating the system?
2	Do you agree that the FRCR has been prepared appropriately? Please elaborate.
3	Do you agree with, and what is your feedback on, the specific recommendation in the FRCR? Recommendation: Maintain minimum inertia requirement at 120 GVA.s Recommendation: Consider additional DC-Low requirement
4	Do you agree ESO to propose lower minimum inertia requirement before FRCR 2025?
5	Do you have any other comments?

Consultation document can be found here

[Frequency Risk and Control Report \(FRCR\) | ESO \(nationalgrideso.com\)](#)

Background

FRCR sets out our general policy for managing frequency on the GB electricity system.

- **FRCR 2021** established the baseline for evaluating the cost versus risk in frequency management
- **FRCR 2022** evaluated the consumer benefits of securing simultaneous events
- **FRCR 2023** assessed the benefits of reducing the minimum inertia requirement

Live FRCR policy (**FRCR 2023**)

- Minimum inertia requirement of 120 GVA.s
- Apply control to secure all BMU-only risks
- Not apply additional control to secure all BMU+VS and simultaneous events

FRCR 2024 Recommendation

The 2024 edition of the FRCR assesses the **minimum inertia requirement** and the **benefits of holding additional response**.

Key recommendations are

- Maintain the minimum inertia requirement at 120 GVA.s.
- Secure all BMU-only risks as baseline.
- Consider additional DC-Low requirement to further reduce residual risks.

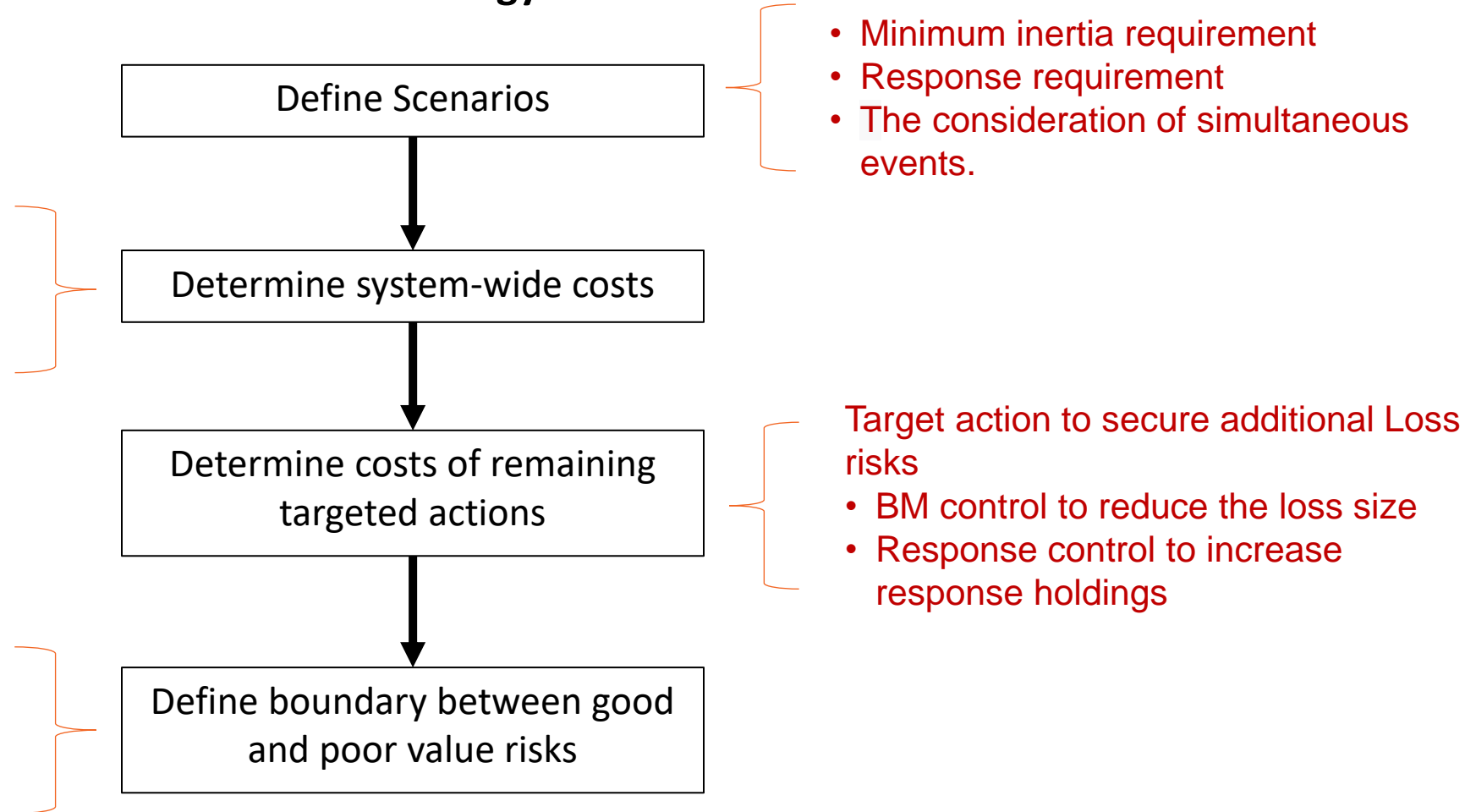
We are consulting on the 2024 version of FRCR and seeking views on the proposals put forward.

