

ELEXON

BUSINESS PLAN
2022/23



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OVERVIEW





Sara Vaughan
Interim Chief Executive Officer

Over the coming year the energy sector will continue to face one of the most challenging periods that any of us have seen since energy retail competition was introduced. Whilst still dealing with the aftermath of the COVID-19 pandemic, Suppliers and other BSC Parties have faced unprecedented rises in wholesale prices.

The sector must also prepare for sweeping reforms, as the UK Governments steer Britain towards Net Zero. There is also uncertainty about future energy policy, as we await the outcome of the consultations on the proposed reforms to the energy codes and the creation of a Future System Operator.

As the manager of the Balancing and Settlement Code (BSC), Elexon fully recognises the ever increasing challenges faced by our customers. We always work to deliver our services as efficiently and effectively as possible, but we acknowledge that this is more important than ever, with the immense pressure on Suppliers, but also the wider market.

As a not-for-profit company funded by industry, we exist solely for the benefit of the energy industry and

our customers. Ahead of preparing this business plan we have challenged our teams to ensure that the work we are proposing to do is really essential. We are also ensuring that we focus on an agile approach to development, on prioritisation of our activity and on realising efficiency savings.

Our overarching focus is on 'delivering the day job'. We will continue to manage Settlement to our historic high standards, acting as a 'critical friend' and a market expert to support our customers and stakeholders. We will also act on feedback we received from our 2021 customer survey. It highlighted that quality, reliability and expertise remain the most valued aspects of Elexon's service, but the speed of our service has also emerged as a key factor this year. The findings showed that overall satisfaction with our service has increased and they identified areas where we could still make further improvements. They include developing our understanding of the issues BSC Parties are facing and helping our colleagues to develop and retain excellent knowledge of the codes.

Our corporate purpose - 'serving at the heart of the energy industry, building a path to Net Zero' - is driving our work to adapt the BSC for the challenges of the future, and helping us to be an enabler for change.

To ensure that we can deliver on our corporate purpose, we need to make significant investments in our systems, particularly to support implementation

of Market-wide Half Hourly Settlement (MHHS), which through contributing to a more cost-effective electricity system and encouraging more flexible use of energy, is a cornerstone to achieving Net Zero.

As we explained in last year's Business Plan, our investment in our new Kinnect platform will support the delivery of the central systems required for Elexon to deliver MHHS. Following the outcomes of the Architecture Work Group (AWG) during 2021/22, we have been able to include the costs of delivery in our budget this year. This is included under the name 'Helix Programme', to distinguish it from the separate, ring-fenced MHHS Programme Manager role.

This means that, whilst our budget for regular and project activity will decrease, our total budget will need to increase to £98.2m for 2022/23 compared with £83.7m in 2021/22. The table below summarises this change, and more detail is available in the finance section of the plan.

MHHS Programme Manager role

In April 2021, Elexon was appointed by Ofgem to manage the industry-led programme to deliver MHHS. Implementing MHHS will see Elexon co-ordinating the activity of more than 180 organisations across the sector. To assist us with the programme, and as recommended in the [Complete Strategy](#) report (an independent assessment of arrangements needed to deliver MHHS, requested by Ofgem), we have appointed Expleo Technology UK Limited (with its subsidiary

company, Moorhouse Consulting Limited) to work alongside the MHHS Programme as the Lead Delivery Partner (LDP). The budget required to deliver the MHHS Programme (in addition to that for regular BSC activity and our own MHHS Helix costs for delivery of central systems) is explained later in the document, alongside the priority work areas for the programme.

Implementing MHHS on Elexon's internal systems – Helix Programme

MHHS implementation will be the largest systems development seen in the electricity market since retail competition began in the late 1990s. Suppliers and Elexon will need to invest in redeveloping their systems to deliver the estimated net consumer benefits of up to £4.5bn between 2021 and 2045. For Elexon's part, the amount of half hourly data that we will process under MHHS will increase exponentially (by more than 90 times), compared with current levels.

We have already begun a multi-year programme to deploy our new cloud platform, Elexon Kinnect, which can be quickly expanded and changed to manage the rapid evolution in the energy sector. Kinnect will underpin Elexon's system as part of the MHHS programme and help facilitate its development. The services that Kinnect will deliver to support MHHS implementation were specified in the MHHS Target Operating Model (TOM) approved by Ofgem in April 2021.

Table 1.1 Budget Summary

| Item | Year to March 2021/22 Budget £m | Year to March 2021/22 Forecast £m | Year to March 2022/23 Budget £m | Variance to March 2021/22 Budget £m | Variance to March 2021/22 Budget % | Variance to March 2021/22 Forecast £m | Variance to March 2021/22 Forecast % | Year to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection % | Year to March 2023/24 Projection £m | Year to March 2024/25 Projection £m |
|--|---------------------------------|-----------------------------------|---------------------------------|-------------------------------------|------------------------------------|---------------------------------------|--------------------------------------|---|---|--|-------------------------------------|-------------------------------------|
| Elexon BAU Operational incl EMR Income | 21.3 | 20.6 | 21.4 | (0.1) | (0.4) | (0.8) | (3.8) | 21.5 | 0.1 | 0.5 | 21.4 | 21.4 |
| Contracted | 19.0 | 18.0 | 18.9 | 0.1 | 0.7 | (0.9) | (5.0) | 19.4 | 0.5 | 2.8 | 18.8 | 17.8 |
| Total BSC Regular Activity excl. project resource | 40.3 | 38.6 | 40.3 | 0.0 | 0.1 | (1.7) | (4.4) | 40.9 | 0.6 | 1.6 | 40.2 | 39.2 |
| Teleswitch (pass through from DNO's) | 1.8 | 1.2 | 1.5 | 0.3 | 14.2 | (0.3) | (25.4) | 1.9 | 0.4 | 18.7 | 1.5 | 1.5 |
| Demand Led and Digitalisation | 27.0 | 23.1 | 20.7 | 6.3 | 23.4 | 2.4 | 10.4 | 20.2 | (0.5) | (2.3) | 25.1 | 9.3 |
| Total excl. MHHS & Helix | 69.1 | 62.9 | 62.5 | 6.6 | 9.6 | 0.4 | 0.6 | 63.0 | 0.5 | 0.8 | 66.8 | 50.0 |
| Helix | - | 6.2 | 16.2 | (16.2) | - | (10.0) | (163.2) | - | (16.2) | - | 6.2 | 2.0 |
| MHHS Programme | 14.6 | 8.4 | 19.5 | (4.9) | (33.4) | (11.1) | (131.3) | 19.5 | - | - | 19.9 | 19.9 |
| Total Elexon | 83.7 | 77.5 | 98.2 | (14.5) | (17.4) | (20.7) | (26.7) | 82.5 | (15.7) | (19.1) | 92.9 | 71.9 |



Michael Gibbons CBE
Chair, Elexon Ltd and the BSC Panel

As discussed above, Elexon's redevelopment of the central systems is functionally and operationally separate from the MHHS Programme. A Separation Agreement (agreed between Ofgem and Elexon) is in place. It sets out the necessary business separation to ensure that Elexon, as a programme participant through Helix, is treated the same as any other MHHS Programme participant, and does not have any undue, or unfair influence on the central programme.

BSC funding is required to deliver the Helix Programme and we provide more detail on this later in the plan.

Continuing delivery of Elexon Kinnect

2022 will be a key year for us in terms of continuing delivery of Kinnect following our successful delivery of the Customer Solution, on time, in January 2021. In autumn 2022 we expect to complete the migration of the Settlement Administration Agent (SAA) to the new platform.

This is a critical step as the SAA performs the daily Settlement Runs. We will also continue to enhance the Customer Solution component with new functionality, and to progress the migration of the Supplier Volume Allocation Agent (which aggregates Supplier metered volumes for Non Half-Hourly and Half-Hourly consumption) to Kinnect. The SVAA will be replaced by the Volume Allocation Service (VAS) which will take on the role of calculating energy volumes for Balancing Mechanism Units. We explain this in more detail on page 16.

To deliver on our commitment to providing enhanced, customisable data we are migrating the aging Balancing Mechanism Reporting Service platform to our Kinnect Insights Solution. In line with our deployment plan, in October 2021, we started the migration and once it is completed and we are satisfied that the Insights Solution is delivering on the needs of our customers, BMRS will be decommissioned in 2023. Through easier access to data and data insights, the new Insights Solution will play a key role in supporting existing companies, new entrants and innovators who want to develop new products and services.

Access to open and granular data on the wholesale market is essential. In June 2021 we achieved a major step forward on data provision when we implemented P398 'Increasing access to BSC Data' which provides that all data held by Elexon is 'presumed open', unless the BSC Panel decides otherwise. By using our Insights Solution we will be able to make more BSC data available to more organisations in the coming years, with no additional charges. We also look forward to playing an important role in the new Energy Digitalisation Taskforce.

Digitalisation of the BSC

The BSC documents are complex and we are working to make it easier for both existing companies and new entrants to use and interact with them. We are now digitalising the entire BSC and its subsidiary documents and will have created the first usable version of the 'digitalised BSC' by the end of the first quarter of 2022. We recognise, through the work done on this initiative

“Working alongside the industry to develop and deliver major changes to the BSC is one of the most important contributions we can make to Net Zero”

to date, that this will take some time to complete as it involves digitalising 9,000 pages of text in total.

Modifications that support Net Zero

Working alongside the industry to develop and deliver major changes to the BSC is one of the most important contributions we can make to Net Zero.

In June 2022 and February 2023 respectively, we will implement P375 ‘Settlement of Secondary BM (Balancing Mechanism) Units using metering behind the site Boundary Point’ and P376 ‘Utilising a Baseline Methodology to set Physical Notifications’. Both Modifications create more opportunities for smaller asset owners to provide balancing services. Significant work lies ahead to prepare for these changes and we explain this in more detail in the Rules Management section.

We are also working with industry parties to develop P415 ‘Facilitating access to wholesale markets for flexibility dispatched by Virtual Lead Parties (VLPs)’ which, if approved by Ofgem, will make further inroads into supporting greater provision of Demand-side Response (DSR).

Reforming the energy codes and the System Operator (SO) roles

In July 2021 the Government and Ofgem gave the clearest indication yet of their plans for reforming the energy codes and the SO roles. Both Elexon and the BSC Panel have been long-term supporters of code reform and we believe that now is the time for Government and Ofgem to act decisively by progressing their proposals to implementation. Until the reforms are finalised there will be uncertainty for Elexon, our people, and the industry. We will therefore continue to help the Government and Ofgem in developing their proposals to bring the changes in as soon as possible.

Supporting the Supplier of Last Resort Arrangements (SoLR)

When Suppliers exit the market there is a significant impact on consumers who must wait to be transferred to a new Supplier. Supplier exits also have an impact on remaining BSC Parties that have to cover the unpaid BSC costs of the failed supplier. During 2021 we have supported Ofgem by managing the exit of

26 companies from the market through the SoLR arrangements, ensuring that they were transferred to new Suppliers as soon as possible.

The BSC mitigates the risk of Supplier failure by requiring all companies to provide credit collateral. The amount of collateral that BSC Parties are required to lodge is determined in part by wholesale electricity prices. The unprecedented increase in wholesale prices has resulted in the Credit Assessment Price (CAP) increasing to record levels. To support our customers and ensure that the CAP properly reflects the credit required to cover indebtedness, we have put in place a new process so that, at times of high levels of market volatility, the CAP can be altered more quickly (both upward and downward) using System Prices as well as forward prices. This should smooth the impact that changes in the CAP can have on the amount of collateral companies must lodge.

In November 2021 Ofgem successfully applied for the first Energy Supply Company Administration (ESCA) Order for Bulb Energy Limited. The ESCA is an alternative to the Supplier of Last Resort process for larger Suppliers that fail. Since then, Elexon has been providing support and guidance to the administrator on BSC compliance, through a designated member of our Operational Support Manager (OSM) team.

Continuing to support innovation through the BSC Sandbox

The BSC Sandbox allows innovators to trial concepts without having to meet the usual BSC rules. In February 2021, Ofgem approved an application by Centrica to use the BSC Sandbox to explore the delivery of balancing services using assets located in homes. We are currently assessing the costs and benefits of the trial, before taking this initiative further.

The structure of the business plan

We have structured the plan into sections which are primarily based on the Helix Programme, the MHHS Programme Manager role, and the services we deliver for customers. We also explain how we are improving our approach to customer engagement. In addition, there is a section on the role of EMR Settlement Ltd (EMRS), Elexon’s wholly owned subsidiary, which supports the Low Carbon Contracts Company (LCCC).

“However, the UK still has responsibilities to ensure that its market functions in line with the IEM and almost all of these responsibilities lie with National Grid NGESO”

Continuing our People Strategy work

We depend on the expertise, dedication and knowledge of all Elexon colleagues to continue our high standards of customer service. Throughout 2022/23 we will continue our People Strategy which directs our work to attract and retain colleagues. The People Strategy is explained in more detail later in the document.

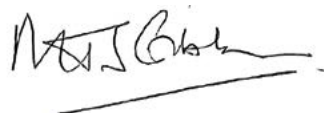
European Developments

The UK left the Internal Energy Market (IEM) at the end of the Brexit Implementation Period on 31 December 2020. However, the UK still has responsibilities to ensure that its market functions in line with the IEM, and almost all of these responsibilities lie with National Grid NGESO. Elexon remains a nominated Designated Operator and as such will work closely with NGESO to jointly implement changes to energy code rules.

During 2022/23 we will continue to support BEIS and Ofgem on aligning markets and policy, particularly on working towards Net Zero. Special focus will be on contributing to development of potential cross-border balancing arrangements, as well as facilitating the North Sea Offshore Transmission Network and associated hybrid interconnectors. We will continue to monitor IEM development so that we retain knowledge to enable us to consider all aspects of GB IEM alignment.



Sara Vaughan
Interim Chief Executive Office



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Chair, Elexon Ltd and the BSC Panel



CUSTOMER ENGAGEMENT



Customer Engagement

Exelon is driven by our desire to provide good service to our customers. A Customer Service ethos is encompassed in all that we do, and the way in which we deliver our 'end-to-end' service, from market entrance to exit. To deliver the best possible service, we want to continually improve our relationship with customers, our understanding of their needs, and the issues they face.

