

E L E X O N

**Annual BSC Meeting
and Elexon Seminar**

10 September 2020

WELCOME



VOTING ON ELEXON DIRECTORS

Voting on Elexon Directors



Ann Heal
Independent non-
executive director



David Titterton
Industry non-
executive director



Sara Vaughan
Industry non-
executive director



Clare Duffy
Industry non-
executive director



David Rigney
Senior independent
director



Michael Gibbons
Elexon Board and BSC
Panel Chairman



Mark Bygraves
Chief Executive Officer

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Overview of Elexon's 2019/20 performance and 2020/21 strategic priorities

Mark Bygraves, CEO Elexon

Nigel Smith, CFO Elexon

Elexon: a quick refresher on our role

We manage the Balancing and Settlement Code:

- Rules governing the 'meter to bank' process
- Imbalance prices calculation every half hour
- Market volumes and charges derived from our data

We also calculate, collect & distribute payments to CFD generators and Capacity Market providers

Elexon is highly transparent, not-for-profit, and independent



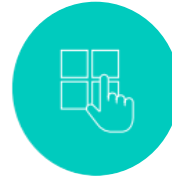
Code Administration

- Industry rules management and change
- Trusted critical friend
- Dedicated customer support (OSMs)
- Training and webinars



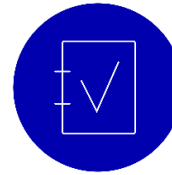
Policy Support

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



System Operation

- 24/7 Party Management
- 24/7 Settlement
- Technology Design/change implementation
- Data Analytics & Insights



Performance Assurance

- Monitor Settlement performance and compliance
- Hold Parties to account for their performance
- Assist Suppliers in creating plans to address performance issues

Elexon – trusted, reliable independent market experts

We serve

492
Market
Participants

27 Distributors

99 Non-physical Traders

132 Generators

167 Suppliers

*Number of market
participants in September
2020*

Transition to a smarter, more flexible system continues at a rapid pace

All parts of the industry have changed...

The old energy system




The new energy system



Introducing new challenges....

- ➔ Intermittent renewable generation
- ➔ Changing demand patterns due to on-site renewables and storage
- ➔ New sources of demand (EVs, heat)
- ➔ Changing role for DNOs and the ESO
- ➔ New sources of flexibility and balancing services
- ➔ Increased regulatory interventions and challenging trading environment

Policy focus


Department for
Business, Energy
& Industrial Strategy

Net Zero

**The Clean
Growth Strategy**
Leading the way to
a low carbon future

**Building our
Industrial Strategy**

**Energy White
Paper?**

Looking back over 2019/20: supporting the energy transition



Opened up the Balancing Mechanism to independent aggregators



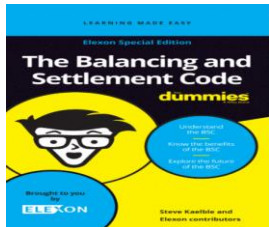
Deployed Settlement software for Project TERRE platform (ready for GB participation go live)



Our Policy View proposed the setting up of nationwide 'flexibility markets' where buyers and sellers trade flexibility or spare capacity at prices set by the market

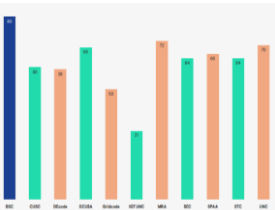


Played a key role in the Energy Data Taskforce, sharing our expertise, with a commitment to embed recommendations



Customer support:

- New 'BSC for Dummies' book and training on BSC issues including webinars
- Streamlining the BSC to support innovation and make compliance easier

