

Demand Side Balancing Reserve and Supplemental Balancing Reserve

Supplemental note following the industry workshop on the development and procurement of two new balancing services

Supplemental Note #1 - 22 July 2013

Section 1 - Introduction

- 1 Following our publication in June of a consultation paper on a proposal to procure two new balancing services, “Demand Side Balancing Reserve” (or “DSBR”) and “Supplemental Balancing Reserve” (or “SBR”), we held a workshop for stakeholders on 17th July at the Hilton Birmingham Metropole . Around 100 people from industry, including generators, suppliers, aggregators and users, attended and provided initial views on our proposals. We thank everyone who attended for this feedback.
- 2 A number of themes emerged during the course of the day. This note is intended to provide further clarification and explanation of various aspects of the proposals, which we hope will assist respondents to our consultation document. We will, of course, be reappraising our proposals in the light of responses we receive to the consultation and everything we say here is intended to help in the interpretation of the proposals as described in the consultation paper and not as a response or decision to comments so far received.

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Case for New Balancing Services Not Made

- 3 A view expressed at the workshop was that the case for National Grid procuring these new balancing services had not been made and their procurement represented interference in the market.
- 4 Our proposals are that the purchase of any of the new balancing service would be subject to an evaluation criterion, such that we would organise tenders and purchase them subject to evaluation criteria. Whilst, it may be that the Loss of Load Expectation (LOLE) under scenarios in the latest Capacity Assessment are comparable with the reliability standard that may be defined, it is also the case that the risks are highly asymmetric, such that small increases in plant closures or demand can lead to a significant increase in LOLE and hence we regard it as important to be prepared for such eventualities.
- 5 In respect of the Demand Side Balancing Reserve, the principal aim of this service is to provide an opportunity for the demand side to participate in balancing the system. It is recognised that the current balancing mechanism provided under the Balancing and Settlement Code, with significant costs in terms of Balancing & Settlement Code participation and Grid Code compliance, is not conducive to resources that are small and despatched relatively infrequently. Demand Side Balancing Reserve provides a cost-effective mechanism for such resources to participate in balancing the system.
- 6 As such, we believe it is unnecessary and possibly even unhelpful to regard DSBR as a capacity-related product. The up-front payment we have proposed is not intended as a capacity payment but merely as a set-up fee. This is in recognition of the fact that these are likely to be, in many circumstances, new resources and that a cost will be incurred, if only in management time, in making these available, with uncertainty as to whether they will be despatched. It is also the case that we think this product may continue into the future, including when the capacity market is introduced, i.e. at this stage we see no reason why providers could not both participate in the capacity market and in providing DSBR, in the same way that generators, for example, will be able to participate in both the capacity market and in the Balancing Mechanism.

Other Products Already Exist

- 7 A view expressed at the workshop was that the introduction of new balancing services complicated the market and that we could merely increase our requirement for existing balancing services, in particular Short Term Operating Reserve (STOR), in order to address the potential system balancing problems that are perceived to exist.
- 8 There is a continuum of potential balancing services that we could procure, each with different characteristics, including different periods of availability, different notice periods, different dynamics and so on. STOR is a product that has been designed to cover contingencies in the form of sudden plant loss leading to frequency response being used and having to be replaced to secure the system against subsequent plant loss, and as an

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economic alternative to the Balancing Mechanism. As such, STOR has a short-notice period, specified to be less than 240 minutes but generally less than 20 minutes in order to cater for situations in which the market does not deliver sufficient quantities of part-loaded plant.

- 9 In the case of DSBR, our proposed service has been designed to allow more DSR to compete to provide services in balancing and to minimise the barriers to entry in doing so. Thus we have proposed relatively simple metering, despatch and settlement arrangements which are less onerous than those imposed by the current Balancing Mechanism or STOR systems. We therefore hope that for many providers the proposed DSBR product will be an attractive proposition even if STOR or the balancing mechanism is not.
- 10 In the case of SBR, addressing the issue of potential capacity shortfalls does not require a balancing service with the same characteristics as STOR. Potential system shortfalls that might occur as a consequence of plant loss or demand forecasting errors are already secured by the current holdings of primary frequency response, secondary frequency response and of STOR. Capacity shortfalls identified in longer timescales do not require such sophisticated products to resolve them.
- 11 Whilst purchasing greater quantities of STOR could address the potential issues, other resources that may not have the characteristics required for STOR may also contribute to balancing the system. Moreover a lot of STOR is provided by participants that also participate in the energy market and provide other balancing services. Our concern is thus that we could have to purchase large quantities of STOR from existing participants before we secured additional resources that otherwise would not have been available either at all or at times when the system is tight. This, we believe, would represent a significant cost and inappropriate cost to consumers.
- 12 Consequently, our proposals are to define different balancing services more tailored to the perceived need.

