



2018/19  
BSCCO BUSINESS PLAN



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# 01 FOREWORD

## 1.1 Chief Executive's foreword to BSCCo Business Plan

By Mark Bygraves, Chief Executive



### A time of significant change

For those of us who have been in the industry a long time, I am sure we can all agree there has never been a period of so much change. Whilst I appreciate that we at ELEXON see only one part of those changes, we nevertheless want to ensure we are responding to the industry's needs by continuing to deliver services to our historically high standards, and adapting those services to meet your new and increasing demands. And those demands are many and varied, be they originating from consumers and prosumers, from existing or new market entrants, from European or Government policy, or from technology and data driven solutions. In all cases I am determined that the Balancing and Settlement Code shall not be a barrier to such innovation and change.

Over the last year I, along with other members of ELEXON's Executive team and colleagues, have continued our visits to BSC Parties to understand more about their businesses and how we can better support them. Our 2017 customer survey results show that you value highly our services and in particular our professionalism and access to our experts. They also show our customer base is changing and becoming more diverse and that we need to do more to support the newer, smaller, less experienced market players.

In such meetings, whether they be with Parties or with other stakeholders such as Ofgem or BEIS, I am often asked what I see as ELEXON's purpose both now and in the future. I am very clear that our priority is to deliver our BSC services and EMR services to the satisfaction of our customers. Beyond that we need to ensure the arrangements which we administer, update and operate, are adapting to the new smart and flexible market in which we all find ourselves.

**OUR STRATEGIC FOCUS IS TO ENABLE**

a timely transition to a smart  
and flexible system

## The BSC is responding to market change

To this end, we will continue to push forward modifications to the BSC rules such as P362 'BSC Sandbox' and P355 'BM-Lite' and engage further with proponents of flexibility, storage, electric vehicles, batteries and other innovative business models either directly in our one to one meetings or collectively via organisations such as InnovateUK, Ofgem's Innovation Link, techUK among others. In this way we are seeking to be proactive to these developments, leading on some discussions and supporting others, all to ensure the BSC supports innovation.

Historically, ELEXON has been very successful at delivering incremental change to BSC systems and processes, in order to support a gradual evolution. However, whilst our systems and processes are sufficient to serve today's needs, over the next five years we expect the rate of market change to accelerate so significantly that this 'business-as-usual' model will no longer suffice and more nimble systems will be required. We have therefore already commenced a review of our systems and will be engaging with you in 2018/19 to explain our proposals. Rest assured, this will not be a big bang implementation but a measured and proportionate response to the challenges our systems face. It is for this reason that our system strategy budget has increased in 2018/19. We are ever mindful that you are our funders and we are only one end of the process; your own businesses have to interact seamlessly with ours and we therefore want to engage with you to achieve a smooth transition as we move forward.

## Trusted, independent, reliable market experts

I mention us providing expert advice and contributing to various policy initiatives and I believe we have shown through our success in delivering EMR settlement to budget, to quality and ahead of regulatory need, that we are a dependable delivery partner for government and industry. We are currently leading on the design of market-wide Half Hourly Settlement for Ofgem which is such an important enabler for storage, aggregators, EVs and time of use tariffs as well as being essential for the realisation of the full benefits of the smart meter roll out. We have been contributing fully to the Faster Switching programme and providing our expertise to numerous other initiatives.

And according to you, based on the feedback you provide during independent surveys, we deliver expert services to a high quality; be that our own customer survey where our 2017 results, alongside our 2016 scores, represent our best ever results for customer satisfaction; or Ofgem's cross code administrator survey where we scored the highest net satisfaction score and came top overall. Rest assured, I remain focused on continuing to deliver these services to your satisfaction.

At ELEXON, whilst shareholder control differs from most other companies due to our unusual governance arrangements, we are committed to working in the best interests of industry. And as ELEXON is not for profit, we do not extract a margin from you for providing these essential BSC and EMR services. However, we are always mindful it is industry and, ultimately, consumers, that fund our costs so we strive to deliver our services in the most economic, efficient and effective manner. For example, as shown later in this document, we have reduced our costs significantly over the last 10 years in an environment with higher volume and complexity and whilst increasing the services we provide. We are also highly transparent, publishing our detailed plans and budgets, and through that transparency and provision of our expertise we seek to maintain your trust in us.

## More simplification, less fragmentation

Much of what we do depends on the participation and contribution of others, whether that's industry's attendance at workgroups and responses to consultations, clarity of policy and direction from BEIS and Ofgem, or cooperation from other code panels and code administrators.

Over the last year, we lead on cross-code coordination initiatives and created a Forward Work Plan of modifications to all codes and shared this with the industry, but we felt more could have been achieved to benefit industry with greater support and contribution from other code administrators. We also proposed to Ofgem improvements to code governance, which do not require legislation.

We believe greater cooperation and a closer alignment between all code administrators is required if we are to deliver government strategic priorities for the energy industry as detailed in BEIS and Ofgem's joint Smart Systems and Flexibility Plan, published in 2017.

Therefore, our vision for the future of central services is not for periodic competition between code administrators where administrators cut back on valuable expertise, are reluctant to share best practice or impose additional charges for new out of scope activities. Instead we propose more extensive collaboration and ultimately consolidation of code bodies as this would simplify and streamline processes and the user experience.

For a number of years we have been advocating the case for change in central market governance arrangements. We strongly believe now is the right time for the industry and us to take the cross-code working initiatives to the next level focusing on closer working between code administrators and even consolidation rather than competition and further fragmentation; to that end we wish to share our revised vision for ELEXON:

By 2025 we will create the leading provider of central services to the GB energy sector, built on the best practice from the ELEXON service culture for the benefit of consumers and market participants.

The introduction by Ofgem of a new Retail Energy Code (REC) with its own code administrator provides the opportunity for industry to start that consolidation. We question the benefit of adding another code administrator to the already complex and confusing landscape. A much better option in our view is to appoint a trusted and respected organisation, such as ELEXON, with the interests of supporting industry, government and the regulator ingrained in its DNA, and on a not-for-profit basis just like the BSC. The appointment of the administrator is we understand to be by suppliers and I therefore encourage suppliers to consider the attributes they desire and appoint the code administrator that best exhibits these.

All of the foregoing aspects are dealt with further in this Business Plan and I welcome your comments and look forward to working with you and your businesses over the coming year.



**Mark Bygraves**

Chief Executive Officer  
ELEXON



TRUSTED  
INDEPENDENT  
AND RELIABLE  
MARKET EXPERTS

## 1.2 Chairman's foreword to BSCCo Business Plan

By Michael Gibbons CBE, Chairman



In my fourth year as the ELEXON and BSC Panel Chair, I am beginning to see the industry arrangements and structures adapting to the challenge of a smarter, flexible, more diversified electricity system, whether through the proposals to separate out the system operator role, or the progress of several Modifications that seek to ensure the Balancing Mechanism is more flexible and responsive to change. The Board and Panel have been carefully considering how ELEXON and the BSC services need to adapt and the conclusions are described later in this Business Plan.

In my view, we - the Panel and ELEXON - have operated successfully under the new Governance arrangements put in place by Modification P324 in November 2016, although I suspect, and hope, the change has been quite seamless for our stakeholders. We appointed the CEO to the Board and issued our first open letter to BSC Parties about what the Board had been doing and planned to do in the future. Our Annual BSC meeting was the first opportunity for BSC Parties to exercise votes to indicate their confidence in the Board and I was very pleased that Parties demonstrated their support for our work by agreeing the five reappointments to the Board, including my own. We have recently welcomed Anne Heal to the Board as a Non-Executive Director in October 2017, following the departure of Gillian Wilmot. I am grateful to Gillian for her service over four years.

I think we are all very aware that good communication between us, i.e. Panel, ELEXON, regulator, other code bodies and the industry has never been more important. Indeed, the many operational interdependencies between us all in achieving shared goals seems to be evident at every meeting I attend. For that reason we continue to promote the need for a greater coming together, engagement and coordination of the various central bodies involved.

The ELEXON Board has continued to assess the changing landscape of the energy frameworks and to consider ELEXON's place in them. The Board firmly believes that ELEXON has much to offer stakeholders through building upon the excellent service we provide. As the leading provider of code services, as confirmed through Ofgem's own cross code survey, we recognise our template for code delivery is one that others seek to adopt. We were disappointed, to be frank, that ELEXON could not bid for the Gas Assurance services but the Board were clear that we could not commit BSC Parties' funds when it appeared that our proposed not-for-profit service did not comply with the tender requirements that had been issued. I note that Modification P325 was withdrawn during the year, which was seeking to provide another mechanism for ELEXON to undertake new services. We would still like to see a practical mechanism developed that allows ELEXON to build upon its service offerings as well as to make good progress on code reform.

COMPLEX ENERGY INDUSTRY UNIVERSE



In the last 12 months, we have sought to increase our engagement and influence with policy makers and industry, to ensure we provide our insight to the debate on future energy arrangements and their transformation. I believe we have much to offer in shaping the new world and will continue to champion ELEXON and the Panel’s involvement in the debate.

Meanwhile ELEXON, its Board and the Panel continue to review the changing landscape in which we operate to ensure the BSC adapts to our customers’ changing needs. Our efforts are driven by domestic policy and European regulations. To enable domestic policy aspirations, we are leading on the design of market-wide Half Hourly Settlement and the evolution of EMR. Moreover, we have started to consider modifications in relation to the supplier hub, a regulatory sandbox, and “BM-lite” participation. European regulations bring in a set of changes as well. European Network Codes are introducing new products and calculations into the BSC, necessitating us to produce an up to date cross-code plan in conjunction with National Grid to ensure transparency for stakeholders.

Throughout all of this change, you can be assured that ELEXON remains focused on delivering the BSC and EMR settlement services to our usual high standard. However, we are not complacent and acknowledge there is always scope for improvement and we aim to enhance our services for the benefit of you, our customers.

I am proud to lead ELEXON and to serve this industry.

**Michael Gibbons CBE**

Chairman  
ELEXON



# SECTION A

## THE STRATEGY

## **02** LOOKING BACK: REVIEW OF 2017/18 BUSINESS STRATEGY IMPLEMENTATION

Our mission and vision have been the cornerstones for our BSC planning of annual and monthly business activities for 2017/18. Our focus has always been on delivering our core services to industry and this is reflected in our mission.

Our mission for 2017/18: **To deliver and evolve the BSC effectively, efficiently and economically to the benefit of our customers and stakeholders.**

We also wished to support the best strategic outcomes for the evolving industry by pursuing our vision. Our vision was the same as in previous years:

**To be a leader in the efficient transformation of energy markets by providing shared solutions to address common industry problems.**

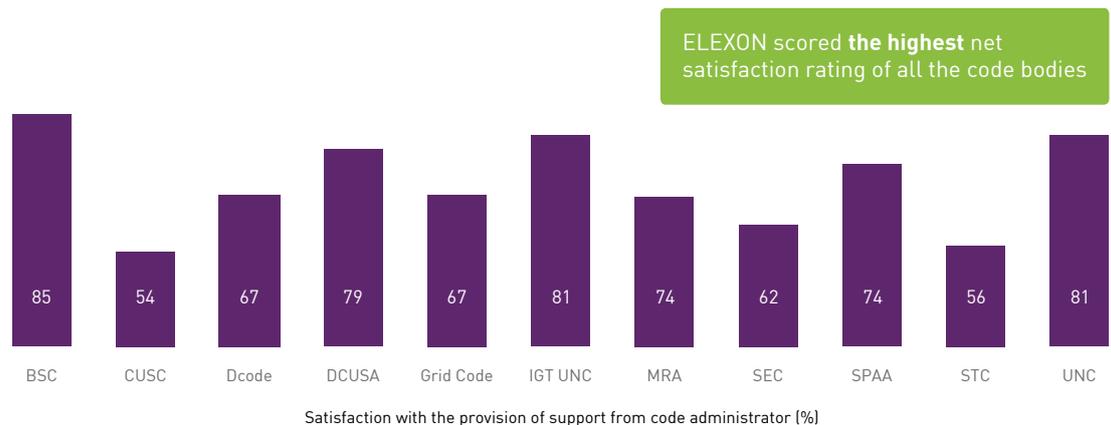
The 2017/18 BSCCo Business Plan and Budget was based on a set of strategic priorities that would have been familiar to BSC Parties and remained unchanged from the previous year:

- ▶ **Delivery:** Actively manage our services to ensure that we deliver in a reliable, economic and efficient way
- ▶ **Improvement:** Enhance and evolve our services to support industry changes and development of the energy market
- ▶ **Engagement:** Improve the customer experience and develop richer customer relationships
- ▶ **Capability:** Invest in our people to enable industry to benefit from our expertise



It has always been critically important for us to maintain the best-in-class service and highest delivery standards for existing and new BSC Parties and we are proud to have the high standard of customer service independently verified. ELEXON scored the highest net satisfaction rating of all the code bodies in Ofgem's Code Administrators' performance survey (2017).

**OFGEM'S CODE ADMINISTRATORS' PERFORMANCE SURVEY (2017)**



## Key accomplishments within our Strategic Priorities

The following paragraphs highlight some of our key accomplishments in 2017/18 against each of our Strategic Priorities.