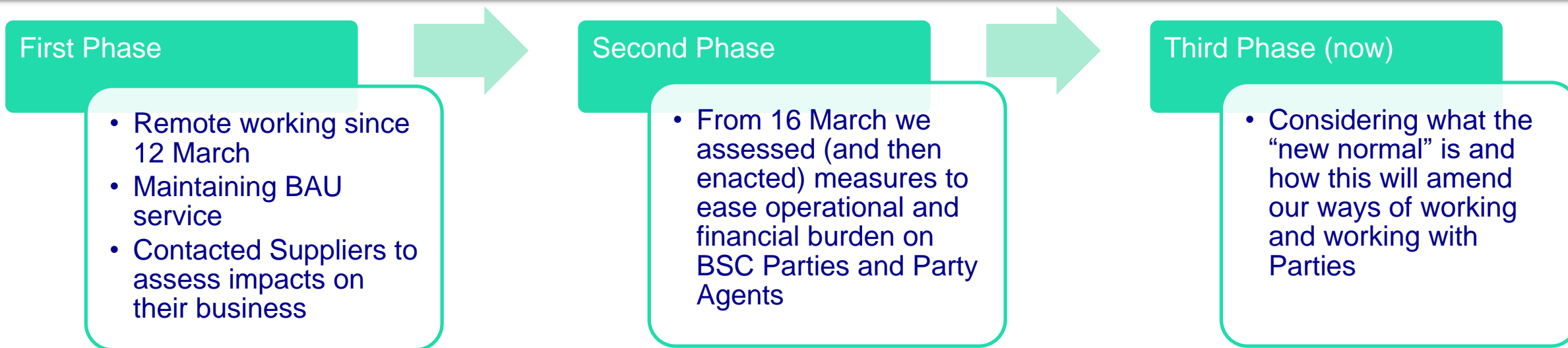


Customer satisfaction:

- Elexon topped Ofgem's 2019 energy code administrators' performance survey - 3rd year in a row, with 86% of respondents satisfied or very satisfied

Looking forward: COVID a new priority and an opportunity to support our customers

- We have assured continuity of our BSC and EMR services
- We are helping to ease the burden of our customers who may be experiencing difficulties at this time



What have we learned?



We can work with industry to resolve issues **quickly** when there is a need to do so



The speed of implementation shows benefits of our **‘end-to-end’ code manager service** and **not-for-profit business model**



Best practice from decision-making process can be applied to initiatives to support **net zero**

Looking forward: supporting innovation, simplifying the BSC and serving industry



- Operating our BSC Sandbox - Expect to support a number of trials in 2020/21
- First energy code body to develop a 'sandbox,' where innovators can trial concepts in a live market environment



- More Mods and CPs to simplify our processes and the BSC for Customers
- Building on our work last year (implementing 6 Mods and 6 CPs) more CPs have already been raised



- Restructured our Operating Model to better focus on customers and our services, rather than internal processes:
- Customer Operations, Digital Operations, Future Markets and Engagement, Corporate Services and HR



- Continue to deliver our services, enable innovation, push for consolidation and simplification, and invest in our people and in our technology

Looking forward: Modification P375 supports progress to net zero



P375 'Settlement of Secondary BM Units using metering at the asset' allows data from asset meters to be submitted into Settlement



Creates more opportunities for storage, DSR, embedded generation to provide balancing services