Interference in the Market

- 13 Concerns were expressed that the proposals represented an unacceptable interference in the market.
- 14 Such concerns have been an important consideration in formulating our proposals. We are conscious of the need to avoid a situation where attempts to supplement the balancing resources being provided by the existing arrangements would undermine the position of existing participants and thereby exacerbate the problem we are seeking to solve.
- 15 We have sought to avoid this situation in the design of the two new balancing services.
- 16 For Demand Side Balancing Reserve, we believe that this merely provides an opportunity for demand-side resources to participate in balancing the system, which is an opportunity

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that has previously been denied to them. Arguably, thus, this service is correcting a market distortion (i.e. restricted demand-side participation in balancing) rather than creating one. That said, the economics of demand-side participation are such that we believe that this service will largely augment current balancing service providers rather than displacing them and will largely be a substitute for emergency actions, which can include involuntary reductions or disconnections in demand.

- 17 With Supplemental Balancing Reserve, we recognise that it is important to avoid undermining the position of participants in the existing arrangements. We have sought to ensure that this the case by ensuring that Supplemental Balancing Reserve will not be called until all other resources in the energy market and all other sources of balancing services have been exhausted first. Thus, Supplemental Balancing Reserve will be used only as an alternative to emergency actions and not in place of any resource that participants in existing arrangements are prepared to provide.

Impact on Suppliers

- 18 The view was expressed that DSBR would interfere with the relationship between Suppliers and their customers.
- 19 We appreciate that when end users vary their demand it has an impact on their Supplier in terms of the balance between the amounts of energy that their consumers have taken and the amounts of energy they have contracted for. However, end users may vary their consumption for a whole variety of reasons and Suppliers need either to understand the factors affecting their customers' consumption or to take the risk. We do not understand why one particular reason why end users might vary their demand should be singled out. Nor do we believe that it is appropriate to prevent demand-side balancing service providers from providing services unless they do so through their supplier. In any case, DSBR is mostly likely to be called when the system is tight and hence any spill accruing to the Supplier as a result of their customers reducing demand will be remunerated at relatively high prices.
- 20 Furthermore, if end users, rather than providing DSBR directly, choose to go through an aggregator or agent, then the extent that this has an impact on their Supplier means that their Supplier has the opportunity to provide such a service to their customer more cost-effectively than other aggregators and agents.

Why isn't DSBR more like the proposed Capacity Market?

- 21 Views were expressed about the DSBR proposals to the effect that it should be more demand side participation in the Capacity Market being proposed by Government as part of Electricity Market Reform. It was suggested that up-front payments for DSBR should be higher but that there should be penalties for non-performance, and that without such penalties DSBR would be ineffective. It was suggested also that real-time monitoring would be appropriate.

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- 22 Our proposals for DSBR do not treat DSBR as a capacity product. Instead, as we explain above, we intend that DSBR is merely a means of demand-side resources participating in the balancing mechanism, something which it is currently not cost-effective to do for smaller resources that are not frequently despatched.
- 23 Given that we are trying through DSBR to stimulate new sources of demand-side in a fairly short timescale, we were keen that the proposals did not involve significant risks for DSBR providers. Making significant up-front payments but with onerous obligations and strict penalties for non-performance would expose DSBR providers precisely to such risks.
- 24 Thus we have opted for an approach where providing DSBR involves taking on very little in the way of liabilities and, instead, DSBR providers get paid if they perform and do not if they don't. If payments for performance are comparable to the penalties for non-performance, we see no reason as to why the incentives will be any less effective. Moreover, the stepped payment regime gives even stronger incentives to DSBR providers to perform as declared but, again, through the structure of payments rather than by creating the liability of potential penalties.
- 25 We note also that the Government's Capacity Market proposals will allow generation both to participate in the Capacity Market and participate in the balancing mechanism provided by the Balancing and Settlement Code. Thus, we see no reason why, potentially, it might not be possible for demand-side resources both to provide DSBR whilst also participating in the Capacity Market.