



2016/17  
ANNUAL BSC REPORT



# CONTENTS

	<b>Page</b>
<b>1. CHARMAN'S REPORT</b>	<b>4</b>
Our key activities	6
ELEXON governance	6
EMR	7
BSC Panel membership	7
This year in brief	8
ELEXON Board membership	8
<b>2. MODIFICATION AND CHANGE</b>	<b>9</b>
Modifications raised by area	10
Issues	14
Modifications and Change Proposals implemented with release month	17
<b>3. BSC PANEL</b>	<b>18</b>
BSC Panel meetings	21
<b>4. BUSINESS REVIEW</b>	<b>22</b>
Improvements to elective half-hourly settlement	23
Mandatory half-hourly settlement	24
Demand Side Flexibility (DSF)	24
Faster and more reliable switching	25
Profile Administration	26
Competition and Markets Authority	26
Ofgem's Code Reform Proposals - Licensing	27
European-led developments	28
Customer operations	32
Customer survey results	33
Improving the ELEXON website	34
Electricity Market Reform (EMR)	35

# CONTENTS

	<b>Page</b>
Warm Homes Discount Reconciliation Scheme	36
BSC Systems Strategy	36
Implementation of the new BMRS platform	37
BSC Audit	37
Technical Assurance Agent	38
Trading Disputes referred to the Panel	38
Performance Assurance Framework Focus	39
Business Plan	39
Corporate Social Responsibility	40
<b>5. OPERATIONAL UPDATES</b>	<b>42</b>
<b>6. REVIEW AGAINST THE ANNUAL BUDGET</b>	<b>44</b>
Operational expenditure	45
Demand Led expenditure	46
Contracted expenditure	46
System strategy	46
Market development	46
<b>7. APPENDIX 1: COMMITTEE SUMMARY</b>	<b>47</b>
Performance Assurance Board (PAB)	48
Imbalance Settlement Group (ISG)	48
Supplier Volume Allocation Group (SVG)	49
Trading Disputes Committee	50
Credit Committee	51
<b>8. APPENDIX 2: URLS</b>	<b>52</b>
Modifications raised by area	53
Issues	54
Operational Updates	54

# 01 CHAIRMAN'S REPORT

## Report from the Chairman

By Michael Gibbons CBE, FEI  
BSC Panel Chair and BSCCo Chairman



As I begin my second three-year term as Balancing and Settlement Code (BSC) Panel and ELEXON Chairman,

there continues to be significant change across the electricity market, particularly from a regulatory perspective. The recommendations from the Competition and Market Authority (CMA) investigation, changes in Europe and the results of the General Election are all shaping the ever-evolving environment in which ELEXON and our customers, the BSC Parties, are operating. Our aim over the last year, while responding to these challenges, has been to stay focussed on delivering a reliable, consistent BSC Service and that we continue to earn our reputation as an independent, reliable, market expert and critical friend.

This report summarises ELEXON's work during 2016/17 in delivering the BSC Code and sets out the activities of the BSC Panel and its committees. It highlights the hard work and expertise of my colleagues within ELEXON and the commitment and dedication of our colleagues across the industry that play such a key role in the successful delivery of the BSC through their involvement and participation on the BSC Panel, Panel Committees and other expert working groups.

Although last year was one of ELEXON's busiest yet, we continued to enhance our relationships with stakeholders by visiting Parties to understand how we can improve our services and by providing expert support whether that is to BEIS, Ofgem, or BSC Parties. We also increased our profile via blogs, webinars, briefings and reports, which have received widespread praise.

In summary, rather than a year of BAU, we have instead achieved much in terms of performance and delivery accompanied by the highest appreciation from our customers and stakeholders whilst providing strong leadership to our own people.

---

## OUR KEY ACTIVITIES

Key achievements in systems implementation have occurred too, notably EMR, trouble free BSC Releases, the AS IS+ migration and BMRS go live. More Modifications were raised than we've seen since the initial stages of NETA, we helped record numbers of new parties enter the market, we resolved more than 10,000 helpdesk calls and beat all of the system availability targets for our 24/7 settlement operation.

ELEXON and the BSC Panel have continued to champion the need for a reduction in complexity and fragmentation of the industry Code landscape. We have acted as a focal point for the production of an industry-wide synopsis of change and issues, pioneering a more collaborative approach from all administrators for the wider benefit of stakeholders. In terms of the contribution we've made to the market, we have supported government and Ofgem in the development and implementation of policy, particularly concerning Electricity Market Reform, Half Hourly Settlement, Faster Switching, Demand Side Flexibility and other strategic change.

## ELEXON GOVERNANCE

ELEXON's governance arrangements have been strengthened by the implementation of Modification P324. This has introduced improved accountability to BSC Parties, giving them the opportunity to approve the appointment of directors and, in extremis, to vote to remove directors. P324 also gives the Board sole responsibility to approve the BSCCo Business Plan (but only after issuing to BSC Parties for comment), to allow the Board to decide on the makeup and membership of the Board and, for the first time, to allow the Board to appoint up to two members of the Executive team as members of the Board. In my view, this great step forward will continue to strengthen the relationship between the ELEXON Board and BSC Parties. More importantly, and following the Knight Report, P324 clarifies the purpose of the Board and BSC Panel, aligning ELEXON's governance with best practice and increasing our accountability in delivering to the industry.

---

## EMR

ELEXON's subsidiary company, EMR Settlement Ltd, has continued to provide settlement services for CFDs and the capacity market. While this activity is completely ring-fenced and isolated from BSCCo, our EMR work enables us to apply our expertise to a wider range of activities and brings benefits to BSC Parties, specifically in the form of contribution towards existing fixed overheads that would otherwise have been borne by BSC Parties. In 2016/17, contribution from EMR revenue to defray overheads reduced costs to BSC Parties by £699,000.

## BSC PANEL MEMBERSHIP

2016 was an election year for the BSC Panel resulting in the appointment of three new industry elected Panel members: Andy Knowles, Tom Edwards and Mitch Donnelly.

Barbara Vest and Stuart Cotten were both re-elected to serve another term. In addition, we've welcomed Stew Horne and Victoria Pelka as our two Consumer Panel members and Chris Fox from National Grid.

I would like to extend my personal thanks to all of the BSC Panel members (and their alternates) for their support, knowledge, challenge and robust debate throughout the year, particularly to those Panel members who have stood down during the period: Andy Colley, Bob Brown, Peter Bolitho, Richard Hall and Alex Haffner.

We have included details on the past 12 months' attendance by Panel members later in this document.

Recent critiques of industry Code Panels have speculated about incumbents dominating panels and workgroups. I firmly believe that the make-up of the BSC Panel, with a broad, and independent membership across the stakeholder community and the inclusion of two consumer representatives, ensures that there is no basis for such criticism in the BSC and indeed that our structure is a template for Panel constitution.

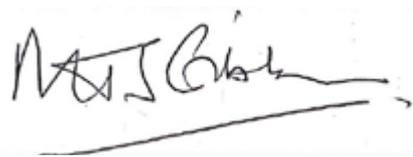
---

## ELEXON BOARD MEMBERSHIP

Mark Bygraves was appointed to the ELEXON Board for a three-year term as part of BSC Modification P324. This is independent and separate from his appointment as CEO.

I was delighted to be re-appointed Chairman for another three-year term and the appointments of Volker Beckers and Alison Chappell as Industry Non-Executive Directors were both extended for a further two years.

In May 2017, David Rigney's appointment as Senior Independent Non-Executive Director was extended for a further three years.



