Increasing access to BSC Data

This Modification seeks to increase accessibility to data held by ELEXON and BSC Agents. It will better align the BSC with the United Kingdom's Industrial Strategy. Primarily this will be achieved by making it easier to access data already released and secondly, by putting in place a process whereby requests for data can be fulfilled subject to qualifying criteria.

ELEXON recommends:

- The Proposed Modification is raised by the Panel
- The Modification is progressed to the Assessment Procedure for an assessment by a Workgroup

This Modification is expected to impact:

- BSC Parties
- BSC Panel
- BSCCo
- BSC Agents
- National Grid ESO
- Non-BSC Parties

ELEXON

Phase

- Initial Written Assessment
- Definition Procedure
- Assessment Procedure
- Report Phase
- Implementation

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About This Document

This document is a recommendation to the Panel, by ELEXON, to raise a Modification Proposal (Attachment A) in accordance with Section F2.1.1(d)(i). If the Panel agree to raise the Modification Proposal, this document will form its Initial Written Assessment (IWA) and the Proposal Form will be updated and published on the ELEXON Website.

There are two parts to this document:

- This is the main document. It provides details of the Modification Proposal, an assessment of the potential impacts and a recommendation of how the Modification should progress, including the Workgroup's proposed membership and Terms of Reference.
- Attachment A contains the Modification Proposal Form.

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1 Summary

What is the issue?

The United Kingdom's Industrial Strategy was published in November 2017. A key part of that strategy is making data as open as possible. This will allow companies, organisations and even consumers to be able to make a far more informed decision as well as opening up markets to innovation and new ways of operating. While the BSC is more open than other Industry Codes, there is still some way to go to align with the Industrial Strategy.

What is the proposed solution?

The BSC will be amended so that all data is assumed open unless there is a reason otherwise. The Panel (or delegated sub-committee) will determine if there is any reason not to make data available. This will be done based on a transparent process of triage and categorisation. In the longer term, we will look at an IT solution to make accessing BSC data even easier than having to make a formal request for release/publication.

Impacts

This proposed Modification could potentially impact all BSC Parties, their agents and other industry members and stakeholders. There will also be an impact on the BSC Company (BSCCo) and BSC Agents. There is a swathe of BSC data in existence held by BSCCo and BSC Agents. Releasing this data could have impacts on how the market operates depending on how the data is used.

Implementation

This Modification is only expected to require changes to the BSC and some Code Subsidiary Documents (CSDs). The Workgroup should consider the scope for a long term IT Solution but that would be progressed outside of this modification. Given the potential positive impact, balanced against the likely impacts, and time to rollout new processes, we recommend it be implemented approximately 6 – 9 months after the Authority approves its implementation. This will be refined during the Assessment Phase and balanced against other planned implementations.

Recommendation

This Modification should proceed to Assessment phase for consideration by a Workgroup. Given the wide-ranging potential impacts it is not suitable for Self-Governance, so should be sent to the Authority for decision. There is no requirement for this proposed Modification to be Fast-Tracked, nor is it Urgent.

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2 Why Change?

Background

In November 2017 the Secretary of State for Business, Energy and Industrial Strategy (BEIS) presented the UK's Industrial Strategy. The Strategy pledged to 'set Grand Challenges to put the United Kingdom at the forefront of the industries of the future'. The first four Grand Challenges are intended to focus 'on the global trends which will transform our future'. One of the Grand Challenges is concerned with Artificial Intelligence and Data; this Modification is concerned with the data aspect of that Great Challenge.

BEIS and Ofgem published a joint policy paper in July 2017: 'Upgrading our energy system: smart systems and flexibility plan'. In October 2018, they published a progress update to their policy paper and within this; they established the Energy Data Task Force (EDTF). The purpose of the EDTF was to 'look across the energy sector, identify gaps where data can be used more efficiently and make clear, actionable, recommendations for Government, Ofgem and industry.' In June 2019, the EDTF published their report 'A Strategy for a Modern Digitalised Energy System' with five recommendations:

1. Digitalisation of the Energy system – 'Government and Ofgem should direct the sector to adopt the principle of Digitalisation of the Energy System in the consumers' interest'
2. Maximising the value of data – 'Government and Ofgem should direct the sector to adopt the principle that Energy System Data should be Presumed Open'
3. Visibility of data – 'A Data Catalogue should be established to provide visibility through standardised metadata of Energy System Datasets across Government, the regulator and industry.'
4. Co-ordination of Asset registration – 'An Asset Registration Strategy should be established to coordinate registration of energy assets, simplifying the experience for consumers
5. Visibility of Infrastructure and Assets – 'A unified Digital System Map of the Energy System should be established'

What is the Issue?