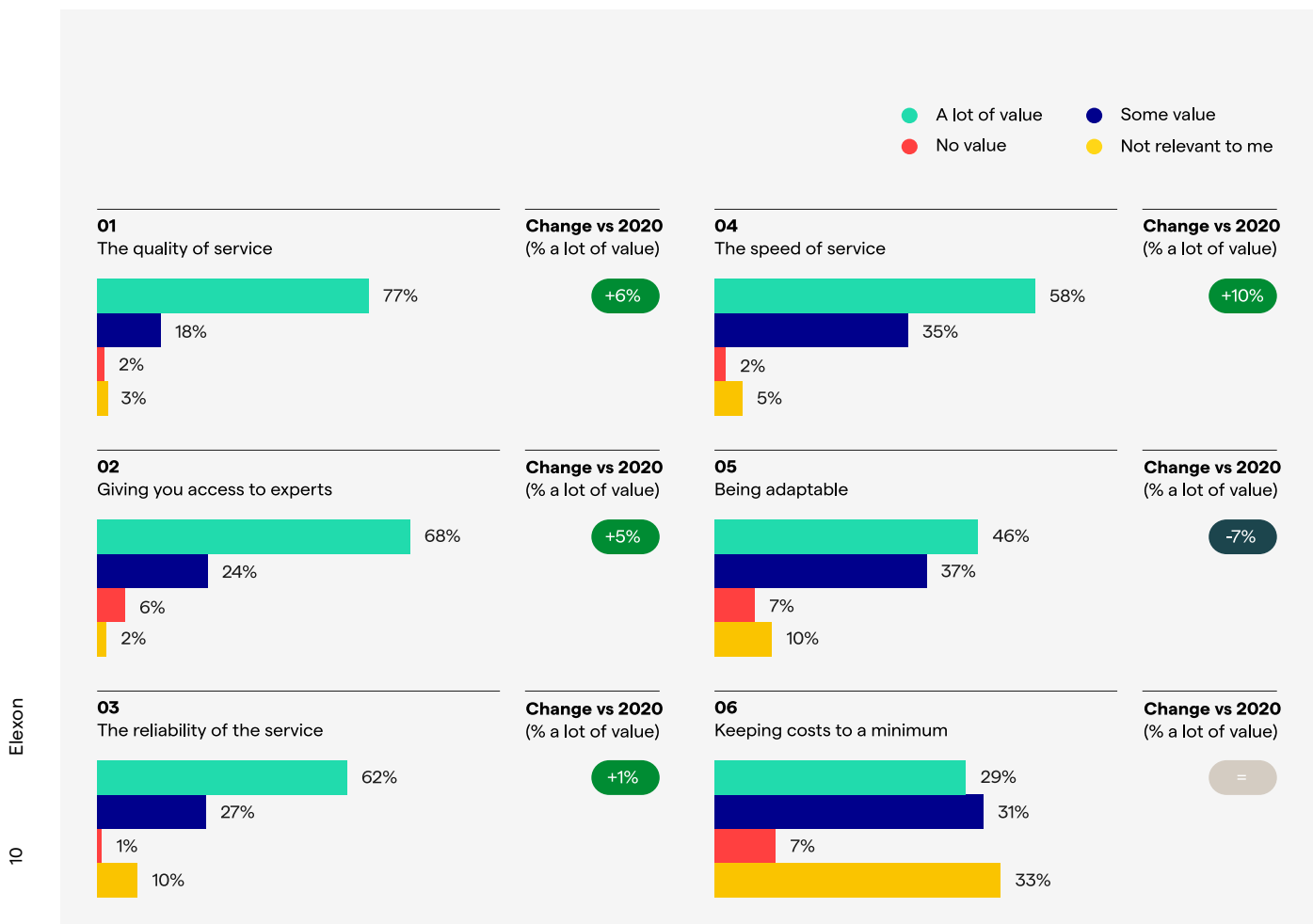
One way in which we measure our performance is through our annual customer survey which we use to influence our priorities for the next year. The [2021 survey](#) indicates that overall satisfaction with our service remains consistently high. 91% of respondents believe our service has improved over the last year, or stayed the same. Overall satisfaction with our service remains consistently high, with 69% of respondents giving us a score of 8 to 10 out of 10. Ofgem also published the [cross-code satisfaction survey](#) for 2021 on 18 January 2022.

The survey results show increased satisfaction particularly with the quality and reliability of our service, and the ease of access to our experts, compared with 2020 as shown in the table below.

In the business plan there are examples of how our work priorities are responding to the survey feedback. There are also other areas where we will need to further improve our services including:

- Simplifying our communications and tailoring them to different users
- Further improvements in the detail and quality of BSC Committee papers
- Improving the quality and timing of communications about BSC changes between decision and implementation.

The graph below shows the value that respondents to the 2021 survey place on aspects of our service, where the percentage for each bar shows the amount of people who agreed with the ratings (top right). The right hand side of each graph shows how these results compared with the 2020 survey findings.



Operational Support Managers (OSMs)

Our customers value our OSM service, where each BSC Party can have a dedicated Elexon colleague who works with them to resolve issues and manage Settlement performance. OSMs also help them to engage in the change process and offer general assistance.

In the 2021 survey, overall satisfaction with our OSM service has improved significantly with 54% of respondents rating the service highly compared with 46% in 2020. Many respondents consider that OSMs are making more effort to understand their business and respond appropriately. We will support our OSMs in furthering their understanding of the needs of BSC Parties, as this was highlighted as a priority by survey respondents. After more than 18 months of virtual visits, we are looking forward to reinstating the option of in-person meetings for our customers, as feedback shows that there is some desire for this.

Stakeholder engagement and sharing our expertise

We will continue to publish Policy Views on a range of topical issues to stimulate debate. Previous Policy Views about subjects including reforming the code and System Operator arrangements, speeding up the code change process, and examining the role that flexibility markets could play are available on www.elexon.co.uk.

In the past year we worked with the Energy Systems Catapult to publish a [joint paper](#) on how a system for carbon emission tracking across the energy sector could be set up. Establishing a tracking system will be important for checking on progress to Net Zero, and the paper proposes options for this, and next steps.

Our latest customer survey identified a need to improve how we facilitate industry debate and decision making. Over the coming year we will examine how we can improve our engagement with the industry at all levels of the companies we serve. We also plan to host some virtual events over the next year on key industry topics.



Voice of the Customer

In 2021, we began using the Voice of the Customer feedback loop to enhance our response to customer feedback, and we continue to look at how we can better deliver our services to meet customer needs. Our focus has been on following up requests made by our customers, investigating the viability of their requests and implementing improvements to our services.

In 2022, we are keen to involve our customers in seeing how our services could be enhanced. We will set up workshops, user groups and feedback mechanisms to obtain customer views on this. In essence, the Voice of the Customer approach will make sure that we have a more consistent, detailed and methodical response to customer feedback that influences positive change.

To help us deliver an improved service for customers in the coming years, during 2021 we trialled a customer relationship management (CRM) system internally. We used this time to evaluate whether the system would help to further improve our engagement with, and understanding of, our customers and their needs.

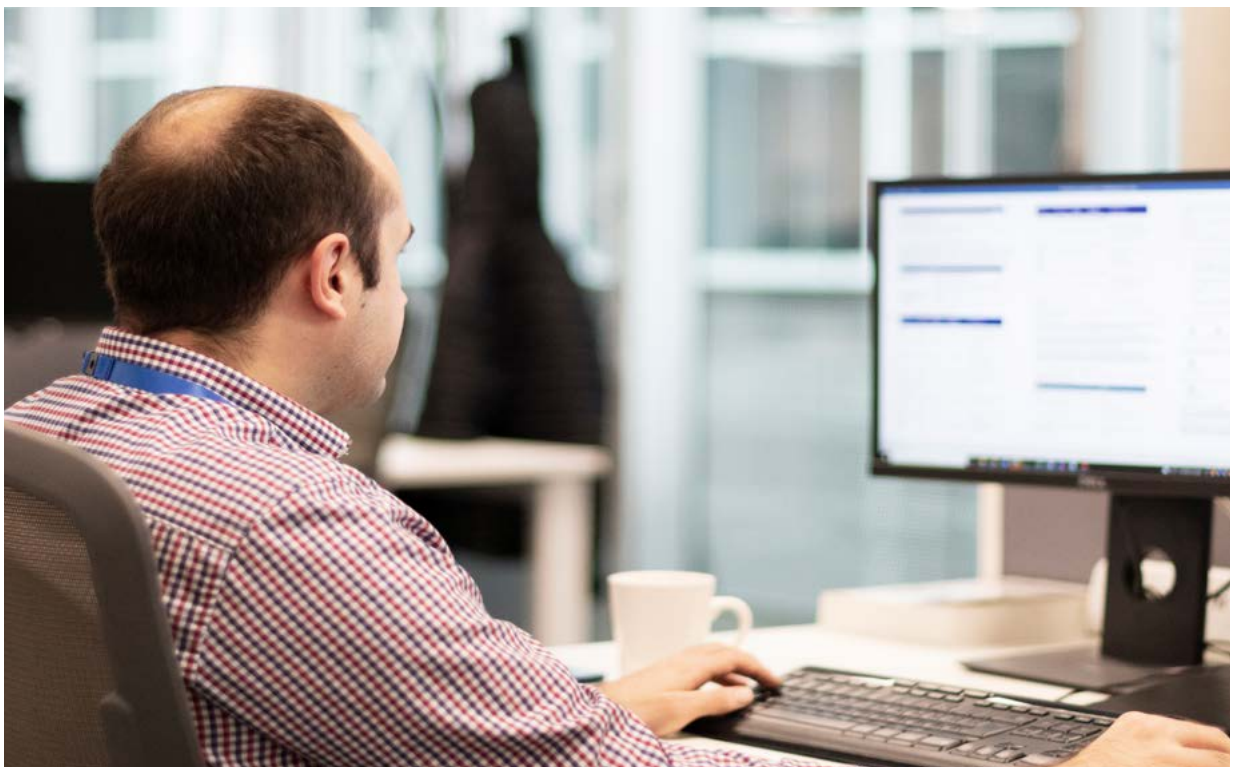
Improving www.elexon.co.uk

Throughout 2021, we have made a number of improvements to the BSC website:

- A [new BSC Dashboard](#) enabling users to bookmark web pages and add them on their own dashboards as quick-links
- Publishing a web page each month highlighting all changes that have taken place to the list of BSC Parties and Qualified Persons during the month
- An automatic email alerting function available on some pages so that users can receive an update when new content has been added without having to visit the page.

All the website improvements are listed on this [BSC website page](#).

In 2022/23, we will continue to improve the [BSC website](#) in response to feedback from our customers. We are working on enhancements to the Modification and Change Proposal pages to enable customers to filter changes by impact on role type, which enables personalisation of information.



Broadening our training provision for customers

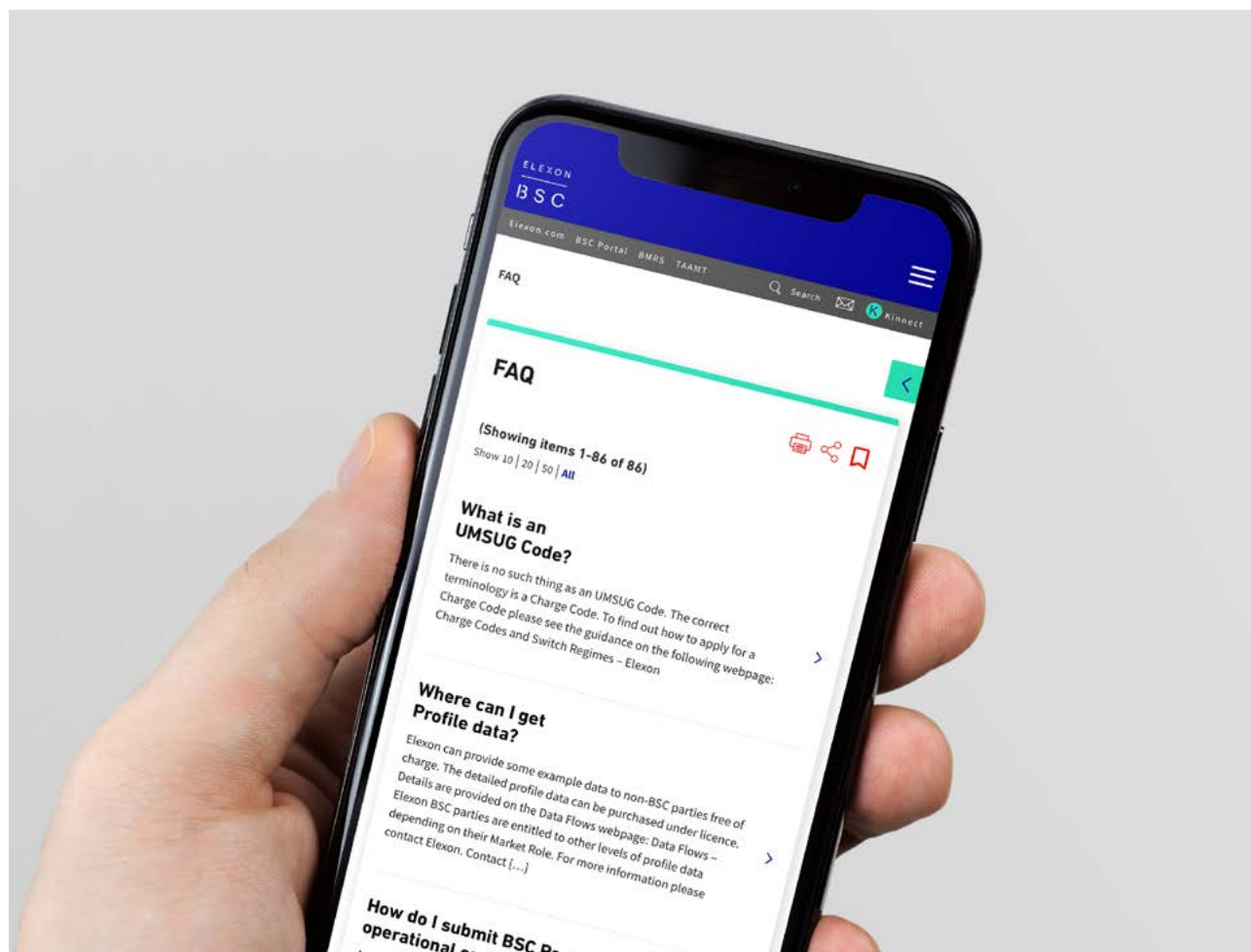
Our customers value the expertise of our colleagues. Ensuring that they fully understand their obligations under the BSC is vital. As such, throughout 2021 we have been making additional training content available on www.elexon.co.uk and developing Frequently Asked Questions to ensure information is accessible for our customers.

