FRCR Consultation Response Proforma

FRCR Consultation

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses to box.sqss@nationalgrideso.com by **5pm** on **Friday 24th February 2023.** Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

If you have any queries on the content of this consultation, please contact box.sqss@nationalgrideso.com

Respondent details	Please enter your details
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Please express your views in the right-hand side of the table below, including your rationale.

FRCR Assessment and Methodology Consultation questions		
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?	Not entirely. Perhaps consequential damage from a frequency control problem induced grid failure could be better considered on an actuarial basis? In the 2021 FRCR para 8.2.2 the subject of Value of Lost Load (VoLL) is raised and the inadequacy of existing VoLL methods raised for further consideration. Has a "new, specific VoLL" method been devised as indicated? If so, has this been incorporated into the risk assessment?
2	Do you agree that the FRCR has been prepared appropriately? Please elaborate.	I am sure the bureaucratic procedures have been diligently followed.
3	To help structure comments, do you agree with and what is your feedback on the specific	1. We are concerned the recommended reduction to 120GVA may increase system risk and wider societal hazards disproportionately to a relatively modest cost reduction.

	recommendation in the FRCR?	2. This cost driven change to inertia policy cannot be responsibly separated from technical means of measurement. 3. Present technical methods of empirically monitoring frequency/inertia leave much to be desired. Models naturally have limitations. 4. By extension grid inertia estimation methods based upon the existing swing equation have limitations. The kinetic momentum based swing equation is arguably not entirely fit for purpose on a modern power grid with an increasing large proportion of converter/inverter based generation. Synthetic inertia may also require new methods of measurement, monitoring, dispatch, and estimation. 5. The two new methods of estimating grid inertia under NGESO trial are far from being proven reliable and accurate enough for BAU application. 6. Significant further improvement to available frequency/inertia measurement and grid condition monitoring technology, would likely reveal subtleties of grid behaviour and disposition that would much better inform FRCR policy setting and implementation. Leading to more precise models, more accurate empirical gird inertia condition monitoring, and improved risk-weighted balancing cost savings.
4	**Recommendation: Minimum inertia policy** *Reduce minimum inertia policy from 140GVA.s to 120GVA.s*	120GVA may be a reasonable goal but better technical support is needed first.
5	Do you have any suggestions for further areas that can be addressed in future editions of the FRCR?	New methods and means of calculating frequency and inertia estimation are needed and should be addressed through supported research.
6	Do you have any other comments?	**Recommended edit to FRCR 2023** To help set future condition for success, we recommend adding to the present draft of 2023 edition of the FRCR the following sentence, “More precise and accurate ways of monitoring frequency and inertia are needed to better adjust policy and gauge its technical implementation.”