The EDTF report recommends that BEIS/Ofgem should use legislative and regulatory powers to achieve their first three recommendations. The BSC does not fully adhere to the EDTF recommendations, meaning that, unless we take the initiative, we risk having a solution thrust upon us that may not be the best possible outcome for BSC Parties and wider stakeholders.

However, by taking action now, we have the ability to remain at the forefront of industry development, as would be expected of the foremost Code Administrator, and as such, will be able to create the precedence for Industry to follow/emulate.

Work to date

Three previous Modifications have made BSC data more available in specific circumstances:

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- P30 'Availability Of Market Information To BSC Parties And Non-BSC Parties';
- P114 'Entitlement of Licence Exemptable Generators (LEGs) and other Non-trading Parties to BSC Membership Without Evidence of Trading'; and
- P315 'Suppliers' Meter Volume and MPAN counts'

The BSC Panel has started the process of implementing the EDTF's recommendations when it approved recommendations made at the September 2019 Panel meeting (294/16 'Cost of Access to Data'). This will allow the BSCCo to establish a new route to data by allowing access to key data items under an Open Data licence, similar to that used for the Balancing Mechanism Reporting Service (BMRS).

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3 Solution

Proposed solution

The BSC should be modified to demonstrate commitment to Open Data principles. The BSC's current default position is that all data is Confidential Information. The default position should be that all data is presumed open in accordance with the EDTF recommendations but, would continue to be treated as Confidential Information until the Panel confirms the specific data is confirmed as Open.

Handling of data requests

Data requests should be triaged to determine the 'openness' of the data requested to consider whether the data set could cause issues. Suggested examples of triage categories are:

- **Consumer Privacy** –a person who can be identified from the information requested – either directly or indirectly in combination with other information;
- **Negative Consumer Impact** - Likely to drive actions that will negatively impact consumers;
- **Security** – creates incremental, or exacerbates existing, security issues which cannot be mitigated via sensible security protocols such as physical site security, robust cyber security or buffer databases; or
- **Commercial** – relates to the private administration of a business or, data not collected as part of an obligation by a regulated monopoly and would not have been originated or captured without the activity of the organisation.

Once triage has taken place, mitigation methods should be considered to determine if issues could be resolved. The data requested is then classified:

- **Open** – Available for all to use, modify and distribute with no restrictions;
- **Public** – Publicly available but with some restrictions on usage;
- **Shared** – Available to a limited group of participants possibly with some restrictions on usage; or
- **Closed** – Only available within a single organisation

Following the triage and classification process, the data can then be made available as appropriate.

BSC Panel's role

The Panel (or suitable committee under delegation of the Panel – the BMRS Review board is initially recommended) should determine the classification of datasets to determine how they should be classified. This assessment could be initiated either by the Panel, on recommendation from BSCCo or in response to a data request. Data should not be moved into the public domain until the Panel has confirmed it's status and suitable mitigation has/will be put in place to reflect that status.

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The Panel should be able to review data classifications and amend classifications. This should occur as required and/or at the Panel's discretion.

The Panel should have a transparent set of criteria by which to assess data access requests.

Applicable BSC Objectives

The EDTF has recommended placing open data obligations in the Transmission Licence, if this occurs, then this Modification could be seen as having a pre-emptive positive impact on Objective (a) but at this time, it is neutral.

The EDTF report states that open data will lead to innovative and more efficient markets. It therefore follows that if the market is more efficient, the operation of the National Electricity Transmission System can be too, therefore this Modification will have a positive benefit on Objective (b).

The reports states that 'making data available to new market players, innovators and academics will stimulate new business models, new system management tools and new insights which can drive positive-transformation'. This will, in turn, increase competition and have a positive impact on Objective (c).

The EDTF envisages anybody being able to request data from any organisation, with the organisation being expected to start from a supposition of the data being open. The organisation would be able to decline the request, or to apply mitigation such as data aggregation, but would be required to justify their decision in an annual report to the Regulator. Provision in the BSC of a clear process for dealing with such requests, together with a transparent set of criteria by which the request is assessed will provide an efficient way of dealing with such requests, and so will have a positive impact on Objective (d).