This is not to replace in-person training, but to supplement it, ensuring that all Parties have access to resources as and when they need them. Over the next year, we will continue to increase the quality and quantity of the online training materials available for the most requested training topics.

Service desk improvements

To coordinate customer queries and ensure they are directed to the relevant expert, we have a BSC Service Desk, operated by technology provider, CGI.

Over the next year, we will be working with CGI to decrease query resolution times and improve the allocation of queries to Elexon colleagues, when CGI need support in answering questions. This will allow our customers to receive quicker answers and higher quality support.



THE HELIX PROGRAMME



The Helix Programme (implementation of MHHS internally within Elexon)

In 2021, we began the Helix Programme to start not only the re-development of the BSC Central Systems to support MHHS, but also to re-engineer the accompanying processes and procedures that will be key to unlocking the benefits that Suppliers will expect of Elexon (and from MHHS).

We currently collect half hourly data from around 340,000 customers. However once MHHS is implemented across the sector, this amount will increase by more than 90 times as we will be collecting data from 30 million household and business customers. We will not be able to manage such a large increase in data processing without significant investment in our systems.

Responses to our 2021 customer survey confirmed that our customers also want us to continually improve our service and take steps to modernise our systems. Helix will respond to these challenges by ensuring that the BSC central systems are ready to support MHHS. The most significant aspect of this work is the development of three new services on the Elexon Kinnect platform.

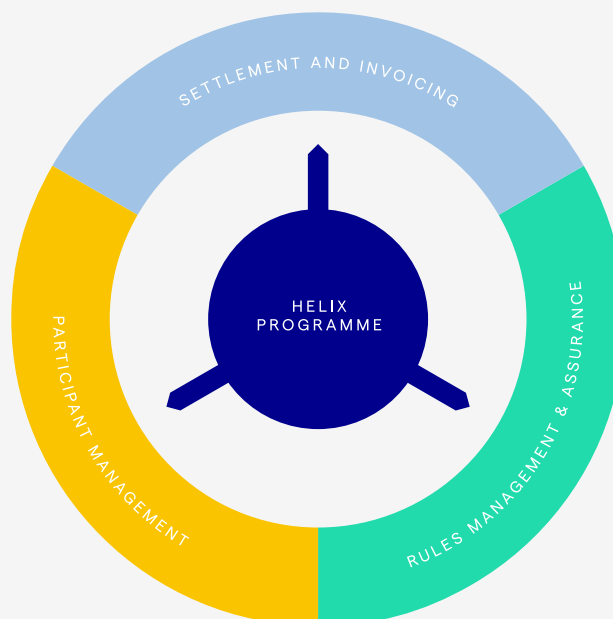
The Helix Programme impacts almost all areas of Elexon, with a requirement for transformation of a number of existing services.

Those which are most affected are:

- Settlement and Invoicing
- Participant Management
- Rules Management and Assurance.

We explain the impacts on these work areas later in the business plan.

**Most impacted areas of
Elexon by the Helix Programme**



The new Helix services and systems – Elexon’s role as MHHS market participant

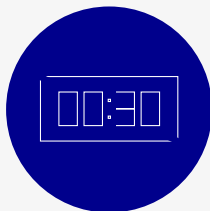
MHHS will require the creation of new services and systems by Elexon (**set out in the graphic below**). The new services were specified in the Ofgem-approved MHHS TOM. The TOM explains the set of services and Settlement arrangements required to deliver MHHS. The TOM was developed and consulted on by the Design Working Group, an industry working group which Elexon chaired.

These services and systems need to be developed and tested so that Elexon and the industry can deliver MHHS implementation by October 2025. Our assessment of the budget required in the 2022/23 business plan to deliver Helix is set out in the finance table in the Overview.

By developing the Helix services on Kinnect, we will be benefitting from its scalable, future-proofed architecture which will reduce the ongoing costs for maintaining BSC services in the future. In addition to this saving, if we can make further efficiency savings over the lifetime of the Helix Programme we will pass these back to our customers, as we routinely do with all aspects of our budget.

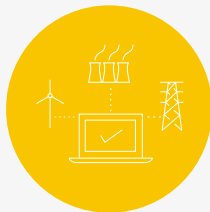
We will also be creating Industry Standing Data (ISD) – a system which will be an enhanced version of our Market Domain Data and Line Loss Factor services, but with fewer manual processes to maintain it. This will save both time and resources for BSC Parties and Elexon colleagues.

The three new Helix services



The Load Shaping Service (LSS)

Load Shaping Service (LSS) which will calculate energy consumption and load shapes using validated actual Settlement Period level data. These robust consumption profiles will improve the information we provide Suppliers by enabling them to better predict their customers’ usage, and perform their associated balancing activities



Market-wide Data Service (MDS)

Market-wide Data Service (MDS) which will aggregate data for smart, non-smart, advanced and unmetered supplies for Imbalance Settlement and other purposes such as network charges and flexibility offerings. It will also calculate and apply Distribution Line Loss values to the data, enabling it to provide data for BSC Assurance purposes



Volume Allocation Service (VAS)

Volume Allocation Service (VAS) which will use data from the MDS to calculate energy volumes for Balancing Mechanism Units. The VAS will replace the legacy Supplier Volume Allocation Agent (SVAA) The VAS feeds into shorter Settlement run times, allowing Suppliers to better manage their credit positions, and pass savings on to customers

Timeline for development and testing of the solutions

Ofgem approved Modification P423 'Market-wide Half Hourly Settlement (MHHS) Implementation and Governance Arrangements' in October 2021. It allows Elexon to manage and oversee the MHHS Programme, as the MHHS Implementation Manager. It also requires Programme Participants to change their systems and business processes to support MHHS.

To ensure that Elexon and Participants comply with P423, it is imperative that we deliver the Helix Programme systems and services first, so that they can be tested with a sub-set of industry participants. Industry market participants will also be re-developing their own systems, which they will need to adapt, along with their processes so that they can interface with, and provide data to Elexon's new Helix systems.

During 2022/23 we will be working with vendors to develop the Helix services so that they are ready by April 2023, to support industry testing which continues until the end of September 2024. Following this there will be a transition phase where legacy systems and process will be running alongside the new services and systems before go live of MHHS across the industry from October 2025.

Costs for the Helix Programme

The finance table on page 5 of the business plan sets out the costs for the programme for 2022/23 (£16.2m), and projected costs for 2023/24 and 2024/2025 of £6.2m and £2m respectively.

These projected costs are the best estimates we have at this time for Years 2 and 3 of the programme, as the MHHS design has yet to be concluded. Year 2 and 3 spending will be focused on testing, integration and assurance of the Helix Programme. The staffing levels required for the testing and integration phases are lower than for the development phase of the programme over the coming year. We will continue to evaluate the programme, and keep a close eye on costs.



THE MHHS PROGRAMME



Elexon's role to co-ordinate MHHS as Implementation Manager

MHHS is one of the biggest overhauls of electricity Settlement since privatisation, and it is a key step which will assist the electricity sector's progress towards Net Zero.

There will be a number of benefits to Suppliers from the introduction of MHHS. One of the most important benefits for BSC Parties is that MHHS will make electricity Settlement quicker, more accurate and more efficient – reducing Settlement timescales from 14 months to four months, thus reducing cash flow and bad debt risk.

MHHS is a 'game-changer', which will support the digitalisation and innovation needed across the sector to meet Net Zero. Coupled with the use of smart meters, MHHS will enable a range of innovations that will benefit our customers and energy consumers. In addition, more granular information on usage will help companies to fine tune existing products and services, or develop new ones, such as the next generation of 'time-of-use' tariffs, peer to peer trading and 'vehicle to grid' technology.

Separation of the MHHS Programme from Elexon's other activities

Our work to deliver MHHS implementation is led by the MHHS Programme as MHHS Implementation Manager. The Programme has been separated from Elexon's other BSC activities and most importantly from the Helix Programme.

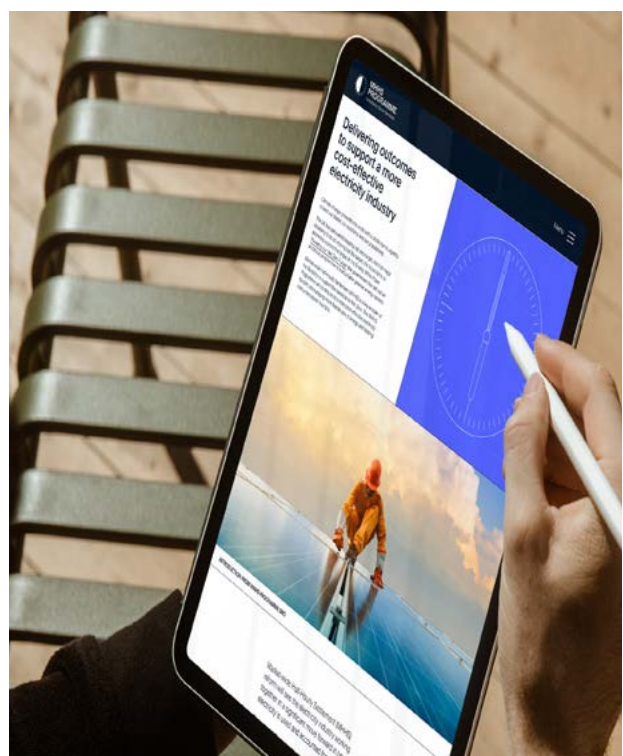
The Separation Solution requires that the MHHS Programme has separate decision-making processes, reporting and resources. As a general rule, colleagues within Elexon are not able to work on both the MHHS Programme and Elexon's Helix Programme.

To that end there are requirements placed on the MHHS Programme team, which reports into Angela Love (Elexon's Director of Future Markets and Engagement) as Executive Sponsor of the Programme, as well as on other Elexon colleagues. Angela reports directly into the Elexon Board in relation to the MHHS Programme.

Costs for the MHHS Programme

Unlike general BSC costs, it was decided by Ofgem that the MHHS Programme would be funded solely by Suppliers and this has been the case since July 2021, following Ofgem's approval of the Modification P413 alternative 'Enable Elexon to be the Programme Manager for the implementation of Market-wide Half Hourly Settlement'.

The Programme costs for 2022/23 are set out in the table in the Overview and there is more detail in the finance section of the plan. The MHHS Programme Steering Group (PSG) was advised of the proposed MHHS Programme costs at its December meeting.



Programme Governance

The PSG is the overarching decision-making authority for the Programme. The Programme has also consulted on (and agreed) the BSC governance arrangements. They ensure that the Programme can make decisions on behalf of the industry, to which it is accountable, if it has engaged and consulted with them beforehand. The arrangements will be supported by an Independent Performance Assurance Agent (IPA) to be appointed by Ofgem. More detail on the governance arrangements appears on the MHHS Programme website.

As mentioned in the Overview, Expleo Technology UK Limited (with its subsidiary company, Moorhouse Consulting Limited) is the LDP for the Programme. The LDP will provide overarching programme management capabilities along with the Programme Management Office, Programme Party Coordinator and Systems Integration functions. Throughout the tender process, Expleo focused on value for money and proposed a high degree of cost certainty for delivery.

The costs for consultants will be reported regularly to both the MHHS Programme Steering Group (which includes representatives from Suppliers, network companies and Citizens Advice) and Elexon's Board, therefore there will be regular oversight of the costs.

The MHHS Implementation Manager also has contractual arrangements in place to manage the costs and mitigate the impact should there be any delays on progression of the programme. If delays occur there will be other costs that may not be easy to mitigate, for example, those that are more fixed in nature, as well, of course, the potential impact of benefits realised later than assumed.

The priority work areas for the Programme in 2022/23 include:



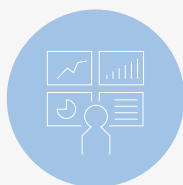
W

Finalising the detailed design of the Programme and providing the design artefacts to industry



M

Facilitating and co-ordinating meetings with industry to progress the Programme's work



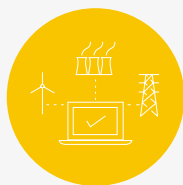
D

Designing and building the new 'event-driven' architecture which will support the major increase in data processing required once MHHS is implemented



M

Making changes to the energy codes to support MHHS implementation, following the outcomes of the Code Change and Development Group (CCDG) work, and detailed design recommendations



E

Ensuring that Programme Participants are developing their own internal systems and processes to be ready for the migration testing starting in 2023

PARTICIPANT MANAGEMENT



Participant Management – Making it faster and easier for BSC Parties to interact with Elexon

Our Participant Management service is focussed on our work to digitalise entry of new companies into the market, and support companies that are already active in it. Our work and services also help companies to register new assets easily.

Functionality improvements for the Kinnect Customer Solution

We launched the [Customer Solution](#) in January 2021 and it has already benefitted Parties by reducing the time taken to complete tasks from days to just minutes. Since then we have been improving its functionality. In May 2022, we expect to further enhance functionality for account management, which will benefit our customers and Elexon colleagues who also use the Customer Solution.

This enhanced functionality will include registering bank details and credit default contacts during the market entry process. It will also provide the ability to amend addresses, Authorised Signatories and contacts. The online accession form will be redesigned and the ability to add the same contact or Authorised Signatory across multiple Parties will be introduced.

Rapid completion of account management tasks, and functionality improvements demonstrate our commitment to act on the findings of the 2021 customer survey, which identified speed of service as one of the most valued aspects of Elexon's activities.

The Customer Solution will provide updated notifications to the Retail Energy Code Manager (REC) for market participant roles that interface with the Central Switching Service. This is so that the BSC and Elexon can comply with Ofgem's 'faster switching' programme, due for delivery in June 2022.

The Customer Solution will also support implementation of P375, by adding additional functionality to enable data from asset meters fitted at units behind the boundary point to be submitted by VLPs into Settlement. Further functionality will be added when Modifications P376 and P419 are implemented in February 2023. The Customer Solution supports this change by removing barriers to participation faced by aggregators, and allowing Parties to submit more accurate Final Physical Notifications to the National Electricity Transmission System Operator (NETSO).

P419 'Enhanced Reporting of Demand Data to the NETSO to facilitate BSUoS Reform' will build on existing Modification P383 'Enhanced reporting of demand data to the NETSO to facilitate CUSC Modifications CMP280 and CMP281'. P383 enabled the aggregation of specific Metering Systems' metered data for network charging purposes. P419 will introduce the ability for Suppliers to submit declarations through the Customer Solution.

P419 'Enhanced Reporting of Demand Data to the NETSO to facilitate BSUoS Reform' will build on existing modification P383 'Enhanced reporting of demand data to the NETSO to facilitate CUSC Modifications CMP280 and CMP281' which enabled the aggregation of specific Metering Systems' metered data for network charging purposes. P419 will introduce the ability for Suppliers to submit declarations through the Customer Solution.

