

## Industry Consultation

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Proposed Revisions to the  
Balancing Principles Statement,  
Balancing Services Adjustment Data Methodology Statement,  
System Management Action Flagging Methodology Statement.

Changes for BSC Modification P305, DSBR and SBR and general  
clarifications

In accordance with Standard Condition 16 (C16) of its Electricity Transmission Licence, should National Grid consider that a modification should be made to the statement to more accurately reflect its system management methodology, a review of the statement shall be undertaken with changes proposed as necessary.

## Executive Summary

This interim consultation proposes revisions to the C16 Statements for three broad purposes:

1. Consequential changes resulting from the Balancing and Settlement Code (BSC) modification P305
2. Changes to the treatment of Supplemental Balancing Reserve (SBR) and Demand Side Balancing Reserve (DSBR) in the imbalance price calculation
3. General changes for clarification

These are standalone changes and it is our intention that they are considered independently of each other. Respondents are requested to consider and comment on the proposed changes individually; and also to provide views on which combination of changes should take effect.

In line with modification P305, our recommended implementation date for these changes is **5<sup>th</sup> November 2015**.

### 1. Consequential Changes Resulting from Modification P305

On 2<sup>nd</sup> April 2015 Ofgem published the Authority Decision directing that the BSC modification P305<sup>1</sup> - Electricity Balancing Significant Code Review (EBSCR) Developments - be made. This modification gives effect to the EBSCR reforms to cash-out arrangements detailed in the EBSCR Final Policy Decision<sup>2</sup> due to be implemented on 5<sup>th</sup> November 2015.

In assessing the impacts resulting from P305 a number of consequential changes were identified to the Balancing Services Adjustment Data methodology statement (BSAD) and the System Management Action Flagging methodology statement (SMAF). Briefly these are:

- Introducing automatic Low Frequency Demand Disconnection (LFDD) under 'Emergency Instructions' as a category of action that is subject to SO-Flagging in the SMAF.
- Adding automatic Low Frequency Demand Disconnection to the definition of 'System Management' in the SMAF.
- Updating the BSAD to reflect the inclusion of Non-BM Short Term Operating Reserve (STOR) actions into the imbalance price calculation.
- Updating the BSAD to remove references to the STOR option fees from the calculation of the Buy Price Adjustor (BPA).

### 2. Changes to the treatment of SBR and DSBR in the imbalance price calculation

National Grid is contracting for additional balancing reserve services for this winter (November 2015 to February 2016). These proposed changes follow our Open Letter of 15<sup>th</sup> June 2015<sup>3</sup> seeking views on our proposed solution for incorporating the services into the imbalance price calculation which is to price both SBR and DSBR at the Value of Lost Load (VoLL<sup>4</sup>) when they are used to avoid demand control and to SO-flag the elements of SBR such as testing, ramping and running at or below their Stable Export Limit (SEL). We

<sup>1</sup> <https://www.elexon.co.uk/mod-proposal/p305/>

<sup>2</sup> <https://www.ofgem.gov.uk/electricity/wholesale-market/market-efficiency-review-and-reform/electricity-balancing-significant-code-review>

<sup>3</sup> <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=41433>

<sup>4</sup> This is the figure established in the Electricity Balancing Significant Code Review and BSC Mod P305 (i.e. £3000/MWh from November 2015 rising to £6000/MWh in 2018).

received 11 responses to this Open Letter which were generally supportive of the proposed approach (see Appendix E for more information).

As such we are proposing the following changes to reflect this approach in the C16 statements:

- Introducing SBR and DSBR actions as a category of action that is subject to SO-Flagging in the SMAF and clarifying how these services will be treated in terms of SO-flagging.
- Updating the BSAD to reflect the inclusion of DSBR actions into the imbalance price calculation.
- Outlining the use of the Buy Price Adjuster (BPA) as a means of reflecting the value of an SBR action (i.e. as opposed to its submitted bid-offer price) within the imbalance calculation<sup>5</sup>.

