

# CP Progression Paper

## CP 'Timely inclusion of SBR Actions into imbalance cashout'

**ELEXON**



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### Committee

BSC Panel



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### About This Document

This document provides information on a new Change Proposal (CP) and options for its progression.

We are presenting this paper to capture any comments or questions from Panel Members on this CP before it is formally raised. We are also seeking Panel Members' views on the progression of the CP, in particular whether it should be issued as a Draft CP (DCP) or whether it should be progressed as a CP once an optimum solution has been identified, and the timetable for this change's progression.

There are three parts to this document:

- This is the main document. It provides a summary of the solution, impacts, anticipated costs, and proposed implementation approach, as well as options for progression for this CP.
- Attachment A contains the draft CP proposal form.
- Attachment B contains the proposed redlined changes to deliver the CP solution.

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## What are Balancing Services?

Balancing services are used by the Transmission Company in its role as System Operator (SO) to balance supply and demand in real time. These are also used in the calculation of imbalance prices (also known as cash-out prices).

In December 2013, Ofgem published its decision to accept an application by the Transmission Company to introduce two new balancing services: Supplemental Balancing Reserve (SBR) and Demand Side Balancing Reserve (DSBR).

## What is the current process?

The BSC, as amended by [P323 'Enabling inclusion and treatment of SBR in the Imbalance Price'](#), enables the Transmission Company to identify and re-price System Actions related to the provision of SBR.

Prior to P323, any SBR related System Action would have been priced according to the SBR provider's contracted Offer Price with the Transmission Company and then SO-Flagged.

P323 replaced the Offer Price with the Value of Lost Load (VoLL) for output instructed for SBR purposes. This is because the VoLL better reflects the prevailing market value of the SBR output than the Offer Price, which is agreed between the Transmission Company and SBR provider ahead of any SBR delivery.

P323 enabled the calculation of imbalance prices to include the value of SBR whilst not affecting the calculation of Balancing Mechanism (BM) cashflows. P323 achieved this by enabling the Transmission Company to identify specific Bid-Offer Acceptances (BOAs) taken for SBR purposes<sup>1</sup> and for resulting System Actions to be priced at VoLL for use in the imbalance price calculations only.

The Transmission Company raised P323 with the intention of ensuring imbalance prices reflected the value of SBR using a manual process, rather than an automated one that relies on changes to central systems. A manual process was proposed as an interim measure to allow the calculation of imbalance prices to reflect SBR if it was dispatched in Winter 2015/16.

## Manual solution

ELEXON implemented a manual solution for P323 such that no changes to central systems were necessary. This was to ensure that a solution could be put in place as close to the start of the Winter 2015/16 period as possible. As part of this change, an enduring solution that will rely on changes to central systems was clearly defined in the BSC. However, in the absence of these system changes, an obligation was put on ELEXON to ensure the imbalance prices calculated for any relevant Settlement Periods reflect the value of SBR Actions where they are taken. The full details of this solution can be found in the [P323 Final Modification Report](#).

<sup>1</sup> 'Taken for SBR purposes' in the context of the BSC means to accept an action offered by an SBR provider where the provider's generation output would exceed its Stable Export Limit (SEL) for a period of time. For the avoidance of doubt, any accepted action offered by an SBR provider where its output is below, at, or is 'ramped up' or 'ramped down' from SEL are not considered to have been taken for SBR purposes. It also excludes actions taken for purposes other than SBR, such as actions taken for constraints.

## What is the SBR service?

The SBR makes available generation that would otherwise be unavailable in the market. This generation is held in reserve and only be used in the unlikely event that there is insufficient generation capacity available in the market to meet demand.

## What were the considerations for an enduring solution?

In practice the Balancing Mechanism Reporting Agent (BMRA) and Settlement Administration Agent (SAA) deliver the BSC requirements for calculating and publishing imbalance prices by using automated processes. Ideally any change to the calculation of imbalance prices should be incorporated with the existing systems and processes. This ensures integrity and simplicity.