New functionality will be added to the Customer Solution as part of the delivery of two further Modifications below (should they be approved). Both Modifications are still being developed through the assessment procedure.

- [Modification P415](#) 'Facilitating access to wholesale markets for flexibility dispatched by VLP'
- [Modification P395](#) 'Aligning BSC Reporting with EMR Regulations – an enduring solution'.

We are working to understand what the business requirements are for these changes, so that we can consider how to deliver the associated functionality on the Customer Solution. We will also be working to ensure that elements of the new Helix services can be delivered through the Customer Solution in the next year.

Market Domain Data (MDD) expansion

MDD is the central repository of reference data used by Suppliers, Supplier Agents and Local Distribution System Operators (LDSOs) in the retail electricity market. It is essential to the operation of Supplier Volume Allocation Trading Arrangements.

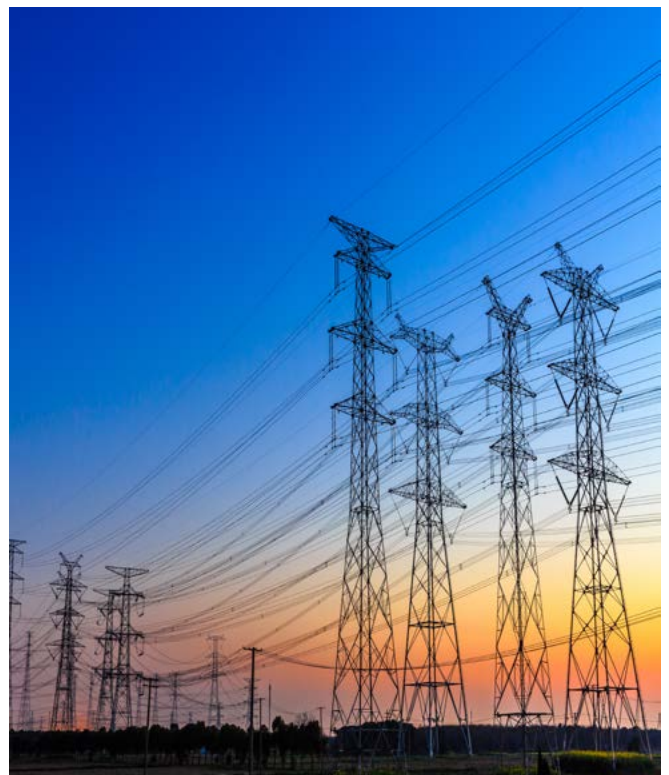
Parties such as Suppliers use MDD to register Meter Point Administration Numbers (MPANs), which are unique identification numbers for meters in the retail market. Line Loss Factor Classes (LLFCs) are associated with MDD. LLFCs are multipliers for scaling the amount of electricity that is consumed or generated, to account for losses from electricity distribution networks.

Over the past year we have been overseeing a major expansion to MDD resulting from Ofgem's Targeted Charging Review. The TCR involves major changes to how network charges are set, with the distribution charge aspects being introduced from April 2022. As a result of this, the numbers of LLFCs in MDD more than doubled from 16,000 to approximately 34,000. The number of valid set combinations increased to approximately 408,000, compared with an original estimate of around 420,000. The reduced number results from Elexon working proactively with Parties to achieve a lower number of combinations.

The enlarged MDD data set with Distribution Network Operator combinations became effective as planned from 1 April 2021. In December 2021, we completed the addition of the Independent Distribution Network Operator MDD combinations following successful Industry and System testing. This has ensured that these combinations are ready to use before Ofgem's April 2022 deadline.

The benefits of Industry Standing Data

As part of the Helix Programme the current plan is for MDD and LLF data to become 'Industry Standing Data'. This means that the process for updating MDD and LLFs will be automated, through the Customer Solution. This will save time and resource for Elexon and the industry, reducing manual effort and the potential for errors. Our customers will also benefit from additional control over their data. We expect to have a minimum viable product available to demonstrate this in 2022.



SETTLEMENT & INVOICING



Settlement and Invoicing: Migration of Settlement calculation services to Kinnect (Digitalisation)

Settlement calculations are the core of Elexon's role and these processes are at the heart of the services we provide to the market. BSC Parties (and ultimately consumers) depend on the continual accuracy of our calculations.

A key component of our implementation of Kinnect is the migration of these calculation systems to the Kinnect Settlement Solution.

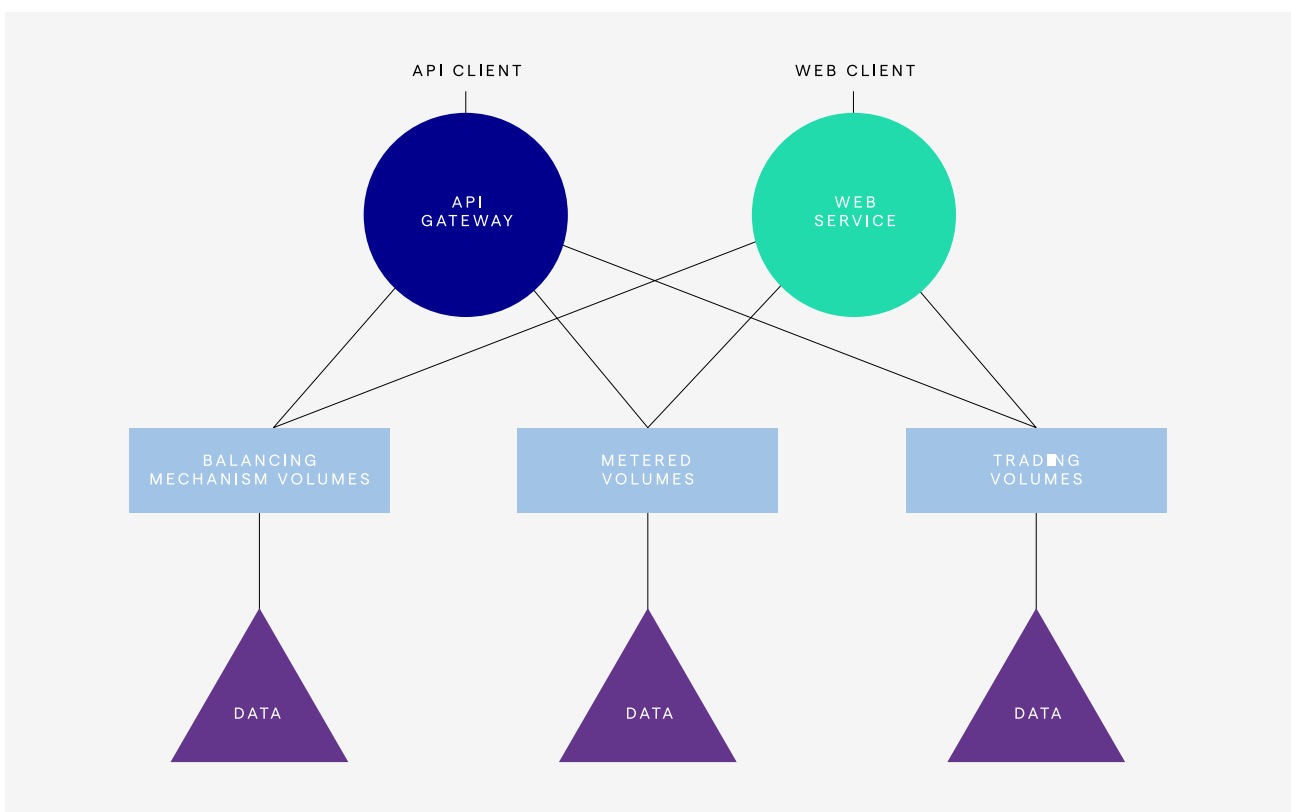
More detail on the Settlement Solution and how it benefits customers is available on our [Kinnect webpage](#). By using cloud data storage and processing we can respond to the needs of our customers, support innovation, and deliver changes to the BSC more quickly and efficiently. This is because the technology allows us to reduce manual processes and deliver the speedier service that our customers want to see.

Data from the Settlement Solution will also power the Kinnect Insights Solution, which is replacing the BMRS. You can see more detail on the Insights Solution later in the business plan.

"Incredible staff who are so professional and have exceptional knowledge and dedication to Elexon and to the industry. They have excellent leadership and are always there to answer queries and provide advice. As an industry body they are second to none"

Quote from a respondent to the Elexon customer survey 2021

Three of the microservices that make up the Settlement Solution



Migration of the Settlement Administration Agent (SAA) in autumn 2022

The most significant calculation activity to be migrated to the Settlement Solution is the SAA which performs the daily Settlement Runs. We expect to complete this in autumn 2022, following testing. Originally the migration was to take place in June, however the short delay is necessary to accommodate an extended testing period. This will enable more robust testing of the solution, data and complex product calculations.

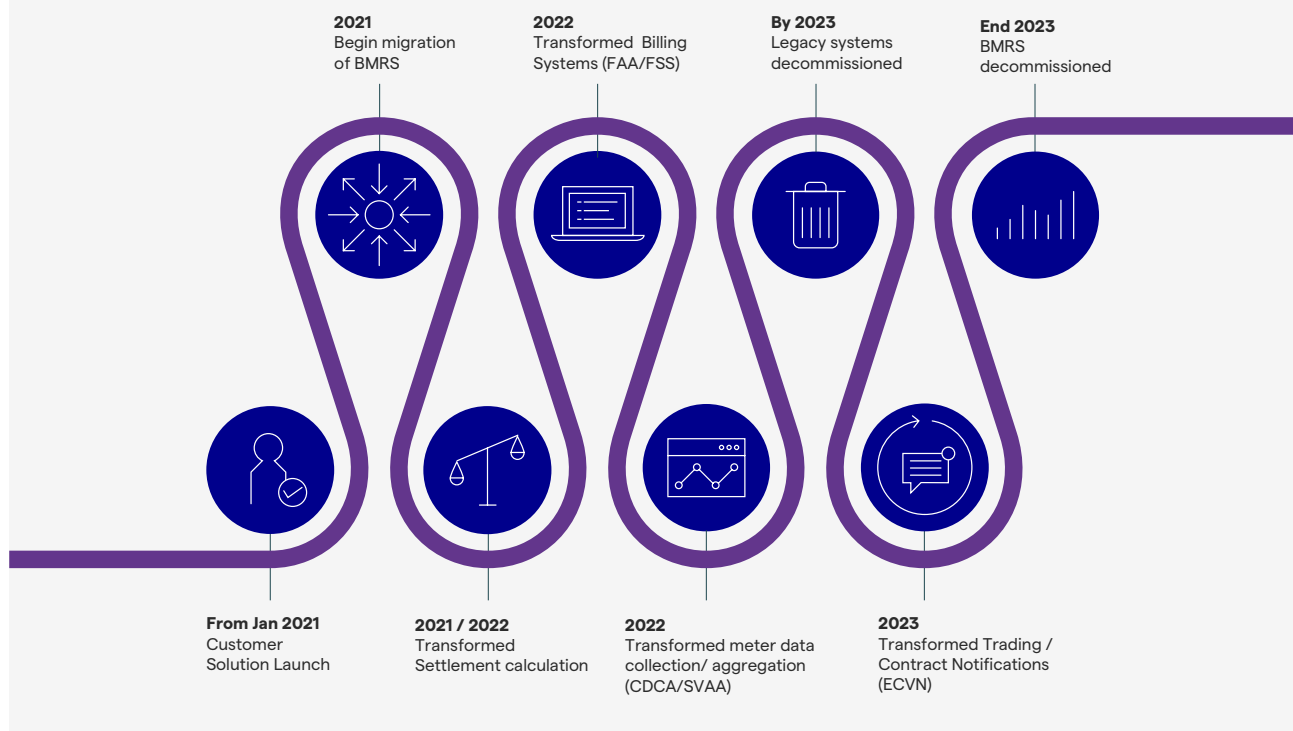
Once the legacy SAA functionality has been migrated, other BSC Agent calculation services will be moved to the Settlement Solution. The most significant of these is the SVAA, which profiles Non Half-Hourly volumes into Half-Hourly data and aggregates all Supplier volumes for Settlement.

Replacement of the SVAA with the new Volume Allocation Service (VAS)

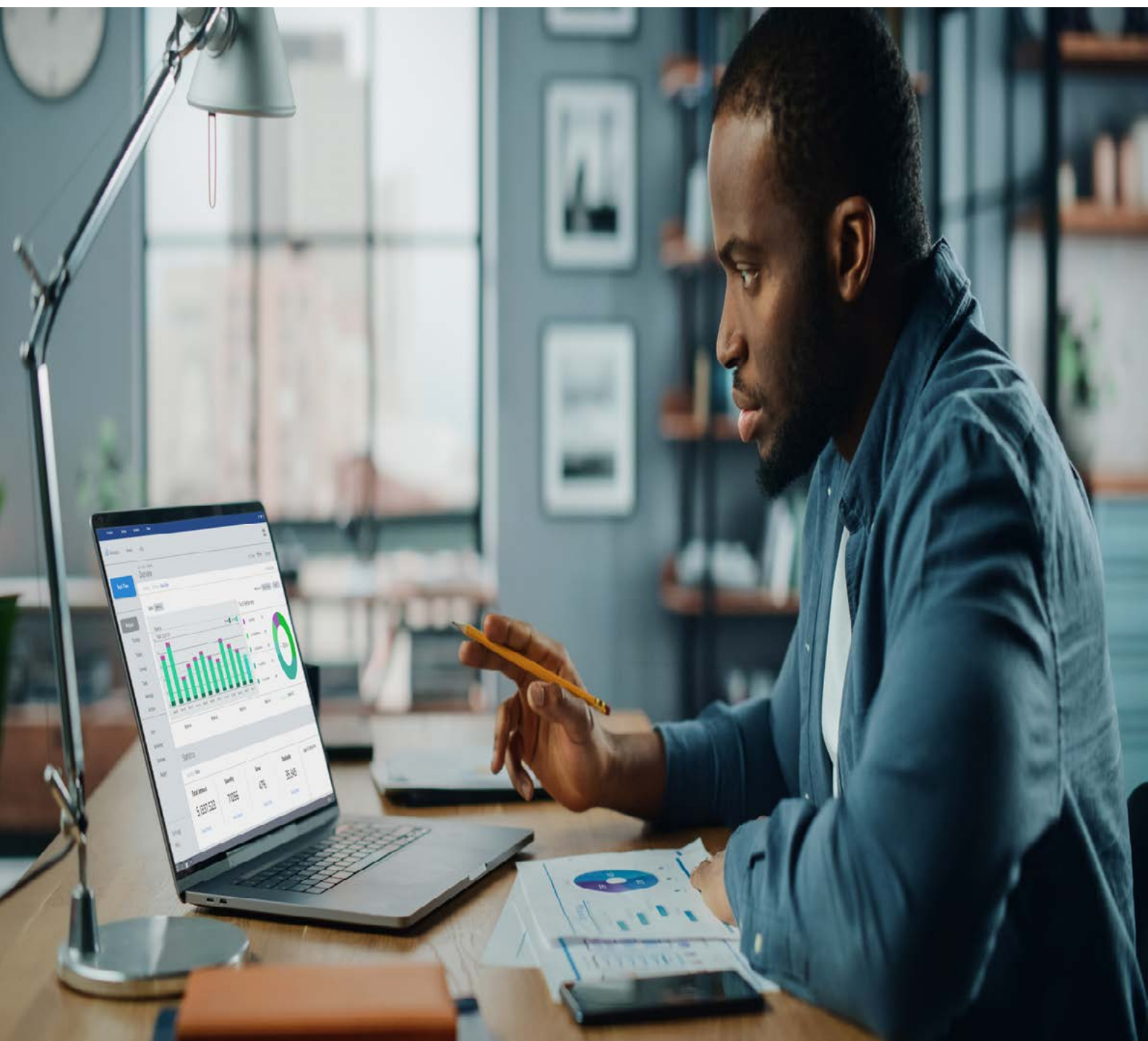
As explained earlier in the plan, to deliver MHHS, we will need to develop the new Helix services and their supporting systems on Kinnect. A key part of this is the replacement of the legacy SVAA with the new VAS. Colleagues from the Settlement and Invoicing Product will therefore work on the Helix Programme over the coming year as the new systems and services are being built. The SVAA has been in use for 20 years so we need to allow for a smooth transition to the VAS. Therefore we plan to keep complex legacy components such as profiling operating on legacy systems until 2026 to allow for careful decommissioning of it. Following development of the new VAS we will support the industry during the transition from the 14 month Settlement timescales to the four month timescale through MHHS.