### **Delivery: Actively manage our services to ensure that we deliver in a reliable, economic and efficient way**

For us, focus on the day-to-day delivery of services is key. We do not distinguish between large and small customers, new or old, for profit or not-for-profit services (we have none of the former) and instead seek to serve the industry in an independent manner as possible, providing our quality service to all BSC Parties and supporting government and regulator in development of policy. In short, we are seen as trusted, independent, reliable market experts.

In addition to providing our core services, in 2017/18 we also continued to review and assess market changes, new technology trends, and the changing aspirations of energy consumers. This was to support innovation in the BSC and also to encourage a wider range of central services providers to come together to enable a more transparent and faster way to bring cross-code changes. We believe this is one of the key enablers for the transition to the smart and flexible energy system of the future.

At the same time, we continued with a comprehensive review of BSC-specific frameworks and processes to make sure they remain robust, flexible and reflective of the changing number and composition of our core customers – BSC Parties and stakeholders.

## Delivery

2017/18

### 1. Business-as-Usual (BAU)

Throughout 2017/18 we focused on delivering our core services and systems. As well as delivering the status quo, during 2017/18 we also assessed 45 changes, delivered 12 major system changes, resolved over 10,000 helpdesk calls. The system availability targets were exceeded in our 24/7 operations.

#### SYSTEM AVAILABILITY TARGETS

ACTUAL



99.97%

TARGET



99.95%

ACTUAL



100%

TARGET



99.95%

ACTUAL



99.32%

TARGET



99.00%

BALANCING MECHANISM  
REPORTING SERVICE

ENERGY CONTRACT  
VOLUME ALLOCATION AGENT

BSC SERVICE DESK

As part of our continued drive to make our internal processes more effective.

- We created a **separate Business Analysis (BA) function** as a distinct team to maintain standards, frameworks and templates for delivering business analysis activity across ELEXON.
- We enhanced our **corporate risk management framework**. By driving to embed corporate risk management within the business, we improved our capability around risk identification and mitigation. We now have a robust risk management and internal control process in place to identify key risks, assign ownership for each risk at a senior management level, identify both existing and planned management activities to mitigate each risk, assess the residual likelihood and impact of each risk, and ensure ongoing monitoring and reporting of each key risk.
- We created and published **Quarterly Data Insights packs** highlighting key developments and takeaways for the wholesale and retail markets.
- We **upgraded BMRS (Balancing Mechanism Reporting Service) website**. The service is now more popular than ever and statistics on current usage are set out in the 2018/19 section of this Business Plan.

### 2. Delivery Change

Following a Supplier of Last Resort event in late 2016 we took the opportunity to carry out a 'lessons learned' exercise both internally and with Ofgem. As a result we verified key communications processes with Ofgem and standardised their request for information.

On the BSC operational level we identified an issue that could result in a delay to the Credit Default process and a potential higher exposure to unpaid charges. To address this risk, we raised Issue 68 'Underestimation of Demand Capacity and Credit Cover Percentage' that subsequently led to three BSC Modifications:

**P357 (Removal of GC/DC tolerance parameters from BSC Section K).** The aim of this modification is to allow the Modification to Generation Capacity (GC) and Demand Capacity (DC) tolerances to be reviewed and updated from time to time without the need for a modification. The modification is scheduled to be implemented in February 2018.

**P358 (Roll over of BSC Seasonal GC/DC).** The modification proposes to amend BSC Section K to allow ELEXON to carry over BSC Seasonal GC/DC. It is scheduled to be implemented in February 2018 along with P357.

**P359 (Mechanised process for GC/DC declarations).** P359 seeks to introduce a new mechanised process for GC and DC re-declarations following a breach of Section K3.4.3. It is scheduled to be implemented in June 2018.

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### 3. Data and Reporting

#### **Data quality and integrity**

Following a major Settlement Data issue that resulted in ELEXON withholding Settlement Runs temporarily in 2016, we wanted to introduce additional data validation in the SVAA (Supplier Volume Allocation Agent) system. This has been progressed as change proposal CP1484 (Introduction of Additional SVAA Validation at SVA Run time).

The change introduced three new validation processes. These are designed to improve validation before, during and after a Volume Allocation Run (VAR) in order to reduce errors entering Settlement. These processes include:

1. Individual DA (Data Aggregator) data is now validated and checked for the plausibility of the consumption values and Metering System ID (MSID) counts.
2. The previous data marshalling process is replaced by a new process. This new process gives the SVAA operator the ability to default data more easily than is currently possible.
3. Following a VAR, aggregate consumption information is available for each GSP Group. This makes it possible to perform additional checks on the results of a VAR to identify whether the results are accurate.

The new validation processes, implemented towards the end of 2017 into ELEXON's systems, will not affect any of our customer's systems or processes.

**Data dashboards.**

We started publishing a new interactive dashboard on system prices - System Price Analysis Dashboard. It helps BSC Parties understand the impact of the System Price calculation changes that will be effective from 1 November 2018.

The System Prices Analysis Dashboard provides two sets of prices: actual outturn prices and a modelled price for the upcoming 1 November 2018 parameter changes.

We anticipate the System Prices Analysis Dashboard will be instrumental for BSC Parties to understand, in advance, if they need to adjust their purchasing and trading strategy and tactics in order to help parties minimise the potential risk of financial exposure.

**Portal improvements.**

ELEXON's portal is a convenient way for us to notify BSC Parties of any updates and changes. We've listened to our customer's feedback and refreshed the site to provide more data, present it clearly, and help discover content more easily.

As one of the specific upgrades, existing System Warnings messages were separated into System Warnings and ELEXON Messages. Users can select either or both of the options using their ELEXON Portal account. This allows users to customise the content they wish to receive.

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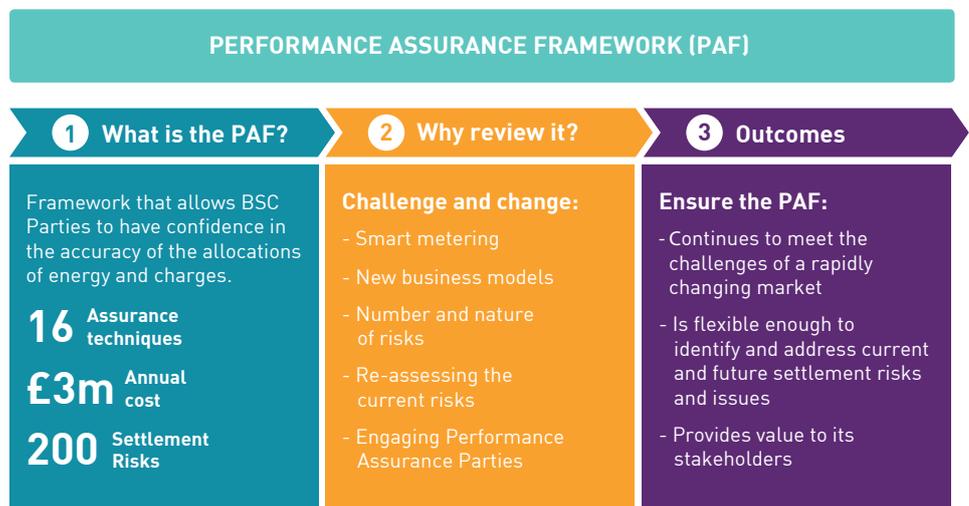
**4. Performance Assurance Framework (PAF) review**

In March 2017, the BSC Panel agreed the scope and approach of the Performance Assurance Framework (PAF) Review to ensure the PAF continues to meet the challenges of a rapidly changing market and provide value to its stakeholders.

A core ELEXON team, supported by risk management and data experts, has been working on the review in four work streams. Experts from industry are called upon to review and comment on key approaches and proposals.

The main outcome of the review will be to deliver a set of recommended improvements to the PAF to ensure that it is operating as effectively as possible and remains fit for purpose for the changing energy industry landscape with the increased number of new suppliers, emerging business models and new technological solutions.

This ongoing PAF review is described in more detail in the 2018/19 section of this Business Plan



**5. Close cooperation with other code administrators**

Given the amount of cross-code change occurring within the industry, it has been vital that we have full visibility of activities and change within the other key industry codes.

In order to achieve this, we made expert resources available to represent the BSC on other Codes, including the DCUSA Panel, Grid Code, CUSC, MEC, MDB and IREG.

We established a bi-lateral coordination with National Grid on Forward Planning of code changes on the back of Code Governance Review (Phase 3) published by Ofgem in March 2016. One of the proposed remedies to code fragmentation included the development of forward work plans by the code administrators designed to increase cross-code coordination.

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## Delivery

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2017/18

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ELEXON led on the development of both the Forward Work Plan, which provided a detailed analysis of each Modification, and a high level view of future changes, known as the Horizon Scan. To our regret, the Forward Working Plan was discontinued during 2017/18 due to a lack of participation from some code administrators.

However during 2017/18, ELEXON continued, with input from National Grid, to produce the detailed analysis for European changes and published the European Network Code Implementation Plan on a monthly basis on the ELEXON website. We also continued contributing to the Horizon Scanning view of future changes.

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## 6. European developments

### **Brexit.**

No discussion of European developments can start without mentioning 'Brexit' which has potentially significant impacts on the electricity sector in Britain.

In 2017/18, we worked with Government, Ofgem, NGET and other code administrators on the extent to which the BSC and other GB codes must change because of 'Brexit' and whether existing and planned initiatives should cease.

No 'show stopper' issues for the changes to the BSC were identified. The impacts appear to be common across most codes, mainly related to the possibility of changing references to European laws and institutions.

Aside from 'Brexit', our European workstream focused on the following major areas:

**European Electricity Balancing Guideline:** Before 'Brexit' takes effect, we are still legally bound to implement various pieces of European legislation, the most significant of which is the European Electricity Balancing Guideline (EB GL). This became law on 18 December 2017 and changed our and the GB industry's focus from negotiation of the EB GL to its implementation.

**Harmonisation of Imbalance Settlement:** The EB GL requires Transmission System Operators (TSOs) to make proposals for harmonisation of the main features of imbalance settlement within one year of the date that the Guideline comes into force.

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## Delivery

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2017/18

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While ELEXON is not a TSO, our expertise in this area is greatly respected and we have been invited to be an active contributor to the European TSO's group looking at this.

**Project TERRE (Trans European Replacement Reserves Exchange):** Project TERRE is a project currently involving NGET (National Grid Electricity Transmission plc) and a number of other European TSOs, which it is intended, will meet part of the EB GL requirements for pan-European energy balancing. BSC Modification P344 was raised in June 2016 to seek to align the BSC with the Project TERRE requirements and this work continued throughout 2017/18 and will continue into 2018/19. It is described in more detail later in this Business Plan as part of P344.

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## 7. Monitoring of key ongoing changes

In 2017/18, we monitored the post-implementation status on a number of changes from previous years.

**P272 (Mandatory HH Settlement for Profile Classes 5-8):** ELEXON continued to work closely with BSC Parties and the Performance Assurance Board (PAB) to monitor compliance with the mandated switch to HH Settlement for Meters in Profile Classes 5-8 by 1 April 2017. The actual industry completion stood at 97.56%, which was a very positive result. We supported the market with the remaining migrations and worked in close cooperation with Ofgem to report the status. Also, we made sure to take the industry's feedback on board through holding a 'lessons learnt' meeting to feed these takeaways into the future market-wide Half Hourly Settlement work that ELEXON is leading on for Ofgem. ELEXON also worked closely with Ofgem and the PAB to determine approaches to managing any non-compliance.

We anticipate the vast majority of P272 migrations will be completed by the end of 2017/18, one full year after the actual P272 deadline of 1 April 2017.

**P305 (Electricity Balancing Significant Code Review Developments):** We provided a 12-month post-implementation review focusing on the changes to market prices following the introduction of a single imbalance price. The findings and recommendations were published at the time and feedback was very positive on the quality of the analysis.

**Review of BUSRR (Business Unit Settlement Risk Reporting):** ELEXON and the PAB use BUSRRs to monitor Parties' performance against a range of Settlement Risks. The latest review of BUSRR was completed and approved by PAB in October 2016, with all relevant changes implemented by May 2017. A post-implementation analysis of the Business Unit Settlement Risk Rating criteria review was presented to the PAB in October 2017. There will be no further actions on this review in 2018/19.

**Metering Dispensations Review:** In 2016, the Panel approved the scope of a BSC Review (according to section C3.8 Reviews of the Code) to identify themes and observations from existing Metering Dispensations and non-standard BMUs that could identify the need for lifetime or generic Metering Dispensations and lead to a reduction in future Metering Dispensations and non-Standard BMU Applications. In March 2017, the BSC Panel endorsed the recommendations. During 2017, we monitored the progress of the recommendations, looking to raise several modifications as a result of the review. We will work on other recommendations in 2018/19.

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## Improvement: Enhance and evolve our services to support industry changes and development of the energy market

Throughout 2017/18, we worked to improve our services and how we provide them. We also worked with industry, Ofgem and BEIS on numerous strategic changes to ensure the BSC supports innovation and new business models.

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### Improvement

### 2017/18

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#### 1. Support to innovation/ new business models

We have been driving a number of crucially important modifications with an overall aim to enable new services and new business models into the GB energy system.

