

# Bird & Bird

## Future of National Grid Balancing Services - Implications for Storage



*National Grid has launched a consultation on the future of balancing services markets. There is an emphasis on increasing the role of flexible service providers to respond to the needs of the system. This should provide opportunities for operators of battery storage assets.*

### Consultation Proposals

National Grid published its System Needs and Product Strategy consultation (the "**Consultation**") on 13 June 2017 which sets out National Grid's strategy for the types of services it will need to procure in future to balance the grid and to maintain secure and affordable electricity supplies. Due to the changing energy mix on the grid, in particular the ever increasing amount of renewable and decentralised generation on the distribution network, there is greater need to be able to respond flexibly and intelligently to the demands of the system. Incentivising and making it easier for flexible service providers, such as operators of battery storage or demand side services, to participate in the balancing services markets can help to achieve this.

The proposals in the Consultation aim to:

- 1 rationalise the existing suite of balancing services products by reducing the number currently available and removing any obsolete products;
- 2 simplify the remaining products by standardising contract terms, the procurement process and technical requirements;
- 3 improve the products based on feedback received from industry; and
- 4 improve the information that National Grid shares, to make it easier for participants to access balancing servicing products<sup>1</sup>.

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<sup>1</sup> Please see Appendix 1 for an overview of some of the proposals in respect of the five main system requirements - System Inertia, Frequency Response, Reserve Products, Reactive Power and Black Start Power

## Impact for Storage Operators

The impact on storage operators should be positive as there is a general emphasis on flexibility and introducing products that require faster reaction times. These are things that battery storage is well placed to provide. One of the key proposals is to replace the separate enhanced frequency response and firm frequency response products with a single product that can provide the faster response that the grid needs.

That said, there are a number of considerations which could affect the extent to which stOrage is able to play a role in future balancing services products. These include:

- a the term of the contract for each product. A shorter term may help to stimulate price signals but is likely to favour incumbent operators of existing generation assets. A longer term contract is likely to be favoured by investors looking for certainty in revenue streams and could be the key to unlocking a potential storage project;
- b National Grid has made it clear that its strategy is technologically neutral. Storage operators should make the case for how storage could participate in the other balancing services (apart from enhanced and firm frequency response) to ensure it is not overlooked in the design of the technical requirements for these products; and
- c Black Start – National Grid has provided specific details of opportunities that are available for this service that is used to restore the electricity system in the event of a partial or total shut down. Battery storage may be able to play a role in this service to fill the void in the time that larger generating assets take to power up.

Operators of storage assets should respond to the Consultation to make sure their opinions are taken into account by National Grid. The consultation runs until 18 July 2017 and responses should be made via the newly launched Future of Balancing Services website:

<http://www2.nationalgrid.com/UK/Services/Balancing-services/Future-of-balancing-services/>.



## Appendix 1

System Requirements	Future Plans
<b><i>System Inertia and Rate of Change of Frequency (RoCoF)</i></b>	<ul style="list-style-type: none"> <li>• No standalone system inertia product is proposed to be maintained.</li> <li>• Complete the programme to desensitise RoCoF relays. This is likely to take several years to complete.</li> <li>• Continue collaborating in Project Phoenix, which will design, deploy and demonstrate the benefits of a new hybrid synchronous compensator to improve grid stability.</li> </ul>
<b><i>Frequency Response</i></b>	<ul style="list-style-type: none"> <li>• Procure the design and implementation of an improved frequency response product, combining EFR and FRR, by March 2018.</li> <li>• Until such launch, continue to contract for firm needs ahead of time in tendered markets and access close to real-time flexibility in the Balancing Mechanism through mandatory services.</li> </ul>
<b><i>Reserve</i></b>	<ul style="list-style-type: none"> <li>• Standardise current reserve products to increase transparency of their value.</li> <li>• Develop and implement a new reserve product in 2018/19.</li> <li>• Consider new European developments that may affect the design of reserve products to ensure compatibility with pan-European reserve services.</li> </ul>
<b><i>Reactive Power</i></b>	<ul style="list-style-type: none"> <li>• Design a new reactive market which values the reactive power support required and provides location signals by the end of 2018/2019.</li> <li>• Investigate how to reduce the number of technical barriers to distributed energy assets wishing to provide reactive power to the transmission system.</li> </ul>
<b><i>Black Start</i></b>	<ul style="list-style-type: none"> <li>• Consider alternative approaches to system restoration in the event of a partial or total shut down.</li> <li>• Design a more transparent approach to black start procurement which enables greater competition.</li> </ul>

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