

Frequently Asked Questions

Supplemental Balancing Reserve (SBR)

This FAQ document has been written for all potential providers of the Supplemental Balancing Reserve (SBR) service. It is intended to provide a reference point and supplemental guidance to parties and should be read in conjunction with the appropriate documents available on the SBR pages of the website.

Version 1.0 2nd September 2014

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INTRODUCTION

What is Supplemental Balancing Reserve (SBR)?

SBR is designed to provide additional reserves to support National Grid in balancing the transmission system if there is insufficient generating plant available in the market to meet the Government's Reliability Standard.

The service involves contracting with generation that would otherwise be closed or mothballed. This would be held in reserve outside the market ready to respond in the unlikely event that it is needed. SBR would fall under the direct control of the System Operator, and be despatched only as a last resort to avoid taking emergency actions such as involuntary demand reductions to secure the transmission system.

SBR plant will be required to be available on weekdays between 6am and 8pm from the beginning of November to the end of February, and either have a gas connection or have sufficient fuel stocks available to run during the availability period for 5 consecutive service windows (i.e. 6am – 8pm).

Who can participate?

SBR is targeted at those providers able to provide additional capacity over and above that already available in the electricity or balancing markets – e.g. plant that would otherwise be closed or mothballed that could provide 'additional' reserves to support National Grid in balancing the transmission system. However, noting that SBR plant would be prohibited from participating in the markets for energy and other balancing services throughout the contract term and also that SBR is a last resort service called after other balancing services, tenders will be invited from any generating plant that could be made available during this winter and which satisfies the SBR participation requirements.

Can I tender a part Balancing Mechanism Unit (BMU)?

In certain circumstances, part BMUs may be able to participate in the provision of SBR (e.g. the steam unit of a CCGT, or additional capacity from a Unit that does not participate in the market). Please see the SBR tender sheets & associated guidance note for further information.

Does my plant need to hold Transmission Entry Capacity (TEC)?

SBR providers would not be required to hold TEC in order to deliver SBR capability to the transmission system but would be granted, to the extent necessary, sufficient transmission access rights under the SBR Contract whenever the SBR plant is dispatched.

However, SBR plant will need to be party to either a Bilateral Connection Agreement or Bilateral Embedded Generation Agreement with National Grid; to have registered a dedicated Balancing Mechanism Unit (BMU) and have the necessary control and monitoring facilities installed to enable it to be despatched directly by National Grid, in our role as System Operator.

Can I provide SBR and another service concurrently?

No. Contracts are for a 12 month period and SBR plant would be held outside the wholesale electricity and balancing markets for the contract term. By entering into an SBR contract, providers will also be agreeing to the facility to extend the contract on a per annum basis for a maximum of two years if required. The only exception is if providers hold a Black Start contract.

BACKGROUND

When will National Grid procure SBR?

SBR is designed to provide additional reserves to support National Grid in balancing the transmission system if there is insufficient generating plant available in the market to meet the Government's Reliability Standard.

A SBR tender for winter 2014/15 opened on 2nd September 2014 to run for 4 weeks. The volume contracted will depend on prices submitted in the tender and clarity regarding the level of plant available in the market for the winter period.

The 2015/16 requirement is envisaged to be subject to two separate tender events alongside Demand Side Balancing Reserve (DSBR) product. These tender events are currently scheduled for Autumn 2015 and early Spring 2016.

The tender process will be open and transparent, available to all parties that meet the participation criteria, with all relevant information provided to potential bidders ahead of the tender process.

Tenderers would be invited to offer a quantity of SBR Capability (in MW), declare a reliability factor, and submit Capability, BM Start-Up, Hot Standby and Utilisation prices. Potential providers would also be required to submit a range of dynamic parameters relevant to their plant as per the Grid Code.

Annual contracts will be offered for the provision of SBR, and these will include an option in favour of National Grid to extend on a per annum basis for a maximum of two years should there be an ongoing requirement for the service.

Does size of Unit(s) matter?

No, there is not a minimum size requirement for SBR plant. Plant will be required to hold either a bilateral connection agreement or a bilateral embedded generation agreement with National Grid.

Does National Grid have a geographical location preference for Unit(s)?

National Grid does not have a geographical preference for Units and location will not be considered as part of the economic assessment.

What is your overall SBR volume requirement?

