

System operators, transmission  
system owners, generators,  
suppliers, traders, consumers,  
aggregators and other interested  
parties

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Dear colleagues

**Decision to approve National Grid Electricity Transmission's (NGET's) proposed Supplemental Balancing Reserve (SBR) Procurement Methodology and Demand Side Balancing Reserve (DSBR) and SBR Volume Requirement Methodology**

This letter sets out our<sup>1</sup> decision to approve two methodologies associated with NGET's procurement of SBR and DSBR:

- the SBR Procurement Methodology (effective for balancing services to be delivered from 1 April 2016 to 31 March 2017); and
- the DSBR and SBR Volume Requirement Methodology (effective for balancing services to be delivered from 1 April 2016 to 31 March 2018).

These methodologies were submitted to us by NGET under Special Licence Condition 4K.9.

**Background**

SBR and DSBR are balancing services which provide NGET with additional tools to help balance the system in the rare event that there is insufficient capacity in the market to meet demand.

NGET's transmission licence (specifically Special Condition 4K) requires NGET to have in place approved methodologies which detail how it will procure, test and use SBR and DSBR in an economic and efficient way. In order for NGET to recover costs relating to SBR and DSBR, it must demonstrate to us how payments for SBR and DSBR were incurred in accordance with these approved methodologies.

On 23 November 2015, we published our decision<sup>2</sup> to direct that Special Condition 4K applies to two new Relevant Years, specifically 2016/17 and 2017/18. This means that NGET will have access to SBR and DSBR in these years if needed and will be able recover economic and efficient costs associated with the services. Under our direction, NGET are required to submit new methodologies in relation to procuring, testing and utilising SBR and DSBR.

NGET has submitted two of these methodologies for our approval; the SBR Procurement Methodology and the DSBR and SBR Volume Requirement Methodology.

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<sup>1</sup> The terms "the Authority", "Ofgem", "we", and "us" are used interchangeably in this document. The Authority is the Gas and Electricity Markets Authority. Ofgem is the Office of the Authority.

<sup>2</sup> [https://www.ofgem.gov.uk/sites/default/files/docs/decision\\_to\\_extend\\_nbs\\_cost\\_recovery\\_arrangements\\_2.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/decision_to_extend_nbs_cost_recovery_arrangements_2.pdf)

## Our assessment

We have assessed these methodologies<sup>3</sup> against the requirements in Special Condition 4K.4 for the Volume Requirement Methodology and Special Condition 4K.7 for the SBR Procurement Methodology. In addition, we have considered three key factors which we consulted on in June 2013<sup>4</sup>:

- a) NGET's procurement must be economic and efficient and the products must represent value for money to electricity consumers;
- b) NGET's product design and proposed use of the new products must minimise unintended consequences to market participants and the operation of the market; and
- c) NGET's procurement process must be objective and transparent.

Our views on the new methodologies, in particular on the main differences from the previous methodologies, are summarised below.

## SBR Procurement Methodology

The SBR Procurement Methodology sets out the process and criteria NGET uses to award SBR contracts. It defines how the different cost components of SBR tender responses are combined into a single number so that NGET can procure the most economic and efficient options.

We have reviewed the 2016/17 methodology and are satisfied that it meets the requirements in Special Condition 4K.7 and the objectives above. The methodology is largely the same as the methodology approved for 2015/16. In addition to some minor changes and clarifications<sup>5</sup>, the three main differences are:

- Contract rollover – for contracts awarded in 2016/17, there will not be an option for NGET to rollover the contract at the same price in the following year;
- Capacity de-rating – NGET will use the reliability factors it uses operationally when assessing the volume of capacity to procure, rather than providers' own reliability factors;
- Load factor rules – when weighting a tender from a unit with Transmission Entry Capacity (TEC), if the units historical load factor cannot reasonably be assumed to be reflective of future running patterns, NGET will instead use the average load factor of a range of plant with equivalent efficiency factors.

### *Contract rollover*

A contract rollover provision was included in the previous SBR Procurement Methodology as an extra measure to minimise distortion to the market, by helping to ensure SBR is targeted at additional plants. However, NGET has put forward reasons why having this option for SBR contracts signed for 2016/17 may not be in consumers' interests. Firstly, it could lead to higher tender costs. This is because generators with increased fixed costs in 2017/18 may factor the risk of being rolled over into their tender (even though this risk might be low for a number of generators<sup>6</sup>). Secondly, NGET argue that it might prevent a plant from re-entering the market in 2017/18 in the event that market expectations change, which could have a detrimental impact on the functioning of the market.