Michael Gibbons CBE, FEI  
BSC Panel Chair and BSCCo Chairman



### This year in brief:

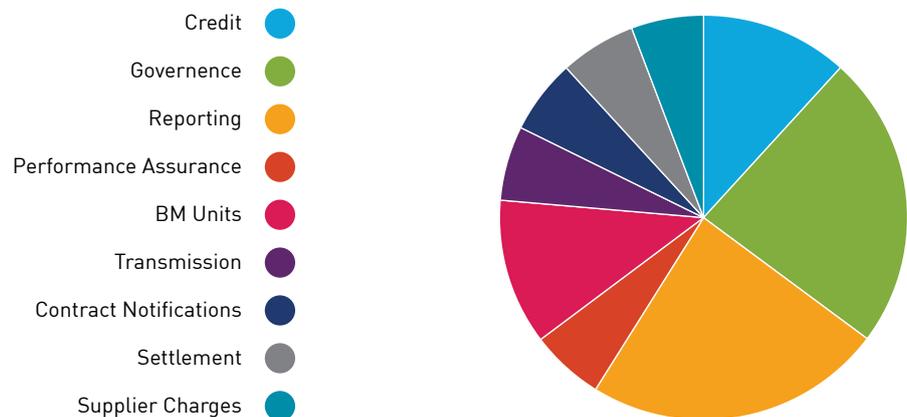
- ▶ 17 Modification Proposals were raised.
- ▶ 26 Change Proposals (CP1461-CP1486) were raised
- ▶ 48 Trading Disputes were raised.
- ▶ Across three planned BSC Releases and three stand-alone Releases, ELEXON implemented 13 approved Modifications and 21 approved Change Proposals.
- ▶ A clean BSC Audit (not qualified).
- ▶ 2,208 Settlement Runs were carried out.
- ▶ £391m of Credit was held.
- ▶ 65 new BSC Parties registered during the year.
- ▶ 2.4 million Energy Contract Volume Notifications (ECVNs) received.
- ▶ Actively monitored 85 external consultations during the year and responded to 28.
- ▶ Six million Energy Volume files processed
- ▶ 700 papers published

## 02 MODIFICATION AND CHANGE

## 02 / MODIFICATION AND CHANGE

Modification Status	2015-16	Modifications
Pending Authority determination at 31 March 2017	0	
Modifications raised	17	P338, P339, P340, P341, P342, P343, P344, P345, P346, P347, P348, P349, P350, P351, P352, P353, P354.
Modifications withdrawn	2	P308, P341
Submitted to the Authority	8	P324, P330, P333, P335, P342, P347, P350, P351
Modifications which had alternative solutions proposed	6	P315, P324, P326, P348, P349, P351
Approved by the Authority	9	P324, P329, P330, P333, P335, P342, P347, P350, P351
Rejected by the Authority	0	
Urgent Modifications rejected by the Authority	0	
Self-Governance Modifications approved by the BSC Panel	11	P326, P336, P337, P338, P339, P340, P343, P345, P346, P352, P353
Self-Governance Modifications rejected by the BSC Panel	0	
Fast Track Self-Governance Modifications approved by the BSC Panel	3	P338, P352, P353
Implemented	13	P302, P315, P324, P326, P330, P331, P333, P337, P340, P343, P345, P352, P353

## MODIFICATIONS RAISED BY AREA



---

Seventeen (17) Modifications were raised last year in the following areas:

### **Credit**

#### **P345: Reducing the CAP change notice period and improving its flexibility**

seeks to reduce the notice period for changes to the Credit Assessment Price (CAP) from 20 Business Days to 15 Business Days. This enables the notice period to be changed in future without a Modification, as long as it remains above a minimum value set out in the BSC and there is a consultation on the change.

**P352: Housekeeping changes to BSC Section M** makes consequential changes to the approved legal text for P345 and to notify the inclusion of previously excluded P307 legal text to resolve minor errors and inconsistencies between the Modifications' intentions and the active legal text.

### **Governance**

**P338: Consequential changes to P272 legal text.** Makes consequential changes to the approved legal text for P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8', to resolve conflicts that exist between it and two other approved Modifications, P320 and P322.

**P343: Increase to the number of Supplier IDs that can be held by a Supplier.** Allows a Supplier to apply for four or more Supplier IDs through an application submitted to the Panel. Existing provisions for registering the first three Supplier IDs remains unchanged under P343.

**P351: Align the BSC with changes to the SCR requirements.** Aligns Section F of the BSC with the changes to Transmission Licence proposed by Ofgem. There are now three routes under Significant Code Review (SCR) to progress a Modification:

1. Ofgem directs a licensee to raise a Modification proposal.
2. Ofgem raises a Modification proposal.
3. Ofgem leads an end-to-end process to develop code Modification.

For routes 1 and 2 the standard industry code Modification process is followed. For route 3 the standard industry code Modification process is not followed.

**P353: Align Section B with the intent of P324.** Makes consequential changes to the approved legal text for P324 'Review of BSCCo's governance: introducing improved accountability to BSC Parties' to remove text no longer required in Section B3.1.2 (h).

---

## Reporting

### **P340: Removal of References and Requirements Relating to the LCPD.**

Removes all references and requirements relating to Large Combustion Plants (LCPs), the LCPD, and the submission and subsequent processing of LCP Data from the BSC. It also entirely removes BSCP33 'Large Combustion Plant Directive Data Submission'.

**P341: Forward Publication of Maximum Export and Import Limits** extends the time period where the Transmission Company is required to send Maximum Export Limit (MEL) and Maximum Import Limit (MIL) data to the Balancing Mechanism Reporting Agent (BMRA) for each Balancing Mechanism (BM) Unit to be published on the Balancing Mechanism Reporting Service (BMRS).

This increases the transparency in the market by allowing all Market Participants visibility of the availability of each BM Unit for the window where MEL and MIL data is published.

**P348: Provision of gross BM Unit data for TNUoS charging.** The Transmission Company receives the Transmission Use of System (TUoS) Report (P0210 – Half Hourly (HH) / Non Half Hourly (NHH) split) from the SVAA.

To facilitate changes to the Connection Use of System Code (CUSC) (CMP265) the SVAA will report details of gross import and export volumes by inserting two new columns: "Period BMU HH Allocated Gross Import Volume" and "Period BMU HH Allocated Gross Export Volume" into the TUoS P0210 report.

**P349: Facilitating Embedded Generation Triad Avoidance Standstill.** The Connection Use of System Code (CUSC) CMP264 modification currently defines a New Embedded Generator as any Half Hourly (HH) metered embedded generation unit commissioned after 30 June 2017, where commissioned is defined as the point at which an MSID is first registered in the Supplier Meter Registration Service (SMRS) and first commences generation.

It is believed that the Transmission Company already receives the necessary CVA metered data to allow for the benefits of the CMP264 to be realised. If this assumption is proved invalid, this Modification will require including CVA as well as SVA registered generators Period Metered Data.

---

### Performance Assurance

**P347: Reduction in R1 Read Requirement for Half Hourly Sites** reduces the R1 Read requirement from 99% to 90% for Measurement Classes “F” and “G”. The 99% target is seen as a barrier to Suppliers moving to Elective Half Hourly (HH) Settlement because during and following the smart meter rollout it may not be possible to achieve this target. This could cause increased agent costs for Suppliers.

### BM Units

**P344: ‘Project TERRE implementation into GB market arrangements’**

Seeks to align the Balancing and Settlement Code (BSC) with the European Balancing Project TERRE (Trans European Replacement Reserves Exchange) requirements. This is in order to allow the implementation of the project at national level and be compliant with the first tranche of obligations in the European Network Codes (ENCs).

**P354: Use of ABSVD for non-BM Balancing Services at the metered**

**(MPAN) level.** Allows the System Operator to provide Applicable Balancing Services Volume Data (ABSVD) volume at the MSID level and the Settlement Administration Agent (SAA) to allocate this to the appropriate Supplier BM Unit.

### Transmission

**P350: Introduction of a seasonal Zonal Transmission Losses scheme.** In line with the CMA’s determination, P350 introduced a Transmission Loss Factor for each TLF Zone (which will align with the existing Grid Supply Point (GSP) Groups) for each BSC Season in order to allocate transmission losses on a geographical basis. The CMA is mandating, through secondary legislation and licence changes, with an Implementation Date of 1 April 2018.

### Contract Notifications

**P342: Change to Gate Closure for Energy Contract Volume Notifications**

introduces a new deadline for submitting Energy Contract Volume Notification (ECVNs) and Metered Volume Reallocation Notifications (MVRNs) for each Settlement Period. This new contract notification deadline would be decoupled from Gate Closure, and would be set 60 minutes after the start of the relevant Settlement Period.

---

## Settlement

**P339: Introduction of new Consumption Component Classes for Measurement Classes E, F and G** enables aggregated consumption volumes for both Active Import (AI) and Active Export (AE) to be identified separately.

## Supplier Charges

**P346: Changes to the BSC Specified Charges to facilitate Elective HH settlement** reduces BSC costs to Suppliers for entering domestic and small non-domestic customers into elective Half Hourly (HH) Settlement and could encourage Suppliers to promote such Settlement on a larger scale. This will help meet the intentions of Ofgem to increase HH Settlement across the market, improving Settlement accuracy and promoting innovation into the market.

The proposed solution amends the method by which the 'Supplier' half of the SVA Costs are recovered so that all of these costs are recovered through a single 'per Metering System Identifier (MSID)' fixed tariff.

## ISSUES

Six Issues were raised for consideration by industry Workgroups during the last year; five remain open.

### NIV

**Issue 64: Defining default price when NIV equals zero and when there is no priced action left after NIV tagging.** As part of the annual Market Index Definition Statement (MIDS) review in 2015, the Imbalance Settlement Group (ISG) and the BSC Panel recommended forming an Issue Group to review the use of the Market Index Price (MIP) in its current form when:

- ▶ the Net Imbalance Volume (NIV) equals zero and there is therefore no actions to set the Imbalance Price
- ▶ all actions in the stack are unpriced by the calculation process, there is no actions left to set the Replacement Price.