### 3. General changes for clarification

As part of a more general review of the ongoing suitability of existing definitions, we are proposing:

- Including Rate of Change of Frequency (RoCoF) management and Fault Level management actions in the definition of 'System Management' in the SMAF;
- Updating the Balancing Principles Statement (BPS) description of the process for assessing DSBR tenders (for the avoidance of doubt, this change is not dependent on changes to the treatment of DSBR actions in the imbalance price).

As such, this consultation proposes changes to each of the following C16 Statements:

- Balancing Principles Statement (BPS)
- Balancing Services Adjustment Data Methodology Statement (BSAD)
- System Management Action Flagging Methodology Statement (SMAF)

The options associated with the proposed changes to the C16 Statements are offered independently of each other, for respondents to support, amend and/or comment on, taking the form of:

	Agree / Disagree
1. P305 changes	✓ ✗
2. SBR and DSBR cash-out changes	✓ ✗
3.(i) RoCoF and Fault Levels in SMAF	✓ ✗
3.(ii) DSBR description in BPS	✓ ✗

Change-marked C16 Statements are provided showing changes to the C16 Statements for each category of changes given above, and are included as appendices to this consultation document.

National Grid welcomes industry views on the proposed changes, and invites views on any other aspects of the documents for further consideration.

<sup>5</sup> This is as per [BSC modification P323](#) and the change to the BSAD is dependent on P323 being approved by the Authority.

Responses are required by **10 September 2015**. Details on how to make a response can be found in Section 7.

Following consideration of responses to this consultation, National Grid will prepare and submit a report to the Authority by **17 September 2015**. This consultation, industry responses and the consultation report will all be published at the link below:

<http://www2.nationalgrid.com/uk/industry-information/electricity-codes/balancing-framework/c16-consultations/>

The current suite of C16 statements can be found at the following link

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Balancing-framework/Transmission-license-C16-statements/>

If you have any questions about this document please contact

[balancingservices@nationalgrid.com](mailto:balancingservices@nationalgrid.com)

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## 1 Introduction

In accordance with Standard Condition C16 (C16) of its Electricity Transmission Licence, whenever National Grid considers that a modification should be made to the C16 Licence Statements to more accurately reflect their intended purpose, National Grid should review the statements and promptly seek to establish revised statements approved by the Authority.

The purpose of this consultation is to inform BSC parties of proposed changes to the C16 statements and allow them to make representations accordingly.

## 2 Background to the Proposed Changes

On 2<sup>nd</sup> April 2015 Ofgem published the Authority Decision directing that BSC modification P305 (EBSCR Developments) be made. This has a number of direct implications for the C16 Statements:

- Non-BM STOR actions are introduced into the cash-out price calculation (requiring an update to the BSAD);
- Option fees that are currently paid for STOR availability are removed from the BPA, (requiring an update to the BSAD);
- Automatic Low Frequency Demand Disconnection actions become a category of action that is subject to SO-Flagging in the SMAF and require adding to the definition of 'System Management' in the SMAF.

In 2015/16, National Grid is contracting for its second winter SBR and DSBR balancing services. These services are not currently accounted for in the calculation of the cash-out price. Last year we consulted with industry<sup>6</sup> for views on how these services should be incorporated into cash-out. The majority response was that the services should be priced at the Value of Lost Load (VoLL) as defined within the EBSCR policies, such as for pricing manually-instructed Demand Control, and that this should only be implemented if the EBSCR reforms are in effect<sup>7</sup>. P305 changes are now due to be implemented on 5<sup>th</sup> November 2015. Following an Industry Workshop in February 2015 and an Open Letter consultation that was published to industry on 15<sup>th</sup> June 2015 we are now proposing changes to the treatment of SBR and DSBR actions.

Incorporating SBR and DSBR into the cash-out price calculation requires changing the C16 Statements as follows:

- Introducing SBR and DSBR actions as a category of action that is subject to SO-Flagging in the SMAF and clarifying how these services will be treated in terms of SO-flagging.
- Updating the BSAD to reflect the inclusion of DSBR actions into the imbalance price calculation.
- Outlining the use of the Buy Price Adjuster (BPA) as a means of reflecting the value of an SBR action (i.e. as opposed to its submitted bid-offer price) within the imbalance calculation<sup>8</sup>.