Methodology

- Dynamic Regulation and Dynamic Moderation displace PSH
- Stability Pathfinder Phase 1 & 2

- Conclusion by comparing
- System residual risks
 - Total costs

Methodology



Key messages from FRCR 2024

1. Assessment of minimum inertia requirements

Maintain the minimum inertia requirement at 120 GVA.s

2. Assessment of securing additional event categories

Secure all BMU-only risks as baseline

3. Assessment of additional DC-Low holding

Apply additional DC-Low requirement

4. Outlook to 2025/26

An extended time horizon to assess system risks for multiple years

Assessment of minimum inertia requirements

- Risk-wise: No additional risks identified
- Cost-wise: Lower minimum inertia policy presents more saving

Scenario	140 GVA.s	120 GVA.s	110 GVA.s	102 GVA.s
Cost for system-wide controls <i>(NB: system-wide controls include inertia and all response costs)</i>	£374m	£242m	£209m	£193m
Incremental saving		£132m	£33m	£16m

- Recommendation: Maintain the minimum inertia requirement at 120 GVA.s.

Assessment of securing additional event categories

Event category	BM Control		Response Control	
	Residual risk	Additional costs	Residual risk	Additional cost
BMU-only	1-in-27 year	No additional cost	1-in-27 year	No additional cost
BMU+VS	1-in-28 year	£22m	1-in-28 year	£838k
Simultaneous event	N/A	N/A	1-in-9999 year	£37m