In June 2014, we assessed the security of supply outlook over the next four years and, by applying the agreed Volume Requirement Methodology, established a volume of DSBR and SBR that we wish to procure from the market over this period. This is based on the equivalent volume of additional capacity that would be required to achieve the Government's Reliability Standard of a 3 hours Loss of Load Expectation (LoLE) against a range of credible scenarios and sensitivities. This analysis was based on our updated Future Energy Scenarios which will be published in July 2014. The volume requirements determined for the next four years are shown in the table below:

Year	Maximum De-rated Target Volume
2014/15	330MW
2015/16	1,800MW
2016/17	1,300MW
2017/18	800MW

These represent the maximum volumes required and we would look to procure up to these volumes. The actual volume contracted for will be that which delivers best value to consumers, balancing costs against the value of lost load in accordance with the methodology, and will depend on the prices submitted in the tenders for these services.

Note that these volume requirements are de-rated values, and the actual volume procured will depend on how individual DSBR and SBR resources are 'de-rated'. For example, if the 2014/15 requirement is met by DSBR which we propose to de-rate initially to 75%, the actual volume procured will be up to 440MW in order to meet the 330MW de-rated requirement.

Given the modest requirement identified for winter 2014/15, it was initially decided that this would be met via a pilot of the new DSBR service. SBR would only be procured alongside DSBR for the winter of 2015/16 when the requirement becomes more material.

However, the recent fires at Ferrybridge and Ironbridge, an announcement regarding the possible closure of Barking and the investigations underway at Heysham//Hartlepool have introduced some additional uncertainty in the security of supply outlook for the winter of 2014/15. In response, we have decided to invite tenders for the provision of SBR this winter as a precautionary measure. If it becomes clear that there is a need for this service, we will then be in a position to offer SBR contracts to meet this requirement.

TENDER INFORMATION

How many tender rounds are there going to be?

The requirement for 2014/15 will be tendered for as part of the September 2014 tendering event.

National Grid expects to tender the 2015/16 requirement across two tender events with up to 75% of the total requirement being tendered in Autumn 2014. This will allow contacts to be established in 2014, and provide any successfully tendered generation plant that is currently "mothballed" sufficient time to be returned to service for the winter of 2015/16. Tendering for a larger proportion of the requirement at this early stage will also help provide certainty to both SBR and DSBR providers that their services will be required, as well as providing us with greater certainty that the required volumes can be achieved.

For the 2015/16, tenders will be invited for both DSBR and SBR in accordance with the approved DSBR and SBR Procurement Methodologies, with the most competitive tenders offered a contract.

At least 25% of the 2015/16 requirement (plus any volumes not contracted in the earlier round) will be tendered in early Spring 2015. This will provide a further opportunity for those unable to participate, or who were unsuccessful in the earlier tender. However, whereas the first 2015/16 tender event may be more suited to SBR because of the longer lead time, the second may be more suited to facilitating the growth of the new DSBR service, with this tender event running closer to the point of delivery.

The ongoing need for these services will be reviewed early in 2016 via an industry consultation process. This will also consider the ongoing need for DSBR given that the transitional arrangements for DSR participation in the Capacity Market are expected to go live at this time.

If an ongoing need for these services is identified, and funding is approved by Ofgem, this will be met by rolling forward existing SBR contracts and/or tendering for SBR and possibly DSBR early in 2016 and 2017.

What does the tender involve?

The tendering process is similar to that used to procure other balancing services. It is a transparent process, open to all parties that meet the participation criteria, with information provided to potential bidders ahead of the tender process.

Tenderers will be invited to offer a quantity of SBR capability in MW, declare their reliability factor, and submit capability, availability and utilisation prices.

The tender documentation will also require providers to submit a range of dynamic parameters relevant to their plant as per the Grid Code.

If the Unit or part Unit can be despatched within operational timescales, then all instructions will be via the Balancing Mechanism. For those Units or part Units unable for despatch within BM timescales without prior warning, providers will be required to provide BM Start Up and Hot Standby services capable of reaching full load within 24 hours of instruction.

Is the deadline day for tender submission absolute?

Yes. The deadline date will be detailed in the relevant Invitation to Tender letter.

What is the reliability factor?

The Reliability Factor is the tendered level of availability for the plant, below which non-delivery charges will apply and will be considered as part of the economic assessment.

Is the SBR tender binding?

No, plant will be offered a contract if successful in the tender process and will have the option to accept or reject the contract offer. The contract will become binding on contract signature by both parties.

If a tender is rejected, is the Plant free to participate in other markets if economic to do so?

Yes.

If a tender is accepted but National Grid do not exercise their right to extend then is the Plant free to participate in other markets if economic to do so?

National Grid will notify providers of its intention to extend the initial SBR contract by 31st May in the relevant year. If National Grid has not exercised its right to extend at this point, the contract will terminate on 30th September in the relevant year, with providers free to participate in other markets from that point

At what point does National Grid's right to extend the SBR contract expire after the winter period?

National Grid will notify providers of its intentions as to whether it will extend the initial SBR contract by 31st May in the relevant year.