Finally, as part of this interim process of reviewing the statements we have identified a small number of changes that we propose revising to improve clarity. These are:

- Including Rate of Change of Frequency (RoCoF) management and Fault Level management actions in the definition of 'System Management' in the SMAF; and

<sup>6</sup> <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=34385>

<sup>7</sup> Since SBR and DSBR are both presented as emergency actions to be used as a 'last resort' to avoid involuntary demand curtailment, they should be treated as equivalent to demand control actions which are only priced into cash-out on implementation of P305.

<sup>8</sup> This is as per [BSC modification P323](#).

- Updating the Balancing Principles Statement (BPS) description of the process for assessing DSBR tenders (for the avoidance of doubt, this change is not dependent on changes to the treatment of DSBR actions in the imbalance price).

The sections that follow detail the specific proposed revisions and accompanying rationale to support the above proposed changes.

### 3 Proposed Changes to the BSAD Methodology Statement

Relevant consequential changes from P305 to the BSAD:

- Non-BM STOR actions will be introduced into the cash-out price;
- Option fees that are paid for STOR availability will be removed from the BPA;

Relevant changes to the BSAD to incorporate SBR and DSBR into the cash-out calculation:

- DSBR actions to feed into the cash-out price;
- Use of the Buy Price Adjuster (BPA) to reflect the value of SBR despatch within the imbalance calculation.

To capture these changes we propose the following amendments:

Colour code: **red denotes generic change**  
**blue denotes P305 change**  
**green denotes SBR/DSBR change**

ID	Purpose of Change	Reference	Change
3.1	Version control change	Title Page	Change to <b>Effective Date</b> Change to <b>Version Number</b>
3.2		Page 3 Version Control Table	Insertion of a new version control entry which will include <b>“Revisions: to allow Non-BM STOR to feed into the cash-out calculation; to remove STOR option fees from the BPA calculation; and to allow SBR and DSBR actions to feed into the cash-out calculation”</b>
3.3	Removal of STOR from BPA	Page 5 Contents Page	Deletion of <b>“Appendix A Calculation and Publication of Short Term Operating Reserve (STOR) Weighting Factors”</b>
3.4	Explicitly include non-BM STOR actions into the cash-out calculation	Page 8, Part B Sec 2	Insertion of <b>“Any relevant balancing service including non-BM Short Term Operating Reserve (STOR) actions, taken outside the Balancing Mechanism, will be provided through BSAD as a Balancing Service Adjustment Action.”</b>
3.5	Allow non-BM STOR and DSBR actions to feed into the calculation. Omit DSBR test actions.	Page 9, Part B Sec 2	Insertion of <b>“DSBR actions will feed into the BSAD in post-event re-submission(s). For the avoidance of doubt, volumes and prices of <del>both non-BM STOR and DSBR test actions are covered via separate balancing services contracts and</del> do not <del>therefore</del> feed into the energy imbalance price calculation <del>at present</del>”</b>
3.6	Detail the incorporation of DSBR and SBR actions into	Page 10, Part B Sec 2.1	<b><u>Demand Side Balancing Reserve (DSBR)</u></b> <b>All DSBR actions, except those taken for testing the service, will be included as Balancing Service Adjustment Actions. For the avoidance of doubt, the volumes and costs of DSBR actions taken for test purposes do not feed into the energy imbalance</b>