<sup>3</sup> The methodologies can be found at: <http://www2.nationalgrid.com/UK/Services/Balancing-services/System-security/Contingency-balancing-reserve/SBR-Tender-Documentation/>

<sup>4</sup> <https://www.ofgem.gov.uk/sites/default/files/docs/2013/06/consultation-on-the-potential-requirement-for-new-balancing-services-to-support-an-uncertain-mid.pdf>

<sup>5</sup> Please see the link in footnote 3 for the new and previous methodologies. We are satisfied that the clarifications and minor changes are in line with Special Condition 4K.7 and the objectives above.

<sup>6</sup> This is because the current expectation is that SBR and DSBP may not be needed in 2017/18, and if they are needed, the volume requirement would likely be significantly smaller than in 2016/17.

We agree with NGET that not including a contract rollover provision in the 2016/17 methodology meets the objectives above overall, and is in consumers' interests. There is a risk that this could increase the appeal of SBR to marginal generators and lead to generators using SBR revenue in 2016/17 to gain an unfair advantage in the market in 2017/18. However, we consider that this risk is small, particularly given the pricing of DSBR and SBR into imbalance prices at £3,000/MWh<sup>7</sup> and the expectation that there will be more scarcity in 2016/17 than the following year.

### *Capacity de-rating*

When submitting a SBR tender, providers choose a 'reliability factor' for their unit, which de-rates the unit's capacity to reflect its likely availability. This de-rated capacity feeds into NGET's assessment of the volume to procure. Providers should have an incentive to choose realistic reliability factors because they face penalties and imbalance costs if they do not deliver their tendered availability. Nevertheless, NGET is concerned that there are risks with this approach because providers might still have financial incentive to be overly optimistic or pessimistic about their de-rated capacity.<sup>8</sup> This could lead to inefficient tender outcomes, for example, by leading to a lower level of availability than anticipated. NGET is therefore proposing to use standard de-rating factors for each technology type when assessing the volume to procure.<sup>9</sup>

We consider that NGET's proposed new approach to de-rating will support efficient tender outcomes as it removes the risk that SBR providers' financial incentives or risk appetite could lead to insufficient services being procured. The de-rated volume would instead be based on values which are used operationally by NGET and which would be transparent to all providers. This is in line with objectives (a) and (c).

### *Load factor rules*

SBR is targeted at additional plant. To support this, the SBR Procurement Methodology requires NGET to take account of 'load factors' (the percentage of time a plant runs in the market) when assessing the tender of a unit with TEC.<sup>10</sup> In the previous methodology, where a plant held TEC, its tender cost would be weighted according to its historical load factor over the previous 12 month period, with a higher load factor making the tender appear more expensive. This served as a proxy for the likelihood that the plant would close and therefore provide value to NGET and consumers.

NGET has argued that, in certain situations, solely relying on historical load factors could give some plant an unfair advantage and increase the chance of it procuring non-additional plant (for example, when a generator did not run for reasons other than market conditions). It is therefore proposing that in the new methodology, where a unit's historical load factor cannot reasonably be assumed to be reflective of future running patterns, it will instead use the average load factor of a range of plant with equivalent efficiency factors.

We have reviewed this amendment and agree that it would better target SBR at additional generators. It is therefore in line with objectives (a) and (b).

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<sup>7</sup> This change was introduced from this winter onwards, along with the conclusions of the Electricity Balancing Significant Code Review (our review of the cash-out arrangements). As of 5 November 2015, Demand Control actions are priced into cash-out at an administrative Value of Lost Load (VoLL) of £3,000/MWh, rising to £6,000/MWh in November 2018. SBR and DSBR are now also priced into cash-out at this administrative VoLL which should send a strong signal to parties to respond to scarcity in the market.

<sup>8</sup> Please see NGET's SBR and DSBR Consultation Conclusion Report, September 2015: <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=43345>

<sup>9</sup> We note that this would not impact a provider's ability to submit its own reliability factor as part of its tender (which would set the tendered level of availability the provider is measured against, below which non-delivery charges apply).