Internally, looking at the Balancing Mechanism (BM) and BSC-specific processes, there are three modifications that will build the basis for increased participation in the BM:

- ▶ **BSC Modification P344** (Project TERRE implementation into GB market arrangements) was raised in June 2016 to seek to align the BSC with the Project TERRE requirements and the P344 Working Group has continued to meet, with a number of these meetings being held under the cross-code arrangements with National Grid's Grid Code.
- ▶ **BSC Modification P355** (Introduction of a BM-Lite Balancing Mechanism) seeks to develop a solution to allow smaller generators to offer energy to the system operator for use in the BM. This is a potential second route to open up the BM for smaller participants in case P344 leaves any issues unresolved.

In addition to looking at the BSC arrangements, we worked in close cooperation with a newly established team at Ofgem, Innovation Link, which provides advice and support on regulatory issues to new market entrants. We regularly engaged with this Ofgem team to contribute to their understanding of the BSC and other code arrangements. We also supported the Innovation Link's finalists in developing a detailed understanding of the market provisions and how their proposals can utilise and fit into these arrangements.

In November 2017, the BSC Panel raised **Modification P362** (Introducing BSC arrangements to facilitate an electricity market sandbox). The Modification Proposal sought to enable the BSC Panel to grant derogation of certain BSC obligations to participants of ELEXON's BSC sandbox in order to allow proof of concept testing for innovative products/business models in the live central systems environment.

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## Improvement

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## 2017/18

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### 2. Leadership on future markets and settlement design

As part of our end-to-end service model, we provide policy support to our stakeholders, and we have been a valued partner to Ofgem and BEIS initiatives to design new markets and carry out some of the most important market re-design initiatives.

These include:

**Half Hourly (HH) Settlement – design lead.** ELEXON has been at the forefront of the work on HH Settlement since 2010. HH Settlement is a key enabler for new innovations, including Demand Side Flexibility (DSF), as the data (once available through the smart rollout) will enable all the actors (existing and new) to participate in flexibility markets and therefore deliver benefits to the end consumer.

Following from the P272 implementation, we continued to support Ofgem on market-wide HH Settlement. Ofgem accepted ELEXON's proposal to directly lead the design work to develop the Target Operating Model (TOM). Through the 2017/18 period, we delivered a number of key phases resulting in development of the initial TOMs, through expert group review, to be consulted on by Ofgem.

**Faster and More Reliable Switching – expert support and code design work.**

Throughout 2017/2018, we supported Ofgem's Design and Delivery teams in the Detailed Level Specification (DLS) phase of the Faster and More Reliable Switching Programme. We reviewed the operational choreography, solution architecture, non-functional requirements and service management requirements. We shared our expertise and opinion with Ofgem on the next steps of the switching programme, including the governance aspects of the Retail Energy Code.

Through sharing our detailed understanding of the central market arrangements, codes and systems we contributed to Ofgem's Targeted Charging Review as well other initiatives.

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## Improvement

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## 2017/18

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### 3. Code governance and new cross-code initiatives

In 2016, Ofgem consulted on its progression of three recommendations made by the CMA (Competition and Markets Authority) in its Energy Market Investigation. These were:

1. Licensing of code managers and associated central delivery bodies.
2. Setting a strategic direction for code development.
3. Establishing a consultative board.

We recognise the need for greater coordination across codes and support this overriding objective. We also support a 'responsibilities re-set' that provides for autonomous, empowered, proactive code bodies. This is an important component in achieving the overall aim. However, it is important that the overall outcome of the CMA's work leads to a reduction in complexity and cost to existing parties and new entrants and not to have the opposite effect.

Therefore, we suggested nine specific actions that are already in Ofgem's power, and do not require legislation, in order to achieve the desired outcome in a more timely and proportionate manner than the introduction of code manager licensing.

We have communicated those possible actions to Ofgem and BEIS in order to share the lessons learnt from our work on developing the original Code Administrators Code of Practice (CACoP) and our innovations in code management (cross-code Forward Work Plan, cross-code forums, provision of dedicated support for users and extensive training and guidance services).

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### 4. Architecture Strategy

In 2017/18 we developed a new Architecture Strategy that addresses the challenges of delivering number and scale of BSC change to our current processes and systems. While our change delivery performance is considered to be good and improving, our assessment has concluded that in order to maintain this given an increasing industry requirement, we will have to consider investment in our systems.

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**Improvement**

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**2017/18**

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In 2017/18 we completed the following steps that formed a robust foundation for the subsequent roll-out of the new architecture:

- Assessed the near- and long-term market trends and changes; formulated possible scenarios for whole-market architecture;
- Assessed current BSC systems and processes against the requirements driven by the market changes and future market architecture.
- Developed and assessed alternative architecture options to enable modular upgrade of our systems and services.

We mobilised the delivery programme and initial engagement with key industry stakeholders; established confidence in technology choices and solutions (including distributed ledger technology in the context of aggregators providing balancing services, as proposed in the solution for TERRE (P344 solutions), and ran technical proofs of concept.

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## Engagement: Improve the customer experience and develop richer customer relationships

ELEXON has adapted its operational services to support an increased number of new market entrants with little or no prior experience in energy markets. We maintained our focus on helping the BSC Parties operate efficiently and effectively.

We also assisted a wide range of new energy industry participants and technology providers through our education and advice on market entry requirements. We see it as an important component of our neutral and independent role of a critical friend, facilitating equal access to energy markets.

Another area of growing importance for us was to share our unique knowledge and expertise with a wide range of policy and regulatory stakeholders to support and facilitate an ongoing energy industry transformation.

### Engagement

2017/18

#### 1. Support to existing and new BSC Parties

We pride ourselves in having a best-in-class customer service among the energy industry's central bodies. An Operational Support Manager (OSM) is assigned to all suppliers, supplier agents and DNOs, with other parties free to apply to have an OSM appointed. Dedicated support by our experienced team leads to rapid onboarding for new Parties, successful on-time fulfilment of Parties' obligations, and compliance with operational requirements.

Our high level of service was independently verified through Ofgem's Code Administrators' performance survey carried out in 2017, in addition to ELEXON's own independent annual customer survey.

#### OFGEM'S CODE ADMINISTRATORS' PERFORMANCE SURVEY (2017)



are **satisfied** with ELEXON's service (5 in 10 are **very satisfied**)

ELEXON is rated **very highly** for providing support in relation to the BSC



ELEXON are most efficient in the way information is communicated, and I have an OSM to go to if more information is required.

Respondent's feedback, Ofgem's Code administrators performance survey 2017, Balancing and Settlement Code (BSC)

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## Engagement

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2017/18

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Ofgem's survey showed ELEXON as being rated first in several categories including net customer satisfaction and we came top overall.

The results of our own survey in 2017 showed a slight decline in overall satisfaction. Analysis of the detailed results and comments underlined the fact that our customer base is changing and becoming more diverse requiring us to look at how we liaise and support the newer, smaller, less experienced customers. However, the findings were still a good set of results and confirmed that fundamentally our business model, processes and the services we provide are solid. In fact 94% of the respondents in 2017 said that our service had improved or stayed the same.

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**2.** Sharing ELEXON's expertise to shape the future of GB energy system

We make sure we engage with major current initiatives on the market design and changes through sharing our detailed knowledge and understanding of the market rules with policy makers through consultation responses.

During the year, we submitted responses to major consultations from BEIS, Ofgem, OLEV and National Grid on a range of subjects from a joint BEIS/Ofgem consultation on Smart Systems and Flexibility Plan to Ofgem's consultation on delivering fast and reliable switching, to highlight just a couple.

We also contributed to major forums and initiatives shaping the future roles and services in the energy market: Power Responsive Forum run by National Grid, Future Power System Architecture Strategy (FPSA) project run by Energy Systems Catapult, and the DNO to DSO transition programme developed by the Energy Networks Association.

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**3.** Industry days, educational sessions/webinars

During the year, we delivered our highly-valued training services. With our regular Introduction to ELEXON seminars, we hosted over 300 delegates in 2017/18, receiving positive feedback such as 'Knowledgeable presenters, concepts and methods reinforced by examples, clear uncluttered slides, and a range of information on industry'.

We also increased the number of specific industry training days to cover a range of topics in the balancing and settlement arena that needed more detailed training. This year these included a Supplier Volume Allocation Forum, an Improving the performance of Non-Half Hourly Settlement workshop, as well as hosting a European-wide stakeholders' workshop on the impact of the Trans European Replacement Reserves Exchange requirements on the Balancing and Settlement Code.

Our newly introduced webinars allowed a wider number of BSC Parties to take part, and in 2017/18 we focused on a number of topics that our customers requested. These included a 12-month post implementation review of Modification P305, understanding the changes to the Business Unit Settlement Risks Rating (BUSRR) criteria, and a Beginner's Guide to Settlement Performance for Suppliers.

All our webinars are heavily subscribed and well received by the participants.



Informed and knowledgeable speakers were excellent and the presentations were pitched at the correct level.

Participant's feedback, Introducing ELEXON seminar, 2017



I think it's very commendable how Elexon runs these programmes to customers and other market participants to develop the market and promote transparency of operation.

Participant's feedback, Introducing ELEXON seminar, 2017

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## Engagement

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## 2017/18

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### 4. Website review and improvements

During 2017/18, we began work on the redesign of our website as we appreciate it is sometimes difficult to find the information you need. During the redesign, we identified some enhancements that we believed would help our customers in the interim. These changes, which went live in September 2017, were based around renaming the menus and moving content into areas that are more logical for our customer segments to find content they need. The new website is scheduled to go live at the end of March 2018.

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### 5. Executive engagement

We operate an ongoing programme of senior level engagement with BSC Parties to understand their business priorities and expectations, and learn how we, as trusted, independent, reliable market experts can assist them more in supporting their business objectives.

We know these visits are highly appreciated and we see it as important to meet to discuss challenges beyond the everyday BSC operational issues, in order to understand what more we can do to improve individual services and our general approach to the market.

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### 6. Annual BSC meeting and Seminar

We held another successful Annual BSC Meeting and Seminar in July 2017 where a number of external parties, a selection of ELEXON staff and a couple of guest speakers presented. We heard directly from Lawrence Slade and Dermot Nolan, CEOs for Energy UK and Ofgem respectively at the Seminar, where they both spoke on the themes of code reform and a transitioning energy sector. As with previous years, this year's Seminar was well attended and well received.

Back in 2013, the BSCCo Board and BSC Panel commissioned an independent review of Balancing and Settlement Code (BSC) governance. The former Council of Lloyd's deputy Chairman, Bill Knight, was appointed and produced a report on the governance of ELEXON. Based on his findings, a number of recommendations were made to build a more autonomous governance of BSCCo, in alignment with the best practice of the UK Corporate Governance Code.

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**Engagement**

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**2017/18**

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What followed was the implementation of a Modification to the BSC (P324), which in effect, made the BSCCo Board accountable to BSC Parties by allowing them to vote to approve or remove Directors. Several ELEXON directors, who had been appointed since the introduction of that Modification, were therefore subject to a vote, including Mark Bygraves, CEO and Michael Gibbons, Chairman. All votes were overwhelmingly in favour of re-appointment of the Directors.

We see this development as a positive reinforcement of our accountability to industry and through industry, to the consumer.

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## Capability: Invest in our people to enable industry to benefit from our expertise

We recognise the importance of developing our people's skills to continue delivering our value-adding services in code management, central systems delivery and policy support. Therefore, in 2017/18 we gave particular focus to all aspects of our people strategy. Therefore, we introduced internal management training courses, offered 'learn and lunch' insights sessions, as well as regular bite size refresher courses on various subjects open to all.

Capability	2017/18
1. Developing our managers	<p>In 2017, we provided an internally-run management training programme for new managers and those new into management at ELEXON supported by more focused training sessions on specific managerial topics. These topics covered areas that we believe can sharpen our managers' people-management capability and improve their ability to fulfil their managerial responsibilities. Underpinning many of the proposed topics was a strong theme of improving the manager's ability to engage effectively and deal succinctly with challenging situations as they emerge.</p> <p>Recent staff survey results indicated that 76% of our managers gave useful feedback on performance on a regular basis, which is 12 points higher than average according to Employee Feedback, the third party supplier that facilitates our annual staff survey.</p>
2. Skills development	<p>To future proof our ability to deliver our BSC and EMRS obligations we invested in both maintaining, improving, and developing new technical skills. So in 2017/18 our staff successfully completed technical courses such as IIA (Institute of Internal Auditors) Certificate in Compliance, audit and assurance, ITIL (Information Technology Infrastructure Library), GDPR (EU - General Data Protection Regulation) and Applied Operating Model Design.</p>
3. Performance management	<p>ELEXON values excellent work and discretionary effort and changed its performance management review (PMR) to recognise and reward this.</p> <p>We believe that our new PMR process recognised discretionary effort and excellence, encouraged continuous improvement and promoted ongoing performance conversations.</p>

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**Capability****2017/18**

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**4. Knowledge sharing**

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To further future proof ELEXON we continued to ensure that we managed the transactional and procedural knowledge that our staff have accumulated and the tacit knowledge they have gained during their tenure within the electricity sector.

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**5. Employee  
Engagement**

Each year we conduct an employee engagement survey, using an external third party. Our 2017 results were our best ever, particularly the scores around commitment, communication and leadership.

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**03** LOOKING FORWARD: OUR STRATEGIC  
PRIORITIES FOR 2018/19

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In 2018/19, we will focus on ensuring we continue to perform above expectations and deliver under the increasingly multi-dimensional industry demands.