ID	Purpose of Change	Reference	Change
	the imbalance price		<p>price calculation.</p> <p>For the purpose of calculating the energy imbalance price, the Balancing Service Adjustment Volume for DSBR will be the aggregated instructed volumes of all DSBR actions within a particular settlement period, multiplied by the prevailing de-rating factor for DSBR. The price associated with each DSBR action that will form the Balancing Service Adjustment Cost will be the prevailing Value of Lost Load (VoLL) provided under Section 1.12 of the BSC.</p> <p><b>Supplemental Balancing Reserve (SBR)</b></p> <p>For the avoidance of doubt, SBR volumes and prices will be included in the energy imbalance calculation as Bid-Offer Acceptances (BOAs) in the Balancing Mechanism (BM). It is only in the event that an SBR unit is instructed above its Stable Export Limit (SEL) that the BPA is utilised as set out in 3.1.1 below.</p>
3.7	Removal of STOR from the BPA	Page 13, Part B Sec 3	Insertion of “With the exception of STOR services, <del>Where where</del> National Grid pays option fees...”
3.8		Page 13, Part B Sec 3.1	<p>Amendment to calculation of BPA, replacement of:</p> $BPA_j = \frac{[(\sum SC) * wf_j] + (\sum RC_j) + (\sum FC_j)}{(cS_j + cR_j + cF_j)} + \sum \frac{BC}{cB}$ <p>...with the following:</p> $BPA_j = \frac{(\sum RC_j + \sum FC_j)}{(cR_j + cF_j)} + \sum \frac{BC}{cB}$ <p>Including relevant change to the notations that follow.</p>
3.9		Page 14, Part B Sec 3.1.1	<p>Deletion of: “<b>Short Term Operating Reserve (STOR)</b> In these contracts National Grid will pay option fees either in £/h or £/MWh for service availability during specific half-hour periods. Utilisation payments for participants within the Balancing Mechanism will be dealt with automatically via the BM and will feed into the energy imbalance price calculation via the acceptance of an Offer. STOR Option Fees feed into the calculation of BPA and will be allocated into specific settlement periods in accordance with the weighting factors set out in Appendix A.”</p>
3.10		Page 16, Part B Sec 3.1.2	Worked Example – Buy Price Adjuster: changes to the worked example to remove STOR from the BPA
3.11	Use of BPA to reflect SBR despatch into the imbalance price	Page 15, Part B Sec 3.1.1	Insertion of “In the event that SBR units are instructed above SEL as a result of system need (i.e. not as part of testing requirements), the BPA will be manually amended retrospectively to enable this volume above SEL to be priced at the Value of Lost Load as set out in Sections Q and T of the BSC and detailed in BSCP18.”
3.12	Add DSBR and SBR actions to	Page 19, Part C Sec 1	Insertion of “The costs and volumes of DSBR actions, System-to-System services, ... will be included in a post event re-submission(s) of BSAD...”
3.13	those which will be included in post event BSAD re-submission	Page 20, Part C Sec 3	Insertion of “The BSAD will be re-submitted, if required, post event to cover: ... Inclusion of DSBR actions...Revision of BPA to reflect SBR actions...”

ID	Purpose of Change	Reference	Change
	(s)		
3.14	Removal of STOR from the BPA	Page 22-27 Appendix A	Deletion of the whole <a href="#">Appendix A: Calculation and Publication of Short Term Operating Reserve (STOR) Weighting Factors</a>

## 4 Proposed Changes to the SMAF Methodology Statement

Relevant consequential changes from P305 to the SMAF:

- Automatic LFDD relays will be treated as a balancing measure that is subject to SO-flagging and defined as 'System Management' actions and SO-flagged

Relevant changes to the SMAF to incorporate SBR and DSBR into the cash-out calculation:

- Introduction of SBR and DSBR actions as balancing measures that are subject to SO-flagging
- Description of how different aspects of SBR actions (e.g. ramping up / down, volumes above and below Stable Export Limit (SEL) and testing) should be treated in terms of SO-flagging

Other changes to the SMAF for more general purposes:

- Inclusion of actions that help the management of RoCoF<sup>9</sup> or Fault Levels<sup>10</sup> as a category of System Management

To capture these changes we propose the following amendments:

Colour code: **red denotes generic change;**  
**blue denotes P305 change;**  
**green denotes SBR/DSBR change**  
**purple denotes other**

ID	Purpose of Change	Reference	Change
4.1	Version control change	Title Page	Change to <b>Effective Date</b> Change to <b>Version Number</b>
4.2		Page 2 Version Control Table	Insertion of a new version control entry which will include " <b>Revisions: to include actions to manage RoCoF and Fault Levels; to include automatic Low Frequency Demand Disconnection actions; to incorporate changes to the treatment of Supplemental Balancing Reserve and Demand Side Balancing Reserve.</b> "
4.3	Detail the aspects of SBR that are counted as System Management	Page 7 Part B Sec 1	Change to: "System Management means: ...4. any balancing action used to despatch <del>the</del> Supplemental Balancing Reserve <b>for the purposes of testing the service</b> whether though or outside the Balancing Mechanism; <b>5. any balancing action used to despatch Supplemental Balancing Reserve up to (and including output at) the Stable Export Limit of the relevant BM Unit;</b>
4.4	Include automatic	Page 7	Insertion of "System Management means: ... <b>7. any</b>