TRUSTED  
INDEPENDENT  
AND RELIABLE  
MARKET EXPERTS

---

### Line Loss Factors

**Issue 65: Causes and treatment of large Line Loss Factors.** The Supplier Volume Allocation Group (SVG) discussed two large SVA LLF values calculated for the forthcoming 2017/18 BSC Year (see SVG191 Headline Report). The SVG noted that the values were calculated correctly in accordance with BSCP128 and that there was therefore no audit non-compliance. The SVG also noted that the values were below the Data Transfer Catalogues (DTC's) permitted maximum. However, SVG Members expressed concern over whether these values were representative of the losses caused by the site.

### Meter faults

**Issue 66: Responsibility for addressing Meter faults for Dual Function Meters with different Suppliers for Import and Export.** Due to the lack of any explicit contractual situations, the Export Supplier may be unable to make contact with the Meter Operator Agent (MOA) appointed by the Import Supplier. This means the Export Supplier cannot direct the MOA to rectify the fault. If the Export Supplier identifies a fault, but cannot contact the MOA, the fault may be left unresolved. The Export Supplier could request the Import Supplier to direct the MOA to resolve the fault. However, this may be prevented by limited communications between Suppliers and a lack of clarity over responsibility.

As both the Import and Export Supplier are jointly and severely liable, it isn't clear which Supplier is responsible in the event of a fault. This lack of enforced responsibility, could lead to the Supplier not engaging to rectify the fault.

There are two key discussion questions to explore:

- Who should be responsible when there are shared MOA arrangements?
- What are the most appropriate communications means to resolve potential issues?

### Meter timeswitch

**Issue 67: Meter Timeswitch Code for Smart Meters.** Meter Timeswitch Codes (MTC) available are not appropriate for Smart Meters, especially considering that a SMETS compliant Smart Meter can be operated in credit or prepayment mode and change configuration. This issue was raised to gain industry agreement on what the correct MTC is for a SMETS compliant Meter that will be recognised by Supplier, MOP, DNO, DC and Settlements.

The Meter Timeswitch Codes available were defined before Smart Metering was introduced into the industry. Smart Meters are yet to be considered about what would be an appropriate MTC.

---

### Demand capacity

**Issue 68: Underestimation of Demand Capacity and Credit Cover Percentage.** The Issue being investigated is the under-requirement of Credit Cover and how to develop a solution to avoid inaccurate DC declarations, which lead to this.

The Issue is looking into Demand Capacity (DC) declarations for each Balancing Mechanism Unit (BMU), which are used, along with other parameters, to calculate the Credit Cover Percentage (CCP).

### PAF review

**Issue 69: Performance Assurance Framework Review (PAF).** At its March 2017 meeting, the BSC Panel approved the scope and delivery approach of the PAF review, which has been divided into the following four work streams:

- Smart Metering
- Risk Evaluation Methodology (REM) and other PAF procedures
- Data Provision
- Performance Assurance Techniques.

This issue group will explore the issues with PAF stakeholders, identify possible solutions and to specify requirements.

## MODIFICATIONS AND CHANGE PROPOSALS IMPLEMENTED WITH RELEASE MONTH

June 2016	November 2016	February 2017	Standalone
P302	P324	P326	P340
P315	P333	P339	P345
P331	P337	P343	P352
CP1434	CP1458	P347	P353
CP1446	CP1459	CP1465	CP1453
CP1447	CP1461	CP1466	
CP1452	CP1462	CP1470	
CP1454	CP1463	CP1471	
CP1456	CP1467	CP1472	
CP1457	CP1468	CP1473	
		CP1481	

# 03 BSC PANEL

## BSC PANEL SUMMARY

The BSC Panel's overall focus remained on the delivery of its BSC obligations and the ongoing provision of BSC Services while maintaining an overview of, and taking into account, key changes going on within the industry.

The Panel's main priorities have continued to be the protection, maintenance and efficient management of the balancing and settlement arrangements as they exist today while looking ahead to the evolution of the market to see how the balancing and settlement arrangements must adapt. Areas of particular interest for the Panel are developments originating from Europe and the output of the Competition and Markets Authority investigation.

In addition, the BSC Panel has continued to discharge its non-Modification responsibilities during 2016/17.

Key non-Modification activities of the BSC Panel in 2016/17 have included:

### **Assurance & Disputes**

As in previous years, the BSC Panel considered the annual reports of the Technical Assurance Agent, the Balancing Mechanism (BM) Auditor and the BSC Auditor (including the findings of the Funding Shares Audit). It set the scope for the BSC Audit for 2017/18 and the Funding Shares Audit for 2016/17 and appointed the BM Auditor for the period 1 October 2016 to 30 September 2017.

The BSC Panel were also briefed on improvements to the Trading Disputes and Metered Volume Reallocation Notification processes that resulted from a lessons learnt exercise conducted following TDC and Panel consideration of a Trading Dispute.

The BSC Panel approved two key reviews: a review of the Performance Assurance Framework and a review of dispensations and non-standard Balancing Mechanism Units.

### **Cash-out and Credit**

The Panel received several updates following meetings of the Credit Committee and approved changes to the Credit Committees Terms of Reference.

---

### **Panel Governance and change**

The BSC Panel approved the reappointment of Michael Gibbons as the Chairman of the BSC Panel and the BSCCo Board.

### **Impacts arising from new market structures in GB and Europe**

The Panel has continued to monitor developments both within the UK and those decreed from Europe that will have an impact on the BSC. The Panel received regular updates from Ofgem, National Grid and ELEXON on the application of European Network Codes, faster switching, Demand Side Response and longer-term Settlement Reform. The Panel has provided its own support to these areas of work and endorsed ELEXON's provision of resource and expertise to them. The Panel also provided a formal response on the proposed reforms to industry code governance being considered as part of work to implement the recommendations of the Competition and Markets Authority (CMA).

Throughout the year, ELEXON provided regular updates to the Panel on the progress of work undertaken by ELEXON's subsidiary, EMR Settlement Limited (EMRS) in its role as the EMR Settlement Services Provider.

### **Reporting and operations**

The Panel received updates from ELEXON on its delivery of key strategic activities. The Panel has also received monthly updates on issues relating to Modification P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8', in particular on the progress of Suppliers against their P272 migration plans.

## BSC PANEL SUMMARY

Details of panel member attendance at meetings, both scheduled and ad hoc, held from April 2016 to March 2017 are below:

Number of BSC Panel meetings	April 2016 - March 2017	April 2015 - March 2016
<b>Scheduled and ad-hoc</b>	<b>14</b>	<b>12</b>
Michael Gibbons	13 (14)	12 (12)
Phil Hare (Independent Panel Member)	12 (14)	11 (12)
Derek Bunn (Independent Panel Member)	13 (14)	10 (12)
Diane Dowdell (Chair-appointed Industry Panel Member)	11 (14)	4 (4)
Stuart Cotten (Industry-elected Panel Member)	13 (14)	11 (12)
Barbara Vest (Industry-elected Panel Member)	2 (14)	5 (12)
Bob Brown (Industry-elected Panel Member) – served until Sep 2016	7 (7)	11 (12)
Andy Colley (Industry-elected Panel Member) – served until Sep 2016	6 (7)	10 (12)
Peter Bolitho (Industry-elected Panel Member) – served until Sep 2016	3 (7)	9 (12)
Andy Knowles (Industry-elected Panel Member) – served from Oct 2016	6 (7)	N/A
Mitch Donnelly (Industry-elected Panel Member) – served from Oct 2016	5 (7)	N/A
Tom Edwards (Industry-elected Panel Member) – served from Oct 2016	6 (7)	N/A
Richard Hall (Consumer Panel Member) – served until November 2016	6 (10)	N/A
Stew Horne (Consumer Panel Member) – served from September 2016	8 (8)	N/A
Victoria Pelka (Consumer Panel Member) – served from December 2016	2 (4)	N/A
Alex Haffner (Transmission Company Panel Member) – served until Dec 2016	11 (11)	3 (3)
Chris Fox (Transmission Company Panel Member) – served from Jan 2017	2 (3)	N/A

# 04 BUSINESS REVIEW

## 04 / BUSINESS REVIEW

ELEXON has focussed this year on meeting our customers' need for us to move to an intelligent, value adding support service that provides proactive opinion and industry leadership. Furthermore, ELEXON has continued to deliver its vision in 2016/17 with its leadership in a number of areas to improve the wholesale market arrangements.