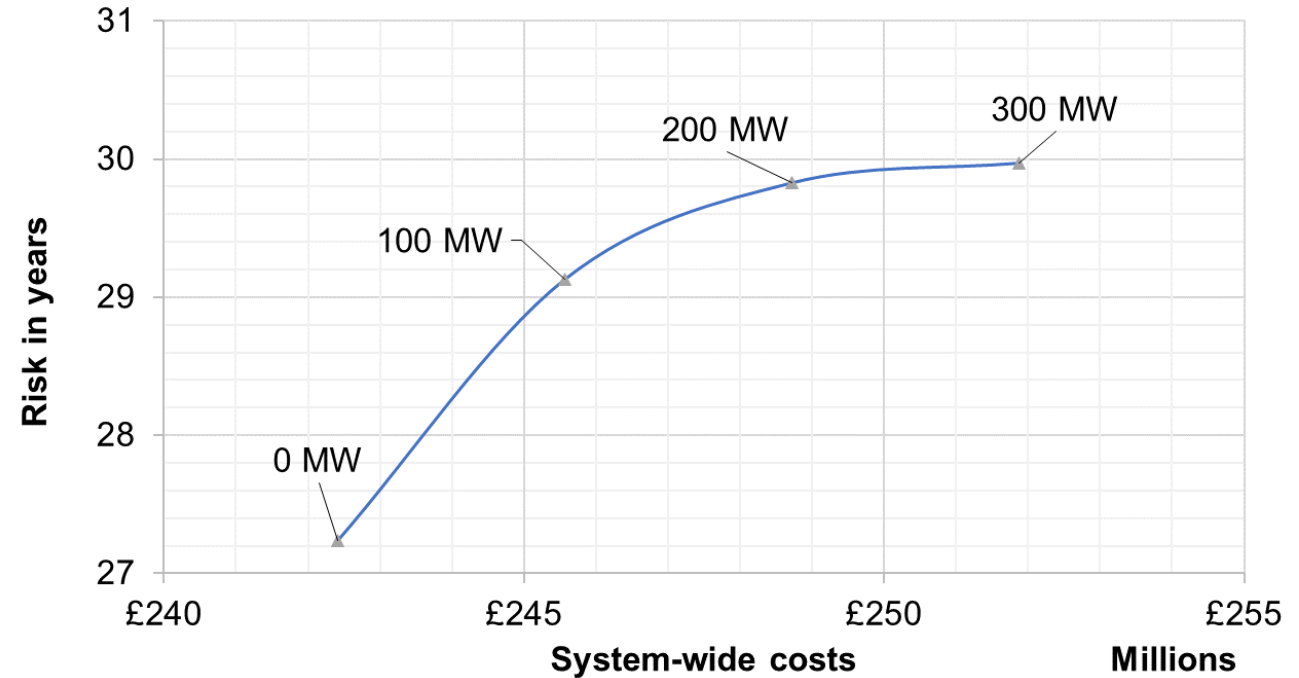
- Recommendation: secure BMU-only risks as baseline and increase DC-low requirements

Assessment of additional DC-Low holding

£242M to fully mitigate all **BMU only** risks under 120 GVAs inertia, resulting in residual risk of

- **1-in-27** years of 49.2Hz events
- To fully mitigate the remaining risks, it cost £30M extra via response control

Cost vs Risk for additional DC-Low



Option	Extra cost on top of £242M	Remaining residual risk	Reduced risks per year
BMU-only (current)	£0	1-in-27 years	N/A
BMU only + 100 MW DC-L	£3.15M	1-in-29 years	0.24%
BMU only + 200 MW DC-L	£6.31M	1-in-30 years	0.32%

Outlook to 2025/26

By the end of 2025, we aim to operate the electricity system at zero carbon for short periods of time. This FRCR explores managing frequency risks with the **system conditions** expected in 2025/26.

- Varying the minimum inertia in 2025 would not pose additional risks to the system, as the residual risks would remain the same.
- Analysis suggest securing beyond BMU-only events is sensible and the residual risk reduction is most effective when increasing DC-Low holding from 0 MW to 100 MW.
- Subject to system conditions and operational readiness, we may propose operating at lower inertia levels before FRCR 2025.

The above result is our first attempt to look beyond one year in FRCR, and it will be reassessed in the next FRCR once more data available.

Conclusions

The 2024 edition of the FRCR assesses the minimum inertia requirement and the benefits of holding additional response. Key recommendations are

- Maintain the minimum inertia requirement at 120 GVA.s.
- Secure all BMU-only risks as baseline.
- Apply additional DC-Low requirement to further reduce residual risks.

Implementation

- Monitor system conditions and implement 120 GVA.s minimum inertia policy when ready
- Increases DC-Low requirement by up to 100 MW; we will communicate through the Operational Transparency Forum