<sup>9</sup> RoCoF stands for Rate of Change of Frequency and is a parameter of electricity transmission system operation that can require pre-fault management to mitigate the risk that generation with sensitive protection settings might trip off in the event of a significant system event (e.g. plant loss).

<sup>10</sup> Fault levels require careful management as the transmission system must be configured pre-fault to ensure that, should a fault take place, fault current levels are maintained within the limits of transmission assets.

ID	Purpose of Change	Reference	Change
	LFDD relays within the definition of System Management	Part B Sec 1	incidents of automatic Low Frequency Demand Disconnection relays;
4.5	Include RoCoF and fault level management actions within the definition of System Management	Page 8 Part B Sec 1	Insertion of "System Management means: 6. any balancing action used by National Grid primarily to manage the Rate of Change of Frequency (RoCoF) or to manage fault levels."
4.6	Clarification of Emergency Deenergisation Instructions as an emergency action	Page 10 Part B Sec 2	Change to: " <del>There is one form of emergency action that</del> Emergency Deenergisation Instructions will always be classified as being for system management reasons and will consequentially always be SO-Flagged <del>—Emergency Deenergisation Instructions.</del> "
4.7	Expansion of Emergency Instructions (in relation to those balancing services that are assessed to determine which have been used for system management reasons) to include automatic Low Frequency Demand Disconnection actions	Page 10 Part B Sec 2	Insertion of: " <i>Automatic Low Frequency Demand Disconnection (LFDD) actions</i> Automatic LFDD incidents will always be classified as occurring for system management reasons and as such will always be SO-Flagged. From 5 November 2015, automatic LFDD events will be notified by National Grid as system warnings and published to the BMRS."
4.8	Inclusion of SBR and DSBR to the list of balancing services that are assessed to determine which have been used for system management reasons	Page 10 Part B Sec 2	Insertion of: " <u>Supplemental Balancing Reserve (SBR) and Demand Side Balancing Reserve (DSBR) actions</u> SBR and DSBR actions, whether or not they are taken in the BM, will be considered to determine whether they were used for system management reasons. It is anticipated that SBR and DSBR actions will be not taken to resolve a transmission constraint. Furthermore, any ramping of SBR units up to and including output at the unit's individual Stable Export Limit (SEL) will be SO-flagged. For the avoidance of doubt, when taken for test purposes, SBR actions will be SO-flagged and neither volume nor prices for DSBR test actions will feed into the energy imbalance price calculation."
4.9	Removing superfluous text	Page 12 Part C Sec 1	Deletion of: " <del>This revised flag amendment process will commence in line with the June 2014 Elexon Release to incorporate updates to Elexon systems to accommodate the flag amendments.</del> "

## 5 Proposed Changes to the BPS

The BPS contains some detail on how DSBR and SBR are assessed when tendering for those services. This includes descriptions of the processes referencing the Value of Lost Load (VoLL) as an upper limit cost threshold for the utilisation prices. The VoLL used here is the £17,000/MWh value determined in the study by London Economics in its estimation of the value<sup>11</sup>. However this is not explicit in the document which we recognise has the potential to give rise to confusion, in particular once the concept of VoLL is formally introduced into core industry documents through P305 (e.g. the BSC) at a different level to the London Economics study.

<sup>11</sup> <https://www.ofgem.gov.uk/ofgem-publications/82293/london-economics-value-lost-load-electricity-gb.pdf>

As such, some minor amendments are recommended to improve clarity in the document. DSBR, SBR and the administrative VoLL have all been introduced by changes outside this consultation. Therefore, whilst some of the other issues presented in this consultation relate to those matters, these proposed BPS changes are not contingent on the other issues presented in this consultation.