This includes developing and implementing changes to the BSC systems and processes and providing expert advice and guidance to the Ofgem Smarter markets initiatives (such as Settlement Reform and Faster and more reliable switching). We have also provided our expertise as trusted advisor and in a critical friend capacity to BEIS.

This is a review of our core BSC activities during 2016/17.

### IMPROVEMENTS TO ELECTIVE HALF-HOURLY SETTLEMENT

ELEXON led on a number of areas relating to settlement reform. In February 2016, the Settlement Reform Advisory Group (SRAG) delivered its final report to the BSC Panel, identifying a number of improvements to the BSC arrangements. During 2016/17 ELEXON has implemented the recommendations of the report, which sought to address barriers to 'elective' Half-Hourly Settlement (HHS). The changes implemented included new processes for Suppliers to provide Half-Hourly data from smart meters (Change Proposal (CP) 1469 'Changes to support the implementation of the SRAG's recommendations') and the creation of new data flows and data items to support the 'elective processes (DTC CP3469 'Changes to support the implementation of the SRAG's recommendations')'.

In addition, three BSC Modifications were progressed to remove further barriers to HHS. The first of these Modification P339 'Introduction of new Consumption Component Classes (CCC) for Measurement Classes E-G' came from the SRAG recommendations to introduce new CCs to allow aggregated HH export data to be settled. Modifications P346 'Changes to the BSC Specified Charges to facilitate Elective HH settlement' and P347 'Reduction in R1 Read Requirement for Half Hourly Sites' were progressed following the findings of the Ofgem consultation on elective HHS.

---

Following Ofgem's consultation, we also led and delivered on seven of the eight Ofgem work streams on improving (and removing barriers for) elective HHS (including some of the above changes). As part of this, ELEXON lead a cross-code working group on the Change of Measurement Class (CoMC) processes for elective HHS customers. This will lead to the June 2017 implementation of CP1474 'Updating the CoMC processes to facilitate the elective HH Settlement of SMETS Meters'. This will simplify the CoMC processes for smart Meters.

## MANDATORY HALF-HOURLY SETTLEMENT

Further to the work we have been leading on mandatory half-hourly settlement over the past years, ELEXON has now been providing expertise to Ofgem in its Settlement Reform work on moving towards Mandatory HHS. In November 2016, we responded to Ofgem's consultation in this area. ELEXON offered to lead on the Settlement facing elements of this work, which will be progressed through a Significant Code Review (SCR) to be launched in mid-2017. Ofgem has now accepted our offer and we will develop the settlement design (a Target operating model) for mandatory HHS as part of this Ofgem work, as well as provide settlement expertise on policy development and business case.

## DEMAND SIDE FLEXIBILITY (DSF)

Throughout 2016/17, we have been monitoring and contributing to developments in this area (demand side response (DSR), battery storage, embedded generation, local community energy). This has included responding to a number of consultations and in particular, in December 2016, we responded to the BEIS/Ofgem joint call for evidence on demand side flexibility. In the response, we set out our view on the need for smart and flexible market arrangements for a smart and flexible energy system, including comments on aggregator, storage, network charging and the impact of innovation on settlement.

---

ELEXON has been contributing to the National Grid led work on Power Responsive offerings. ELEXON is part of the Power Responsive Steering Group and has contributed to the DSR storage sub-group workshops. ELEXON has talked to parties looking at community energy, DSF Aggregators and battery storage providers during 2016. We have also contributed to Ofgem led work on the development of the Distribution System Operator (DSO) role. We are also members of the Scottish Power Steering group on DSO looking to develop proposals on what the DSO role looks like. Most recently, we have been invited on the special advisory board for the Electricity Networks Association's (ENA's) work programme on developing the role of Distribution System Operator.

We have been advising the Department of Transport (DfT) on issues relating to Electric vehicles and responded to an Office for Low Emission Vehicles (OLEV) consultation. We also responded to the National Infrastructure NIC consultation on Impact of Technological Change on Future Infrastructure Supply and Demand.

Throughout the year, we have engaged with stakeholders to help facilitate discussion on the market issues relating to demand side flexibility. In October 2016, we attended the aggregators' event organised by BEIS and Ofgem to launch their joint call for evidence, and presented on routes to market (including the constraints that currently prevent independent aggregators from accessing the Balancing Mechanism). Since then we have helped the Workgroup assessing Modification Proposal P344 ('Project TERRE implementation into GB market arrangements') to develop a solution that will potentially remove these constraints. We have also engaged with National Grid, electricity Suppliers and storage operators to explain the settlement processes relevant to the grid-scale storage solutions that are being built to deliver Enhanced Frequency Response.

## FASTER AND MORE RELIABLE SWITCHING

During 2016, ELEXON continued to provide expert support to Ofgem's Faster and More Reliable Switching Programme. The Programme seeks to improve customer experience of switching and engagement in retail competition. In the 'Blueprint' phase, the first of five phases, ELEXON contributed to two working teams (Business Process Design and Delivery Strategy), two user groups (Regulatory Design and Delivery Strategy) and the External Design Advisory Group (EDAG). Ofgem will continue to work on Blueprint activities during 2017, but in parallel has initiated the second phase of work – Detailed Level Specification (DLS).

---

In 2017, ELEXON has continued to support the Design and Delivery Strategy Team in DLS and will review its support to user groups, once details of these are known. During 2017/18 Ofgem will also start work on identifying the code modifications required to enable its faster switching reforms.

## PROFILE ADMINISTRATION

During 2016/17, the Profiling samples were impacted by the movement of customers in Profile Classes 5 to 8 to Half-Hourly Settlement (HHS) as part of the implementation of BSC Modification P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8. Hence, a decision on freezing the profile data for these Profile Classes will be taken in the coming year.

The Profiling samples for Profile Classes 1 to 4 remain robust and could be impacted by the smart meter roll-out. While the smart meter roll-out presents a threat to the installed sample metering, it also presents an opportunity to access half-hourly data from a greater population of meters. ELEXON will be looking to access this new source of data.

The Data Gatherer and Sample Manager service is now being provided by Morrison Utility Services following the sale of G4S Utility Services business to First Reserve, who own Morrison Utility Services.

## COMPETITION AND MARKETS AUTHORITY

Throughout 2016 we continued to support the Competition and Markets Authority (CMA) in providing clarifications and supporting its understanding of how its remedies affecting BSC process (Transmission Losses, Half Hourly (HH) Settlement) could be implemented.

We met with different members of the CMA team to explain, in detail, that the implementation approach and solution for moving to a Zonal Transmission Losses regime, assisting National Grid in drafting the Modification to enable them to meet their order form the CMA to give effect to such a regime. Modification P350 was raised in July 2016 to deliver the CMA Transmission Losses remedy and was approved by Ofgem in March this year.

---

Separately we discussed the timetable and pre-requirements to enable a move to HH settlement, based on work, which preceded the CMA investigation (see section on Half-Hourly Settlement).

ELEXON was also required to ensure, as members of the MRA Executive Committee and MRA signatories, that we gave effect to an order to allow the MRA Service Company to provide access to ECOES to organisations that provide price comparison services. We confirmed our compliance to the CMA in November 2016.

The consultation responses we provided to the CMA during this period are available on the Industry Insights page of the ELEXON website.

We are very grateful to Roger Whitcomb, Chair of the CMA investigation, who attended our annual BSC meeting to present the conclusions from the CMA findings to our BSC stakeholders.

## OFGEM'S CODE REFORM PROPOSALS – LICENSING

In its final recommendations, the CMA proposed that Ofgem should be given powers to make Code Administration a licensable activity. Ofgem incorporated this proposal into a broader consultation on Code Governance Reform, alongside proposals for the establishment of a consultative board and the setting of a Strategic Direction by Ofgem.

ELEXON met with Ofgem to discuss their proposals and Ofgem presented to the BSC Panel. In January 2017, ELEXON and the BSC Panel submitted separate responses but provided similar opinions on the Ofgem proposals, both agreeing that it would benefit industry if Ofgem were to set a strategic direction.

The Panel and ELEXON expressed a need for greater information on what the consultative board would do and how its role and responsibilities would fit alongside existing governance and the setting of a strategic direction. ELEXON provided thoughts on the role and constitution of the consultative board. Neither the Panel nor ELEXON believe that licensing is necessary to deliver the goals Ofgem stated in its consultation. The Panel observed that Ofgem already has many powers under the BSC that would allow it to drive improvements in delivering change.

---

ELEXON continues to support Ofgem in delivering change for the benefit of consumers and industry, such as our work on Half Hourly Settlement. In parallel, we have led the work on developing and managing a cross code plan of changes to industry codes.

The Panel and the ELEXON response is available on the Industry Insights page of the ELEXON website.

We recognise that Ofgem will require legislation before it is able to introduce a licensing regime, however ELEXON is now considering the actions which would enable it to participate in any licensing process for its services.