Over the coming year we will also need to scope the migration to Kinnect of the Funds Administration Agent (the billing system for daily BSC Trading Charges and credit cover) and the Central Data Collection Agent (which collects metered data from power stations and grid supply points).

Roadmap to delivery of Elexon Kinnect



THE KINNECT INSIGHTS SOLUTION



The Kinnect Insights Solution – a new data service to support innovation and digitalisation

A large part of Elexon’s role is to ensure that BSC Parties have access to open and clear data on the wholesale market. As set out in the Overview, this is leading to the replacement of the industry-renowned BMRS with the Insights Solution, as part of Elexon Kinnect.

To support innovators and increasing levels of digitalisation across the sector, we need to provide access to a richer, more up to date and detailed data service than the BMRS.

The Insights Solution responds to this challenge. Similarly to the other Kinnect Solutions, the Insights Solution is a cloud-based service underpinned by high-performing Application Programming Interfaces (APIs). It leverages storage and processing capabilities at scale and will provide customers with the ability to ‘self-serve’ data requests and perform ad-hoc analysis to suit their own needs.

We have been working with over 160 people from across the industry, through the Insights Solution User Group, to ensure that the solution (and its usability) are fit to provide more comprehensive and easily accessible data. We thank them for their input, which has been invaluable, and we look forward to working with them throughout the development of the Insights Solution.

“Overall the look and feel of the website is great and also in keeping with the Elexon site. Data visualisation is very smart and helpful”

Quote from a respondent to the Elexon customer survey 2021

Key benefits of the Insights Solution’



01
Cloud-based service leveraging storage and processing capabilities at scale



02
Enhanced digital experience tailored to user types



03
Best in class API structure and design



04
State of the art data visualisation



05
Self-serve data request



06
Ad-hoc analysis



07
Improved platform speed

Migration of BMRS data to the Insights Solution through 2022/23

We launched the first iteration of the Insights Solution in October 2021 - generation fuel type outturn and availability data from National Grid ESO (NGESO). Throughout 2022/23 we will work to migrate all remaining data provision from BMRS to the new solution. The next milestone is making demand and wind forecast data available in May 2022. Once all BMRS data has been fully migrated, BMRS will be decommissioned in 2023.

Continuing to provide expert analysis on market developments

Using our expert resources, we monitor the energy markets to consider what is of importance to Parties, and to benefit the electricity market. We will continue to analyse developments, and offer our insights through our [BSC Insight articles](#). We will continue to accompany these articles with podcasts.

Greater automation

As mentioned in the Overview, we have introduced a new alternative review process for the CAP. It will be used temporarily in volatile market conditions to give more flexibility to the Credit Committee to increase or decrease the CAP more quickly using a wider range of data sources.

The alternative method makes use of online consultation forms to provide participants with more flexibility when responding, and the option for their comments to be made anonymously. During 2022/23, we will continue to review how we can automate and improve our services for BSC Parties, beginning with reviewing the Market Index Definition Statement (MIDS) process which will automate the way we review the 'reverse' Energy Imbalance Price. Greater automation can further speed up our processes and make it easier for our customers to respond to us.



ASSURANCE



Assurance of Settlement for BSC Parties and consumers

A distinguishing feature of the BSC and of Elexon's services is the robust Assurance activity for Settlement accuracy.

Elexon Assurance services aim efficiently to manage and mitigate the risks associated with Settlement, and are set out in the Performance Assurance Framework (PAF). The PAF comprises a number of techniques that work holistically to manage all aspects of risk across all the participants in the market, and pivot to respond to changes in industry and the wider economy.

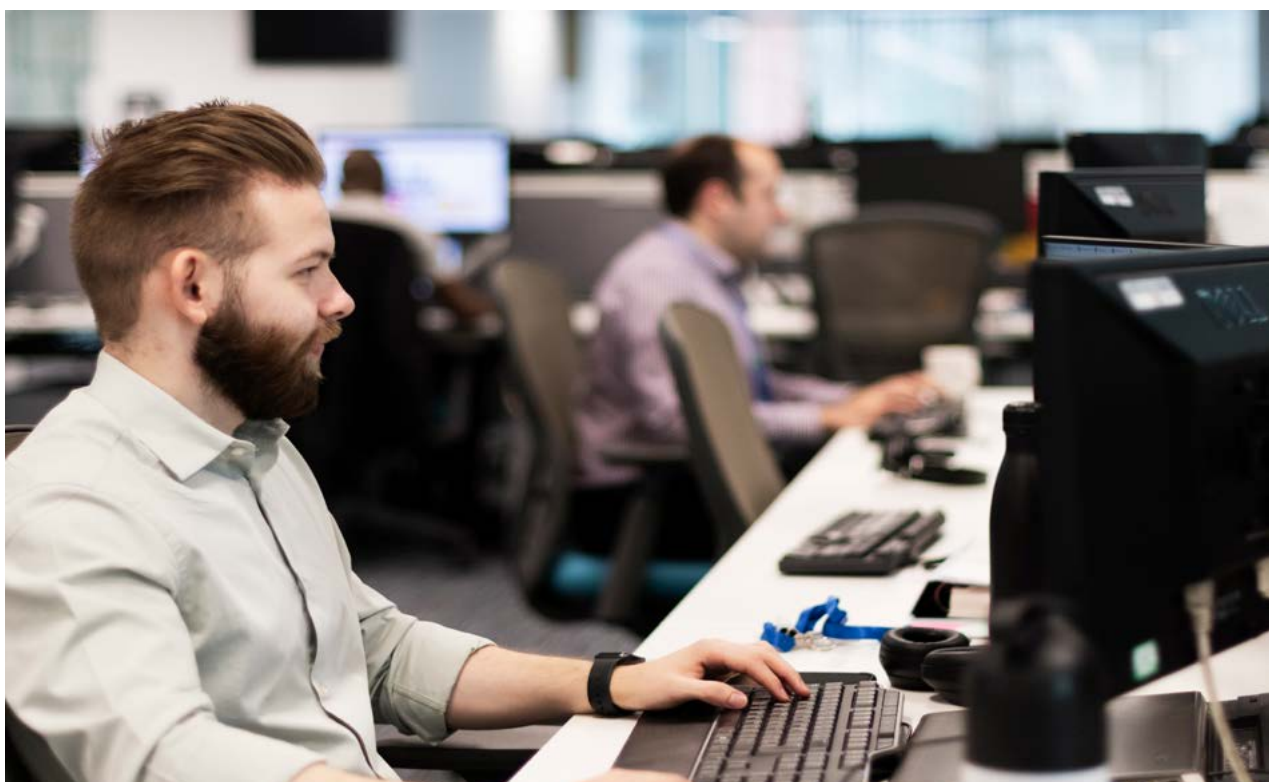
We constantly review the PAF to ensure it works as efficiently and as cost effectively as possible for Parties.

Removal of the majority of Performance Assurance Reporting and Monitoring System Serials

Currently, as part of the PAF, Data Collectors (DCs) and Meter Operator Agents (MOAs) are required to submit the impacted Performance Assurance Reporting and Monitoring System (PARMS) Serials every month.

Suppliers have to ensure that their Agents submit this data, as well as submitting a Data Provider Information (DPI) file themselves, which provides a 'checklist' of the Agents they have appointed (who are therefore required to submit the data). PARMS data is also used to calculate Supplier Charges, which are incurred for underperformance against six PARMS 'Serials'. Each Supplier has a maximum amount it can be charged for underperformance based on its size and market share. Currently, many Supplier Charges regularly exceed the maximum amount a Supplier can be billed, which is proving to not be a beneficial means of providing an improvement incentive.

Supplier Charges are applied based on underperformance by Supplier ID, Calendar Month and GSP Group. However, Issue 69 'The Performance Assurance Framework Review', found that the cost of reporting and processing participant-reported PARMS Serials was disproportionate to the benefits provided.



Removal of the majority of Performance Assurance Reporting and Monitoring (continued)

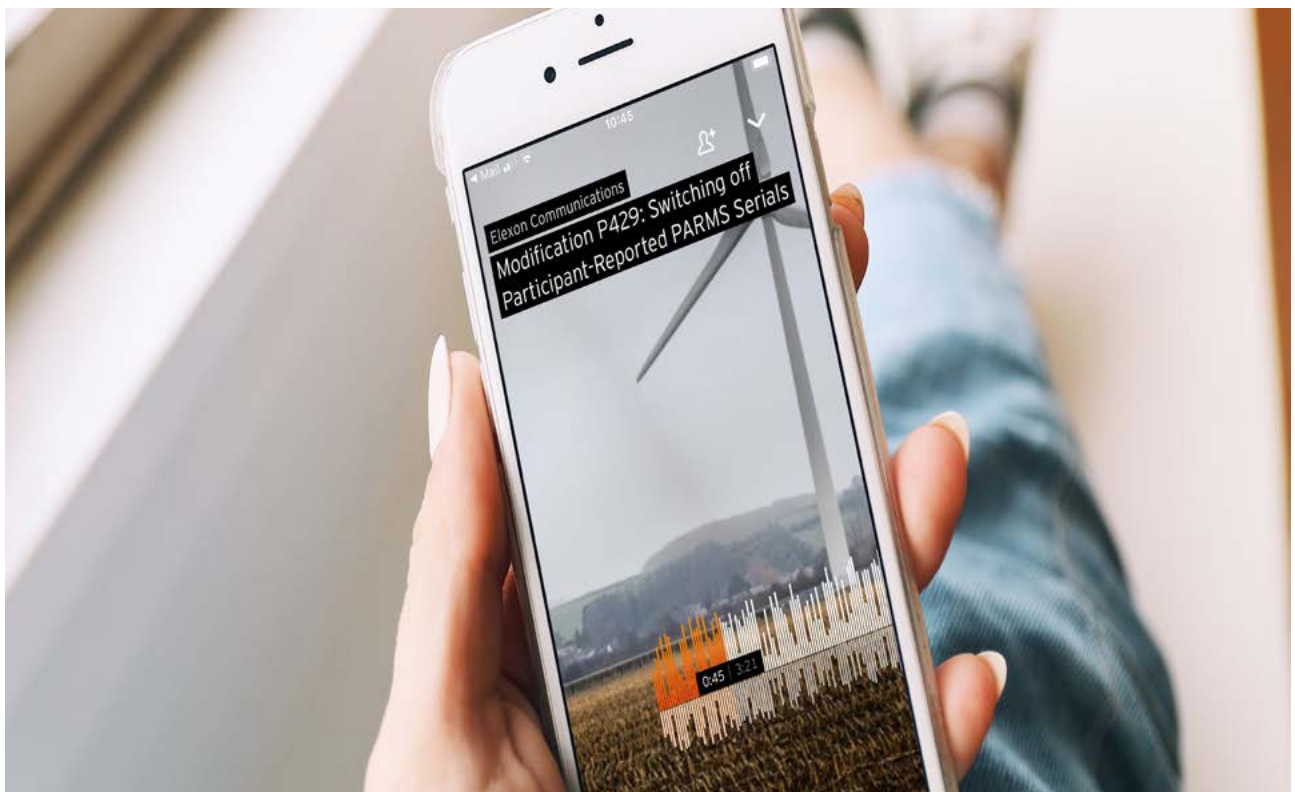
Evidence suggests the data that is reported is of limited value and has some weaknesses, such as inconsistent reporting by Parties, or different interpretations of the requirements. As such, we have supported the Performance Assurance Board (PAB) in recommending to the BSC Panel that a Modification is raised to remove the majority of the PARMS data.

Modification P429 was raised in November 2021 and has been implemented in the February 2022 Release. Suppliers are now seeing an immediate benefit of a reduction in the reporting burden, and the removal of the Supplier Charges associated with the PARMS serials, which accounted for roughly 90 percent of Supplier Charges.

Benefits of the Modification

Overall, the Modification has made Supplier Charges more reflective of a Supplier's market activity. The charges are capped depending on the size and market share of the Supplier. However, currently most Suppliers incur more charges than their cap, which gives them little incentive to improve performance.

The charges for missing PARMS submissions made up about 80% of all the charges. By removing them it is more likely Suppliers will be closer to, or under, their cap and will face a stronger incentive to improve. It would also allow Suppliers to focus their activities and resources more efficiently on a smaller number of assurance techniques. Ultimately, we expect this change to reduce their costs for complying with the Assurance regime.



New Risk dashboard

A new Risk dashboard, which is being implemented between 2020 and 2022 following the PAF review, uses other centralised data sources to examine similar Risk areas to those examined by PARMS.