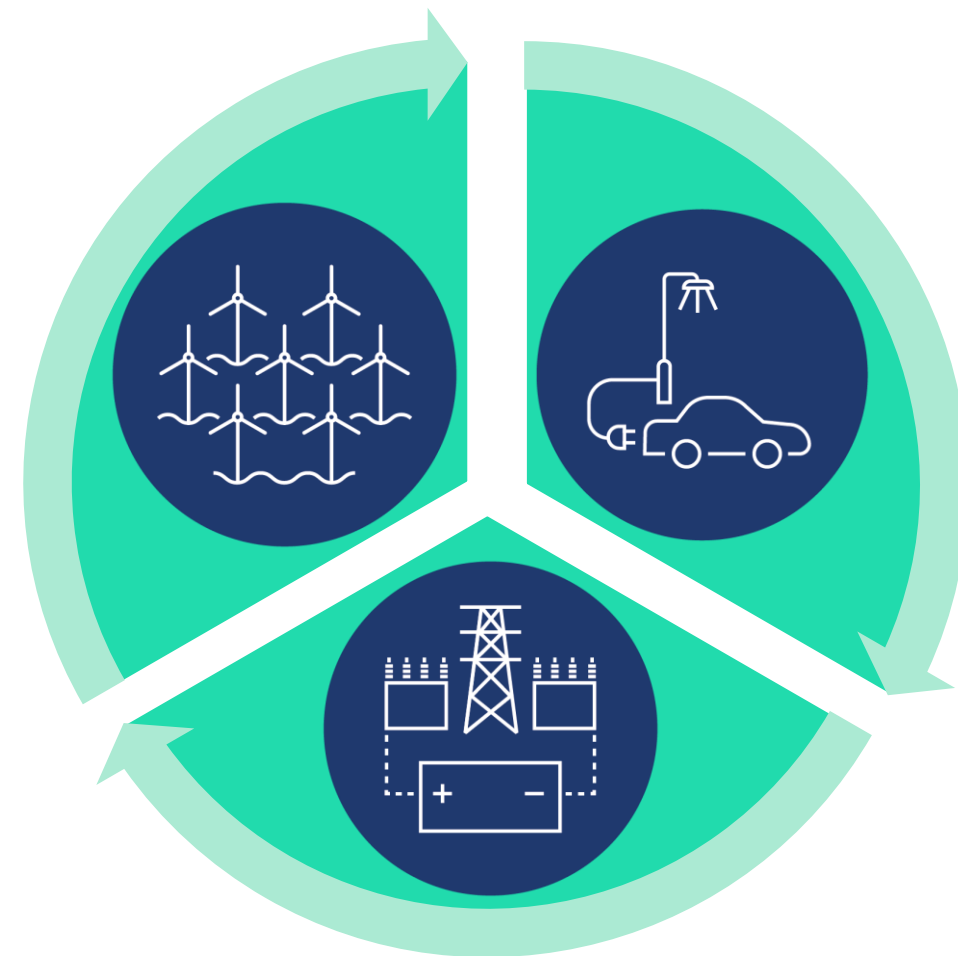


Asset meters will help Aggregators and VLPs to offer their services in the Balancing Mechanism



Elexon is working together with industry on BSC changes that have a **transformative effect** on the electricity system and help progress to **net zero**

'allows you to be rewarded for what you produced or reduced'



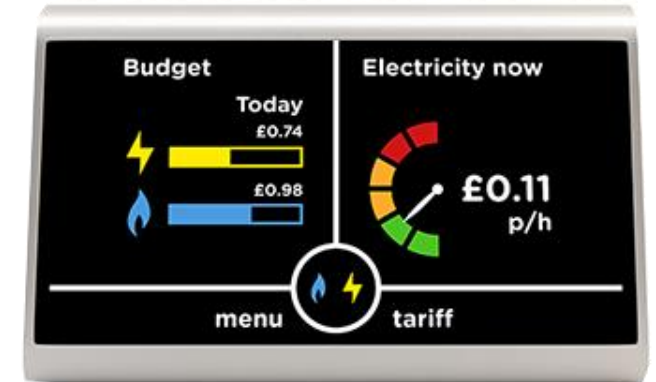
Market-wide Half Hourly Settlement (MHHS) next step towards a smarter system

MHHS:

- **Enabler for innovations** – DSR, ToU Tariffs, P2P, V2G
- **Faster more accurate Settlement** - reducing from 14 months to 4 months

We've been providing leadership to technical industry work groups:

- **Design Working Group** (delivered the MHHS Target Operating Model)
- **Code Change and Development Group** (code changes to support MHHS)
- **Architecture Working Group** (framework for IT system design)



The role of Programme Manager:

We believe we are best placed to fulfil the **Programme Manager role** that Ofgem has specified for implementing MHHS

The role includes:

- **Managing transition** to new systems and services ✓
- **Co-ordinating activity and communicating** with stakeholders ✓
- Monitoring and reporting progress of **180+ organisations** ✓

Financial results for 2019/20

Final report and accounts



Final report and accounts for the year show cost of sales of **£46.8m**

Cost to BSC Parties in 2019/20 was **£40.8m** compared with budget of **£53.2m**

(after netting out revenue of **£5.3m** for EMRS and pass through costs of **£0.7m**)