Recognising the ever-increasing importance of the ongoing energy industry changes to deliver the Government's ambition on the energy market transformation and on enabling the Clean Growth Plan and Industrial Strategy, we believe there is clear scope for us to contribute to this transformation as trusted code administrator and operator and provider of policy delivery support. We have therefore redrafted our vision to further build on our history of supporting the industry, Government and regulator to achieve better outcomes for market players and consumers.

## OUR VISION

By 2025 we will create the leading provider of central services to the GB energy sector, built on the best practice from the ELEXON service culture for the benefit of consumers and market participants.

As well as business-as-usual, our focus in 2018/19 will continue to be on advocating the case for leaner and more agile market governance arrangements; leading on key policy initiatives such as market wide HH settlement; supporting innovation in close cooperation with leading industry bodies; and streamlining our internal processes and systems.

1. Business-as-usual (BAU)

Over the years, we have evolved our business model to become a value-adding end-to-end service, meaning our remit extends beyond basic code administration. We are responsible for designing, managing and delivering the end-to-end services set out in the BSC. We manage the assessment, the development, operation, and implementation of changes to crucially important industry central systems and processes. Our profound expertise in code management and central systems design and delivery has led to us becoming a trusted partner to Ofgem and BEIS in a number of key policy delivery areas.

As a BSC Party you can be rest assured that throughout 2018/19 we will continue to focus on the day-to-day delivery of our BSC obligations.

**ELEXON PROVIDES KEY ENERGY MARKET INFRASTRUCTURE**



**CODE ADMINISTRATION**

- Industry rules management
- Trusted critical friend
- Dedicated customer support / training



**CODE OPERATION**

- 24/7 settlement
- Design / change implementation
- Assurance services
- Dedicated customer support / training



**POLICY DELIVERY SUPPORT**

- Impartial, expert advice/ guidance
- Market scanning
- Providing support to deliver policy outcomes

We also collect and distribute payments to CfD generators and Capacity Market providers

**2. Delivering change**

We are going to evolve as the market evolves, further fine-tuning our end-to-end service delivery model in order to process changes to our systems and services in a more agile way, in line with changing industry requirements. In the new financial year, we will set out to adopt more flexible and responsive ways of delivering projects, utilising industry best practices and modern and flexible delivery methodologies and approaches. Methodologies like Agile, Lean and Iterative delivery models will provide us with flexibility and capability to respond more effectively to market changes and demands, helping us to sustain our reputation for delivering complex changes on time, the right quality and within allocated budget.

To achieve this objective we started several initiatives in 2017/18 that will continue into the 2018/19 financial year:

**Project Portfolio Management (PPM).** Introduced in 2017/18, PPM is a 'step-change' in how we manage the delivery of BSC changes. We will continue to evolve it based on the best practices in terms of toolsets, scope, and efficient and effective control and reporting to our customers.

We are also adopting new toolsets to support our agile delivery practises and to support more integrated product development with our service providers both on and offshore. We are also redefining our key delivery roles to reflect continuous delivery practices though we intend to maintain our approach and timings of releases to industry.

**Document Management.** BSC change is a mandatory ELEXON service which manages the change process to BSC controlled documents driven by industry. We will ensure we are using modern tools for BSC changes that provide control and visibility for document configuration management and effective reporting.

We will continue to focus on our customers' needs when it comes to maintaining clear, concise and insightful communication.

3. Data and Reporting

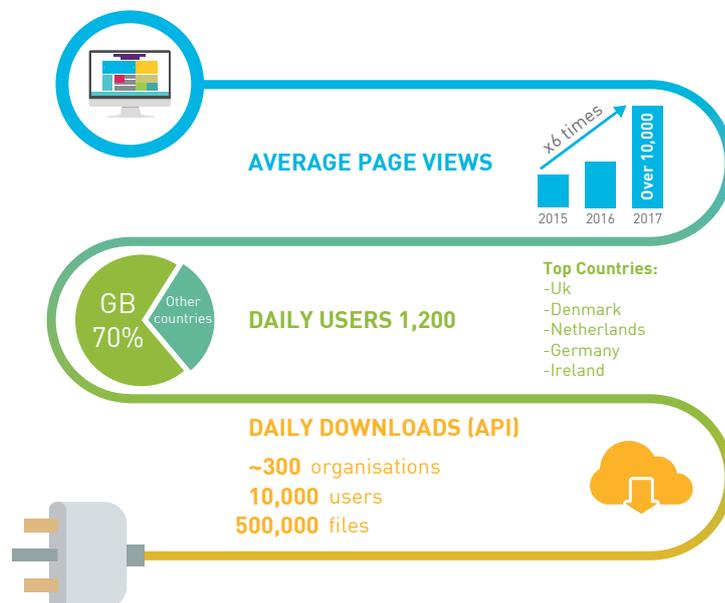
**Balancing Mechanism Reporting Service (BMRS).** This service is now more popular than ever, in terms of API (Application Programming Interface) usage and interactive access through the website. Following recent improvements it is coping with data volumes far in excess of that with which the old system could have coped. We now have approximately 10,000 users from over 300 organisations; and the average daily page views were 14,000 with a peak of 18,500 for October 2017.

We are continually seeking to improve its performance and the speed by which changes to it can be made:

- ▶ As an example of performance improvements, we have an automated real-time machine-to-machine data push service, which is superior to email, and a data pull service (API) through which users can request specific data.
- ▶ We operate a BMRS Users’ Group to understand the needs of our customers as part of our improvement programme.

BMRS is also the GB Inside Information Platform (IIP) for publication of data relating to Regulation on Wholesale Energy Markets Integrity and Transparency (REMIT regulation 1227/2011) within the electricity market. In addition, we will continue to engage with ACER (The European Agency for the Cooperation of Energy Regulators) to monitor any potential changes to the reporting specifications and our user community to deliver the same high-quality service.

REMARKABLE INCREASE IN BMRS USAGE



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## Delivery

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2018/19

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**New data dashboards.** In 2017, we published our first interactive dashboard that enabled users to review and compare system prices - System Price Analysis Dashboard.

The dashboard is intended to help BSC Parties understand the impact of the System Price calculation changes in effect from 1 November 2018. Through the comparison of the actual outturn price and a modelled price under the new parameters, our goal is to increase visibility into the future system price dynamics that will inform BSC Parties operational decisions.

We will continue to use this new capability to provide useful and interactive data insights at a market or organisational level. Our commentary will help customers develop their detailed understanding of how the market operates.

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## 4. Performance Assurance Framework (PAF) Review

Assurance is a highly visible element of the service we provide to BSC Parties as a code manager and assurance agent. We are committed to continue delivering high quality assurance through the update of our existing processes and procedures.

The Performance Assurance Framework (PAF) Review will continue during 2018/19 in four individual workstreams with the key themes as follows:

### **Workstream 1 – Smart Metering Rollout**

To provide immediate assurance against the challenges of the smart metering rollout by developing proofs of concept to enable the effective monitoring of significant Settlement Risks associated with the rollout.

### **Workstream 2 – PAF Procedures**

To deliver recommendations to improve the operability and effectiveness of the Risk Evaluation Methodology (REM) and other PAF procedures that ensure that risks are more meaningful and reflective to participants.

### **Workstream 3 – Review of the Performance Assurance Techniques (PATs)**

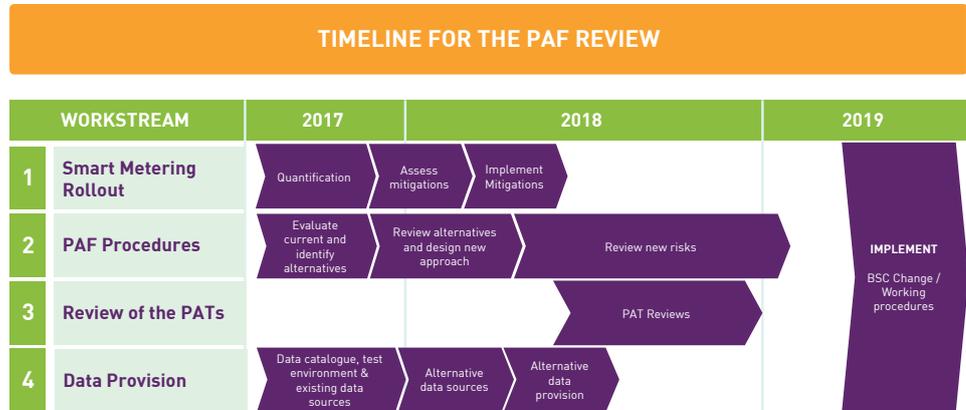
To produce a set of recommendations in relation to existing or new techniques that can be applied efficiently and cost effectively to mitigate identified risks.

**Workstream 4 – Data Provision**

To create proofs of concept to test the viability of alternative methods of data provision that place less burden on participants to provide data and that supports more accurate risk appraisal.

Alongside the PAF Procedures workstream, ideas for improving existing working procedures that could be implemented outside the review and sooner will be captured and handed over to operational teams. This will be managed within ELEXON through the governance arrangements of the PAF Review Project Board. This process will also be used to feed suggestions into the subsequent review of the Performance Assurance Techniques.

We strive to maintain the highest level of transparency with the BSC Parties and the industry; therefore, we have created and regularly update a dedicated page on our website to keep you on top of our progress with the PAF Review. For more information, please visit the dedicated PAF Review webpage.



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## Delivery

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2018/19

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### 5. Close cooperation with other code administrators

It will remain necessary for code administrators to align modifications and changes to codes in order to support the industry's timely transition to the future energy system design envisioned by the Smart Systems and Flexibility Plan.

We will continue to build a case for more extensive collaboration and ultimately consolidation of code administrators as this would simplify and streamline the central services for the benefit of users and ultimately of consumers. In our view this is a better outcome than periodic competition between code administrators (where staff and systems transfer but the service remains unchanged) and in the meantime code administrators refuse to share best practice or seek to impose additional charges for new out of scope activities in order to maximise a margin.

We will support the ongoing publication of the Horizon Scan and the European Network Codes (ENC) Implementation Plan and we will continue to play an active role in Code Administration Code of Practice (CACoP) workgroups.

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### 6. European developments

We anticipate continuing to work with all our stakeholders on the impacts and changes needed due to 'Brexit' in the coming year, 2018/19.

**European Electricity Balancing Guideline (EB GL).** Building on our engagement with GB stakeholders in industry-wide code-mapping meetings during 2017/18, we will continue our work on future and existing BSC Code modifications driven by the EB GL in 2018/19.

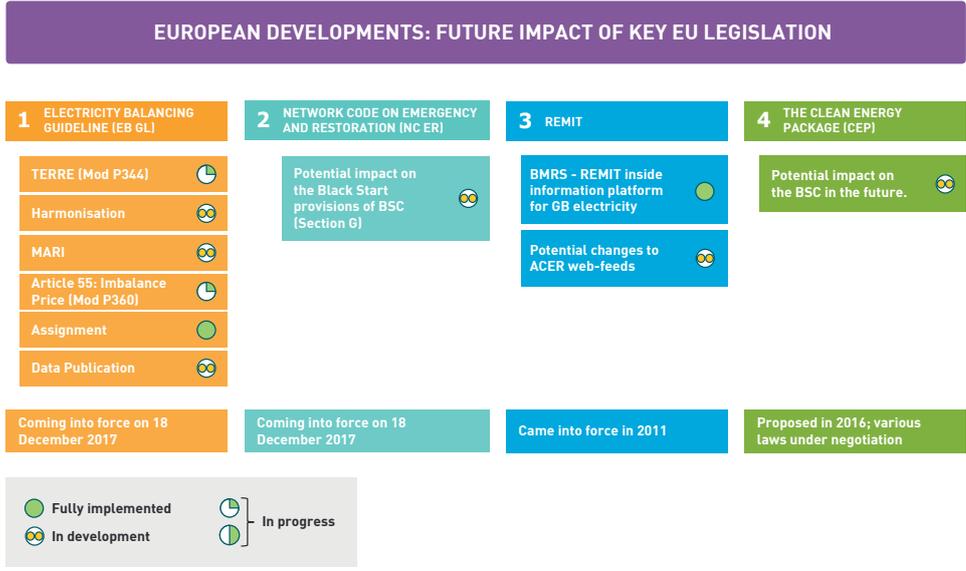
We anticipate that there may be more than eight EU-driven modifications necessary to implement the EB GL, three of which have been raised already with a further five likely to be needed.

**Harmonisation of Imbalance Settlement.** During 2018/19, we expect to give increasing focus to this EU objective as harmonisation of Imbalance Settlement could have potentially significant impacts on the BSC, and GB industry.

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

ELEXON hosted a pan-European TERRE Stakeholder event in July 2017. ELEXON and NGET utilised this opportunity to present the GB implementation approach and GB market challenges. We emphasised the need for close cooperation between local implementation projects (in the British case this will be BSC Modification P344 and Grid Code Modification GC0097) and the central TERRE Project during development and implementation of the Central Platform in order to ensure smooth delivery of the product to market.

In 2018/19, we will continue to work closely with all stakeholders involved to progress the implementation of Project TERRE for the GB market.