## EUROPEAN-LED DEVELOPMENTS

### **The 'Brexit' Referendum Vote**

The UK referendum vote in June 2016 to leave the European Union (EU) and the Government's subsequent triggering of Article 50, which formally commenced that process, could have significant impacts on the electricity sector in Britain.

We have continued to seek clarity from Government, Ofgem and NGET on the extent to which the BSC must continue to change to meet European Regulations and projects. These include the Guideline on Electricity Balancing; the Network Code on Emergency and Restoration, both of which were approved in this year but are not yet law; the Regulation on Energy Market Integrity and Transparency (REMIT); and Project TERRE of which GB is a member via NGET.

In September 2016, we responded to the, then, Energy and Climate Change Select Committee Inquiry into the implications of leaving the EU on UK Energy Policy. We concentrated on the need for clarity as to whether, and if so which, EU electricity legislation the UK will continue to adopt or retain.

However, in the absence of any further information, we believe it is still prudent to continue to plan on the basis that European Network Codes and Guidelines will bind us in the short term, particularly given the two-year timeframe to exit the EU.

---

### **The European Guideline on Electricity Balancing (EB GL)**

After eight years of development and negotiation, on 16 March 2017, European Member States voted to approve the text of the European Guideline on Electricity Balancing (EB GL). It is now likely to become law before the end of 2017.

The European Guideline on Electricity Balancing covers, amongst other things, settlement of balancing energy and imbalance settlement, so will have, potentially significant, impacts on the BSC after it comes into force, including the following aspects.

#### **Harmonisation of Imbalance Settlement**

In August 2016, the European Transmission System Operators' (TSOs') organisation, ENTSO-E, set up a new subgroup to examine the European harmonisation of imbalance settlement. The European Guideline on Electricity Balancing requires that TSOs make proposals for harmonisation of the main features of imbalance settlement within one year of the date that the Guideline comes into force. ELEXON is not a TSO so cannot be a voting member of this group, but we attend with NGET, the formal GB member.

#### **Adoption of 15-minute settlement**

The European Guideline on Electricity Balancing requires that all TSOs adopt a 15-minute imbalance settlement period within two years but can seek, under certain conditions, an exemption or delay.

In the first quarter of 2016, ELEXON submitted its forecast costs to a Europe-wide data gathering exercise on the costs and benefits of moving to 15 minute or 5-minute settlement. In April 2016, ENTSO-E sent the final Imbalance Settlement Period duration Cost-Benefit Analysis to the European Commission.

The results suggested that there was no net benefit to Britain of moving to 15-minute settlement under any scenario. As a consequence, we expect NGET to apply for an exemption once the EB GL becomes law.

---

### **ELEXON's Role**

During this year, we have continued to meet with Ofgem, National Grid and Government to discuss the various assignment and delegation options that are available under the European Guideline on Electricity Balancing. This is to enable ELEXON to continue in its BSCCo role after the European Guideline on Electricity Balancing comes into force. We worked hard, along with European companies in a similar position, to ensure that the final, approved text of the European Guideline on Electricity Balancing was suitable for ELEXON (including having the assignment option reinstated).

### **Project TERRE (Trans European Replacement Reserves Exchange)**

Project TERRE involves NGET and a number of other European Transmission System Operators, in meeting part of the EB GL requirements for pan-European energy balancing. During the first part of the review year, the BSC Issue 60 Group continued to consider how the BSC electricity market arrangements should interface with TERRE and made its final report to the May BSC Panel meeting.

National Grid then raised BSC Modification P344 in June 2016. P344 seeks to align the BSC with the Project TERRE requirements.

ELEXON hosted a European Project TERRE stakeholder event in July 2016. This gave GB-based parties a face-to-face opportunity to find out more about Project TERRE and meet its designers. ELEXON presented on what the BSC needs from project TERRE to interface with it successfully.

### **The Network Code on Emergency and Restoration (NC ER)**

Chapter 4 of the Network Code on Emergency and Restoration (NC ER) is of direct relevance to the BSC as it covers market suspension and restoration, and imbalance settlement in respect of market suspension periods. EU Member States approved the text of the Network Code on Emergency and Restoration in October 2016, and it is expected to become law later in 2017.

---

### **Other Network Codes and Guidelines**

European Member States approved the text of the European Transmission System Operation Guideline (TSOG), the equivalent of our GB Grid Code, in May 2016. However, it has not yet come into force.

The European Requirements for Generator (RfG) Network Code became law in May 2016; the Demand Connection Code (DCC) and the High Voltage DC (HV DC) Network Code in September 2016; the Forward Capacity Allocation (FCA) Guideline in October 2016.

### **Planning for the implementation of EU Network Codes and Guidelines in GB**

Ofgem tasked code administrators, including ELEXON for the BSC, with coming up with an EU-driven single Modification Plan and risk log. The initial plan was created in March 2017 and merged with the cross Code Forward Work Plan (FWP). The FWP is regularly updated and is publically available to download from the CACoP webpage of the ELEXON website: <https://www.elexon.co.uk/change/code-administration-code-practice-cacop/>

### **REMIT and BSC Modification P329**

BSC Modification P329 proposes to align the BSC and Balancing Mechanism Reporting Service (BMRS) with the European Regulation on Wholesale Energy Markets Integrity and Transparency (REMIT) common schemas for inside information web feeds, required by the Agency for the Cooperation of Energy Regulators (ACER).

In April 2016, the Authority approved P329 Alternative for implementation in June 2017.

ELEXON continued to engage with ACER on REMIT inside information matters throughout the year including attending an ACER roundtable meeting in October 2016.

### **The Winter Package**

On 30 November 2016, the European Commission published its 'Winter Package' of new energy legislation, now formally renamed the 'Clean Energy Package'. ELEXON has continued to work with both trade associations of which it is a member (Energy UK and Europex), on their responses to this. Both associations were supportive of ELEXON and included comments that the role of existing non-TSOs such as ELEXON should be recognised in the future legislation.

---

## CUSTOMER OPERATIONS

ELEXON continues to offer customised operational support to customers entering, operating in or exiting the market, including guidance and training on many different aspects of the market, monitoring of performance and support in the resolution of their performance and Audit issues. During 2016/17 ELEXON conducted 53 meetings with potential new entrants, 60 customers acceded to the Code and 15 left the market. During this time, ELEXON also managed 53 qualification applications. Our Operational Support Managers (OSMs) carried out 134 meetings and 488 teleconferences with customers. ELEXON conducted 148 training sessions covering a variety of topics such as Imbalance Settlement, Performance Assurance Reporting and Monitoring System (PARMS) and Credit.

We hosted five 'Introducing ELEXON' seminars during the year. The seminars are targeted for new entrants to the market, or anyone who has changed roles and wants to learn more about ELEXON's activities within the market. It provides an overview of the balancing mechanism and imbalance settlement processes, and includes presentations from ELEXON and other key organisations from across the industry, such as National Grid.

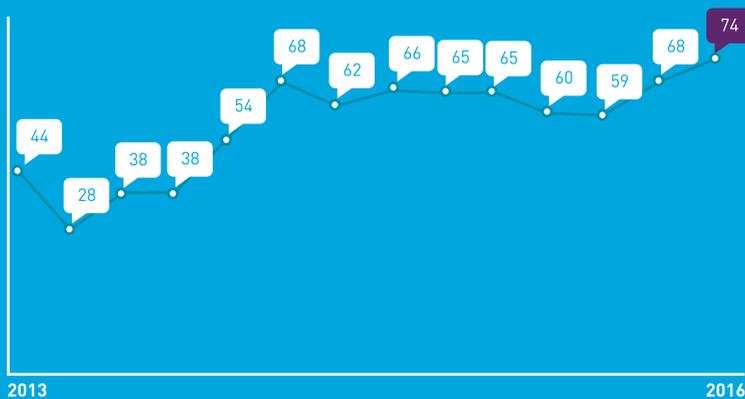
This year as well as our lunchtime workshops on topics such as Market Entry, Credit and Trading Disputes, we also introduced drop in sessions to allow attendees to learn more about our new BMRS platform. We had a new presentation on the CMA investigation findings and how they may affect ELEXON in the future. These Introducing ELEXON seminars are popular and are usually fully booked. Following the success of the seminars this year, there will be another five during 2017/18.

The Annual BSC Meeting and Seminar is another opportunity for us to interact with our key stakeholders. Following the success of previous years, the 2016 Annual BSC Meeting was once again followed by a Seminar. This year we had a unique opportunity of having David Gray, Ofgem's Chairman and Roger Witcomb, Panel Chair and Non-Executive Director of the CMA as our two exceptional keynote speakers. The seminar focused on the key issues impacting, and likely to impact Settlement and the operation of the BSC. We welcomed over 60 people to our offices and, based on the positive feedback we received, we are holding a similar event in 2017 with two more high profile keynote speakers.