Colour code: **red denotes generic change;**  
**purple denotes other**

ID	Purpose of Change	Reference	Change
5.1	Version control change	Title Page	Change to <b>Effective Date</b> Change to <b>Version Number</b>
5.2		Page 2 Version Control Table	Insertion of a new version control entry which will include <b>"Revisions following interim review."</b>
5.3	Change DSBR reference to Value of Lost Load to £17,000/MWh	Page 30 Part D Sec 3.2	"However, only tenders with a utilisation cost less than <del>the Value of Lost Load</del> £17,000/MWh <sup>1</sup> will be accepted...  Where DSBR tenders are received from DSBR providers who do wish to be paid a set up fee, the quantity of DSBR procured is determined on an economic basis by reference to the <del>Value of Lost Load</del> £17,000/MWh threshold, tender prices for DSBR and our assessment of expected quantity of service call-off...  <sup>1</sup> Based on the central estimate of the Value of Lost Load provided in the London Economics study 'The Value of Lost Load (VoLL) for Electricity in Great Britain' (2013)"
5.4	Amendment to the adjustment factor used to de-rate DSBR	Page 30 Part D Sec 3.2	"In the assessment of such DSBR tenders, the capacity of the DSBR included in a particular tender will be reduced by <del>25</del> 15% in undertaking is economic assessment."
5.5	Change SBR reference to Value of Lost Load to £17,000/MWh	Page 31 Part D Sec 3.2	"We will aim to procure a quantity of SBR having regard to the matters described above on an economic basis by reference to the <del>Value of Lost Load</del> £17,000/MWh threshold, ..."

## 6 Consultation Questions

This Consultation Document has been written to consult on the proposed changes that address three broad areas:

- Consequential changes to the C16 statements resulting from BSC Modification P305
- Changes to the C16 statements to incorporate SBR and DSBR into the cash-out calculation
- General changes as part of the review process, in particular:
  - Inclusion of actions taken to help manage RoCoF or fault levels as 'System Management'

Respondents are asked to provide comments and views on the proposed changes. Each proposed change has been assigned an 'ID' reference which has been provided in case respondents wish to comment on the suitability of specific changes.

Consequential Changes to C16 Statements for P305:

**Consultation Question 1**

*Do you agree with the changes proposed to facilitate BSC Modification P305? If not, please provide rationale.*

**Consultation Question 2**

*Do you think any further changes are required to facilitate BSC Modification P305? If so, please provide details.*

**Consultation Question 3**

*Do you have any other comments in relation to the changes proposed to facilitate BSC Modification P305?*

Changes to incorporate DSBR and SBR into the calculation of the cash-out price:

**Consultation Question 4**

*Do you agree with the changes proposed to incorporate DSBR and SBR into the calculation of the cash-out price? If not, please provide rationale.*

**Consultation Question 5**

*Do you think any further changes are required to incorporate DSBR and SBR into the calculation of the cash-out price? If so, please provide details.*

**Consultation Question 6**

*Do you have any other comments in relation to the changes proposed to incorporate DSBR and SBR into the calculation of the cash-out price (e.g. interaction with BSC Modification P323)?*

Inclusion of RoCoF and Fault Level actions into the definition of a 'System Management' action:

**Consultation Question 7**

*Do you agree that actions taken to manage the risks associated with high RoCoF or Fault Levels should be considered 'System Management' actions and do you agree with the change proposed to implement this? If not, please provide rationale.*

General:

**Consultation Question 8**

*Do you have any additional comments you would like us to consider regarding the changes proposed in this consultation?*

**Consultation Question 9**

*Are there any further changes that you think should be considered in this C16 interim review?*

**Consultation Question 10**

*Are there any changes that you think should be considered in the next C16 annual review?*

Responses should be submitted by replying to the consultation questions within the response proforma, attached as Appendix D and e-mailing the completed proforma to [balancingservices@nationalgrid.com](mailto:balancingservices@nationalgrid.com)

If you do not wish any elements of your response to be made publicly available, please mark these as confidential.

The consultation period will be for longer than the 28 calendar days referenced in the licence to recognise the fact that it coincides with the summer holiday season.