<sup>10</sup> Generators that are expected to be closed or mothballed would generally not be expected to hold TEC. However there might be some examples where these generators might continue to hold TEC, for example, when they are located in a constrained part of the network and regaining TEC would be unlikely.

## Volume Requirement Methodology

The Volume Requirement Methodology describes how NGET determines the economic and efficient volume of SBR and DSBR to procure ahead of the winter, including how the minimum aggregate procurement volume is established to meet the Government Reliability Standard. The methodology also includes the process for determining the Volume Cap, which places a limit on the volume NGET can procure.<sup>11</sup> The purpose of the Volume Cap is to minimise unintended consequences for the market and to help avoid an effect where generator decisions to move from the main market to DSBR and SBR, lead to an ever increasing volume of DSBR and SBR being required.

We have reviewed the 2016-18 methodology and are satisfied that it meets the requirements in Special Condition 4K.4 and the objectives above. The methodology is largely the same as the methodology approved for 2015/16. In addition to a few minor changes and clarifications<sup>12</sup>, the main difference is to the Volume Cap calculation.

### *Volume Cap*

Under the previous methodology, the maximum aggregate volume of de-rated SBR and DSBR which could be procured was set at 5% of the average cold spell (ACS) peak demand for each year of the assessment, based on the scenario with the highest demand projections in NGET's Future Energy Scenarios (FES). This volume was approximately equal to NGET's four hour ahead, de-rated Operating Reserve Requirement at the time, which was deemed to be an appropriate value to base the Volume Cap on.<sup>13</sup>

System intermittency has increased over the last few years due to changes in the generation mix. Increased intermittency means NGET has less certainty about whether there will be enough generation available to meet demand in real time, requiring it to hold more reserve to deal with the increased volatility and uncertainty. NGET's de-rated Operating Reserve Requirement at four hours ahead of real time has increased to around 3.7 GW as a result. NGET is therefore proposing to increase the Volume Cap to 6.9% of ACS peak demand for 2016/17 and 2017/18 to reflect this updated requirement (based on the demand projections in the 2015 FES).

NGET considers that reflecting its updated Operating Reserve Requirement in the Volume Cap calculation would better enable it to meet its balancing needs and that a cap of around 3.7GW would continue to limit the impact of DSBR and SBR on the market.<sup>14</sup>

We consider that it is appropriate for NGET to adjust the Volume Cap for 2016/17 and 2017/18 to reflect its current Operating Reserve Requirement value. This will help ensure that there is an appropriate set of possible procurement options for these years, taking into account updated demand and generation volatility projections. This supports objective (a). We also consider that a Volume Cap adjusted to 6.9% of ACS peak demand to reflect these changes will still minimise the risk of individual generators' decision making leading to ever increasing SBR and DSBR volumes. It is therefore in line with objective (b).

It is important to note that the Volume Cap does not set the volume of DSBR and SBR to procure. The economic and efficient volume of DSBR and SBR for NGET to procure is determined by the process set out in the Volume Requirement Methodology. We also note that NGET will need to submit and have in place new approved SBR and DSBR Operational

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<sup>11</sup> See Special Condition 4K.4 (a).

<sup>12</sup> Please see the link in footnote 3 for the new and previous methodologies. We are satisfied that the clarifications and minor changes that have been made are in line with Special Condition 4K.4 and the objectives above.

<sup>13</sup> This is because the Operating Reserve Requirement is the level of energy NGET must always have access to to ensure it is able to respond to unforeseen changes in demand and generation and balance the system.

<sup>14</sup> Please see NGET's SBR and DSBR Consultation Conclusion Report, September 2015

Methodologies for 2016/17, which will set out how it will use and test any DSBR and SBR procured for 2016/17 in a way that minimises any detrimental impacts on the market.

**Our determination**

We are satisfied, having reviewed the information submitted in accordance with Special Conditions 4K.9, 4K.4 and 4K.7, that if applied correctly, these methodologies meet the requirements of Special Condition 4K, our criteria set out above and are in the interests of consumers. Accordingly, we have confirmed to NGET in writing that we have approved these methodologies.

If you have any comments or questions on the content of this letter, please send an email to [soincentive@ofgem.gov.uk](mailto:soincentive@ofgem.gov.uk).

Yours sincerely,

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