This Modification will be neutral against BSC applicable Objectives (e), (f) and (g).

Implementation approach

Proactive adoption of the EDTF's recommendations, and demonstration of the BSC's commitment to open data, will avoid the need for Ofgem to place implementation actions on the BSC. As such, any changes should be as implemented as soon as is practicably possible.

Implementation requires a change to the BSC (document only change), and development of ELEXON processes to progress data requests. We suggest the Workgroup should recommend the implementation approach. ELEXON is open to this Modification being implemented as part of a scheduled BSC release or as an ad-hoc release.

The Workgroup should also determine whether an enduring IT solution should be developed as part of this change or otherwise. If the latter, then the Workgroup could make recommendations on the nature of the IT solution.



What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]

(f) Implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation

(g) Compliance with the Transmission Losses Principle

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4 Areas to Consider

In this section, we highlight areas that we believe the Panel should consider when making its decision on how to progress this Modification Proposal, and which a Workgroup should consider as part of its assessment. We recommend that the areas below form the basis of a Workgroup's Terms of Reference, supplemented with any further areas specified by the Panel.

Identification of 'data'

The Cambridge English Dictionary defines 'data' as: 'information, especially facts or numbers, collected to be examined and considered and used to help decision-making, or information in an electronic form that can be stored and used by a computer'

The scope of what 'data' means in terms of the BSC needs to be considered when considering this Modification and its solution. It is BSCCo's suggestion that the BSC definition of data should be something akin to:

Anything held within BSC Systems or BSCCo's systems that can be used to form an opinion. Primarily this will be 'numbers' that can be analysed but, dependant on the circumstance, could include text and documents.

This would need to be developed based on legal advice and commensurate with the solution the Workgroup recommend to the Panel.

Adherence with legislation

Any recommended solution should adhere to relevant legislation (in force now and known to be coming into force at some point in the future e.g. Brexit changes) relating to data release. This should include, but not be limited to, the General Data Protection Regulation (GDPR) and Data Protection Act (DPA).

Best practice

Any solution developed should draw on best practice in its development. This need not be restricted to industry best practice i.e. if the Workgroup identifies best practice on handling data outside of the Energy industry, this should also be considered.

Identification of best practice may require cross-code collaboration, and this should be considered if applicable.

The Workgroup should consider how data requests are handled by BEIS/Ofgem under the Freedom of Information (FOI) Act.

The Workgroup should also consider how ELEXON handles Subject Access Data Requests presently as well as how these are handled by other organisations to determine if there are any similarities and as such, any best practice that can be emulated.

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Response to data requests

The Workgroup should develop a process to enable the BSCCo to determine how best to respond to data requests in a consistent and transparent manner. This should include:

- When/how anonymisation should occur;
- When/if consultation is required;
- When/if referral to the Panel is required, and the Panel's role there-in;
- When published data should be archived based on time and/or internet hit rates;
- The amount of effort required by BSCCo in preparing data for release
    - BSCCo propose that only raw data should be shared and that minimal 'tidying-up' of data should occur;
- Thresholds based on time and/or cost that prohibit sharing of data; and
- When/if it is applicable to refer requesters to non-BSC sources for data already publically available.

Any processes put in place should be auditable by the regulator, or any other outside entity as required, to demonstrate adherence to open data principles.

Third Party data

The BSCCo holds data that it receives from non-BSC sources. The Workgroup should consider where it is appropriate to:

- Release this data without further actions;
- Request the owner's permission to share the data; or
- Refuse the data request, as the BSCCo is not entitled to share the data.

Enduring IT Solution

BSCCo envisages that an enduring IT solution may be needed, dependant on the frequency and complexity of data requests following this Modification's implementation. The Workgroup should consider the merits of developing an IT solution to allow users to access open data easily without unnecessary processes based on the suggestions below from BSCCo.

The IT solution should, ideally, facilitate the use of Application Programming Interfaces (APIs), or similar, and data should be available in machine-readable formats. The solution should be flexible enough to allow data to be added or removed as and when circumstances change, e.g. a previously 'closed' document becomes 'public'. The IT system will ideally interact with the BMRS and the ELEXON Portal to avoid unnecessary duplication of data. For example, 'open' data is made available via the IT solution, while 'public' or 'shared' data may be delivered via the Portal.