## CUSTOMER SURVEY RESULTS

2016 IS OUR **STRONGEST CUSTOMER SATISFACTION SCORE TO DATE**

IN 2016, **74%** OF OUR CUSTOMERS RATED US AS **8/10 OR MORE**



Source: Independent customer survey for ELEXON carried out by ResearchCraft

The results of the 2016 Switched On! ELEXON customer survey is an important way of finding out exactly what our customers think of us, what we do well and where we need to improve.

In 2016, we continued to increase our scores for overall customer satisfaction and net recommendation (advocacy).

This means that these scores represent the highest we have ever received. ELEXON is seen as helpful, trusted, independent, reliable market experts setting the standard for code bodies.

We created a set of ELEXON infographics showcasing why our customers rate us as the best code manager, providing key market infrastructure, facilitating competition and delivering settlement services, and how our end-to-end expertise drives efficiency and effectiveness for the benefit of industry and the consumer.

As the chart below shows overall satisfaction increased by 6% with 74% of respondents scoring 8 or more out of 10.

---

Our net recommendation score also increased and is now at its highest recorded level too, with 76% of respondents speaking highly about us.

Our customer survey scores were also validated in 2016 when a cross-code survey involving all 11 code bodies was conducted on behalf of Ofgem by an independent research company. The survey focused on code administration and the service provided and comprised online, telephone and in depth interviews.

Overall ELEXON scored the highest net satisfaction rating of all the code bodies, with 82% of those surveyed being satisfied with the BSC as a whole.

We came out top in several other categories too: for the provision of support that we give, 85% of respondents are satisfied with this area of our service, and a fantastic 93% of participants felt satisfied with how we keep them informed about the BSC.

In fact of the seven categories, we came first in three, second in two and third in one, and for all questions we scored above the average, leading to the assessor's conclusion that 'Overall, ELEXON is regarded highly'.

## IMPROVING THE ELEXON WEBSITE

We continue our long-term project to improve the ELEXON website. Using feedback already received from our customers we are building robust user requirements and business specifications. This work will continue throughout 2017/18.

---

## ELECTRICITY MARKET REFORM (EMR)

In addition to our core role of delivering the BSC, we continue to apply our skills and expertise to an area beyond our traditional scope. The Secretary of State directed changes to the BSC to enable EMR settlement services for the Contract for Difference (CFD) and Capacity Market (CM), which we provide, under contract, to the Low Carbon Contracts Company (LCCC)/Electricity Settlement Company (ESC). EMR is at the heart of Government's energy policy and we're proud that since being awarded our contract by DECC to undertake these roles from 1 April 2015, we have continued to deliver systems and services to the CFD and CM schemes.

As well as the financial benefits to BSC Parties via the defrayment of our overhead costs, and through synergies of knowledge and service gained from ELEXON's involvement in this additional settlement activity, this has provided, and will continue to provide, new and interesting opportunities for our staff.

EMR services are provided through ELEXON's wholly owned subsidiary company, EMR Settlement Limited (EMRS), under contract to the LCCC and ESC, the two companies that Government established to deliver the CFD and CM regulations. ELEXON provides the people and office facilities to EMRS to enable it to perform its EMR functions. All costs and liabilities associated with delivery of the service are ring fenced from ELEXON's activities and budget.

Changes made to the BSC ensure that there is no cross-subsidy between BSC and EMR services. The budget process for EMRS is carried out as a separate exercise from that conducted with BSC Parties. The LCCC and ESC fund EMRS' costs, and the total costs of LCCC and ESC (which include those of EMRS) are consulted on separately by Government. The charges that EMRS passes onto the LCCC and ESC for EMR services include people costs and a proportion of ELEXON's fixed overheads. This enables the fixed overheads that BSC Parties are currently paying, for example occupancy and the IT infrastructure, to be partly defrayed.

---

## WARM HOMES DISCOUNT RECONCILIATION SCHEME

In October 2011, ELEXON was awarded a four-year contract to implement and operate the Warm Home Discount reconciliation mechanism. BEIS' Warm Home Discount Scheme Core Group requires participating electricity suppliers to provide rebates (the level of which is set by Government through regulation) to a targeted group of consumers that are in receipt of defined benefits. The purpose of the reconciliation mechanism ensures that scheme costs are shared equitably between the scheme's electricity suppliers so that no supplier is disadvantaged because of having higher numbers of consumers eligible for the rebate.

ELEXON has operated the reconciliation mechanism for the past six years, after winning a competitive tender process. It uses market share information provided by Ofgem, along with consumer numbers provided by BEIS, to calculate and process the reconciliation payments to be made or received by participating suppliers.

In May 2015, BEIS extended the contract by two years.

## BSC SYSTEMS STRATEGY

This year we completed our consolidation of our central system services under a single provider. We bought both our Application Management and Development (AMD) and our Business Processing and operation (BPO) under one provider. This work was completed in August 2016.

As part of the same initiative, we successfully relocated all BSC central system services to new datacentres hosting them on our service provider's commercial cloud environment. The cloud environment provides a more resilient and scalable infrastructure enabling ELEXON to deliver change more efficiently and bring additional costs savings to our customers.

---

We published our BSC Systems Roadmap which sets out a seven year view of the changes that will affect BSC (and BSC Party/wider industry) systems. We have also initiated an ELEXON Architecture Strategy project to understand better these changes and the impacts on the development of the BSC services. It will define how ELEXON's systems and processes need to evolve to ensure that they can continue to support ELEXON's role and obligations as BSCCo by defining the target architecture for ELEXON's BSC services and is expected to complete around October 2017.

## IMPLEMENTATION OF THE NEW BMRS PLATFORM

We successfully delivered third and final phase of the new Balancing Mechanism Reporting Service (BMRS) in September 2016. Phase 3 delivered the remaining functionality, including imbalance prices, migration of the BMRS calculations and a new front-end web service and user interface for all BMRS published data. Users now have programmatic access to all BMRS data through the API and/or Data Push Service in addition to the existing TIBCO service.

## BSC AUDIT

KPMG, as BSC Auditor, completed its work for 2016/17 encompassing all Reconciliation Runs processed in the year ended 31 March 2017. KPMG presented its final report to the BSC Panel in June 2017 and has given an unqualified opinion on the audit this year.

While there was a significant increase in the number of Settlement impacting issues across, in aggregate they were not of sufficient severity to qualify it. The Auditor did note that, because of efforts by ELEXON, the PAB and market participants, a number of legacy issues were closed or reduced in severity. In particular, improvements were identified in the processing of Change of Measurement Class scenarios and issues relating to incomplete or delayed provision of meter reads and Meter Technical Details.

---

The Auditor's findings are a key information source for ELEXON's work on Settlement Risks, and the report is available on the Performance Assurance section of the ELEXON website. ELEXON's response to these findings will be included in the Annual Performance Assurance Report 2016/17, which will be published later this year.

Looking forward, ELEXON, the PAB and the BSC Auditor will continue to review and enhance the performance assurance techniques and to tackle the issues identified in the 2016/17 Audit using the corrective tools available within the Performance Assurance Framework (PAF) and with targeted support to organisations through our Operational Support Manager (OSM) network.

## TECHNICAL ASSURANCE AGENT

In its role as Technical Assurance Agent (TAA), C&C Group, provide the Technical Assurance of Metering Service on behalf of ELEXON. This service involves visiting customer sites, ensuring that the meters installed meet ELEXON's requirements and provide accurate data for electricity settlement processes. In turn this gives ELEXON's stakeholders confidence that electricity Settlement operates efficiently and accurately.

In its Technical Assurance of Metering Systems Annual Report, presented to the Panel in June 2017, the TAA reported an increase in the number of SVA Category 1 non-compliances, with the most significant increase relating to Metering Equipment failures. The number of CVA Category 1 non-compliances identified was the same as the number recorded last year (2). Both of these errors were resolved.

## TRADING DISPUTES REFERRED TO THE PANEL

No Trading Disputes were referred to the BSC Panel during the 2016/17 reporting period. However, 34 disputes were heard by the Trading Disputes Committee, including one with a materiality in excess of £23m caused by Reversed Current Transformers (CTs) which led to import consumption data being registered as export at a GSP Metering System.

---

## PERFORMANCE ASSURANCE FRAMEWORK FOCUS

The Panel approved the scope of a review of the Performance Assurance Framework (PAF) and work has begun. The aim of this piece of work is to ensure that the PAF remains efficient and fit for purpose in the current market, taking account of significant industry developments such as the roll out of Smart Metering.