Key areas of underspend



£1.2m unutilised budget on Demand Led

£8.1m unutilised budget on System Strategy work

£0.3m unutilised budget re Market Development

Savings of **£0.8m** against budgeted operational costs

Savings of **£2.0m** against our budgeted contracted costs

EMR



£839k of existing BSC costs defrayed (offset) due to EMRS contributing to overheads

Audit



Clean Audit and no controls deficiencies identified by auditor for 9th year running



2019 customer survey: Our highest ever score for 'value for money' services

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Digitalising Elexon

Peter Stanley
Director of Digital Operations

Ensuring Elexon is fit for the future of industry

Enabling the energy transition and net zero



Digitalising the BSC:

Digitalisation of BSC legal text

Elexon's digital platform

Digitalisation of BSC legal text

Developing a suite of tools that help our customers navigate their way through the legal text and also improves our efficiency

- Apply state-of-the-art AI and Machine Learning technologies such as Natural Language Processing to deliver a tool **performing complex searches** across main BSC and all Code Subsidiary Documents
- A dynamic solution that **updates automatically** following modifications to the Legal Text
- Initial proof of concept trial successfully completed

How the solution is engineered



- **Enhanced customer experience** of interaction with BSC legal text
- Easily find the information that relates to their specific situation
- Faster and easier change process
- New entrants can understand the rules

What it enables



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KINNECT

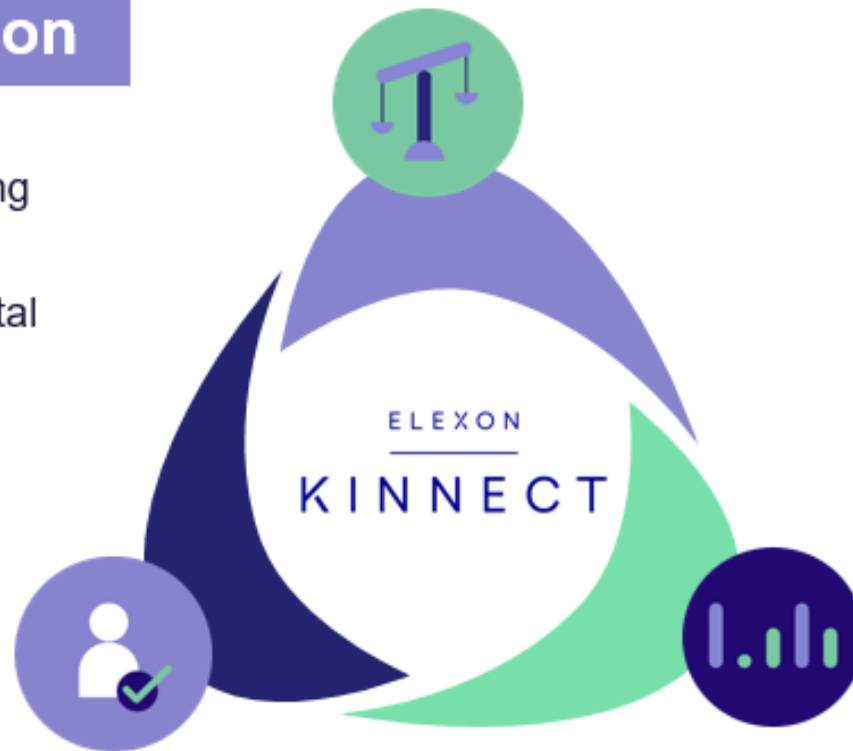


Elexon Kinnect: Elexon's digital platform

Digitalising our services, creating a customer-centric digital platform delivering a smart and flexible central solution for the industry, which will be delivered through a number of releases over the next few years.

Customer solution

- ✓ simplifying and automating processes
- ✓ providing an intuitive digital front end
- ✓ aiding market entry and registration for new and existing entrants



Settlement solution

- ✓ to perform scalable, flexible and modular settlement operations

Insights solution

- ✓ using open cloud services to receive, process and publish data for the industry

Elexon Kinnect Settlement Solution

Perform scalable, flexible and modular settlement operations.