Under P323, it was proposed that any enduring solution should be similar to the approach taken to re-pricing System Actions from Short Term Operating Reserve (STOR) Providers under [P305 'Electricity Balancing Significant Code Review Developments'](#). Under P305, System Actions determined to be STOR Actions are priced at the greater of the Reserve Scarcity Price (RSP) or the original Offer Price when calculating the imbalance price, but the original Offer Price(s) are retained in either case for BM cashflow calculations.

The P323 Workgroup noted that:

- The expected frequency of use of the SBR balancing service is very low, if ever used. However, whilst the probability may be very low, the impact is very high if there is no process in place for dealing with this when the Transmission Company takes an SBR Action.
- A solution may only be required until the Capacity Mechanism becomes effective in 2019, so is therefore likely to be an interim one.
- Making the changes to BSC System for P323 as part of the November 2015 Release would likely have exposed that release to a very high level of risk due to an already busy programme of work, the very short timescales to develop system changes and the limited availability of resources.
- Considering these factors, to ensure that a solution was implemented in time for Winter 2015/16, a manual solution was considered a pragmatic way forward. However, it was noted that even if a manual solution was implemented initially, any change should be implemented in such a way to enable an enduring, automated solution that would produce timely imbalance prices to be activated at some point in the future.
- Any enduring solution involving BSC System changes would need to be progressed through a separate CP if P323 gets approval. This would be targeted at a later BSC Release, preferably in time for the Winter 2016/17, if the Panel deemed it necessary.

The BSC was amended such that should the Panel deem it necessary to automate the process for including SBR Actions within the imbalance price, then it would consider any CP to enact this.

## What is the issue?

SBR Actions currently feed into the imbalance price using a manual process. The delay caused by this manual process means that the imbalance prices do not incorporate the pricing of SBR Actions at the prevailing VoLL until the Interim Information (II) Settlement Run, five Working Days (WDs) later.

Ofgem has now granted an [extension of the cost recovery arrangements for SBR and DSBR](#) for these next two winters, and the Transmission Company has entered into

contracts for 3.5GW of SBR for Winter 2016/17. The Proposer contends that the certainty that these services will be in place for two more winters, the increased procurement and the anticipated increase in their use now warrants an automated solution, which they believe needs to be in place for November 2016.

### Proposed solution

This CP seeks to include SBR Actions in the imbalance price priced at VoLL when they are first published 15 minutes after the end of the Settlement Period. There are two workable solutions for how this could be done. As a CP can only have one solution, a decision needs to be made on which one to progress. We are currently assessing both options, with the indicative impacts included in Section 3.

#### Option 1

- Whenever the Transmission Company dispatches a BM Unit for SBR purposes, it will identify those SBR BOAs with an SBR Flag in a similar way to how it SO-Flags and STOR-Flags BOAs.
- The BMRA and the SAA will treat BOAs with an SBR Flag such that, for the purposes of calculating imbalance prices only, any derived System Actions will be known as SBR Actions and will have an SBR Action Price, which is set equal to VoLL.
- SBR Actions will be treated like any other System Action for the purpose of flagging in the existing imbalance price calculation; however these will be priced at VoLL.
- Irrespective of whether the Transmission Company takes a BOA for SBR purposes, the SAA will continue to use the original Offer Price for SBR BOAs when calculating BM cashflows.