A significant portion of the PAB's focus has been on P272 and P322 related activity. P322 required Suppliers to migrate Advanced Meters in Profile Class (PC) 5-8 to Half Hourly (HH) Settlement from 5 November 2015 to 1 April 2017 using the Change of Measurement Class (CoMC) process. The PAB has been reviewing individual Supplier's performance and compliance with these modifications, and action has been taken to escalate Suppliers deemed to be performing poorly. This has significantly contributed to the PAB's workload and required meetings to be held over two days for several months.

## BUSINESS PLAN

This year, for the first time, the Business Plan was developed under the governance arrangements introduced by Modification P324. This introduced improved accountability to BSC Parties, giving them the opportunity to approve the appointment of directors and, in extremis, to vote to remove directors. P324 also gave the Board sole responsibility for approving the BSCCo Business Plan (but only after issuing to BSC Parties for comment).

The Business Plan was developed with contribution from the Panel and was shared with the industry who were invited to provide comments. We also held a webinar to describe the Business Plan to BSC Parties in more detail and provide an opportunity for them to ask questions on it. Feedback on the Business Plan from both Panel and Parties was positive.

The 2017/18 Business Strategy is based around the same vision as in previous years. As in previous years, the Panel Strategy and workplan have been used as fundamental building blocks for the BSCCo Business Plan. The themes of on-going commitment to our core BSC work, seeking improvements to the delivery of the BSC and its services to our customers and ensuring value for money through efficient and economic delivery remain unchanged.

---

## CORPORATE SOCIAL RESPONSIBILITY

ELEXON's Corporate Social Responsibility (CSR) Strategy is built around four spheres (Community, Marketplace, Workplace and Environment) and ensures that we behave in a sustainable and socially and environmentally responsible manner while supporting our ambition, values, brand and business objectives.

### **Environment**

ELEXON's environmental policy provides its staff and visitors with clear responsibilities and guidelines on how we manage our impact on the environment in our day-to-day work activities. We aim to reduce our environmental impact through staff awareness campaigns and by monitoring our energy consumption.

We use smart metering technology to help us identify where we can make savings, in lighting controls, air-conditioning running times and by turning off IT equipment.

During the year, all lighting in the ELEXON office was replaced with energy-saving LED equipment, which uses less electricity and are brighter.

---

### **Community**

On 31 March 2017, we ended our three-year partnership with Age UK and the University College London Hospital as our employee-nominated company charities. During 2016/17, employees raised over £1,200 for each charity through various fundraising activities as well raising an additional £2,000 per charity through buying the company's old laptops.

As well as company activities, our employees are encouraged to continue to use volunteering days, or individually participate in fundraising activities. From running marathons, climbing mountains, growing moustaches and cycling counties, our staff are always willing to raise money for the company charities or a personal cause.

### **Marketplace**

This year we have continued to embed CSR into the tender process as standard, with a weighting applied to suppliers' commitment to it. We have been working with new or potential suppliers and service providers to ensure they are providing CSR credentials compatible with our own. Also by working proactively with suppliers, we are improving our supply chain so we ensure we do the right thing by everyone.

# 05 OPERATIONAL UPDATES

## 05 / BUSINESS REVIEW

For information about operational performance, including each Supplier Meter Registration Service (SMRS) and Master Registration Agreement (MRA) arrangements, please see our Trading Operations Report, ELEXON Circulars, Quarterly Reports and the monthly System Price Analysis Report on the ELEXON website.

### Performance of key operational services

System availability	Target	Actual*
Balancing Mechanism Reporting Service (BMRS)	99.95%	99.97%
Energy Contract Volume Allocation Agent (ECVAA)	99.95%	100%
Service Desk	99%	99.32%

\* The actual performance does not include any downtime or interruption experienced during planned outages (such as those required to implement a BSC Release) or where inputs from third party providers have been the root cause of a degradation in performance.

# 06 REVIEW AGAINST THE ANNUAL BUDGET

## 06 / REVIEW AGAINST THE ANNUAL BUDGET

The audited result for the 2016/17 financial year shows total BSC expenditure of £30.9m, which gave an underspend against the approved budget of £5.4m (14.9%). The position against budget for the full year is summarised below. Involvement in EMR has enabled £699k of BSC overheads to be defrayed.

Expenditure by type	Budget (£m)	Actual (£m)	Var. (£m)
ELEXON Operational	17.5	14.9	2.6
Demand Led	1.8	0.9	0.9
Contracted	15.2	14.5	0.7
System strategy	1.5	0.6	0.9
Market development	0.3	0.0	0.3
<b>Total</b>	<b>36.3</b>	<b>30.9</b>	<b>5.4</b>

The £5.4m of the underspend was mainly attributable to savings on resource and associated overhead costs, as well as less market development activity, reduced activity on system transformation and fewer system changes.

### OPERATIONAL EXPENDITURE

The operational expenditure was £2.6m under budget. People Costs were £1.2m below budget, as a result of delays in recruitment (£845k) and higher EMR income for the year (£342k).

Our Occupancy costs for the year were also below budget mainly due to lower rates and lower service and repair and maintenance costs. Higher income for LUSTRE, office hires and accession fees also brought net overheads down. Some other overheads were impacted by resource levels, which came below budget, and drove a reduction of £598k across various areas such as training, welfare, travel and general admin. This area also contained some contingent budget for projects, general contingencies and consultancy & legal; of these areas, £673k was underspent.

---

## DEMAND LED EXPENDITURE

Demand led expenditure was £0.9m under budget for the full year. This is mainly due to less complex release projects and fewer Panel Committee projects.

## CONTRACTED EXPENDITURE

Contracted expenditure was £0.7m under budget for the full year. Savings were mainly due to the reduced depreciation charges for Balancing Mechanism Reporting System due to delay of go-live (£0.5m), reductions in Market Index Data costs, and lower actual costs for Technical Assurance Agent (£0.1m) to reflect the delay of increased scope implementation and lower variable charges on the central systems costs.

## SYSTEM STRATEGY

Savings are due to reduced activity on system transformation and fewer system changes.

## MARKET DEVELOPMENT

As per our 2016 /17 Business Plan, a £0.3m Market Development budget was included to cover a number of potential activities. We delivered these 'horizon scanning' activities using mainly existing BSC resources and as such none of these have given rise to additional external expenditure.

# 07 APPENDIX 1: COMMITTEE SUMMARY

## 07 / APPENDIX 1: COMMITTEE SUMMARY

### PERFORMANCE ASSURANCE BOARD (PAB)

PAB works to provide assurance that all BSC participants are suitably qualified and that the relevant standards of performance, and compliance with the BSC, are maintained.

The PAB considered over 234 papers during 2016/17 (a 54% increase from the previous year). Of these papers 64% (149) were decision papers compared to 76% (116) in 2015/16.

The increased volume of papers is due to:

- ▶ The consequence of Change of Measurement Class activity.
- ▶ Increased activity in Qualification.
- ▶ High levels of Error and Failure Resolution activity.
- ▶ Increasing levels of both the HH and NHH estimation.

### IMBALANCE SETTLEMENT GROUP (ISG)

The Imbalance Settlement Group (ISG) oversees and helps to develop the Central Volume Allocation (CVA) Arrangements. Over the year, the ISG has achieved the following:

- ▶ Approved 11 BSC Change Proposals (CPs): CP1461, CP1462, CP1463, CP1468, CP1470, CP1471, CP1474, CP1476, CP1472, CP1479, and CP1477
- ▶ Rejected one BSC CP: CP1466
- ▶ Approved changes to one CVA Configurable Item as part of the November 2016 Scheduled Release
- ▶ Approved changes to seven CVA Configurable Items as part of the February 2017 Scheduled Release
- ▶ Approved changes to the Credit Assessment Load Factor (CALF) guidance document to provide further clarification regarding the Appeals calculations
- ▶ Approved changes to the generic Supplier Export Credit Assessment Load Factor (SECALF) values
- ▶ Approved five temporary Metering Dispensations
- ▶ Approved three lifetime Metering Dispensations
- ▶ Approved 13 Non-Standard Balancing Mechanism Units (BMU)
- ▶ Noted the continued use of Line Loss Factor (LLF) calculation methodologies for Licensed Distribution System Operators (LDSOs)
- ▶ Approved CVA LLFs for use during the 2017/18 BSC Year

- 
- ▶ Approved Delivering and Offtaking Estimated Transmission Losses Adjustment (ETLMO) values for use during the 2017/18 BSC Year
  - ▶ As part of its annual review recommended to the BSC Panel no changes to the Market Index Definitions Statement (MIDS) and subsequently recommended changes to the MIDS following a change in name of one of the MID Providers
  - ▶ Considered ELEXON's reviews of Continuous Acceptance Duration Limit (CADL) and De Minimis Acceptance Threshold (DMAT) and agreed that ELEXON conduct these reviews again in two years' time
  - ▶ Commented on ELEXON's proposal to establish an Issue Group on under-declaration of Demand Capacity and under-provision of Credit cover
  - ▶ Commented on ELEXON's post implementation review of BSC Credit Modifications (P306, 307 and 310)
  - ▶ Commented on ELEXON's six month and 12 month post-implementation reviews of P305 'Electricity Balancing Significant Code Review Developments'
  - ▶ Reviewed the initial and final recommendations of ELEXON's strategic review of Metering Dispensations and non-standard BMU applications.