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Performance Assurance Framework

BSC Section Z 'Performance Assurance' prevents the release of data in relation to activities relating to compliance and such and BSCCo believes this should remain the case even though they seek to make data more open. However, the Workgroup should be mindful of work being carried out by the Performance Assurance Framework (PAF) Review relating to making PAF data, and specifically Performance Assurance Board (PAB) data, more transparent.

Areas to consider

The table below summarises the areas we believe a Modification Workgroup should consider as part of its assessment of this Modification:

Areas to Consider
How other Codes are responding to the EDTF's report
What is best practice for handling data requests
Implications of GDPR and/or DPA
What type of data does BSCCo hold and what is likely to be requested
What data should be published i.e. public interest
Process for responding to data requests
Process for reviewing data classifications
Terms of reference for the Panel when determining data requests
Requirements for an enduring IT solution
Guidelines on whether, once a dataset is requested, should we publish it routinely or just provide the dataset to the requester
How the changes this Modification will introduce should be communicated to industry and how BSCCo could deal with an initial surge in requests
How the open data policy will affect the Performance Assurance Framework
How will this Modification impact the BSC Settlement Risks?
What changes are needed to BSC documents, systems and processes to support this Modification and what are the related costs and lead times? When will any required changes to subsidiary documents be developed and consulted on?
Are there any Alternative Modifications?
Should the Modification be progressed as a Self-Governance Modification?
Does this Modification better facilitate the Applicable BSC Objectives than the current baseline?

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5 Proposed Progression

Next steps

If the Panel agrees to raise this Modification, we recommend that it progress to the Assessment Phase and follow the timetable below.

Self-Governance

We recommend that this Modification should **not** be considered suitable for Self-Governance but should be sent to the Authority for approval, as it will have a material impact on:

- Consumers by allowing them access to data that may determine their choice of service provider;
- Code Governance by giving the Panel new powers;
- Competition as releasing data may have unforeseen consequences on competition; and
- Management of the market – it is the EDTF's belief that having more access to data will affect how the market operates.

It is not known if sustainable development, safety or security of supply, the management of market or network emergencies will be affected by releasing previously unseen data to the market. Organisations may be able to carry out 'deep tunnelling' of new data to identify trends/predictions that could affect each future developments/proposals in each of these areas. This, in turn could affect how the Total System is operated and differentiations between classes of Parties.

This Modification should not be Urgent or Fast-Track as there are not expected to be any consequences of not implementing in the normal way.

What is the Self-Governance Criteria?

A Modification that, if implemented:

(a) is unlikely to have a material effect on:
(i) existing or future electricity consumers; and
(ii) competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; and
(iii) the operation of the national electricity transmission system; and
(iv) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and
(v) the Code's governance procedures or modification procedures; and

(b) is unlikely to discriminate between different classes of Parties.

Workgroup membership

We recommend that the Workgroup comprise of participants who have expertise or experience in the following areas:

- BSC Governance
- Data protection and handling
- Potential impacts of releasing sensitive data

Timetable

Proposed Progression Timetable	
Event	Date
Present Initial Written Assessment to Panel	12 Dec 19
Workgroup Meeting	W/B 13 Jan 20
Workgroup Meeting	W/B 10 Feb 20

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Proposed Progression Timetable	
Event	Date
Assessment Procedure Consultation	2 Mar 20 – 20 Mar 20
Workgroup Meeting	W/B 6 Apr 20
Present Assessment Report to Panel	14 May 20
Report Phase Consultation (Ten Working Days)	18 May 20 – 1 Jun 20
Present Draft Modification Report to Panel	11 Jun 20
Issue Final Modification Report to Authority	17 Jun 20

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6 Likely Impacts

Impact on BSC Parties and Party Agents	
Party/Party Agent	Potential Impact
All BSC Parties and Agents	Will be able to access data more easily but, risk of inadvertent data release

Impact on Transmission Company
Increase in 'big data' available to industry could impact how people offer services and interact with the Transmission Company

Impact on BSCCo	
Area of ELEXON	Potential Impact
All	Compiling data for release could add additional FTE to teams

Impact on BSC Settlement Risks	
Area of ELEXON	Potential Impact
There is no Settlement Risk associated with inadvertent release of data. Rather, this is one of BSCCo's operational risks. The reason for this is that as data is submitted into Settlement ahead of it being processed, releasing data would not impact Settlement integrity. However, an inadvertent release of data would have an impact on BSCCo, hence why it is an operational risk rather than Settlement.	