Responses are therefore required by **10 September 2015**. Following the consultation, a report will be produced and submitted to the Authority within seven days of the consultation close. Due to the timescales for the Authority report, it may not be possible to accept late consultation responses.

It is envisaged that, unless directed otherwise by the Authority, the implementation date for the revised C16 Statements will be **05 Nov 2015**.

## 8 Next Steps

Following consideration of responses to this consultation, National Grid will prepare and submit a report to the Authority in accordance with Electricity Transmission Licence Standard Condition C16 paragraph (8). The consultation document, consultation report, and all responses, will be published on National Grid's website:

<http://www2.nationalgrid.com/uk/industry-information/electricity-codes/balancing-framework/c16-consultations/>

The current versions of the subject documents referred to in this report can be found at the following link:

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Balancing-framework/Transmission-license-C16-statements/>

## Appendix A - BSAD

Please see separate document.

## Appendix B - SMAF

Please see separate document.

## Appendix C - BPS

Please see separate document.

## Appendix D - Response Proforma

Please see separate document.

## Appendix E – Consideration of responses to Open Letter on SBR / DSBR

There was a clear view from the majority of respondents to the Open Letter (NB – there were 11 responses in total) that both SBR and DSBR should be included in the imbalance calculation (i.e. as opposed to the current situation) due to the possibility that their presence has the potential to distort the market otherwise. The responses to the individual proposals in the Open Letter are set out below.

### How should SBR be priced into cash out?

With the exception of one respondent who favoured pricing at “utilisation cost or at the price of the last offer in the stack”, there was unanimous support from respondents for pricing SBR dispatch at VoLL when it represents the final remaining volume available to the SO ahead of involuntary demand control. Therefore, our proposal in respect of SBR is to include it in the imbalance calculation at VoLL as proposed in the Open Letter (and generally agreed at the industry workshop in February 2015).

### **Final proposal – SBR should be priced at VoLL**

### How should DSBR be priced into cash out?

As at the industry workshop, the consensus in respect of DSBR treatment was less clear and there was some support for pricing DSBR at its utilisation price capped at VoLL (with one respondent suggesting utilisation price with no cap). However, the majority of respondents agreed with the proposal in the Open Letter that DSBR should be priced at VoLL as well as SBR. We feel that this is justified given that DSBR is only utilised once all other available offers have been accepted and so it is not dispatched in price order. If dispatch was instead in price order we would have been more inclined to price the service at its utilisation price (albeit capped at VoLL).

### **Final proposal – DSBR should be priced at VoLL**

### How should SBR ramps be priced into cash out?

On the question of how to price the SBR ramps and SEL running, we provided no direct initial proposal and instead openly sought views from industry to inform our final proposal.

Responses were mixed with two respondents advocating all SBR volume (or all volume within a certain time window) being priced at VoLL. Whilst we do not believe that SBR volume outside of the “stress event” window should be priced at VoLL (i.e. as there would be other offers available and there is no guarantee that the volume would be NIV-tagged), we have some sympathy to the idea that all SBR volume should be priced at VoLL during the stress event whether above or below SEL. However this is tempered by our view that, as the SBR plant may be dispatched some time in advance of the period it is required for (dependant on the individual plant characteristics), it is possible that a unit may end up completing a full cycle despite the margin situation improving close to real time. Therefore we believe that focussing on the ex-ante certainty that SBR will only be dispatched if it is required to prevent involuntary demand control (according to information available at that point in time) is more important than mitigating the risk of post-event analysis showing that some of the SBR volume up to SEL may have been required.

There were two responses that clearly advocated using the Reserve Scarcity Price (RSP) function to price the ramping and SEL volume. This suggestion does have some merit as the procurement of SBR (i.e. based on both availability and utilisation) is similar to the procurement of the STOR product for which RSP has been introduced. However, we believe that pricing the use of SBR at VoLL at the time it is required signals sufficiently that there is an additional inherent value of the service over and above the utilisation price. The main advantage of RSP is that it reflects the prevailing scarcity on the system which may be appropriate for the energy provided by SBR units ramping and / or running at SEL. We see value in this but also recognise the concerns strongly made by the majority of respondents (who supported either SO-flagging the ramp / SEL volume or pricing it at the utilisation price of the unit) that there was no energy requirement in these periods that necessitated the volume being priced at all (and definitely not being priced at a level over and above the utilisation price).