- It's a solution that's born in cloud; leverages various services in cloud to achieve **scalability** from the very beginning
- Microservices architecture style helps to achieve **flexibility and modularity**

How the solution is engineered



- Can be extended **beyond electricity market**
- Future enabled to **switch settlement period** from 30 min to 5 min, can scale and run calculations in parallel
- Enabled for **on-demand provisioning of multiple sand box environments** through Infrastructure as Code (IaC)

What it enables



Elexon Kinnect Insights Solution

Using cloud services to receive, process and publish data for the industry.

- Cloud services allow use of **right data storage and processing capabilities at scale**
- **Modern API style** integrations to receive, report and publish data for the industry
- Complements existing interfaces to ensure **backward compatibility** to support gradual transition

How the solution is engineered



- Can be extended to **support volume and velocity** of data for future use cases, like disaggregated data for half-hourly settlement
- Enables **self-service ad hoc analysis** and data discovery for teams to provide more valuable insight for the industry

What it enables



Elexon Kinnect Customer Solution

Simplifying and automating processes, providing an intuitive digital front end, aiding market entry and registration for new and existing entrants.

- Applied business process re-engineering principles for **simplification and automation**
- Using Salesforce – an industry leading Customer Relationship Management (CRM) solution
- Proven process, workflow and self-service capabilities to provide an **intuitive digital front end**

How the solution is engineered



- Extendable and scalable that could become the **central registration solution for whole of the energy market**
- **Collaboration and self service**, addressing pain points in customer journeys – simplifying the customer journey
- **Customer insight** to target value-adding support services

What it enables



E L E X O N

**Helping to deliver net
zero: Simplification
and consolidation**

Angela Love, Director of Future
Markets & Engagement

The catalysts for simplifying and consolidating the energy market arrangements

Current arrangements for System Operation and the energy codes



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Policy development influencing change to the arrangements



CONSULTATION ON REFORMING THE ENERGY INDUSTRY CODES

Nov 2018



May 2019



Feb 2020

We believe SO and code arrangements could be reformed to help meet net zero and the needs of a smarter system



THE SO REVIEW

What are the options for System Operation?



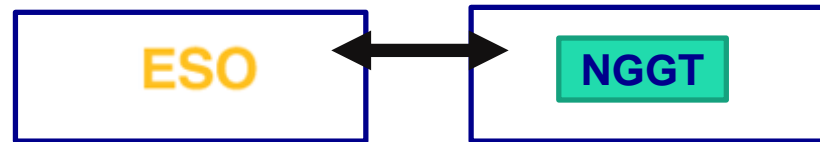
We believe that between 2025 and 2035, changes in the governance and/or ownership arrangements in the gas and electricity markets is possible and there are few options for achieving it

Vertical integration



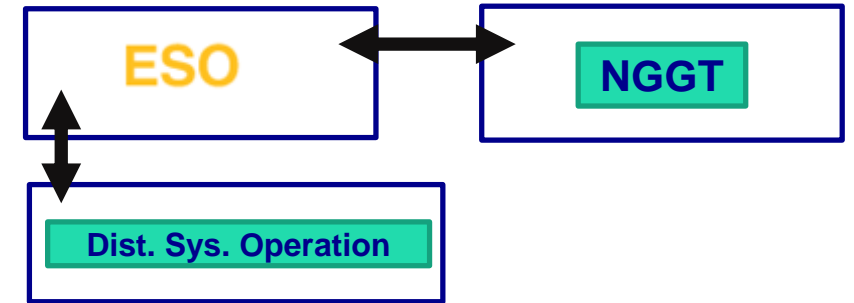
A degree of integration across Transmission and Distribution system operation functions

Horizontal integration



Some integration across electricity and gas system operation functions to enable the whole-system approach to electricity and gas markets and apply lessons-learned from between markets

Mixed integration



A mixed model where integration of functions takes places across fuels and across two levels of the electricity system

There is potential to create an SO to cover transmission and distribution or gas and electricity transmission or whole energy market SO

EVOLUTION OF THE MARKET

What other options could be pursued?