7. Monitoring of key ongoing changes

We will continue to monitor key changes that we introduced previously:

**P272 (Mandatory HH Settlement for Profile Classes 5-8):** We anticipate the vast majority of P272 migrations to be completed by the end of 2017/18. However, we will continue to monitor this area as directed by the PAB, based on their view of the potential risks remaining in this part of the market. Beyond that, we will use our experiences of P272 to feed into the more extensive work ELEXON is leading on for Ofgem on market-wide Half Hourly Settlement.

**P305 (Electricity Balancing Significant Code Review Developments):** The next phase for P305 implementation is November 2018 when the price calculation parameter Price Average Reference (PAR) is due to reduce from 50MWh to 1MWh. On occasions this is expected to result in higher price spikes and more frequent negative prices. This change was specified as part of Modification P305, which implemented the conclusions to Ofgem’s Electricity Balancing Significant Code Review. Further to the 12-month post implementation review published in February 2017, we will report on the prices following implementation of the lower PAR.

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**Delivery**

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**2018/19**

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We will also continue a programme of preventative educational sessions on our Error and Failure Resolution (EFR) to help Parties maintain their performance at the required level in the first place. This will include a continued effort in close monitoring of weekly reports and monthly dashboards and ensure we have the strongest relationships as possible with Parties, particularly those whose performance displays early signs of underperformance.

**Dispensations and non-standard Balancing Mechanism Units (BMUs).** We will continue to monitor the post-implementation status of our recommendations throughout 2018/19.

We will continue to report on the post-implementation status of other significant modifications, such as P326 (Introduction of a non-Working Day adjustment to the Credit Cover Percentage calculation).

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## Improvement: Enhance and evolve our services to support industry changes and development of the energy market

The current market changes span through every aspect of the energy industry. Strategic changes across market governance arrangements are needed to ensure the GB energy system as a whole remains flexible, responsive to rapidly evolving consumer behaviours and fit for the new digital era. At the same time individual companies and market players have to adapt their operational models and processes in order to support the wider, system-level change. The BSC and ELEXON are no different. Our challenge is to ensure the BSC unlocks the potential benefits to our customers and the end consumer of all the upcoming innovation and technology change.

We are up for this challenge, engaging with policy makers, BEIS and the industry's Regulator to support key initiatives to enable the transition to the smart and flexible energy system. At the same time, there are a number of equally important initiatives to ensure our internal processes and systems are as adaptive and as flexible as possible under the BSC provisions.

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### Improvement

2018/19

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#### 1. Support to innovation/ new business models

We will continue to ensure the BSC is an enabler to innovation, be it new services, customers or new business models. We will do this through a mixture of evolving our services and working in close cooperation with a number of leading regulatory and industry bodies and initiatives.

In 2018/19, our core modifications aiming at to make BSC arrangements more inclusive for a wider range of market participants will progress from Assessment phase into the next phase.

- **BSC Modification P344** (Project TERRE implementation into GB market arrangements). Currently National Grid balances the system using a mixture of Bid Offer Acceptances (in the Balancing Mechanism), and ancillary service contracts procured from 'non-BM' providers. Neither of these mechanisms are open to service providers in continental Europe. The Electricity Balancing Guideline (EB GL) introduces 'standard products' which will allow balancing services to be shared across borders (e.g. a British provider can provide balancing services to the French system operator, or vice versa). The first standard product to be introduced is replacement reserve, and participating TSOs have set up a project (Project TERRE) that will create a common auction platform (LIBRA) that runs every hour to procure replacement reserve. This platform is expected to go live in 2019. The second standard product to be introduced will be manual frequency restoration reserve (mFRR), for which TSOs have set up a separate project (Project MARI).

The EB GL also requires that balancing services (including standard products) are opened up to demand side participants and independent aggregators (defined by Ofgem as ‘parties who bundle changes in consumer’s loads or distributed generation output for sale in organised markets and who do not simultaneously supply the customer with energy’). GB-specific balancing products (the Balancing Mechanism and ‘non-BM’ contracts) will still continue to be used, but we expect National Grid to make less use of them, due to the availability of new standard products.

- **BSC Modification P355** (Introduction of a BM-Lite Balancing Mechanism) is a potential second route to open up BM for smaller participants if P344 leaves any issues unresolved.
- **BSC Modification P362** (Introducing BSC arrangements to facilitate electricity market sandbox). In late 2017, the BSC Panel agreed to raise a new Modification P362. We are set to develop a process that will enable pre-competitive or proof of concept testing for innovative products/business models in the live BSC environment.

At the same time we will continue our close cooperation with BEIS/Ofgem on smart and flexible energy systems work, Ofgem’s Innovation Link (regulatory sandbox), InnovateUK and other key industry players and initiatives to support innovative businesses into the market arrangements.

**CORE MODIFICATIONS TO OPEN BSC ARRANGEMENTS**

1	<b>P344 - Project TERRE</b>		To allow smaller generators and aggregators to offer energy to the System Operator for use through standard EU-wide products and Balancing Mechanism	
	Now	<b>Balancing Mechanism (BM)</b> Bid Offer Acceptances are issued through BM that (not open to independent aggregators)		Non-BM ancillary service contracts
		Future	<b>Standard EU-wide products</b>	
	Replacement reserve standard product (open to independent aggregators)		mFRR standard product (open to independent aggregators)	Reformed BM (open to independent aggregators)
2	<b>P355 - BM-Lite Balancing Mechanism</b>		Potential second route to open up BM for smaller participants (if P344 leaves any issues unresolved)	
3	<b>P362 - Electricity Market Sandbox</b>		To introduce a mechanism to grant temporary exemptions from BSC obligations to trial new solutions and innovative ideas	

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## Improvement

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2018/19

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### 2. Leadership on future markets and settlement design

When it comes to designing future markets, we will build on a strong base of understanding and interpreting market drivers and translating them into the market scenarios for balancing and settlement services evolution. Rapid technology changes – both energy technology and information technology – are forming a new digital foundation for the energy systems and markets. We are determined to incorporate these trends into our policy support work.

**Half Hourly (HH) Settlement design lead.** The work on market-wide HHS will continue into 2018/19 with the Design Working Group (DWG) and Stage 2 TOM development starting in April 2018. We will work closely with Ofgem to deliver to the agreed timeline aiming to complete our design work towards the end of 2019.

As stated previously, HH Settlement is important because it is a key enabler for innovation, e.g DSF, time of use tariffs, aggregators, electricity storage based services, and a ‘smart’ EVs integration where they don’t exacerbate the existing strain on the electricity system. On the market arrangements level, HH Settlement will complete the smart meter rollout to allow for the full realisation of smart meter benefits.

#### **Faster and More Reliable Switching, Retail Energy Code (REC).**

We believe the introduction of the Retail Energy Code (REC) is a chance for the regulator to start driving central services simplification to boost the industry’s speed of change and reaction time to new opportunities. We will continue to advocate the case for appointing a REC administrator based on the degree of alignment with Ofgem’s strategic direction for code administrators, verified performance results, ability and proven history of open and collaborative approach and relentless streamlining of own services in order to deliver best-in-class customer services.

Furthermore, based on our ongoing engagement with the innovator community, we will look to resolve any perceived barriers in current BSC arrangements that may not be within the scope of the ongoing modifications P344, P355, P354 and P362.

For more information please visit the dedicated Modifications webpage.

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**3. Code governance and new cross-code initiatives**

We support the overall objective for code governance remedies – increasingly more coordination and collaboration is required between code administrators and other central services for changes to be progressed in a timely fashion.

We will engage in Ofgem’s workgroups on Strategic Direction and Consultative Board for code administrators and will continue to share our insights on alternative ways code governance can be improved through a range of existing Ofgem’s powers without the need to await new legislation.

**ELEXON PROVIDES KEY ENERGY MARKET INFRASTRUCTURE**

**ELEXON VIEW**

We recognise the need for greater co-ordination across codes and support this overriding objective.

We also support a ‘responsibilities re-set’ that provides for autonomous, empowered, pro-active code bodies. This is an important component in achieving the overall aim.

However, it is important that the overall outcome of the CMA’s work leads to a reduction in complexity and cost to existing parties and new entrants and not to have the opposite effect.

The recommendations and proposed actions must be carefully tested against this requirement and should be proportionate to the issues they seek to resolve.

**Amending code panel and code administrator objectives in the existing codes/licences including relative prioritisation by Ofgem of such objectives:**

- 1 Including a specific Applicable Objective under each code that refers to the need to consider benefits to consumers
- 2 Inserting appropriate Ofgem oversight of change into code provisions
- 3 Adding step-in powers into industry codes (equivalent to the BSC)
- 4 Appropriate empowerment of code managers to raise changes
- 5 The provision by Ofgem of a strategic direction
- 6 Utilising the existing SCR (Significant Code Review) powers, as they are intended to drive strategic change
- 7 Code managers/delivery bodies required to provide a service based on plans and budget that has been transparently shared with the stakeholder community setting out the priorities and activities to be delivered in alignment with the strategic direction, based on operating models Ofgem believes best delivers the objective
- 8 Ofgem take a more active approach in, and articulate its position more, when participating and contributing to industry Panels and workgroups
- 9 Industry and Ofgem support for the current initiatives to develop a cross code forward work plan and plan for implementing European Network Code changes.

**4. Architecture Strategy programme**

Building on the work in 2017/18 that delivered the proof of concepts to support our architecture strategy, in 2018/19 we will begin the delivery of the initial phase of the programme focusing on opening up our systems to ensure we can integrate new to legacy and establishing a new data platform. Our overall aim in our Architecture Strategy work is to continue delivering robust, reliable services to our customers and to enable innovation in services and business models in the GB energy market.

We plan to develop new systems in phases re-architecting CRA, SVA and SVAA to align with required industry modifications such as P344, P354 and P355 to ensure that the cost to parties of the new architecture is minimised. Whilst we will introduce elements of the new architecture to support Modification P344, we will then prioritise further investments to support subsequent industry changes in 2019/20.

The main principles of our architecture include:

- ▶ **Scalable Services:** We aim to move to utility cloud infrastructure to get secure and scalable infrastructure services on demand.
- ▶ **Monolithic to Modular and Open:** We intend to move from monolithic agent centric applications to a common data platform that ingests, processes, stores data and is open through industry standard APIs that will support much greater service integration with our customers
- ▶ **Applications to Services:** End to end services monitoring and performance management to ensure services are available to industry when it matters and at the level expected by our customers.
- ▶ **Physical to Virtual:** micro services delivering processing required on a shared and reusable basis that come together to deliver BSC Agent obligations where code is brought to the data and can be disposable as industry innovation may require with reduced technical debt and industry lock-in.

In addition, ELEXON will adopt agile and more flexible ways of delivering change and will incrementally build required capabilities. The focus will be on the approach to delivering BSC change rather than a technology shift. This is the shift that will require end to end review of the BSC, and Ofgem and Panel's approval of more outcome principles based change.

We will continue to keep the industry involved through the Panel (a nominated panel member will sit on the programme Steering Group). We will also be establishing a cross industry stakeholder community to ensure that all changes are planned and delivered to minimise any disruption to the industry. To ensure that the programme delivers its stated objectives in an efficient and effective manner, an independent assurance provider will be appointed. The independent assurance provider will oversee the delivery of the programme by ELEXON and its chosen delivery partners and provide assurance on progress and direction of the programme to the programme Steering Group and to the wider stakeholder community through the panel.

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## **Engagement: Improve the customer experience and develop richer customer relationships**

Throughout 2018/19, we will continue to strive to gain a greater understanding of our ever-growing diverse range of customers. This will be through continued industry days, webinars, training and executive engagement meetings.

We recognise that the landscape of industry codes may be complex for a new entrant. We will remain focused on identifying further opportunities to help new and existing BSC Parties overcome this complexity by sharing information on the BSC through our continued efforts to drive better coordination between code administrators.

A whole-system approach to the fundamental changes in the GB energy industry structure requires close collaboration between policy makers, market governance bodies and commercial players in order to realise the vision of the Clean Growth Plan and Industrial Strategy. As a major industry code manager, we will continue our work with key Government departments and Ofgem with an aim to identify practical solutions to the identified challenges.

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### **Engagement**

### **2018/19**

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#### **1. Support to existing and new BSC Parties**

From the first days as a new supplier, (whether through a traditional market entry route or the 'supplier in a box' route) ELEXON's team guides new and existing parties through BSC requirements to fulfil their obligations successfully. Our thorough programme of training, support and performance monitoring is constantly evolving to reflect the changing market conditions, potential knowledge gaps and any emerging performance issues. We recognise the fact that all suppliers are different and adjust our services accordingly to strike the right balance for each individual company.

We will help BSC Parties make sense of significant changes to the BSC. These include the PAF Review and ongoing modifications such as P344 (Project TERRE) and P362 (the BSC Sandbox). We will engage with BSC Parties at relevant times taking into account the different business types and therefore the impacts of the ongoing change on their business models.

ELEXON'S PROGRAMME OF TRAINING

BSC PLACES OBLIGATIONS ON ITS PARTIES AND SIGNATORIES. OPERATIONAL SUPPORT MANAGER (OSM) GUIDES NEW AND EXISTING PARTIES THROUGH REQUIREMENTS TO SUCCESSFULLY FULFIL THEIR OBLIGATIONS.