Impact on BSC Systems and processes	
BSC System/Process	Potential Impact
BMRS	Increased hit rate as we de-license P30/P114/P315 data Could be used as platform for publishing data
All other BSC Systems	Potential increase in bespoke reports to meet data requests
All BSC Processes	Would need to be reviewed, potentially, to consider if data within is treated as open

Impact on BSC Agent/service provider contractual arrangements	
BSC Agent/service provider contract	Potential Impact
All BSC Agents and service providers	Could be required to release data they hold on behalf of BSCCo where BSCCo has copyright and/or intellectual ownership

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Impact on Code	
Code Section	Potential Impact
Section H 'General'	Amendments to part four – 'Confidentiality and other intellectual property rights'
Other Sections	To be updated as required by the solution recommended

Impact on Code Subsidiary Documents	
CSD	Potential Impact
To be determined	Update as required

Impact on other Configurable Items	
Configurable Item	Potential Impact
To be determined	Update as required

Impact on Core Industry Documents and other documents	
Document	Potential Impact
All Core Industry Documents	No impact expected as this Modification is concerned only with the release of BSC data.

Impact on a Significant Code Review (SCR) or other significant industry change projects
No impact on SCRs expected – we requested Ofgem treat this Modification as an SCR Exempt Modification on 5 December 2019.

Impact on Consumers
The EDTF's report states that effective storage, sharing and management of data will allow the markets to develop; putting consumers at the heart of change, while allowing networks to support the proliferation of new business models and technologies.

Impact on the Environment
The EDTF's report states that data is recognised as being crucial to building a smart System that supports decarbonisation targets. This Modification will add to the collective efforts to mitigate carbonisation.

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7 Recommendations

We invite the Panel to:

- **AGREE** to raise the proposed Modification;
- **AGREE** the Modification Proposal progresses to the Assessment Procedure;
- **AGREE** the proposed Assessment Procedure timetable;
- **AGREE** the proposed membership for the Modification's Workgroup;
- **AGREE** the Workgroup's Terms of Reference; and
- **AGREE** an initial view that the Modification should not be treated as a Self-Governance Modification.

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Appendix 1: Glossary & References

Acronyms

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

Acronym	
Acronym	Definition
API	Application Programming Interface
BEIS	Business, Energy and Industrial Strategy
BMRS	Balancing Mechanism Reporting Service
BSC	Balancing and Settlement Code
BSCCo	BSC Company
CSD	Code Supplementary Document
DPA	Data Protection Act
EDTF	Energy Data Task force
ESO	Electricity System Operator
FOI	Freedom of Information
FTE	Full-time employment
GDPR	General Data Protection Regulation
IT	Information Technology
IWA	Initial Written Assessment
MPAN	Meter Point administration Number
PAB	Performance Assurance Board
PAF	Performance Assurance Framework
SCR	Significant Code Review

External links

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

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

External Links		
Page(s)	Description	URL
2	BSC Section F	https://www.elexon.co.uk/bsc-and-codes/balancing-settlement-code/bsc-sections/
3	The Grand Challenges policy paper	https://www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/industrial-strategy-the-grand-challenges

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External Links		
Page(s)	Description	URL
3	Upgrading our energy system: smart systems and flexibility plan	https://www.gov.uk/government/publications/upgrading-our-energy-system-smart-systems-and-flexibility-plan
3	Energy Data Task Force webpage	https://www.gov.uk/government/groups/energy-data-taskforce
3	A Strategy for a Modern Digitalised Energy System	https://es.catapult.org.uk/news/energy-data-taskforce-report/
4	P30 'Availability Of Market Information To BSC Parties And Non-BSC Parties'	https://www.elexon.co.uk/mod-proposal/p030-availability-of-market-information-to-b-s-c-parties-and-non-b-s-c-parties/
4	P114 'Entitlement of Licence Exemptable Generators (LEGs) and other Non-trading Parties to BSC Membership Without Evidence of Trading'	https://www.elexon.co.uk/mod-proposal/p114-entitlement-of-licence-exemptable-generators-legs-and-other-non-trading-parties-to-bsc-membership-without-evidence-of-trading/
4	P315 'Suppliers' Meter Volume and MPAN counts'	https://www.elexon.co.uk/mod-proposal/p315/
4	Panel Paper 294/16 'Cost of Access to Data'	https://www.elexon.co.uk/meeting/bsc-panel-294/
9	BSC Section Z 'Performance Assurance'	https://www.elexon.co.uk/the-bsc/bsc-section-z-performance-assurance-3/

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