The option to extend means we have to price maintenance and uncertainties into year 1 price, why not have option subject to mutual agreement or price renegotiation?

Should National Grid choose to extend the SBR contract, all pricing related parameters will be inflated by the percentage increase in RPI from 1st October to 1st October in the relevant year.

ASSESSMENT

How will National Grid assess SBR Tenders?

The cost of each SBR tender will be determined in accordance with the SBR Procurement Methodology.

SBR Cost = Capability Price + Availability Costs + Testing Costs + Utilisation Costs + Contracts Costs

The Capability Price is the annual cost tendered to establish the SBR capability. The Availability Cost represents a forecast for making the SBR plant available for despatch in operational timescales via BM Start Up and Hot Standby instructions. Testing Costs represent the cost of monthly proving tests. Utilisation Cost is a forecast cost of running the plant, either inside or outside the BM. The Contract Cost is an estimate of the costs of setting up, administering and operating each SBR contract.

The unit cost will be determined as:

SBR Unit Cost (£/MW) = SBR Cost / ΔEEU

Where ΔEEU is the anticipated reduction in energy unserved that would result from the additional SBR capability, taking account of the declared reliability factor of the plant. When tendered together, SBR and DSBR Units will be assessed together and accepted in ascending unit cost order, subject to the unit cost of each tender being less than the Value of Lost Load (VoLL).

This process will continue until either the volume requirement is met or no economic tenders remain. The results of each SBR tender will be published after the tender assessment, including volumes and costs.

CONTRACT AWARD

How will National Grid notify us of acceptance/rejection of tenders?

National Grid will notify each SBR Provider via letter.

DESPATCH & OPERATION OF THE SERVICE

Can National Grid dispatch a proportion of the MW tendered?

Yes, subject to declared min & max despatchable volume parameters as submitted in the tender.

When will I be instructed?

SBR will be despatched by the System Operator and will not otherwise be permitted to run, thus holding it outside the market. It will either be despatched post Gate Closure through the acceptance of Bids / Offers in the Balancing Mechanism at the tendered utilisation price, or pre Gate Closure by instructing SBR to submit a profile of Physical Notifications and operate to that profile.

Where despatch post Gate Closure is limited by plant dynamics, tenderers will be required to provide a BM Start Up / Hot Standby service that delivers the full contracted SBR capability within 24 hours of instruction. This will be enabled by BM Start-up and Hot Standby provisions in the SBR contract.

In principle, SBR will only be despatched as a last resort after all other feasible balancing actions available in the market (including DSBR) have been or are expected to be exhausted, and Emergency Instructions (such as involuntary demand reductions) would otherwise be required to secure the system. In practice, due to plant dynamics, it may be necessary to despatch SBR ahead of need in anticipation of a shortfall event. However, the intention is to minimise any such effects so as not to deprive marginal plant of scarcity rents.

Unlike operating reserves which are required to deal with unexpected events in short timescales, the requirement for SBR is likely to emerge ahead of need. In such circumstances, SBR would be warmed (if required) via a BM Start-up instruction such that it is available to be despatched if needed within operational timescales.

How are signals received from National Grid in relation to an instruction?

Dispatch instructions will be issued via EDT and other appropriate Control telephony.

Will the wider industry be made aware of a SBR instruction?

Information regarding instruction and testing of SBR will be made available to wider industry via the BM reports website. We will not deplete our operating reserves and frequency response holdings before despatching SBR, as this would make the system insecure. These balancing services would continue to be required to deal with any short-term operational issues that might arise.

How will National Grid measure delivery?

If instructed as a BM Bid / Offer acceptance after Gate Closure, the SBR provider would be required to submit BM prices consistent with utilisation prices in the contract (or at zero for non-proving tests), and SBR plant would receive payment through the Balancing Mechanism settlement arrangements. If instructed ahead of Gate Closure outside the Balancing Mechanism by requiring the submission of a non-zero Final Plant Notification (FPN), an Energy Contract Volume Notification (ECVN) would be submitted to remove any payment through the imbalance settlement arrangements, and utilisation would be paid at the tendered rate under the SBR contract.

Can the service volume, capability or service duration be increased/decreased post tender assessment?

No.

Can I substitute or replace Contracted Unit(s)?

No.

What are the periods I have to be available for?

SBR Plant is required to be available on weekdays between 6am and 8pm during November to February and would be prohibited from participating in the markets for energy and other balancing services (with the exception of Black Start) for the entire duration of the contract (not just the winter availability period within the term of the contract).

SBR providers would not, by virtue of the terms of the SBR contract, be able to exit the contract and re-enter the market during this period, even if wholesale market conditions were to change.

How long do I have to sustain utilisation for?