#### Option 2

- The Transmission Company will provide standing data of BM Units that it can dispatch for SBR purposes to central systems using (probably) a .csv format file. Any amendments to the data will be resubmitted. The file will be version and date controlled.
- The BMRA and the SAA will load the SBR BM Unit standing data into their systems, and any subsequent versions will overwrite the previous version.
- For validation purposes, the BMRA and the SAA will load the SBR Period (1 November to 28/29 February) of any given year, the relevant Settlement Periods and the time that SBR Actions are relevant.
- The BMRA and the SAA will treat as an SBR BOA any BOAs from BM Units that are identified in the standing data, that are not SO-Flagged, and which take the BM Unit's agreed output above its Stable Export Limit (SEL). This will be for the purposes of calculating imbalance prices only, with any derived System Actions considered as SBR Actions and will have an SBR Action Price, which is set equal to VoLL.
- SBR Actions will be treated like any other System Action for the purpose of flagging in the existing imbalance price calculation; however these will be priced at VoLL.

- Irrespective of whether the Transmission Company takes a BOA for SBR purposes, the SAA will continue to use the original Offer Price for SBR BOAs when calculating BM cashflows.

## Proposer's rationale

The Proposer notes that imbalance prices are meant to provide the principle incentive for demand and supply to be balanced in the short term. To provide this incentive, imbalance prices need to be accurate in the short term so as to form appropriate and timely market signals. With the introduction of potentially 'explosive' prices due to P305, and with SBR Actions priced at VoLL (£3,000/MWh), the delay in including this volume could lead to a very large positive change in the imbalance price reported at the II Settlement Run compared to the indicative price reported immediately after the Settlement Period has ended.

The use of SBR could also create an expectation that prices will rise to £3,000/MWh but because of Net Imbalance Volume (NIV) tagging this may not happen. Either way, the Proposer believes that the five day delay in including SBR Actions in the imbalance prices may lead to incorrect real-time signals being made to market participants, which could lead to sub-optimal trading decisions being made on days when scarcity is apparent.

A manual approach and the resultant delay in publishing imbalance prices that incorporate SBR Actions was considered appropriate for Winter 2015/16 partly due to low probability that SBR would be used (in its July 2015 [open letter](#) on extending the use of SBR, the Transmission Company determined a Loss of Load Expectation (LoLE) for Winter 2015/16 of 1.1 hours), but mainly because of the lack of time to implement an automated solution in time.

Within the open letter, the Transmission Company has determined a range for the LoLE for Winter 2016/17 of between five and 14.5 hours. The SO has also seen a need for these services to be used in Winter 2017/18.

Ofgem has now granted an extension of the cost recovery arrangements for SBR and DSBP until Winter 2017/18, and the Transmission Company has entered into contracts for 3.5GW of SBR for Winter 2016/17. The Proposer believes that an automated solution is now warranted and needs to be in place for November 2016. This is based on their view that:

- there is certainty that these services will be in place for two more winters
- there is increased procurement of SBR services and
- there is an anticipated increase in use of SBR services.

Finally, the Proposer notes that SBR is a 'last resort' service prior to Demand Disconnection. Under P305, Demand Disconnection is now included in the imbalance price calculation in a timely fashion (15 minutes after the Settlement Period has ended). Since Demand Disconnection must be used less often than SBR, it is logical to include SBR Actions in the imbalance price calculation in the same timely fashion.

## ELEXON's view

We agree that there is a benefit to participants. However, the Panel will need to assess whether there is an overall benefit when considering the costs of implementing the solution and the length of time the solution will be in place. We note that Ofgem has issued an [open](#)

[letter](#) relating to the Department for Energy and Climate Change's (DECC's) consultation on bringing forward the Capacity Market auction to give a first delivery year of 2017/18. Ofgem note that it expects the 2017/18 Capacity Mechanism auction to procure enough capacity to meet the government's reliability standard. Therefore, SBR and DSBR services would not be needed for that year. As such, it expects to amend the direction issued on 23 November 2015 ahead of Winter 2017/18 so as to ensure that the cost recovery arrangements no longer apply for that Winter. It also advises that it intends to bring forward C16 licence changes to remove the provision for SBR and DSBR. As such, the benefit of this change would be limited to either one Winter, if implemented in November 2016; or not required, if implemented in November 2017.