## SUPPLIER VOLUME ALLOCATION GROUP (SVG)

The Supplier Volume Allocation Group (SVG) oversees and helps to develop the Supplier Volume Allocation (SVA) arrangements. To assist it, the SVG also has some advisory subgroups in specific areas:

- ▶ Metering Dispensation Review Group (MDRG, a joint subgroup with the ISG)
- ▶ Profiling Expert Group (PEG)
- ▶ Software Technical Advisory Group (STAG)
- ▶ Unmetered Supplies User Group (UMSUG)

Over the year, the SVG:

- ▶ Made decisions on 20 Change Proposals
- ▶ Deferred its decision on one Change Proposal, pending further work on its solution
- ▶ Approved amended Configurable Items for the June 2016 and February 2017 Releases
- ▶ Oversaw over 250 changes to Market Domain Data

- 
- ▶ Approved new profiling Technical Product Deliverables for use from 1 April 2017
  - ▶ Postponed the review of Average Fraction of Yearly Consumption values and Default Estimated Annual Consumption values until November 2017, due to technical issues
  - ▶ Approved new SVA Line Loss Factors (LLFs) following the annual LLF audit
  - ▶ Agreed that ELEXON should raise an Issue to consider the causes and treatment of large LLFs (subsequently progressed as Issue 65)
  - ▶ Approved one application for a Metering Dispensation and one extension to an existing Metering Dispensation
  - ▶ Approved changes to the Unmetered Supplies Operational Information Document.

## TRADING DISPUTES COMMITTEE

During 2016/2017, the Trading Disputes Committee (TDC) upheld 32 Trading Disputes. The total error corrected through the Trading Dispute process is approx. £29.7m.

During the year, there were three Trading Disputes of a materiality over £1m. Two of the disputes occurred in the Central Volume Allocation (CVA) Market were caused by an incorrect Metering set up resulting in import consumption data to be registered as export and an issue in the allocation methodology for an interconnected Metering System between two Grid Supply Point (GSP) Groups. The third dispute of a significant materiality was in the Supplier Volume Allocation (SVA) market and was caused by a single Half Hourly Data Aggregator (HHDA) submitting erroneous data at the Post-Final Settlement Run (DF). The materiality of those three disputes accounts for 94.6 % of the overall materiality associated with the upheld Trading Disputes in the reporting period.

---

## CREDIT COMMITTEE

The Credit Committee looks after the Credit Assessment Price (CAP). The CAP is used as a proxy for out-turn System Buy Price in BSC Parties' Credit Cover calculation and is based on forward market prices. A review of the CAP is triggered when the CAP reference price, calculated using forward market prices, varies from the CAP by more than a set threshold (the trigger level).

At the start of the 2016/17 BSC year, the CAP trigger level was set at £4/MWh. The Credit Committee considered its value at its meeting on 28 October 2016 and determined that it should be changed to £8/MWh. The trigger level was reviewed again at the Credit Committee meeting on 9 December 2016 and changed to £5/MWh.

The Credit Committee had a busy year in 2016/17. It held nine meetings because of CAP breaches. This was caused by a new methodology for calculating the reference price and market price high volatility. After these meetings, the following changes were made to the CAP:

Effective date	Value of CAP
05/04/2016 - 20/07/2016	£33/MWh
21/07/2016 - 12/09/2016	£38/MWh
13/09/2016 - 20/10/2016	£42/MWh
21/10/2016 - 21/11/2016	£53/MWh
22/11/2016 - 12/12/2016	£98/MWh
13/12/2016 - 04/01/2017	£106/MWh
05/01/2017 - 13/02/2017	£63/MWh
14/02/2017 - 20/03/2017	£57/MWh
21/03/2017 - 24/04/2017	£49/MWh
25/04/2017 - To date	£43/MWh

At its meeting on 30 March 2017, the Credit Committee considered a proposal to amend the CAP review process by automatically setting the CAP to the latest reference price unless any BSC Party or Credit Committee member request a meeting to occur. The proposal will be discussed at the April BSC Panel meeting and sent out for consultation. If approved, it will be implemented on 1 June 2017.

## 08 APPENDIX 2: URLS

## 08 / APPENDIX 2: URLS

### MODIFICATIONS RAISED BY AREA

- ▶ P345: Reducing the CAP change notice period and improving its flexibility (<https://www.elexon.co.uk/mod-proposal/p345/>)
- ▶ P352: Housekeeping changes to BSC Section M (<https://www.elexon.co.uk/mod-proposal/p352/>)
- ▶ P338: Consequential changes to P272 legal text (<https://www.elexon.co.uk/mod-proposal/consequential-changes-to-p272-legal-text/>)
- ▶ P343: Increase to the number of Supplier IDs that can be held by a Supplier (<https://www.elexon.co.uk/mod-proposal/p343/>)
- ▶ P351: Align the BSC with changes to the SCR requirements (<https://www.elexon.co.uk/mod-proposal/p351/>)
- ▶ P353: Align Section B with the intent of P324 (<https://www.elexon.co.uk/mod-proposal/p353/>)
- ▶ P340: Removal of References and Requirements Relating to the LCPD (<https://www.elexon.co.uk/mod-proposal/p353/>)
- ▶ P341: Forward Publication of Maximum Export and Import Limits (<https://www.elexon.co.uk/mod-proposal/p341/>)
- ▶ P348: Provision of gross BM Unit data for TNUoS charging (<https://www.elexon.co.uk/mod-proposal/p348/>)
- ▶ P349: Facilitating Embedded Generation Triad Avoidance Standstill (<https://www.elexon.co.uk/mod-proposal/p349/>)
- ▶ P347: Reduction in R1 Read Requirement for Half Hourly Sites (<https://www.elexon.co.uk/mod-proposal/p347/>)
- ▶ P344: 'Project TERRE implementation into GB market arrangements' (<https://www.elexon.co.uk/mod-proposal/p344/>)
- ▶ P354: Use of ABSVD for non-BM Balancing Services at the metered (MPAN) level (<https://www.elexon.co.uk/mod-proposal/p354/>)
- ▶ P350: Introduction of a seasonal Zonal Transmission Losses scheme (<https://www.elexon.co.uk/mod-proposal/p350/>)
- ▶ P342: Change to Gate Closure for Energy Contract Volume Notifications (<https://www.elexon.co.uk/mod-proposal/p342/>)
- ▶ P339: Introduction of new Consumption Component Classes for Measurement Classes E, F and G (<https://www.elexon.co.uk/mod-proposal/p339/>)
- ▶ P346: Changes to the BSC Specified Charges to facilitate Elective HH settlement (<https://www.elexon.co.uk/mod-proposal/p346/>)

---

## ISSUES

- ▶ Issue 64: Defining default price when NIV equals zero and when there is no priced action left after NIV tagging. (<https://www.elexon.co.uk/smg-issue/issue-64/>)
- ▶ Issue 65: Causes and treatment of large Line Loss Factors (<https://www.elexon.co.uk/smg-issue/issue-65/>)
- ▶ Issue 66: Responsibility for addressing Meter faults for Dual Function Meters with different Suppliers for Import and Export (<https://www.elexon.co.uk/smg-issue/issue-66/>)
- ▶ Issue 67: Meter Timeswitch Code for Smart Meters (<https://www.elexon.co.uk/smg-issue/issue-67/>)
- ▶ Issue 68: Underestimation of Demand Capacity and Credit Cover Percentage (<https://www.elexon.co.uk/smg-issue/issue-68/>)
- ▶ Issue 69: Performance Assurance Framework Review (PAF) (<https://www.elexon.co.uk/smg-issue/issue-69/>)

## OPERATIONAL UPDATES

**Trading Operations Report** (<http://www.elexon.co.uk/reference/technical-operations/trading-operations-report/>)

**ELEXON Circulars** (<http://www.elexon.co.uk/news-events/elexon-circulars/>)

**Quarterly Reports** (<http://www.elexon.co.uk/about/reports-policies-pubs/reports/>)

**System Price Analysis Report** (<http://www.elexon.co.uk/reference/technical-operations/trading-operations-report/>)



ELEXON.CO.UK