Thorough programme of training, support and performance monitoring\*

1 First meeting	2 Before 'Go Live'	3 1 month after Go Live	4 6 months after Go Live	5 12 months after Go Live	6 On-going support
<ul style="list-style-type: none"> <li>- Introduction to ELEXON</li> <li>- Introduction to BSC Party</li> <li>- ELEXON Reporting</li> <li>- ELEXON Portal and ECVA Web Service</li> <li>- Training Timeline</li> </ul>	<ul style="list-style-type: none"> <li>- Imbalance settlement</li> <li>- Market Domain Data (MDD)</li> <li>- Introduction to Supplier Volume Allocation (SVA)</li> <li>- PARMS and DPI file</li> <li>- Credit</li> </ul>	<ul style="list-style-type: none"> <li>- P272</li> <li>- FAA invoices</li> <li>- Weekly reports</li> <li>- HH (Half Hourly) dashboard reminder</li> </ul>	<ul style="list-style-type: none"> <li>- Performance assurance</li> <li>- NHH (Non Half Hourly) dashboard reminder</li> </ul>	<ul style="list-style-type: none"> <li>- Disputes</li> </ul>	<ul style="list-style-type: none"> <li>- Ad-hoc questions and requests</li> <li>- Weekly performance reports</li> <li>- Monthly dashboards</li> <li>- Training, calls and visits</li> </ul>

\*Key module and topics are outlined. On-going support is available from the time of first meeting.

“ ... Having an OSM to call upon when needed has been a massive help. I have always found it very easy to approach my OSM and found that he has been very responsive to our queries and questions.  
New supplier, 2017

“ We've really appreciated the entry assistance that our OSM has provided. From helping us to understand our obligations, to helping us get through some of the processes – particularly the PARMS setup.  
New Supplier (Together Energy), 2017

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## Engagement

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2018/19

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**2.** Sharing ELEXON's expertise to shape the future of the GB energy system

We recognise that energy system transformation is a critical component of the Government's Industrial Strategy and Clean Growth Plan. Expectations are high from consumers, politicians and industry and the scope of potential benefits is extensive, ranging from a potential reduction in energy costs and an increase in productivity, to enabling innovation and subsequent positioning of UK businesses to export new technology and services.

We firmly believe ELEXON's expertise, detailed understanding of the market arrangements and attention to technical designs will be needed to translate policy objectives into new working arrangements and industry rules. Therefore, we will continue sharing our expertise on code governance, future markets and settlement design with relevant policy making and industry stakeholders.

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**3.** Industry days, educational sessions/webinars

Similar to our programme of engagement in 2017/18, we will organise industry days and webinars on topics or areas on which our customers need more advice and guidance to ensure they are fully informed and confident in the processes and procedures of the BSC.

We regularly update the agenda to reflect the market trends and the relevance of ELEXON's focus and current work to the BSC Parties' business needs.

There are indications that the demand for 'supplier in a box' market entry route will continue to be popular for the next two to three years. We will monitor and revise (if necessary) our new Supplier training model to ensure new entrants receive training or are made aware of the areas of knowledge that they should be focusing on during their initial operations.

Building on the success of our webinar programme, we will continue to add new topics to the existing range of our webinars. We aim to develop a more interactive approach to delivering standard training modules, where we aim to bring a few organisations together to make the training more engaging and create a useful forum for participants to learn from each other's experiences.

A wide range of participants have traditionally attended our industry days and educational sessions recognising the value and depth of the information presented during these sessions. We will continue to regularly update the content of our training sessions to deliver value to the wide range of stakeholders that found it informative and useful in the past.

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## Engagement

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2018/19

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**4.** Greater ability for remote participation in our processes

Our 2017 customer survey showed the difficulties experienced by industry in participating in the various workshops and meetings. We recognise the pressures on time and resources and therefore we will be introducing improved remote access in the form of webinars or live sharing of presentations to make participation in meetings via technology easier for our customers.

**5.** Website review and improvements

We will monitor any feedback received and continue to improve the quality of our documents, making it easier for our users to find what they are looking for through a refined search facility. We realise this has not always been simple in the past and aim to improve this aspect.

It will become increasingly important to focus on fine-tuning our website performance for the varying audiences coming to it in search of information, be it a working group member looking for a specific paper or new technology providers looking to start learning about the BSC arrangements.

**6.** Executive engagement

Our executive engagement programme will continue to provide a useful avenue for us to keep on top of the emerging challenges for BSC parties and to identify ways of providing support and guidance to them.

Our 2017 customer survey highlighted the need for us to better understand the businesses and in particular the challenges faced by those businesses, of the newer BSC Parties and in 2018/19 we will seek to do so. We recognise our customer base is changing and we must change our approach with it.

**7.** Annual BSC Meeting and Seminar

Once again, we will hold our Annual BSC Meeting and Seminar for our customers. Inviting high-calibre speakers, we will continue to focus on key topics that are important to our customers, code governance and the wider energy market.

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## Capability: Invest in our people to enable industry to benefit from our expertise

We continue to focus on developing our people's skills in order to build capability in the business going forward as we gain a better understanding of the new types of capabilities needed to perform in a rapidly changing energy market. This will be particularly important in our Architecture Programme delivery where we have brought in people with new skills although further capability is required.

We will continue to encourage greater cross-department cooperation to support innovation and new business models into the energy markets.

### Capability

### 2018/19

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#### 1. Retaining and Attracting skills and expertise

We believe that our success is based on the expertise of our Elexon colleagues and this is supported by the views expressed by BSC parties in our customer satisfaction survey. With many of our customers reducing costs and headcount we see the demand for our expertise only increasing. However, these expert staff is increasingly difficult to retain and attract as more experienced colleagues reach the end of their working careers and the more junior employees look to move companies with increasing frequency. This is compounded by our restricted activity which limits the availability of new and challenging roles (and why our EMR role has also been beneficial). That is why we will be investing in a graduate recruitment scheme to train the experts of tomorrow.

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#### 2. Developing our managers

We will continue to focus on maintaining the right mix of skills, capability and knowledge to deliver the high standards of service that our customers rightly expect of us. The evolving programme of manager's training, coaching and mentoring will ensure we achieve the right balance between a high degree of flexibility needed for the dynamic changes of today's energy sector and the robust, predictable service delivery in which ELEXON prides itself.

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#### 3. Skills development

We recognise that today's expertise is not necessarily valid in tomorrow's world. The feedback that we received from the 2017 employee survey shows 91% of our staff state that they have sufficient training and knowledge to perform their roles efficiently and effectively.

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## Capability

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2018/19

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Following the establishment of the BA (Business Analysis) function in 2017/18, we published requirements guidelines, standards, templates, tools and techniques to be available to all staff. This is yet another example of how we strive to develop the skills of our personnel.



Excellent place to work with good learning opportunities.

Current employee feedback, Glassdoor, 2017



This company cares and invests in their employees and gives them opportunities to giveback.

Current employee feedback, Glassdoor, 2017

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## 4. Performance management

Having refreshed the performance management system in 2017/18, we will continue to ensure it remains clear and fit for purpose, in order that proper focus is given to the setting of realistic and measurable objectives.

We constantly monitor the job market situation to ensure we stay competitive with our peers and attract the appropriate talent.

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## 5. Knowledge sharing

We will maintain our focus on establishing a process of mentoring, whereby we will identify individuals within ELEXON who are willing to take on the role of trusted advisor, teacher and wise counsel to another person or group of people to ensure that tacit knowledge is transferred between long standing and new ELEXON employees. This will also present a new opportunity for our staff in developing their mentoring skills.

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## **EMR**

ELEXON's subsidiary company, EMR Settlement Limited, performs the role of EMR Settlement Services Provider for Contracts for Difference (CFD) and the Capacity Market (CM) under a services contract with Low Carbon Contracts Company (LCCC) and Electricity Settlements Company (ESC). All costs and liabilities associated with this work are ring fenced and kept separate from BSC activities and budget as required by the BSC (and so are deliberately excluded from this BSCCo Business Plan). However, BSC Parties have been, and will continue to, benefit financially from our involvement in EMR through contributions to existing BSC overhead costs and a consequent reduction in BSC charges. In 2017/18, this work contributed over £699k, which directly benefitted BSC Parties.

In 2017/18, EMRS successfully delivered both the CFD and CM modules of the EMR Settlement Systems to LCCC and ESC on time and within budget, ready to make CFD payments to Generators in line with our regulatory and contractual requirements. We started making CFD payments on 16 June 2017 when the first CFD project moved into operation. This was followed by payments to Capacity Providers on 16 October 2017 when the first Delivery Year started. On behalf of LCCC and ESC, we will continue to deliver changes to the EMR Settlement Systems by regulatory deadlines and operate both schemes to the benefit of the industry.



# SECTION B

## THE BUDGET

# 01 OVERVIEW

## 1.1 Budget Overview

This part of the document details the budgeted costs for 2018/19 in support of our strategy, as laid out in Section A of this Business Plan.

We believe this budget enables us to continue delivering to the four strategic priorities identified in our Business Plan, particularly around ensuring that levels of service are fit for purpose and delivering value for money; by focusing on streamlining and automating the processes and systems, making them future proof in order to address wider industry challenges effectively and efficiently and improving the overall end to end operational delivery of the BSC.

2018/19 will be the fourth year that ELEXON, in its role as Settlement Services Provider for EMR, delivers its services via its subsidiary EMR Settlement Limited (EMRS) to Low Carbon Contracts Company Limited (LCCC) and Electricity Settlements Company Limited (ESC). ELEXON provides the human resources and office facilities to perform the functions of the Settlement Services Provider. Previous changes to the BSC have ensured there will not be cross subsidies between BSC and EMR. All EMR related costs are fully funded by LCCC and ESC and the total costs of LCCC and ESC (which include those of EMRS) are consulted on separately by BEIS. There is therefore no breakdown of EMR costs in the BSCCo Business Plan but the impact to ELEXON's budget via reimbursement for providing human resources and office facilities is further shown in this document as "EMR Contribution".

**Table 1 Budget Summary**

Item	Year to March 2017/18 Budget £m	Year to March 2017/18 Forecast £m	Year to March 2018/19 Budget £m	Variance to 2017/18 Forecast £m	Variance to 2017/18 Forecast %	Year to March 2019/20 Projection £m	Year to March 2020/21 Projection £m
ELEXON Operational	20.9	20.1	21.5	(1.4)	(7.0)	21.5	21.6
EMR Contribution	(2.8)	(2.5)	(3.3)	0.8	32.0	(3.3)	(3.1)
Subtotal	18.1	17.6	18.2	(0.6)	(3.4)	18.2	18.5
Demand Led Costs	4.0	2.3	4.2	(1.9)	(82.6)	4.2	4.2
Subtotal	22.1	19.9	22.4	(2.5)	(12.6)	22.4	22.7
Contracted Costs	15.2	14.9	15.3	(0.4)	(2.7)	15.3	14.9
<b>Total Regular Activity</b>	<b>37.3</b>	<b>34.8</b>	<b>37.7</b>	<b>(2.9)</b>	<b>(8.3)</b>	<b>37.7</b>	<b>37.6</b>
System Strategy	3.7	3.2	5.4	(2.2)	(68.8)	4.0	2.0
Market Development	0.5	0.5	0.5	-	-	0.5	0.5
<b>OVERALL TOTAL</b>	<b>41.5</b>	<b>38.5</b>	<b>43.6</b>	<b>(5.1)</b>	<b>(13.2)</b>	<b>42.2</b>	<b>40.1</b>

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It should be noted that we started the budget process in October 2017, so the comparison for the full year outturn for 2017/18 is based on the September 2017 forecast. The budget to deliver BSC activity in 18/19 including the additional BSC activities described in this Business Plan will be £43.6m. This represents an increase of £5.1m (13.2%) against the current year's forecast, and an increase of £2.1m (5.1%) against the 2017/18 budget. The budget also supports our ability to address wider industry challenges, as well as respond to the significant increase in anticipated industry change in the coming year. We recognise that the budget has increased slightly compared to the forecast however our directly controllable operational costs are in the main kept consistent with current year, and it is Demand Led costs (being those costs incurred in response to industry raised changes) that has increased compared to 2017/18 forecast. This budget sets our costs at an appropriate yet challenging level for the year ahead.

A significant proportion of our costs of delivering the BSC arrangements come from contracted expenditure for the BSC Agents. We continue to drive savings in our Contracted costs, through robust and rigorous contract and service management and re-procurement processes. Some aspects however are variable and driven by demand from industry. Where this is the case, we have identified and explained these elements in this document. Similarly, Demand Led costs are, by their very nature, driven by industry. The control we have is in ensuring that change is delivered in the most cost effective and efficient manner. We believe the level of change is likely to increase in the next year especially with Project TERRE (Trans European Replacement Reserves Exchange) and therefore we have made further provision for this activity in this budget as shown in the increase of Demand Led costs. Strict governance and controls are in place to ensure that any underspend in this area is returned to parties, as has been the case throughout our 16 year history.

We have major expected changes such as Project TERRE which comes about as a direct result of EU Regulations; implementation of our Foundation Programme which is driven by our need to future-proof the central systems and processes; maintaining internal applications as well as expected costs associated with upcoming BSC releases.