This dashboard duplicates the assurance to be removed by the PARMS Serials, therefore there will not be a decrease in the levels of security provided. This is because other Performance Assurance Techniques can be used to manage the associated Settlement Risks more effectively than PARMS, while reducing the burden on BSC Parties.

“My experience with the OSMs we have had from Elexon have been really positive. They are always helpful and easy to communicate with, happy to offer advice when needed”

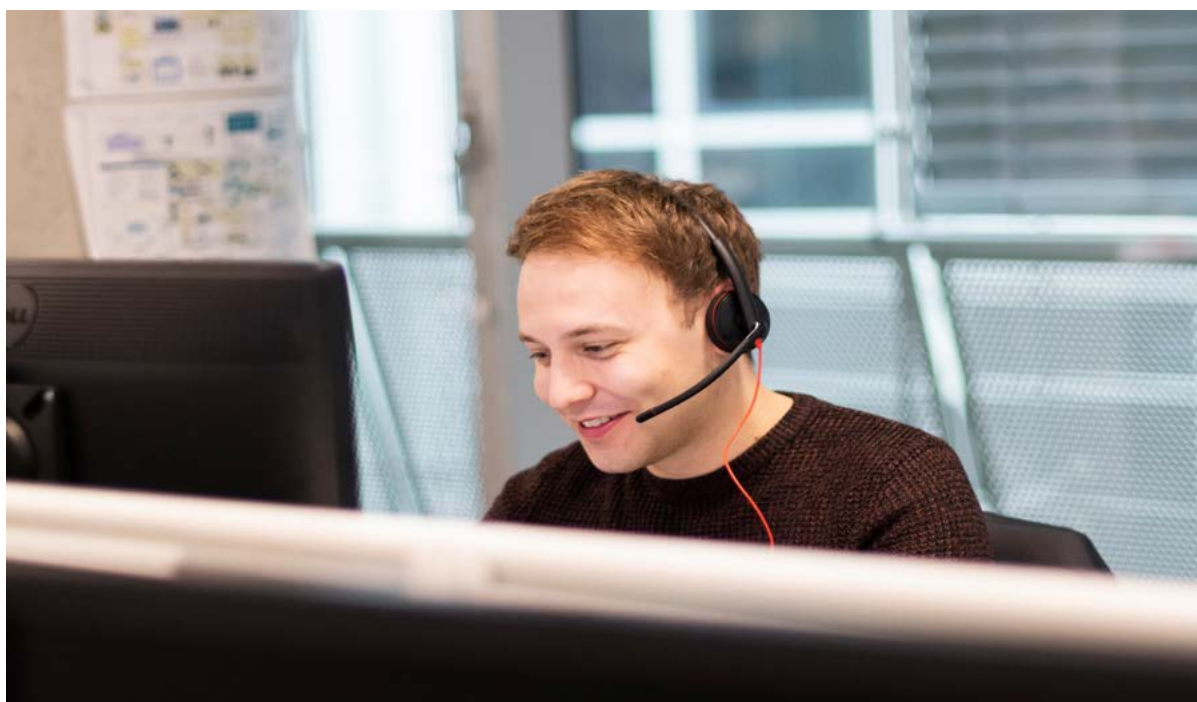
Quote from a respondent to the Elexon customer survey 2021

Digitalisation of Assurance

As part of our commitment to act on customer feedback, we want to speed up Assurance processes and save on resources for Elexon and the industry. In line with Kinnect and the digitalisation of BSC practices, the Assurance team will scope the possibility of creating two new tools during 2022, which could replace paper forms, and improve the user experience for the Disputes and Error and Failure Resolution (EFR) processes.

To reduce the burden on BSC Parties, we are intending to launch an online portal for raising Disputes, which will make it much easier for companies to submit information. The portal will also be able to perform validations on the Dispute submissions and basic Settlement impact calculations, meaning that Parties do not have to waste time raising a Dispute which may not be valid. The portal will also save time for Elexon colleagues (who have to process every Dispute claim raised, including ones which are not valid).

We will also examine the possibility of creating a portal for managing EFR plans. Each week our OSMs have to run reports and compare performance against milestones in EFR plans. The Assurance team also performs checks on those milestones to confirm progression of plans. This is labour intensive for OSMs, the Assurance team, and Parties. The tool will manage all EFR plans centrally, and ideally create workflows to notify people (both our internal teams and external customers) when input is needed.



Transfer of REC responsibilities

During 2022/23, colleagues from our Assurance team will be working with the Retail Energy Code Company (RECCo) to transfer some of the responsibilities which used to sit under the BSC to the REC. As part of its Retail Code Consolidation and Switching Programme Significant Code Reviews, Ofgem has merged a number of existing industry codes into the REC, including some aspects of the BSC, such as transfer of governance of Supplier Volume Allocation (SVA) MOAs. MOAs will no longer fall under the jurisdiction of the BSC's Assurance framework, however they can still impact Settlement because of their handling of meter data. These changes will also require existing BSC documents to be updated where there are references to obsolete codes.

To manage the impact of these changes we will continue to work with the RECCo through the cross-code REC/Elexon Assurance meetings to ensure a seamless approach between the BSC and REC.

Assurance for the Helix Programme

The Assurance team is also supporting the implementation of MHHS by working on a new Assurance framework for it. This will be robust enough to allow for the accurate Half Hourly Settlement of all customers. It will also need to provide an appropriate level of Assurance for those meters that cannot be migrated, or do not migrate, and will maintain and build upon the experiences of the existing PAF.



RULES MANAGEMENT



Rules Management

– changing rules and procedures to support a smarter energy system (demand led)

The Rules Management team acts as a critical friend to BSC Parties and stakeholders, using their subject matter expertise to help and support them to develop proposals to modify the BSC and its subsidiary documents.

They also manage the implementation of those changes and the maintenance of BSC documentation. Ensuring the BSC is fit for BSC Parties now, and in the future, is one of the most important contributions we can make to our customers. In light of this, we will also continue to consider how the BSC can adapt to play its part in meeting the Net Zero challenge.

During 2022/23 the Rules Management team will continue working on BSC changes whether they are required to meet regulatory deadlines, to open up new market opportunities for BSC Parties or to address routine change. We will also prioritise work on the Helix Programme and the Digitalisation of the BSC.

Modifications that support Net Zero

The Modifications below support progress to Net Zero by allowing the BSC to be more accommodating to innovation, new business models, and new entrants. We work alongside the industry to develop and deliver such changes, and the three Modifications below in particular demonstrate how successive change to the BSC can create more opportunities for Parties.

Modification P375 ‘Settlement of Secondary BM Units using metering at the asset’ was approved by Ofgem in February 2021 for implementation in June 2022 following industry testing.

P375 could have a transformative effect on the energy system, by offering DSR providers and other small asset owners more opportunities to provide balancing services, thereby encouraging more use of flexibility in the system. The reforms would also give Licensed Distribution System Operators (LDSOs) more accurate control of their networks, allowing them to dispatch assets with more efficiency.

We have been working closely with a VLP and the industry to implement the reforms and helping Parties to understand how they can benefit from them. Significant changes are being made to BSC Central Systems to enable P375 and we are explaining the detail of these changes through webinars and workshops.

Modification P376 ‘Utilising a Baseline Methodology to set Physical Notifications’ will enable a VLP that operates a secondary BM Unit, or a Supplier that controls an Additional BM Unit to use a baselining methodology to determine the expected energy flows for a Metering System Identifier (MSID) Pair in the calculation of Non-Delivery Charges and Delivered Volumes.

This will decouple the expected volume used in Settlement from the Physical Notification used by the NETSO for dispatch. This change will allow balancing service providers to be fully recompensed for their actual change from normal usage and for the impact that this change has on the system, thus enabling greater participation, encouraging more use of flexibility in the system. P376 was approved by Ofgem in 2021 for implementation in February 2023. Prior to implementation, we will communicate to industry how they will be affected by this change through webinars and workshops.

Modification P415 ‘Facilitating access to wholesale markets for flexibility dispatched by VLP’ follows on from the P344 ‘Wider Access’ reforms which allowed independent aggregators to participate in the BM. P415 will amend the BSC so that VLPs can trade in the Wholesale market. This change supports VLPs as currently they can only offer services in the BM, and not the wholesale market.

During 2022/23 we will commission independent analysis of the costs and benefits of P415, to inform the Workgroup and Panel recommendation. It is expected that P415 will use processes developed through the implementation of P375 to obtain and use data from asset meters. During 2022 we plan to complete work on this change with the Workgroup, and bring the Modification to the Panel for a recommendation. A date has not been set for implementation.

Other changes to be progressed through 2022/23 are:

- [Modification P425](#) 'Amendment to the definition of Shared SVA Meter Arrangement'
- [Modification P427](#) 'Publication of Performance Assurance Parties' impact on Settlement Risk'
- [Issue 98](#) 'Review of the current practice of setting Dynamic Parameters within the Balancing Mechanism'
- [Modification P332](#) 'Revisions to Supplier hub principle' (with Ofgem for decision)
- [Modification P395](#) 'Aligning BSC Reporting with EMR Regulations – an enduring solution'
- [Modification P419](#) 'Enhanced Reporting of Demand Data to the NETSO to facilitate BSUoS Reform' (with Ofgem for decision).

Supporting implementation of the Helix Programme

A significant amount of work is needed to prepare changes to the text in the BSC and subsidiary documents, in order to support the Helix Programme. Over the coming year, as an MHHS Market Participant, Elexon will be working with the MHHS Programme to develop these changes.

Our latest estimates on the scale of this work are that:

- 19 BSC Sections and 39 existing Code Subsidiary Documents will be impacted
- Four new Balancing and Settlement Code Procedures (BSCPs) will need to be drafted. The BSCPs set out procedures that BSC Parties, including their Agents and Elexon, must follow for compliance
- One new Service Description will need to be drafted (BSC Service Descriptions describe the service to be provided by the BSC Agents).

We are also anticipating supporting industry and the MHHS Programme with the progression of BSC Changes to facilitate the delivery of MHHS, in advance of the main MHHS implementation and transition. The Code Change and Development Group (CCDG) has recommended that a number of enabling changes are progressed before the full MHHS Design is baselined in 2022 and directed using Ofgem's Significant Code Review powers.

We have raised three changes to facilitate the MHHS transition:

- [P432](#) 'Half Hourly Settlement for CT Advanced Metering Systems' to settle approximately 50,000 Current Transformer (CT) Advanced Metering Systems half hourly (HH) by October 2023, ahead of the main MHHS HH migration
- [P434](#) 'Half Hourly Settlement for UMS Metering Systems' requires a period of mandatory Change of Measurement Class (CoMC) activity for all non-Half Hourly Unmetered Supplies (UMS) Metering Systems running from October 2023 to October 2024. It also requires all new UMS connections to use HH Settlement from October 2023. It is important that this transfer happens ahead of the main MHHS migration activities
- Change Proposal (CP) [1558](#) 'New Registration data items and processes to support the MHHS transition', which will introduce new Registration Service data items and supporting BSC processes into existing Supplier Meter Registration Service (SMRS) systems.

The data items that CP1558, together with REC change R0032 'New Registration data items and processes to support the transition to MHHS' are so critical to the MHHS rules and processes, that going live with poor quality data would lead to avoidable time and effort being spent fixing issues during the 12 month migration period. These changes give effect to the CCDG's recommendations 1, 3 and 8.

Code Consolidation and Simplification

We believe that the proposals made by the Government and Ofgem in July 2021 for a Future System Operator (FSO) and reforms to the existing code arrangements are a sound footing on which to build an energy system to deliver Net Zero.

The FSO consultation rightly recognised that Elexon's independence is of value to Government, Ofgem and the industry, and it should be maintained. However, as we set out in our FSO consultation response, we believe that the FSO must also maintain independence both from the industry and from Government and that this will be key to its credibility and effectiveness. Our full responses to the [FSO consultation](#) and the [code reform consultation](#) are available on our website.

Digitising the BSC

During 2021, we have been working to digitise the BSC documents so that they are more accessible to our customers and other stakeholders. Doing so will help us respond to the feedback in our 2021 customer survey which notes that our stakeholders want us to improve and modernise our services. By April 2022, alongside our technology vendor, we will deliver the first usable version of the digitalised code. Then, during 2022 and 2023, we will continue to deliver further phases of it, focusing on elements that will deliver the most value first. These will include further functionality and features, which we will explore with customers via a user group.

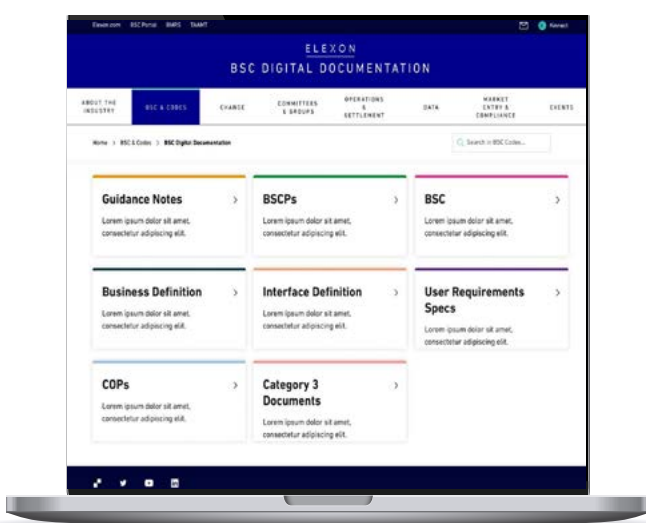
The digitalised version will reduce the amount of time our colleagues spend on updating code rules manually, increasing our efficiency and ability to implement change more quickly, thus reducing the overall time spent on administration and cost to Parties. By making best use of this technology, the digitalised code will help our customers to 'self-serve' and get quicker answers to their questions by linking relevant areas of the BSC and subsidiary documents with an enhanced search functionality. This will allow customers to more easily find the information they need.

Further digitisation work

We also recognise the time and financial constraint that raising Modifications and Changes to the BSC can place on our customers.

To ease this burden, in 2022/23 we will scope the possibility of developing a web portal for the Modification and Change raising process, and the Workgroup development process.

If implemented, market participants could raise Modifications through the portal, without having to fill out template forms as they do currently. The portal could also be used to administer Modification workgroups more easily than at present. This will make raising a Modification or Change, or participating in a Workgroup, more efficient, and accessible.



PEOPLE STRATEGY



People Strategy

Exelon's people are its biggest assets and we depend on their expertise, dedication and knowledge.