We do note that more timely information will support the [European Transparency Regulation \(ETR\)](#), which requires that imbalance prices are published as soon as possible. While not specifying the accuracy of those imbalance prices, anything that improves the accuracy of the first draft publication of prices would be helpful.

We also note that more accurate information would be helpful in reporting of [Regulation on Wholesale Energy Markets Integrity and Transparency \(REMIT\)](#) Insider Information.

## Proposed redlining

Both CP solutions require the same changes to [BSC Procedure \(BSCP\) 18 'Corrections to Bid-Offer Acceptance Related Data'](#).

## Drafting approach

The draft changes to BSCP18 for both solutions are set out in Attachment B. The approach to drafting BSCP18 for this change is to remove the manual processes introduced by P323, while making the changes necessary to deliver the CP.

Other changes to relevant Code Subsidiary Documents (CSDs) will be needed to reflect the detailed system changes. These changes to the CSDs will be drafted as part of implementation of the CP, if approved, as is usually done for system changes. The CSD changes will reflect the CP solution as will be set out in the final CP documentation (i.e. including the agreed requirements).

The process of producing the CSDs will include industry consultation. The systems and documentation that will be impacted are summarised in Section 3.

## 3 Impacts and Costs

### Central impacts and costs

Under P323, we enquired in to the potential costs and lead times for implementing an automated enduring solution. An indicative cost for making the system changes to the Balancing Mechanism Reporting Service (BMRS), SAA and Energy Contract Volume Aggregation Agent (ECVAA) systems was approximately £180,000, with a lead time of approximately 30 weeks to develop, test and implement, based on an implementation in November 2016.

Since then, we have established that there will also be impacts on our internal systems and the Electricity Market Reform (EMR) system. Therefore, the lead times and costs are likely to be greater.

A full assessment of the BSC System, EMR system and our internal system changes and impacts is currently being undertaken. We will include the total estimated cost and lead times in the consultation.

### Central impacts

#### Impact on BSC Systems and processes

BSC System/Process	Impact
BMRS	Changes will be required to the BMRS and SAA systems to deliver the necessary automation.
SAA	
ECVAA	Minor changes will be required to the ECVAA system to accommodate underlying data changes

#### Impact on Code Subsidiary Documents

CSD	Impact
BSCP18	Changes may be required as a result of this CP.
BMRA Service Description (SD)	Changes will be required to the BMRA and SAA SDs and URS to reflect changes to existing processes and/or the introduction of new processes for the relevant BSC Agents.
SAA SD	
BMRA User Requirement Specification (URS)	
SAA URS	
NETA Interface Definition and Design	Changes will be required to reflect any new data flow and any consequential update to existing data flows.

#### Other Impacts

Item impacted	Potential Impact
EMR	Changes to the SAA-I014 will have an impact on the EMR systems.

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## Central costs

Indicative central (BSC System) implementation costs for CP are approximately:

- Option 1: ~£145,000
- Option 2: ~£155,000.

Both options have an indicative minimum lead time of 30 weeks from when a decision is made. This would require a decision to be made in early April 2016 to implement in the November 2016 BSC Systems Release.

## BSC Party & Party Agent impacts and costs

As there will be an impact if the SAA-I014 'Settlement Report' data flow is updated to include an SBR Flag, there would likely be an impact on BSC Parties. There will be an impact on the Transmission Company under either option, who will need to make corresponding system changes. However, there is less of an impact on Option 2, with the Transmission Company being able to provide the data without system changes.

We do not anticipate an impact on Party Agents.