In principle, SBR will only be despatched as a last resort after all other feasible balancing actions available in the market (including DSBR) have been or are expected to be exhausted, and Emergency Instructions (such as involuntary demand reductions) would otherwise be required to secure the system. Plant dynamics will be consistent with tendered parameters when issuing an instruction.

Can I make myself unavailable?

No. Once a tender has been accepted, tendered service availability is assumed to be available with no mechanism to declare unavailability.

Please note: each SBR provider will be subject to non-delivery charges where actual availability falls below that declared in the tender, thus providing an incentive to maintain reliability to at least this level. Please see Payment section below for more information.

How will I be instructed?

SBR will only be despatched by the System Operator and will not otherwise be permitted to run, thus holding it outside the market. Plant would either be despatched through the acceptance of Bids/Offer in the Balancing Mechanism at the tendered Utilisation Price, or pre Gate Closure by instructing SBR to submit a profile of Physical Notifications and operate to that profile.

Where despatch post Gate Closure is limited by plant dynamics, tenderers will be required to provide a BM Start Up / Hot Standby service that delivers the full contracted SBR capability within 24 hours of instruction. Despatch will be enabled by BM Start-Up and Hot Standby provisions in the SBR contract.

In principle, SBR will only be despatched as a last resort after all other feasible balancing actions available in the market (including DSBR) have been or are expected to be exhausted, and Emergency Instructions (such as involuntary demand reductions) would otherwise be required to secure the system. In practice, due to plant dynamics, it may be necessary to despatch SBR ahead of need in anticipation of a shortfall event. However, the intention is to minimise any such effects so as not to deprive marginal plant of scarcity rents.

Unlike operating reserves which are required to deal with unexpected events in short timescales, the requirement for SBR is likely to emerge ahead of need. In such circumstances, SBR would be warmed (if required) via a BM Start-Up instruction such that it is available to be despatched if needed within operational timescales.

What type of equipment is required for SBR?

SBR Plant will need to have the necessary control and monitoring facilities installed to enable it to be despatched directly by the System Operator, including but not limited to EDL, EDT and appropriate control telephony.

PAYMENTS

What payments are available for this service?

Capability payments would be paid at the tendered price net of any non-delivery charges. These non-delivery charges would only apply if the actual availability falls below that declared in the tender, thus providing an incentive to maintain reliability to at least this level.

$$\text{Non Delivery Charge} = 2 \times \text{Capability Payment} \times (1 - \text{RF}_A / \text{RF}_T)$$

Where RF_A is the actual reliability of the plant measured through monthly proving tests and 'last resort' despatch instructions, and RF_T is the tendered reliability factor. These non-delivery charges would be capped at the capability payment such that payments would reduce to zero if the plant fails to deliver when instructed, either in the balancing mechanism or as part of the BM Start Up / Hot Standby provisions as contained within the SBR contract.

SBR providers would receive payment at their tendered rates for any Start-Up / Hot Standby instructions, proving tests and utilisation instructed by the System Operator.

When are payments due?

SBR providers would be paid monthly in arrears from November through to February for the provision of SBR.

Is the Tendered Capability Price a single figure to cover the 12 month period, with the ability to be indexed for possible contract extension?

Yes, the Capability Price is a single figure and covers the 12 month period. Should National Grid choose to extend the SBR contract, all pricing related parameters will be inflated by the percentage increase in RPI from 1st October to 1st October in the relevant year.

TESTING & FAILURES

Will National Grid test our Units?

SBR plant will be subject to monthly proving tests. These tests, together with 'last resort' despatch instructions will be used to measure the actual reliability of the plant, which will be compared to the tendered reliability factor in calculating any non delivery charges.

What are Non-Proving Tests?

Some plant may be required to undertake additional non-proving tests to ensure its availability (e.g. when re-commissioning after a period of inactivity, testing following maintenance etc).

Any such non-proving tests will be agreed in advance with the System Operator and undertaken so as not to disadvantage other plant operating in the market. The cost of any such tests will be funded by the SBR provider.

What penalties are there?

Where the actual reliability of the plant, measured through monthly proving tests and 'last resort' despatch instructions, is less than the tendered reliability of the plant; non-delivery charge apply. These non-delivery charges would be capped at the capability payment, such that payments would reduce to zero if the plant fails to deliver every time it is called.

SBR providers would receive payment at their tendered rates for any Start-up/Hot Standby instructions, proving tests and utilisation instructed by the System Operator.

When does testing occur?

Monthly proving tests will take place during the months November, December, January and February and will be instructed by the System Operator at times that do not disadvantage other plant operating in the market.

WHERE CAN I FIND MORE DETAIL ...?

More detail on the SBR Service can be found on the following webpage:

<http://www.nationalgrid.com/uk/electricity/additionalmeasures>