Our People Strategy ensures that we attract, retain and motivate our colleagues so that we can continue to deliver our high standards of customer service, and the work set out in this (and subsequent) business plans.

Our focus is on continuing to provide our colleagues with opportunities and experiences which help them to perform at their best. Essentially, our People Strategy gears us up to work together as one team to meet the current and future needs of our customers.

The People Strategy is built on three pillars, as shown below with the cross-cutting enablers of equality, diversity and inclusion, and health, safety and wellbeing. The strategy is underpinned by having a strong human resources capability.

The strategy gears us up to work together as one team, guided by a set of corporate values:

- We are one team
- We think customer first
- We work at pace
- We think beyond
- We focus on what matters.

Structured coaching and training

We have a framework of coaching and structured training in place to support succession planning. It provides high potential colleagues with the skills they will need to take on bigger leadership roles. It also supports colleagues who are new, or aspiring people managers. We have launched an enhanced competency framework which will help our people to maintain the core skills and attributes that Exelon needs for the future.



People Strategy (continued)

Increased diversity

During 2021 we saw real increases in diversity across Elexon, following changes to our recruitment processes. This resulted in a stronger mix of representation across gender, people with disabilities and minority groups. In 2022 we hope to build upon this by increasing representation even further.

We are committed to continuously improving our culture for our staff and stakeholders.

To do this, we want to:

- Provide true equality of opportunity
- Attract and retain diverse talent
- Listen to all voices
- Be representative of the communities we work in
- Be a role model for diversity and inclusion in the industry.

Commitment to supporting mental health and wellbeing

We have signed up to be Disability Confident, which means that we will promote and advertise good practice in attracting, recruiting, managing and developing people with a disability or health condition.

We have a strong focus on the wellbeing of our people. We have signed up to the Mental Health at Work Commitment to ensure we can achieve better mental health outcomes for all of our colleagues. In 2022, we will continue to make the mental wellbeing of colleagues a priority.

ELEXON



ELECTRICITY MARKET REFORM



Electricity Market Reform

EMR Settlement Ltd (EMRS), Elexon's wholly owned subsidiary, is the Settlement Services Provider to the Low Carbon Contracts Company (LCCC) and the Electricity Settlements Company (ESC). EMRS calculates, collects and distributes payments for both the Capacity Market (CM) and Contracts for Difference (CfD) schemes.

The separation between Elexon and EMRS ensures risks and liabilities from EMR Settlement activities cannot affect Elexon. While some of our people work full-time on EMR activity, other industry experts from Elexon support EMR Settlement activities part-time, but regardless, all record their time to ensure their cost is allocated appropriately to BSC or EMR activities. This also enables us to allocate a proportionate share of the Elexon overheads such as office costs etc.

Nearly £5.6m of such overheads have been borne by EMRS since 2015, meaning that without the EMR activities, BSC Parties would have had to bear an additional £5.6m over that period. EMRS will continue to provide these Settlement operations until the current contract expires in 2026. Given the similarities between EMR and Elexon key offerings, best practice is shared to further realise efficiencies and synergies for the benefit of both the EMR and Elexon customers.



BUDGET FOR 2022/23



Overview

This part of the business plan details the budgeted costs for 2022/23 in support of planned deliverables, which were explained earlier. The principal elements of our budget are:

Regular Activity:

- Our operating costs (to continue delivering our BSC obligations), the largest element of which is our people and associated overheads, and
- Our contracted expenditure for operating and maintaining outsourced services in relation to the BSC Systems and BSC Agents.

Project Activity:

- Investment in the continued deployment of Elexon Kinnect and associated consequential business costs in its delivery
- Digitalising the BSC, and aspects of BSC Rules Management and Assurance processes to make these more efficient for industry
- Horizon scanning market development activity, to ensure that we are prepared for future changes that may impact the BSC
- The expenditure associated with processing Change Proposals or Modifications raised by the industry, the costs of implementation of BSC Systems Releases, upgrades required to our estate and other small automation solutions and fixes

Mandatory New Business Activity:

- The Helix Programme (£16.2m)
- The MHHS Implementation Manager (£19.5m)

Transferred Activity:

- Teleswitching service, which is a pass through cost from LDSOs, first introduced to the BSC in 2019/20

Given the current pressures faced by our customers we have been very focused on costs and challenged ourselves on the needs and requirements for all the services we provide. Excluding the impact of MHHS (the MHHS Programme and Helix), our BSC budget is set lower than our 2021/22 budget or forecast, as well as our previously published budget for 2022/23.

We have major changes in the pipeline such as Kinnect and various technology upgrades, which are driven by our need to future proof the Central Systems. Over the last two years we have invested in delivering the Customer Solution component of Elexon Kinnect, Insight Solution phase one. However, significant work

lies ahead in 2022/23, including migrating SAA and BMRS to the Kinnect platform.

The material budget increases from the MHHS Programme and Helix are driven by mandatory industry change. Over the coming year we will be working alongside our technology providers to design and deliver these new services.

Elexon is a not for profit entity, funded by electricity market participants, and does not carry any reserves or retained capital. Any underspend against budget is always returned to BSC Parties. We return money if we make savings, or it transpires that expenditure is not required.

In budgeting for uncertainties in advance of any new financial year we have to be mindful of the constraints implied by being not for profit, while also endeavouring to set challenging financial and efficiency targets for the business. In setting this budget we have continued our historical practice of being prudent in making estimates of the workload in the year ahead.



Overview (continued)

The table below shows a budget of £62.5m for 2022/23 to deliver BSC activity and includes a detailed breakdown of relevant workstreams. This represents a decrease of £6.6m (9.6%) over our 2021/22 budget and is also a decrease over our 2021/22 forecast. We have reprioritised the investment in our digitalisation programme to align to the additional mandatory industry-led changes for Helix £16.2m and the MHHS Programme £19.5m. Our total budget for 2022/23 is £98.2m, £15.7m over our published budget for 2022/23 of £82.5m.

We continue to drive savings in our Contracted Costs, through robust and rigorous contract and service management and through re-procurement processes, which is evidenced in this budget. Some aspects however are variable and driven by demand from industry.

2022/23 will be the eighth 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). 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. Our work in this area enables us to offset some of our overheads which would otherwise have been borne by BSC Parties (2021/22: £932k) and is budgeted to be £885k for 2022/23.

Table 1.1 Budget Summary

| Item | Year to March 2021/22 Budget £m | Year to March 2021/22 Forecast £m | Year to March 2022/23 Budget £m | Variance to March 2021/22 Budget £m | Variance to March 2021/22 Budget % | Variance to March 2021/22 Forecast £m | Variance to March 2021/22 Forecast % | Year to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection % | Year to March 2023/24 Projection £m | Year to March 2024/25 Projection £m |
|--|--|--|--|---|--|---|--|---|--|---|--|--|
| Elexon BAU Operational incl EMR Income | 21.3 | 20.6 | 21.4 | (0.1) | (0.4) | (0.8) | (3.8) | 21.5 | 0.1 | 0.5 | 21.4 | 21.4 |
| Contracted | 19.0 | 18.0 | 18.9 | 0.1 | 0.7 | (0.9) | (5.0) | 19.4 | 0.5 | 2.8 | 18.8 | 17.8 |
| Total BSC Regular Activity excl. project resource | 40.3 | 38.6 | 40.3 | 0.0 | 0.1 | (1.7) | (4.4) | 40.9 | 0.6 | 1.6 | 40.2 | 39.2 |
| Teleswitch (pass through from DNO's) | 1.8 | 1.2 | 1.5 | 0.3 | 14.2 | (0.3) | (25.4) | 1.9 | 0.4 | 18.7 | 1.5 | 1.5 |
| Demand Led and Digitalisation | 27.0 | 23.1 | 20.7 | 6.3 | 23.4 | 2.4 | 10.4 | 20.2 | (0.5) | (2.3) | 25.1 | 9.3 |
| Total excl. MHHS & Helix | 69.1 | 62.9 | 62.5 | 6.6 | 9.6 | 0.4 | 0.6 | 63.0 | 0.5 | 0.8 | 66.8 | 50.0 |
| Helix | - | 6.2 | 16.2 | (16.2) | - | (10.0) | (163.2) | - | (16.2) | - | 6.2 | 2.0 |
| MHHS Programme | 14.6 | 8.4 | 19.5 | (4.9) | (33.4) | (11.1) | (131.3) | 19.5 | - | - | 19.9 | 19.9 |
| Total Elexon | 83.7 | 77.5 | 98.2 | (14.5) | (17.4) | (20.7) | (26.7) | 82.5 | (15.7) | (19.1) | 92.9 | 71.9 |

The Helix Programme

The Helix Programme will re-engineer BSC central systems, process and procedures in accordance with the requirements of the transformational MHHS Programme and will be key to unlocking the benefits that Suppliers will expect from MHHS. The Helix programme will ensure that Elexon can manage an exponential increase in the amount of half hourly data that we process. We have included a budget of £16.2m in 2022/23 for development work and resources for the Helix services, so that they are ready by April 2023, to support industry testing which continues until June 2024. We have started working on Helix in 2021/22 and have forecasted to spend £6.2m on development work in that period, starting early will enable us to meet the tight timescales.

The MHHS Programme

The budget set for delivering the MHHS Implementation Manager role in 2022/23 is maintained at our published budget level for 2022/23 of £19.5m which was consulted on earlier this year as part of the overall budget for the MHHS Implementation Manager activity. There are uncertainties at this point due to ongoing procurement activities, and therefore no further details can currently be published.

Table 2.1 Budget for Total Regular BSC Activity

| Item | Year to March 2021/22 Budget £m | Year to March 2021/22 Forecast £m | Year to March 2022/23 Budget £m | Variance to March 2021/22 Budget £m | Variance to March 2021/22 Budget % | Variance to March 2021/22 Forecast £m | Variance to March 2021/22 Forecast % | Year to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection % | Year to March 2023/24 Projection £m | Year to March 2024/25 Projection £m |
|--|---------------------------------|-----------------------------------|---------------------------------|-------------------------------------|------------------------------------|---------------------------------------|--------------------------------------|---|---|--|-------------------------------------|-------------------------------------|
| Elexon BAU Operational incl EMR Income | 21.3 | 20.6 | 21.4 | (0.1) | (0.4) | (0.8) | (3.8) | 21.5 | 0.1 | 0.5 | 21.4 | 21.4 |
| Contracted | 19.0 | 18.0 | 18.9 | 0.1 | 0.7 | (0.9) | (5.0) | 19.4 | 0.5 | 2.8 | 18.8 | 17.8 |
| Total BSC Regular Activity excl. project resource | 40.3 | 38.6 | 40.3 | 0.0 | 0.1 | (1.7) | (4.4) | 40.9 | 0.6 | 1.6 | 40.2 | 39.2 |

The budget for total regular Elexon BSC activity shows no increase against the budget for 2021/22. This has been made possible through efficiency improvements which are counteracting indexation, rising prices, and the fact that we are undertaking more activity than in previous years. We are planning to continue to achieve further cost reductions in relation to our regular activities as we progress our digitalisation roadmap.

Our lower forecasted spend for 2021-22 reflects savings we have made through renegotiations of our BSC Contracted Costs, as well as efficiency savings and cost reductions achieved through our management of the impact of the pandemic and remote working.

Elexon BAU Operational

People (Employee and Contractor) Costs

The budget for Elexon Operational Costs for 2022/23 is £21.4m, a net increase of £0.1m compared to the 2021/22 budget and a £0.1m decrease against our published budget for 2022/23 as shown in Table 2.1. This includes costs such as people, occupancy, staff related and administrative expenses, as well as consultancy and legal support. Our resources are increasing due to the complexity and scale of our digital transformation programmes.

However, we have sought to keep our Operational costs in line with the current year budget by ensuring we actively make efficiency improvements within our controllable costs and absorb variable and indexation rises within our budget, to reduce the overall burden to BSC Parties. This also includes the offset generated by the contribution from EMR activities as a result of providing resources to our subsidiary EMR Settlement Ltd (EMRS) for which it fully recompenses Elexon.

The 2022/23 regular activity headcount remains broadly consistent with the 2021/22 budget. It is illustrated in Table 2.2 as an average for the year of the full time equivalent of those engaged in the period, and therefore representative of the costs. The actual number of employees at any point in time will vary from this.

We actively manage resources within the organisation so that we are able to continue to meet our obligations. As part of this we benchmark our reward packages against those offered elsewhere in the industry, to ensure we can offer packages that are competitive, to attract and retain the right people. We have budgeted based on known BAU headcount and salaries by function. To deliver both the Kinnect and Helix Programmes in the next few years, we have increased our headcount to bring new capabilities to Elexon in the next financial year compared to that of the current year. The EMR headcount is presented for completeness of our total resource portfolio but does not represent additional costs as explained in the Elexon BAU Operation section. MHHS resource is ring-fenced through a separation agreement from the BSC and sits entirely under the MHHS Programme.

We only use contractors where we have a short term need, or it is considered more cost effective for the organisation. We endeavour to replace contractors with permanent employees once we have identified that the requirement is an enduring one.

Table 2.2 Elexon Average Headcount

| Headcount | Year to March 2021/22 Budget (FTEs) | Year to March 2021/22 Forecast (FTEs) | Year to March 2022/23 Budget (FTEs) | Variance to March 2021/22 Budget (FTEs) | Variance to March 2021/22 Budget % | Variance to March 2021/22 Forecast (FTEs) | Variance to March 2021/22 Forecast % | Year to March 2022/23 Published Projection (FTEs) | Variance to March 2022/23 Published Projection (FTEs) | Variance to March 2022/23 Published Projection % | Year to March 2023/24 Projection (FTEs) | Year to March 2024/25 Projection (FTEs) |
|--------------------------|-------------------------------------|---------------------------------------|-------------------------------------|---|------------------------------------|---|--------------------------------------|---|---|--|---|---|
| BSC BAU | 177.3 | 175.3 | 176.4 | 0.9 | 0.5 | 3.9 | 2.2 | 177.3 | 0.9 | 0.5 | 175.6 | 170.9 |
| Projects resource uplift | - | 16.7 | 36.1 | (36.1) | - | (27.3) | (163.1) | - | (36.1) | - | 34.2 | 23.0 |
| Total BSC FTE | 177.3 | 192.0 | 212.5 | (35.2) | (19.8) | (23.4) | (12.2) | 177.3 | (35.2) | (19.8) | 209.8 | 193.9 |
| Helix resource uplift | - | 6.7 | 21.5 | (21.5) | - | (14.8) | (222.5) | - | (21.5) | - | 9.4 | 2.5 |
| MHHS Programme | - | 14.5 | 25.0 | (25.0) | - | (10.5) | (72.4) | - | (25.0) | - | 25.0 | 23.0 |
| EMR | - | 32.9 | 34.3 | (34.3) | - | (1.4) | (4.2) | - | (34.3) | - | 33.8 | 34.0 |
| Total | 177.3 | 246.1 | 293.3 | (116.0) | (65.4) | (47.2) | (19.2) | 177.3 | (116.0) | (65.4) | 278.0 | 253.4 |

Contracted

A significant proportion of our costs of delivering the BSC arrangements come from contracted expenditure of BSC Agents and contracted service providers for running legacy systems parallel to the new technology platforms, until such time as we can retire these legacy systems. These are predominantly fixed costs, linked to indexation. Our sourcing strategy seeks to deliver better terms and lower costs as contracts fall due for re-procurement. Successful negotiation in 2021/22, particularly in relation to the BPO contract and the application management element of the AMD contract, demonstrates further year on year savings which can be seen in years 2023/24 and 2024/25 of our business plan.