## BSC Party & Party Agent Impacts

BSC Party/Party Agent	Impact
Transmission Company	<p>The Transmission Company will carry out a full assessment of the CP solution options. However, it has provided an initial view on the two options and likely subsequent changes to the C16 licence statements.</p> <p><b>Option 1</b></p> <p>System changes will be required for the Transmission Company to add an SBR Flag to any relevant BOAs. The earliest that it can implement this would be November 2017; however, this cannot be guaranteed at this stage. The implementation costs are likely to be high.</p> <p><b>Option 2</b></p> <p>No system changes would be required for the Transmission Company to provide the standing data of SBR plant. This could be done by the Transmission Company outside of its systems. However, as there are certain SBR providers that also operate commercially, a full assessment of how these will be treated is needed.</p> <p>Notwithstanding the treatment of this type of SBR provider, the Transmission Company could implement their part of the solution in November 2016. However, it notes that ELEXON is unlikely to be able to implement BSC System changes.</p> <p><b>C16 changes</b></p> <p>Both options will require subsequent changes to the relevant C16 licence statements.</p>
BSC Trading Parties	BSC Trading Parties will be impacted by the changes to the SAA-I014 data flow.

### Recommended Implementation Date

The Proposer is seeking for this change to be implemented on **3 November 2016** as part of the November 2016 BSC Systems Release.

The Transmission Company and ELEXON have advised that this is unlikely to be achievable, and that, based on lead times, a more realistic Implementation Date would be **2 November 2017** as part of the November 2017 BSC Systems Release.

We will consult on both options as part of the CP Consultation. However, initial impact assessment of central systems indicates a minimum lead time of 30 weeks, which would rule out the November 2016 Release.

### Progression timetable

There are three options for how this CP could be progressed, and we outline each approach below. We invite the Panel to give its views on which approach should be followed. Noting the indicative lead times for implementation of 30 weeks, none of the options would allow for implementation in the November 2016 Release, which would need to have a decision in early April 2016.

#### Approach 1: Progress as a Draft Change Proposal

If both solution options are to be taken forward, we would need to raise this change as a Draft Change Proposal (DCP) and consult the industry on the solutions. Respondents would be invited to state their views on which option should be progressed. Following the DCP Consultation, the Proposer will select one option to take forward as a CP. This option would then be progressed via the normal CP progression route, including issuing it for a CP Consultation.

The timetable for this approach is outlined below, and is based on the consultations being issued as part of a scheduled monthly Change Proposal Circular (CPC) batch:

Progression Timetable: Approach 1	
Event	Date
CP Progression Paper presented to Panel for information	10 Mar 16
DCP Consultation (April CPC batch)	11 Apr 16 – 06 May 16
CP Progression Paper presented to Panel for information	09 Jun 16
CP Consultation (July CPC batch)	11 Jul 16 – 05 Aug 16
CP Assessment Report presented to Panel for decision	08 Sep 16

#### Approach 2: Progress as a CP under the usual CPC timescales

If only one solution option is to be taken forward, or if both solution options were raised as separate but parallel CPs, this change could be progressed via the normal CP timescales by issuing the CP Consultation in the next available CPC batch.

The timetable for this approach is outlined below, and is based on the CP Consultation being issued as part of a scheduled monthly CPC batch:

Progression Timetable: Approach 2	
Event	Date
CP Progression Paper presented to Panel for information	10 Mar 16
CP Consultation (April CPC batch)	11 Apr 16 – 06 May 16
CP Assessment Report presented to panel for decision	09 Jun 16

### Approach 3: Progress as a CP under ad hoc CPC timescales

The progression of this change as a CP could be expedited by issuing the CP Consultation outside of the normal CPC timescales via an ad-hoc consultation. This would allow the Panel to make a decision on the CP one month earlier.

The timetable for this approach is outlined below, and is based on the CP Consultation being issued outside of the scheduled monthly CPC batches:

Progression Timetable: Approach 3	
Event	Date
CP Progression Paper presented to Panel for information	10 Mar 16
CP Consultation (15WDs)	11 Apr – 29 Apr 16
CP Assessment Report presented to panel for decision	12 May 16

### CP Consultation questions

If this change is progressed under either Approach 2 or Approach 3 then we intend to ask the standard CP Consultation questions for CP. We do not believe any additional questions need to be asked for this CP. The implementation approach will depend upon the solution and feasibility of when it can be implemented, which will be formed through the responses to the impact assessments carried out by the Transmission Company and ELEXON's Service Provider.