The SO review presents an opportunity to progress the Energy Codes Review to a successful conclusion



For the energy sector to meet the net zero challenge there needs to be consolidation and simplification of the energy codes



Consolidation of the codes will deliver a more efficient and economic use of industry resources

There is potential to create a Market Operator, to simplify, consolidate and take over the work of the energy codes and allow them to work comprehensively with the SO

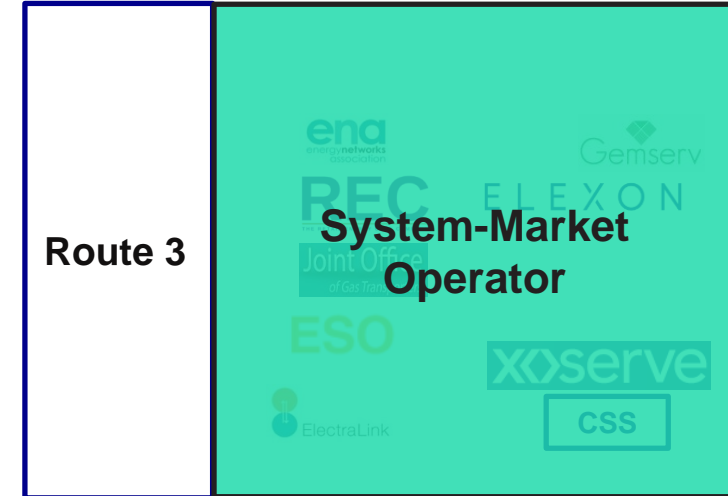
The three options we have identified



Consider SO only, codes status-quo



SO considered, Market Operator created



SO and MO consolidated

Our Policy View document will set out the pros and cons of the three options – however in our view it appears that Route 2 is the optimum model and most realistic to deliver

THE BENEFIT OF A MARKET OPERATOR

What a Market Operator would achieve

Benefits

- A more integrated Market Operator working alongside the SO could result in faster changes to market rules and deliver co-ordinated change across codes
- Rule making would be unbiased and fully independent of all market participants
- Brings more independence than in the current system as it could address actual or perceived conflicts of interest
- Better support for innovators (if they require Market Operator to implement rule changes across the energy system) and codes
- Delivers consolidation and simplification of energy code bodies as well as the codes themselves so that they better serve new and existing market participants



Allows market operation to remain independent from system operation with the option of the market operator being a stakeholder owned body



Although it is a significant change - it is easier to deliver than an integrated System and Market Operator, and delivers similar benefits

ELEXON Policy View: The Energy Codes Review

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- Elexon Policy View will be created
- An engagement plan with Code Parties and Stakeholders will be undertaken to solicit views
- We would welcome views from interested parties to be shared directly with us
- We will share findings with Ofgem and BEIS



- We have undertaken some research on other countries and markets
- We will conclude this research and provide with the findings shared with Ofgem and BEIS

WE LOOK FORWARD TO
DISCUSSING WITH BSC PARTIES
AND STAKEHOLDERS

QUESTIONS & ANSWERS

VOTING RESULTS

Annual BSC meeting 2020 voting results

| | For | Against | Abstain | Result |
|--|------|---------|---------|----------|
| To approve the re-appointment of Michael Gibbons as a Director | 2922 | 0 | 2 | Approved |
| To approve the re-appointment of Anne Heal as a Director | 2922 | 0 | 2 | Approved |
| To approve the re-appointment of Clare Duffy as a Director | 2922 | 0 | 2 | Approved |
| To approve the re-appointment of David Rigney as a Director | 2922 | 0 | 2 | Approved |
| To re-elect Sara Vaughan as a Director | 2922 | 0 | 2 | Approved |
| To re-elect David Titterton as a Director | 2922 | 0 | 2 | Approved |
| To re-elect Mark Bygraves as a Director | 2922 | 0 | 2 | Approved |