The issue with Utilisation Price as a solution is that, whilst low in relation to VoLL, it is still likely to be a higher price than the energy value for the settlement periods under consideration. In the event that this Utilisation Price is in merit to provide energy, the way that the SO-flagging process works is that this would be reflected in the imbalance price calculation. This suggests to us that SO-flagging presents a better solution than applying the Utilisation Price.

This also interacts slightly with the RSP solution as RSP is currently designed such that the price that is applied to relevant units (e.g. STOR) is the higher of utilisation price and RSP. Therefore, when RSP is lower than Utilisation Price it is the latter that enters the calculation which leads to the same issue as outlined in the paragraph above. It is possible that the approach could be adjusted specifically for SBR ramps / SEL running (i.e. removing the link to Utilisation Price) but there are potential risks here in relation to overly complex treatment and general consistency of policies across different balancing services.

Another potential issue with using RSP which is relevant here is that the RSP calculation does not include the volumes of SBR and DSBR. Therefore, whilst it is clear that the SBR volume up to and at SEL has the potential to prevent STOR units being run (and thus prevent RSP entering the imbalance calculation where it otherwise might have), merely pricing this SBR volume at RSP may not solve the issue. The reason for this is that RSP would still be low, relatively speaking, as all of the STOR volume would still be available in

the de-rated margin figure. Put another way, all other things being equal, the first MW of SBR would yield the same RSP as the last – thus potentially reducing the usefulness of the signal provided.

### **Final proposal – SBR ramps and SEL running to be SO-flagged**

#### How should SBR and DSBR tests be priced into cash out?

The responses unanimously agreed with the proposals in the Open Letter that the testing of the services should not be priced into imbalance and so should be SO-flagged to prevent this.

### **Final proposal – testing of both SBR and DSBR should not be priced in cash-out.**

#### Other considerations

There was a strong belief from one respondent that if the price signals discussed above cannot be included in the indicative imbalance price that is published 15 minutes after real time that they should not be priced at all (this concern was repeated, albeit less strongly, by one other respondent). We agree that it would be preferable for the pricing of SBR and DSBR to be reflected in the indicative price as we acknowledge that this gives the clearest and earliest signals to the market (e.g. as to what the imbalance price may be in subsequent settlement periods). However, we also believe strongly that some signal (even if post-event) is better than none as this will impact decision making in later days or weeks even if not the same day. In addition, we believe that there is additional information that can inform trading decisions other than the indicative price (e.g. the advance notification that the system is stressed and that SBR / DSBR have been warned / dispatched). Furthermore, we hope to be able to put in place a solution that allows the relevant imbalance prices for a settlement period to be published the following working day rather than only in the II settlement run 5 working days later.

Another concern was what constitutes a stress event. Whilst we see this as a slightly subjective question, we would say that for DSBR this is the period that the service is called for and that for SBR it is the period in which the unit is instructed above its SEL. We recognise that this raises questions as to how to treat the ramping of SBR units from SEL towards MEL but we think that in this case there is enough certainty of need to justify VoLL pricing for the whole BOA above SEL and that this provides a clear and implementable approach.

A concern was raised by one respondent that the consultation process didn't allow sufficient time for considered responses and also that it meant further consultation over the summer holiday period. Whilst this was to some extent unavoidable as we were seeking to address technical system issues before commencing the consultation, we acknowledge this point and will work with parties to try to ensure that all views are captured both in the formal C16 consultation and the related BSC modification P323.

Finally, a number of other concerns were also raised which, whilst still important, do not in our view clearly fall within the scope of this issue. These are listed below for reference and have been escalated to the NGET team specifically responsible for SBR and DSBR and are being dealt with by their current consultation on whether the SBR and DSBR services should be rolled over<sup>12</sup>:

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<sup>12</sup> <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=42009>

- Compensation should be considered for plant displaced by SBR
- Simultaneous publication to the market of SBR dispatch should be ensured to avoid potential inside information
- DSBR tests should be notified to the market.