Since we changed our approach to systems transformation in 2015, which had been to carry out a large scale transformation of all of the current BSC Central Systems, maintaining our strategy from the last two years we are still focusing on an incremental transition to a flexible, scalable and responsive future proof platform as part of the new Foundation Programme. The strategy will introduce new ways of working, supported by a refreshed technology platform and responsive delivery methodologies. This will allow ELEXON to respond faster to changes, maintain its delivery reputation by reducing change delivery risks and position ELEXON to respond effectively to deliver our services to the changing needs of market and BSC parties. We will keep industry informed of progress on implementing the Foundation Programme via stakeholder engagement sessions and via the Panel representative on the steering committee.

We have also retained a provision of £0.5m for Market Development in line with our current forecast to support our continuous efforts to better understand developments within the market so that we are able to support the Panel in keeping them informed of issues that may fall outside of the direct governance of, but impact, the BSC.

ELEXON is a not for profit entity, funded by electricity market participants. We do not carry any reserves or retained capital and any underspend against budget is always returned to parties. In light of this, budgeting for uncertainties in advance of any new financial year, with no other access to working capital, requires careful consideration. We need to address contingencies mindful of this constraint, while also endeavouring to set challenging financial targets for the business, which ensure we deliver the best possible value for money to the industry.

**CHART 1 COSTS OF ELEXON REGULAR ACTIVITY SINCE NETA GO LIVE (EXCLUDING NETA COSTS)**

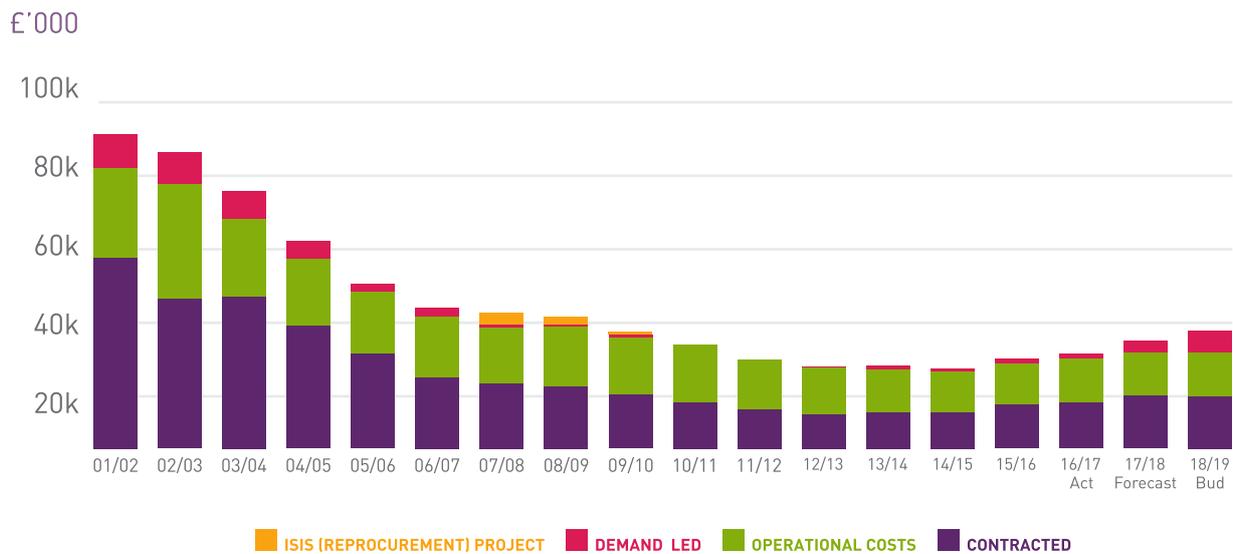
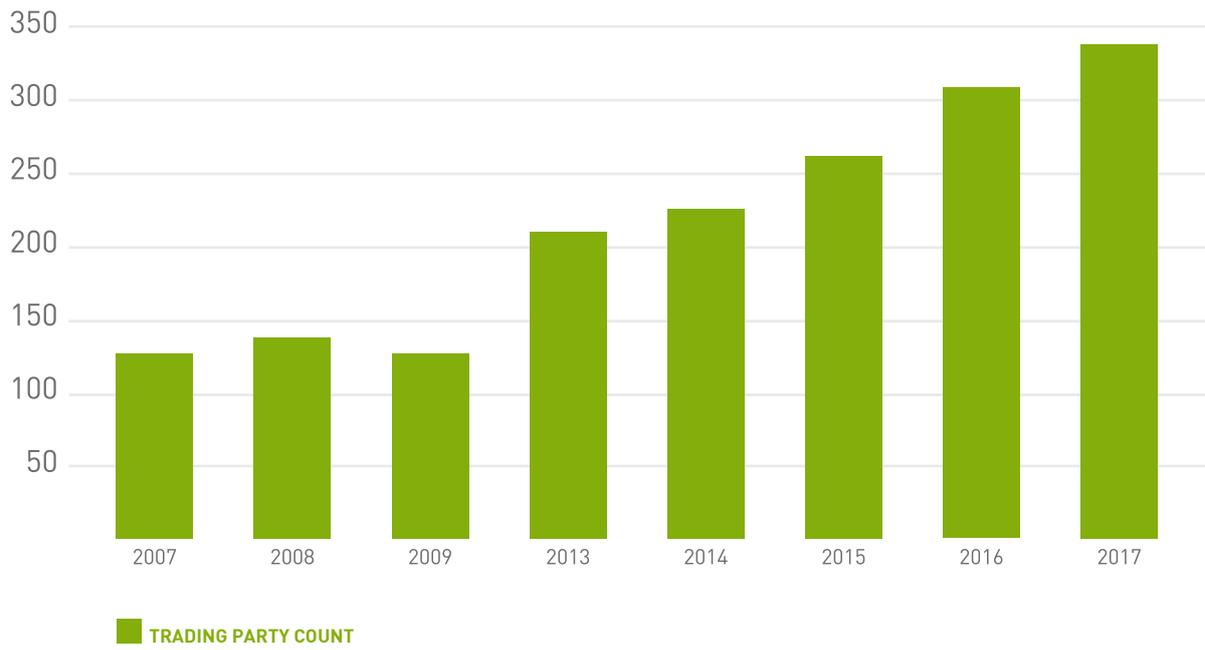


Chart 1 above details the total costs of ELEXON regular activity net of staff and overhead costs for EMR activities (which are fully funded by LCCC/ESC) since NETA go-live in 2001/02 in real terms (in 2017/18 money after applying April RPI of each year) and shows our continued success in driving efficiencies throughout the business. The increase anticipated in the coming year is driven by our need to progress our Foundation Programme, as well as our anticipated view of the increased levels of forthcoming industry change (some necessitated by law e.g. Project TERRE).

ELEXON has successfully reduced costs over the last 17 years. Whilst this becomes more challenging, we have demonstrated that we have been able to minimise any increases despite the significant increase in trading parties over the past 10 years, which can be seen from the table below.

## TRADING PARTY COUNT



## 02 DETAILED BREAKDOWN

## 2.1 ELEXON Operational

The budget for our operational costs for 2018/19 is £18.2m, 3.4% more than current year forecast, and includes costs such as People, Occupancy, General office expenses, Consultancy and Legal support. This also includes income from EMR activities as a result of providing resources to our EMR subsidiary EMR Settlement Ltd (EMRS). Table 2 below illustrates the Operational costs budget:

**Table 2 ELEXON Operational**

Item	Year to March 2017/18 Budget £'000	Year to March 2017/18 Forecast £'000	Year to March 2018/19 Budget £'000	Variance to 2017/18 Forecast £'000	Variance to 2017/18 Forecast %	Year to March 2019/20 Projection £'000	Year to March 2020/21 Projection £'000
People Costs	13,794	13,238	14,198	(960)	(7.3)	14,195	14,266
Other Operational Overheads	7,111	6,871	7,349	(478)	(7.0)	7,313	7,337
EMR Contribution	(2,803)	(2,480)	(3,335)	855	34.5	(3,262)	(3,098)
<b>Operational Total</b>	<b>18,102</b>	<b>17,629</b>	<b>18,212</b>	<b>(583)</b>	<b>(3.3)</b>	<b>18,246</b>	<b>18,505</b>

### People (Employee and Contractor) Costs

People costs are expected to increase by £960k (7.3%) as a result of a higher average headcount necessary to deliver this Business Plan. The headcount illustrated in Table 3 is an average for the year and does not represent the actual number of persons, but a full time equivalent of those engaged, and therefore representative of the costs.

**Table 3 ELEXON People Costs and Headcount**

£ and Headcount	Year to March 2017/18 Budget £'000	Year to March 2017/18 Forecast £'000	Year to March 2018/19 Budget £'000	Variance to March 2017/18 Forecast £'000	Variance to March 2017/18 Forecast %	Year to March 2019/20 Projection £'000	Year to March 2020/21 Projection £'000
Employee Costs	12,414	11,724	12,548	(824)	(7.0)	12,931	13,278
Contractors	1,380	1,514	1,650	(136)	(9.0)	1,264	988
<b>Total People Costs</b>	<b>13,794</b>	<b>13,238</b>	<b>14,198</b>	<b>(960)</b>	<b>(7.3)</b>	<b>14,195</b>	<b>14,266</b>
Average Employee Headcount	164.1	152.3	176.9	(24.6)	(16.2)	178.6	178.6
Average Contractor Headcount	10.4	11.7	12.7	(1.0)	(8.5)	8.9	6.9
<b>Average Total Headcount</b>	<b>174.5</b>	<b>164.0</b>	<b>189.6</b>	<b>(25.6)</b>	<b>(15.6)</b>	<b>187.5</b>	<b>185.5</b>
Employee Costs per Head	76	77	71	6.0	7.8	72	74
Contractor Costs per Head	133	129	130	(1.0)	(0.8)	142	143
<b>People Costs per Head</b>	<b>79</b>	<b>81</b>	<b>75</b>	<b>6</b>	<b>7.4</b>	<b>76</b>	<b>77</b>

To fulfil our role as the EMR Settlement Service Provider, via ELEXON's 100% owned subsidiary EMRS, we have contracted with LCCC and ESC to provide the services on day rates that fully recover our management overheads, office overheads and occupancy costs on a not for profit basis in respect of those personnel working on EMR. We have budgeted 30.5 FTEs to deliver these services. The £3.3m EMR Contribution represents the income from LCCC and ESC to pay for the EMR, which is made up of people costs for those directly or partially utilised to deliver EMR services, as well as a share of fixed overheads apportioned on a per person basis. The fixed overheads element of the contribution defrays the fixed overheads that BSC Parties are currently paying, for example occupancy and the IT infrastructure, and is budgeted to be £0.9m for 2018/19.

Table 4 below breaks down total headcount by the activities they perform. The increase in delivering BSC business as usual (BAU) activity is attributable to being able to deliver work in the pipeline.

**Table 4 ELEXON Headcount Breakdown**

Headcount	Year to	Year to	Year to	Variance	Variance	Year to	Year to
	March	March	March	to March	to March	March	March
	2017/18	2017/18	2018/19	2017/18	2017/18	2019/20	2020/21
	Budget	Forecast	Budget	Forecast	Forecast	Projection	Projection
	(FTEs)	(FTEs)	(FTEs)	(FTEs)	(%)	(FTEs)	(FTEs)
BSC BAU	149.2	140.8	159.1	(18.3)	(13.0)	158.0	157.0
EMR	25.3	23.2	30.5	(7.3)	(31.5)	29.5	28.5
<b>Average Total Headcount</b>	<b>174.5</b>	<b>164.0</b>	<b>189.6</b>	<b>(25.6)</b>	<b>(15.6)</b>	<b>187.5</b>	<b>185.5</b>

Over the past years we've sought to transform the organisation, to ensure that it is fit for purpose and best positioned to deliver on our mission and vision. Active appropriate recruitment and retention of key people is critical to ensuring business continuity and is one of the four cornerstones of our Business Plan, referred to as Capability.

Many of our larger customers have or are undergoing staff reductions and coupled with the smaller players being unable to support a large internal team of market experts this has resulted in our customers demanding more support from us and also asking us to take on more of the market design activities. As a consequence, we experienced an increase in staff turnover. We actively seek to develop our people and therefore explore suitable internal candidates when and where appropriate. The impact of this however is often a lengthening of the recruitment process as we seek to bring new talent into the organisation to fill vacancies. To address the challenge of attracting talent to the organisation, the Executive have retained our pay and reward strategy to ensure we remain competitive, as well as working towards developing other retention mechanisms. This will in turn mean that the Industry benefits from the investment we make in our people.

None of the forthcoming categories of costs of Demand Led, Contracted, System Strategy or Market Development, contain funding associated with internal resources, those budgeted amounts relate exclusively to external costs.

## 2.2 Demand Led

**Table 5 Demand Led**

	Year to March 2017/18 Budget £'000	Year to March 2017/18 Forecast £'000	Year to March 2018/19 Budget £'000	Variance to March 2017/18 Forecast £'000	Variance to March 2017/18 Forecast %	Year to March 2019/20 Projection £'000	Year to March 2020/21 Projection £'000
<b>Demand Led</b>							
IA - Modification Proposals	177	88	100	(12)	(13.6)	100	100
BSC Systems Releases	3,603	2,103	3,900	(1,797)	(85.4)	4,000	4,000
Panel Committee Projects	242	135	228	(93)	(68.9)	100	100
<b>Total Demand Led</b>	<b>4,022</b>	<b>2,326</b>	<b>4,228</b>	<b>(1,902)</b>	<b>(81.8)</b>	<b>4,200</b>	<b>4,200</b>

This area of our budget is entirely demand driven, and is set to ensure that we are appropriately funded in order to be able to implement changes requested by industry. We continue to ensure that all change is delivered in the most effective and efficient way.