Following industry agreement in 2019, the Radio Teleswitch Service operational costs previously borne by the Energy Networks Association (ENA) have been recovered through the BSC since April 2020. As shown in the table below, this arrangement has an impact of £1.5m in the 2022/23 budget. These costs are outside of Elexon's control as they are a fully recoverable pass through cost from the ENA.

The second table below represents the anticipated costs in the coming year for delivering our project activity.

**Table 2.3 Radio Teleswitch Service
(cost pass through from Distribution Network Operators)**

| Item | Year to March 2021/22 Budget £m | Year to March 2021/22 Forecast £m | Year to March 2022/23 Budget £m | Variance to March 2021/22 Budget £m | Variance to March 2021/22 Budget % | Variance to March 2021/22 Forecast £m | Variance to March 2021/22 Forecast % | Year to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection % | Year to March 2023/24 Projection £m | Year to March 2024/25 Projection £m |
|-------------------------------------|---------------------------------|-----------------------------------|---------------------------------|-------------------------------------|------------------------------------|---------------------------------------|--------------------------------------|---|---|--|-------------------------------------|-------------------------------------|
| Teleswitch (pass through from DNOs) | 1.8 | 1.2 | 1.5 | 0.3 | 14.2 | (0.3) | (25.4) | 1.9 | 0.4 | 18.7 | 1.5 | 1.5 |

Table 2.4 Budget for Projects and Investments - Delivery of Kinnect is on track

| Item | Year to March 2021/22 Budget £m | Year to March 2021/22 Forecast £m | Year to March 2022/23 Budget £m | Variance to March 2021/22 Budget £m | Variance to March 2021/22 Budget % | Variance to March 2021/22 Forecast £m | Variance to March 2021/22 Forecast % | Year to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection £m | Variance to March 2022/23 Published Projection % | Year to March 2023/24 Projection £m | Year to March 2024/25 Projection £m |
|--|---------------------------------|-----------------------------------|---------------------------------|-------------------------------------|------------------------------------|---------------------------------------|--------------------------------------|---|---|--|-------------------------------------|-------------------------------------|
| Investment in Systems & Transformation | 20.0 | 19.8 | 15.2 | 4.8 | 24.0 | 4.6 | 23.2 | 15.0 | (0.2) | (1.3) | 19.6 | 3.8 |
| Demand Led (industry led change) | 6.5 | 2.9 | 5.0 | 1.5 | 23.1 | (2.1) | (72.7) | 4.7 | (0.3) | (6.4) | 5.0 | 5.0 |
| Business Development | 0.5 | 0.3 | 0.5 | 0.0 | 4.0 | (0.2) | (58.0) | 0.5 | 0.0 | 4.0 | 0.5 | 0.5 |
| Total Projects and Investments | 27.0 | 23.0 | 20.7 | 6.3 | 23.4 | 2.3 | 10.1 | 20.2 | (0.5) | (2.3) | 25.1 | 9.3 |

Investment in systems and business transformation

This area of our budget relates to the transformation and transition (Digitalisation Programme) of the current aging BSC Central Systems to Kinnect, as well as digitalising aspects of BSC Rules Management and Assurance processes.

The key deliverables for Kinnect in 2022/23 are on track, as explained earlier in the plan. They include migration of the SAA and BMRS to the Settlement and Insights Solutions. In 2022/23 we will go live with our Settlement Solution which will perform our data and calculations, in line with our technology route map. We will continue to release new capability from our Customer Solution.

Finally we will continue to migrate BMRS to the Elexon Kinnect platform following the successful release of the Insights Solution in 2021. As a cloud native service, Elexon Kinnect will receive, publish and process accessible data for the industry, leveraging storage and processing capabilities at scale. One of the key benefits of this in the future will be that customers can 'self-serve' data requests and perform ad-hoc analysis, making the insights more valuable and customisable but also less expensive to support. This is explained in more detail earlier in this business plan.

As we stated in last year's business plan we have adopted a phased approach to delivering the Digitalisation Programme, to minimise the overall cost and risk to parties. For 2022/23, we have included a budget of £15.2m, as shown in table 2.4 which has been reduced by around £5m to create capacity for the Helix Programme.

Demand Led change

There are increases anticipated in 2022/23 over the forecast for Demand Led change outturn in 2021/22. The budgeted figures are based on known Modifications, taking into account estimates of historic change costs, as well as taking a view on new changes that may come forward during the year.

The budget for demand-led change will ensure that we are appropriately funded in order to be able to implement changes requested by industry through BSC Modifications. This is activity arising from changes proposed by industry and by the Government and regulator.

The Demand Led budget for BSC systems releases has been set at £5.0m (table 2.4). The budget has increased compared with the 2021/22 forecast as it incorporates scheduled BSC changes, notably significant investment in our central systems to enable Helix and to deliver changes supporting implementation of:

- P375 'Utilising a baselining methodology as an alternative to Physical Notifications'
- P419 - Enhanced Reporting of demand data to NETSO to facilitate BSUoS Reform
- P395 - Final Consumption Levies (FCLs), Provision of Energy Company Data to the CSS 82-E
- P415 - Facilitating access to wholesale markets for flexibility dispatched by Virtual Lead Parties and there will be other approved BSC changes



Business Development

As with previous years, this budget includes £0.5m for Business Development. This is used to horizon scan for changes in the GB energy market that may impact the BSC and allow Elexon to consider these in detail and look for ways to make sure that the BSC plays its part in facilitating energy market change.

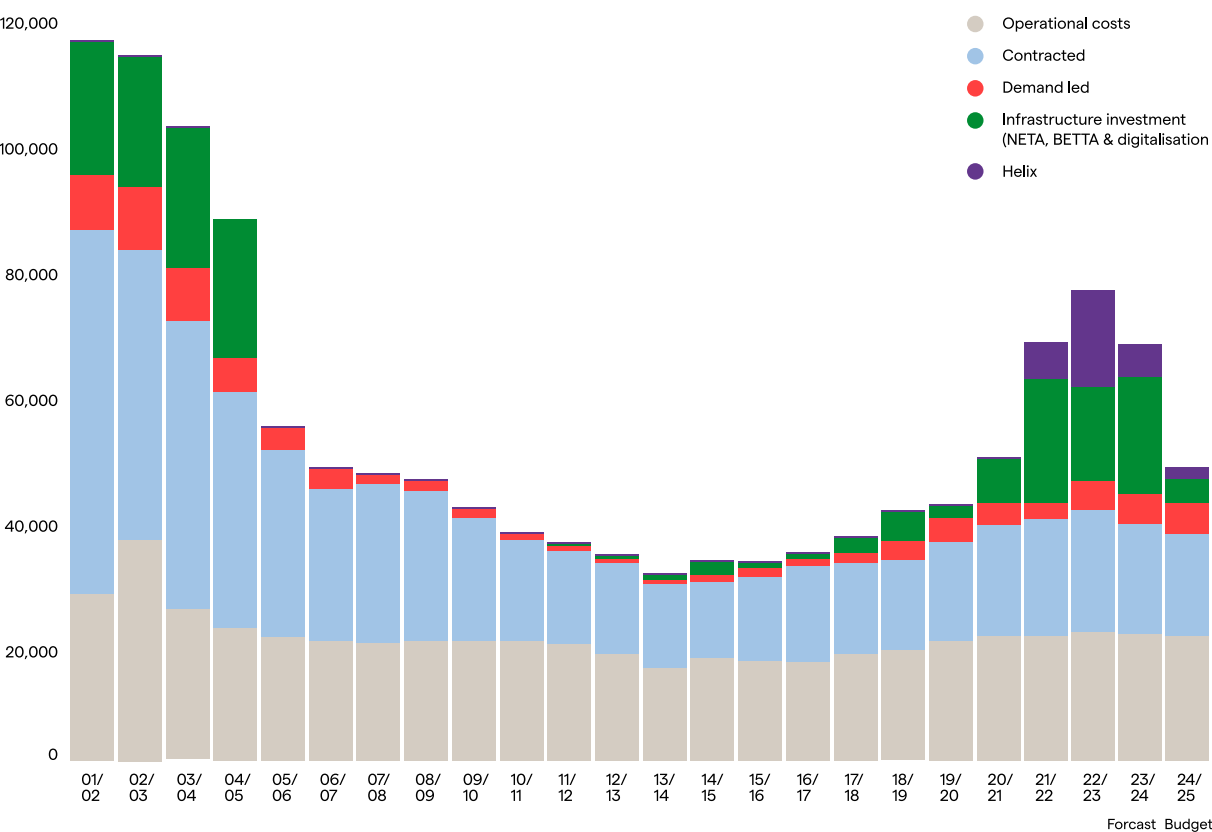
This area is becoming more prevalent given the anticipated changes to the energy market in support of the Government’s target of achieving Net Zero.

We also continue to engage with BSC Parties and potential new market entrants to ensure that the BSC enables their innovative ideas and ambitions. We continue to work with Ofgem and the Retail Energy Code (REC) Company on how RECCo and the BSC arrangements work in tandem in going forward.

The chart below shows the total costs of Elexon activity since NETA go-live in 2001/02 in real terms (in 2021/22 money after applying April RPI of each year). The costs are net of staff and overhead costs for EMR activities (which are fully funded by LCCC/ESC).

It shows the infrastructure investment in the early years for NETA go-live and subsequent expansion to Scotland, then the reduced investment, as BSC Parties benefitted from the sweating of those assets, as we successfully brought the costs down though efficiency savings and competitive procurements. More recently, these costs have begun to rise, reflecting the growth in system investments and digitalisation costs caused by Demand Led activity such as MHHS and our investment in future-proofing our central systems.

Chart 1 Costs of Elexon Activity since NETA Go Live excluding MHHS Programme



Charging Analysis

This section outlines how we expect to charge the budget to BSC Trading Parties. Table 3 contains charging proposals from Section D of the BSC. All of the charges presented in Table 4 exclude value added tax (VAT).

Table 3
Section D – Charging *

- | | |
|---|---|
| <ul style="list-style-type: none"> • £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 £0 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 £0 per month; | <ul style="list-style-type: none"> • For all Additional SVA BM Units a charge of £60 per month; • SVA costs split: <ul style="list-style-type: none"> o 50 percent of costs are paid by generators on the basis of metered energy volumes; o A fixed fee of £0.01001 per SVA Metering System per month; • MHHS Monthly Implementation Charge, a fixed fee of £0.02235 per SVA Metering System per month levied on Suppliers; • All remaining costs split on the basis of metered energy volumes. |
|---|---|

* These are based on the current charges. They are subject to change following a periodic review approved by the Panel. Please refer to the BSC website for current rates.

Based on the information in Table 1.3 examples of charges to BSC Parties are provided. The 2022/23 Annual Budget is set out in Table 4 below.

Table 4
Split of Costs

| Assumed Split of Costs | | | |
|------------------------|----------------|------------------|----------------|
| | 2021/22 Budget | 2021/22 forecast | 2022/23 Budget |
| SVA Costs | 7.0 | 6.8 | 7.6 |
| Other Costs | 62.1 | 62.3 | 71.2 |
| MHHS Programme | 14.6 | 8.4 | 19.5 |
| Total | 83.6 | 77.5 | 98.3 |

Charging Analysis

(Continued)

Various assumptions about the size of the market are made. These are presented in Table 5.

Table 5
Market Assumptions

| Market Assumptions | 2021/22 Budget | 2021/22 forecast | 2022/23 Budget |
|---|----------------|------------------|----------------|
| Number of Trading Parties | 490 | 483 | 470 |
| Sales - Notified Contract Volumes (TWh) | 800 | 708 | 715 |
| Purchases - Notified Contract Volumes (TWh) | 800 | 708 | 715 |
| Generation (TWh) | 265 | 217 | 222 |
| Supply (TWh) | 265 | 217 | 222 |
| NHH Supply (TWh) | 119 | 98 | 100 |
| HH Supply (TWh) | 146 | 119 | 122 |
| CVA BM Units | 850 | 980 | 990 |
| SVA Base BM Units | 230 | 241 | 250 |
| SVA Additional BM Units | 340 | 316 | 300 |
| Data Line | 53 | 53 | 53 |
| Comms Software (5 users) | 29 | 29 | 29 |
| Comms Software (additional user) | | | |
| CVA Metering Systems (MSIDs) | 930 | 940 | 945 |
| SVA Metering Systems (MSIDs) | 31,525,844 | 31,663,972 | 31,980,612 |

Charging Analysis

(Continued)

The charging regime from Section D of the BSC in Table 3 is then applied to costs in Table 4 based on the assumptions in Table 6 below. This gives the estimated charges (either specified charges or £/MWh fees) as shown in Table 6.

Table 6
Expected Charges

| Charge Item | 2021/22 Budget | 2021/22 Forecast | 2022/23 Budget |
|--|----------------|------------------|----------------|
| Specified Charges | | | |
| CVA BM Units (£/month) | - | - | - |
| SVA Base BM Units (£/month) | - | - | - |
| SVA Additional BM Units (£/month) | 60 | 60 | 60 |
| 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 |
| MHHS Monthly Implementation Charge (£/msid/month) | 0.03847 | 0.02235 | 0.05074 |
| SVA | | | |
| SVA Metering Systems (£/msid/month) | 0.01001 | 0.01001 | 0.00992 |
| Gen Energy SVA (£/MWh) | 0.013 | 0.016 | 0.017 |
| Main Charges | | | |
| Energy fee (£/MWh) | 0.08420 | 0.09968 | 0.19578 |

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E L E X O N