Standard CP Consultation Questions
Do you agree with the proposed solution?
Do you agree that the draft redlining delivers the proposed solution?
Will this CP impact your organisation?
Will your organisation incur any costs in implementing this CP?
Do you agree with the proposed implementation approach for this CP?

## 6 Recommendations

We invite you to:

- **NOTE** the proposed CP;
- **AGREE** the proposed progression timetable for the CP; and
- **PROVIDE** any comments or additional questions for inclusion in the CP Consultation.

## Appendix 1: Glossary & References

### Acronyms

Acronyms used in this document are listed in the table below.

Acronyms	
Acronym	Definition
BM	Balancing Mechanism
BMRA	Balancing Mechanism Reporting Agent ( <i>BSC Agent</i> )
BMRS	Balancing Mechanism Reporting Service ( <i>BSC System</i> )
BMU	Balancing Mechanism Unit
BOA	Bid-Offer Acceptance
BPA	Buy Price Adjuster
BSAD	Balancing Service Adjustment Data
BSC	Balancing and Settlement Code ( <i>Industry Code</i> )
BSCP	Balancing and Settlement Code Procedure ( <i>Code Subsidiary Document</i> )
CP	Change Proposal
CPC	Change Proposal Circular
CSD	Code Subsidiary Document
DBSR	Demand Side Balancing Reserve
DCP	Draft Change Proposal
ECVAA	Energy Contract Volume Aggregation Agent ( <i>BSC Agent</i> )
EMR	Electricity Market Reform
ETR	European Transparency Regulation ( <i>European Regulation</i> )
II	Interim Information ( <i>Settlement Run</i> )
LoLE	Loss of Load Expectation
NIV	Net Imbalance Volume
REMIT	Regulation on Wholesale Energy Markets Integrity and Transparency ( <i>European Regulation</i> )
SAA	Settlement Administration Agent ( <i>BSC Agent</i> )
SBR	Supplemental Balancing Reserve
SD	Service Description
SEL	Stable Export Limit
SO	System Operator
STOR	Short Term Operating Reserve
URS	User Requirements Specification
VoLL	Value of Lost of Load
WD	Working Day

## External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
2	P323 page on the ELEXON website	<a href="https://www.elexon.co.uk/mod-proposal/p323/">https://www.elexon.co.uk/mod-proposal/p323/</a>
3	P305 page on the ELEXON website	<a href="https://www.elexon.co.uk/mod-proposal/p305/">https://www.elexon.co.uk/mod-proposal/p305/</a>
3	National Grid's Contingency Balancing Reserve Operational Information webpage	<a href="http://www2.nationalgrid.com/UK/Services/Balancing-services/System-security/Contingency-balancing-reserve/Contingency-Balancing-Reserve-Consultation/">http://www2.nationalgrid.com/UK/Services/Balancing-services/System-security/Contingency-balancing-reserve/Contingency-Balancing-Reserve-Consultation/</a>
6, 7	EU legislation page on the ACER website	<a href="http://www.acer.europa.eu/the_eu_energy_market/legislation/Pages/default.aspx">http://www.acer.europa.eu/the_eu_energy_market/legislation/Pages/default.aspx</a>
6, 7	Ofgem's open letter on future SBR and DSBR for 2017/18	<a href="https://www.ofgem.gov.uk/system/files/docs/2016/02/ofgem_open_letter_on_future_sbr_and_dsbr_given_proposal_to_run_a_ca_auction_for_2017_18_2.pdf">https://www.ofgem.gov.uk/system/files/docs/2016/02/ofgem_open_letter_on_future_sbr_and_dsbr_given_proposal_to_run_a_ca_auction_for_2017_18_2.pdf</a>
7	BSCP Sections on the ELEXON website	<a href="https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/">https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/</a>