Our budget is based on the following assumptions:

- ▶ We've set the budget for impact assessments of modification proposals and change proposals at £100k, an increase of £12k from current forecast and a decrease of £77k from previous budget.
- ▶ The budget for BSC systems releases has been set at £3.9m. This is an increase on the previous years' budget as well as current forecast due to the increasing amount of change within the industry – mainly the upcoming Project TERRE implementation into GB market arrangements which is budgeted to cost approximately £3m. The remainder of the £900k budget is attributed to scheduled BSC changes based on the impact assessment of known modifications with estimates based on historic change costs.
- ▶ We have budgeted £228k to cover the delivery of any additional work requested by Panel Committees.

## 2.3 Contracted

**Table 6 Contracted Costs**

Item	Year to March 2017/18 Budget £'000	Year to March 2017/18 Forecast £'000	Year to March 2018/19 Budget £'000	Variance to March 2017/18 Forecast £'000	Variance to March 2017/18 Forecast %	Year to March 2019/20 Projection £'000	Year to March 2020/21 Projection £'000
<b>TOTAL CONTRACTED</b>	<b>15,229</b>	<b>14,879</b>	<b>15,282</b>	<b>(403)</b>	<b>(2.7)</b>	<b>15,321</b>	<b>14,918</b>

Contracted expenditure includes the operating cost of our BSC Agents (e.g. Central Registration Agent (CRA), Funds Administration Agent (FAA), etc.) and contracted service providers (e.g. for Profiling, Qualification Services etc.); as well as the depreciation of the capitalised investments into our systems. These are the main costs we incur in delivering the BSC arrangements and are predominantly fixed costs, linked to indexation.

The majority of our contracted costs for 2018/19 are in line with that of the 2017/18 forecast generating a £0.4m (2.7%) adverse variance as follows:

- ▶ Central Systems – adverse variance of £85k mainly attributed to increased BMRS storage related costs and pass through costs.
- ▶ Performance Assurance Reporting Mechanism System (PARMS) – overall adverse variance of £208k as a result of increase in qualification costs in line with projections, increased multi circuits testing, which are off-set by savings within operational audit.
- ▶ Increased Data Transfer Service (DTS) costs of £ 110k directly relating to an estimated increase of 15 new suppliers plus overall increased usage.

## 2.4 System Strategy

**Table 7 SYSTEM STRATEGY**

Item	Year to March 2017/18 Budget £m	Year to March 2017/18 Forecast £m	Year to March 2018/19 Budget £m	Variance to March 2017/18 Forecast £m	Variance to March 2017/18 Forecast %	Year to March 2019/20 Projection £m	Year to March 2020/21 Projection £m
<b>SYSTEM STRATEGY</b>	<b>3.7</b>	<b>3.2</b>	<b>5.4</b>	<b>(2.2)</b>	<b>(68.8)</b>	<b>4.0</b>	<b>2.0</b>

In 2017/18 we are forecast to spend £1.9m on our IS Strategy Initiative to invest in our systems in order to maintain our change delivery performance, given the increasing volume and scale of BSC change requirements by the industry. This is part of developing the Architecture Strategy which is the initial phase of our Foundation Programme, which assesses the near and long term market trends and assessed current BSC systems and processes against requirements driven by market changes. At present we have made a prudent estimate of the costs to deliver our Foundation Programme

We have allocated funds to support the re-architecting of CRA, SVA and SVA as part of the new Foundation Programme and to minimise costs to the parties by aligning with required industry modifications such as P344, P354 and P355.

## 2.5 Market Development

**Table 8 Market Development**

Item	Year to March 2016/17 Budget £m	Year to March 2016/17 Forecast £m	Year to March 2017/18 Budget £m	Variance to March 2016/17 Forecast £m	Variance to March 2016/17 Forecast %	Year to March 2018/19 Projection £m	Year to March 2019/20 Projection £m
<b>Market Development</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>-</b>	<b>-</b>	<b>0.5</b>	<b>0.5</b>

The budget for Market Development has been set at £0.5m, to cover any non BAU activities regarding the developments within the GB energy market.

There remain a number of industry developments that require ELEXON to continue to monitor, engage and informally assess impacts outside of the formal change process. These include developments from European network codes (particularly assignment of our existing roles), code governance reforms (consultative Board, strategic direction and licensing), closer cross-code collaboration to improve the customer experience, BREXIT and its impacts on the BSC and the potential for discussions on the future role of the independent system operator (especially its new responsibilities as proposed by OFGEM).

In addition, we will continue to engage with new market entrants and their proposed business models, seeking to ensure the BSC is not a barrier to innovation and will further explore providing data to our customers accompanied by insightful analysis. Furthermore, we need to understand the potential impact upon the BSC of the proposed new Retail Energy Code.

We have again budgeted for these market developments should we require to backfill or seek additional support, expert advice or guidance.

# 03 COMPARISON OF 2018/19 ANNUAL BUDGET WITH 2017/18 ANNUAL BUDGET

## COMPARISON OF 2018/19 ANNUAL BUDGET WITH 2017/18 ANNUAL BUDGET

**Table 9 Comparison of 2018/19 Budget with 2017/18 Budget**

Item	Year to March 2017/18 Budget £m	Year to March 2018/19 Budget £m	Variance £m	Variance %
ELEXON Operational Incl. EMR	18.1	18.2	(0.1)	(0.6)
Contracted Costs	15.2	15.3	(0.1)	(0.7)
Demand Led	4.0	4.2	(0.2)	(5.0)
<b>Total Regular Activity</b>	<b>37.3</b>	<b>37.7</b>	<b>(0.4)</b>	<b>(1.1)</b>
System Strategy	3.7	5.4	(1.7)	(45.9)
Market Development	0.5	0.5	-	-
<b>OVERALL TOTAL</b>	<b>41.5</b>	<b>43.6</b>	<b>(2.1)</b>	<b>(5.1)</b>

(Unfavourable variances are in brackets)

## COMPARISON OF 2018/19 ANNUAL BUDGET AGAINST FORECAST OUT-TURN OF 2017/18

**Table 10 Comparison of 2018/19 Budget against 2017/18 Forecast**

Item	Year to March 2017/18 Forecast £m	Year to March 2018/19 Budget £m	Variance £m	Variance %
ELEXON Operational Incl. EMR	17.6	18.2	(0.6)	(3.4)
Contracted Costs	14.9	15.3	(0.4)	(2.7)
Demand Led	2.3	4.2	(1.9)	(82.6)
<b>Total Regular Activity</b>	<b>34.8</b>	<b>37.7</b>	<b>(2.9)</b>	<b>(8.3)</b>
System Strategy	3.2	5.4	(2.2)	(68.8)
Market Development	0.5	0.5	-	-
<b>OVERALL TOTAL</b>	<b>38.5</b>	<b>43.6</b>	<b>(5.1)</b>	<b>(13.2)</b>

(Unfavourable variances are in brackets)

## 04 CHARGING ANALYSIS

## CHARGING ANALYSIS

This section outlines how we expect to charge the budget to BSC Trading Parties. Table 11 contains charging proposals from Section D of the BSC. All of the charges presented in Table 11 exclude value added tax (VAT).

### Table 11 Section D – Charging \*

- ▶ £500 Application Fee
- ▶ Membership fee of £250 per month
- ▶ CVA Metering System Monthly Charge of £50 per month. CVA BM Unit Monthly Charge (other than for Supplier BM Unit) of £100 per month (this charge is levied on each pair of BM units in the case of an exempt generator)
- ▶ For communication line and TIBCO charges, please refer to the ELEXON website
- ▶ Notified Volume Charge per Gross Contract MWh at a rate of £0.0005/MWh
- ▶ For all Base SVA BM Units a charge of £100 per month
- ▶ SVA costs split:
  - ▶ 50 percent of costs are paid by generators on basis of metered energy volumes
  - ▶ a fixed fee of £0.35 per SVA Half Hourly Metering System per month
  - ▶ remainder allocated on Suppliers Non Half Hourly MWh market share.
- ▶ All remaining costs split on basis of metered energy volumes.

\* These are based on the current charges and are consistent with last year's budget. They are subject to change following a periodic review approved by the Panel. Please refer to the ELEXON website for current rates.

Based on the information in Table 11 examples of charges to BSC Parties are provided.

First, the 2018/19 Annual Budget is set out in Table 12 below.

**Table 12 Split of Costs**

Assumed Split of Costs			
	2017/18 Budget	2017/18 Forecast	2018/19 Budget
SVA Costs	4.4	4.4	4.4
Other Costs	37.1	34.1	39.2
<b>TOTAL</b>	<b>41.5</b>	<b>38.5</b>	<b>43.6</b>

Second, various assumptions about the size of the market are made. These are presented in Table 13.

**Table 13 Market Assumptions**

Market Assumptions	2017/18 Budget	2017/18 Forecast	2018/19 Budget
Number of Trading Parties	362	422	443
Sales - Notified Contract Volumes (TWh)	852	891	917
Purchases - Notified Contract Volumes (TWh)	852	891	917
Generation (TWh)	288	259	251
Supply (TWh)	283	255	248
NHH Supply (TWh)	142	139	132
HH Supply (TWh)	135	120	126
CVA BM Units	707	729	765
SVA Base BM Units	143	171	180
SVA Additional BM Units	4	4	4
Data Line	67	70	72
Comms Software (5 Users)	39	28	28
CVA Metering Systems (MSIDs)	867	876	898
HH Supply (MSIDs)	240,749	0	0
PRS Supply (MSIDs)	30,342,071	0	0
HH and NHH Supply (MSIDs) *	0	30,670,843	30,701,514

\* As a result of a modification during the year (P346), Half Hourly and Non Half Hourly metering systems are now aggregated as a single supply.

Third, the charging regime from Section D of the BSC in Table 11 is then applied to costs in Table 12 based on the assumptions in Table 13. This gives the estimated charges (either specified charges or €/MWh fees) as shown in Table 14.

**Table 14 Expected Charges**

Charge Item	2017/18 Budget	2017/18 Forecast	2018/19 Budget
<b>Specified Charges</b>			
CVA BM Units (£/month)	100	100	100
SVA Base BM Units (£/month)	100	100	100
SVA Additional BM Units (£/month)	100	100	100
Data Line - estimated average (£/month)	700	700	700
Comms Software - average quad2 processor (£/month)	1,080	1,080	1,080
Comms Software {additional user} (£/month)	22	22	22
Contract Traded (£/MWh)	0.0005	0.0005	0.0005
CVA Metering Systems (£/month)	50	50	50
Base Monthly Charge (£/month)	250	250	250
<b>SVA</b>			
HH SVA Ops (£/msid/month)	0.35	0.01	0.01
NHH SVA Ops (£/NHH MWh)	0.008	-	-
Gen Energy SVA (£/MWh)	0.008	-	0.009
<b>Main Charges</b>			
Energy fee (£/MWh)	0.05753	0.05718	0.06870

**Table 15 Cost Recovery by Item**

Charge Item	2017/18 Budget		2017/18 Forecast		2018/19 Budget	
	(£m)	% of Total	(£m)	% of Total	(£m)	% of Total
<b>Specified Charges</b>						
CVA BM Units	0.8	1.9%	0.9	2.3%	0.9	2.1%
SVA Base BM Units	0.2	0.5%	0.2	0.5%	0.2	0.5%
SVA Additional BM Units	0.0	0.0%	0.0	0.0%	0.0	0.0%
Data Line	0.6	1.4%	0.6	1.5%	0.6	1.4%
Comms Software (total)	0.5	1.2%	0.4	1.0%	0.4	0.8%
Contract Traded	0.9	2.2%	0.9	2.3%	0.9	2.1%
CVA Metering Systems	0.5	1.2%	0.5	1.3%	0.5	1.2%
Membership Fee	1.1	2.7%	1.3	3.4%	1.3	3.1%
<b>SVA</b>						
HH SVA Ops (£/msid/month)	1.0	2.4%	2.2	5.7%	2.2	5.1%
NHH SVA Ops (£/NHH MWh)	1.1	2.7%	-	0.0%	-	0.0%
Gen Energy SVA (£/MWh)	2.3	5.5%	2.2	5.7%	2.2	5.0%
<b>Main Charges</b>						
Energy fee (£/MWh)	32.5	78.3%	29.3	76.3%	34.4	78.7%
<b>TOTAL</b>	<b>41.5</b>	<b>100.0%</b>	<b>38.5</b>	<b>100.0%</b>	<b>43.6</b>	<b>100.0%</b>

# QUESTIONS

If you have any questions on the BSCCo Business Plan, please contact Communications at [communications@elexon.co.uk](mailto:communications@elexon.co.uk).

## **WANT TO KNOW MORE ABOUT THE BSC OR HOW TO GET INVOLVED?**

Visit us at [www.elexon.co.uk](http://www.elexon.co.uk) or contact your Operational Support Manager.

ELEXON.CO.UK