CP Assessment Report

CP1535 'Interconnector Fuel Type Category update to BMRS"

Contents

1	Summary	2
2	Why Change?	3
3	Solution	5
4	Impacts and Costs	7
5	Implementation Approach	8
6	Initial Committee Views	9
7	Industry Views	10
8	Recommendations	12
Appendix 1: Glossary & References		13

About This Document

This document is the Change Proposal (CP) Assessment Report for CP1535, which ELEXON will present to the BSC Panel at its meeting on 13 August 2020. The BSC Panel will consider the proposed solution and the responses received to the CP Consultation before making a decision on whether to approve CP1535. CP1535 is being presented to the BSC Panel for decision, for the reasons outlined under 'Governance' in section two of this paper.

There are five parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, and proposed implementation approach. It also summarises the Imbalance Settlement Group's (ISG's) initial views on the proposed changes and the views of respondents to the CP Consultation.
- Attachment A contains the CP1535 Proposal Form.
- Attachment B-C contains the proposed redlined changes to deliver the CP1535 solution.
- Attachment D contains the full responses received to the CP Consultation.

Committee

BSC Panel

Recommendation

Approve

Implementation Date

1 April 2021 (as a Standalone BSC Release)

Contact

Faysal Mahad

020 7380 4375

BSC.change@elexon.co.uk

Faysal.Mahad@elexon.co.uk



© ELEXON Limited 2020

1 Summary

Why change?

Changes are needed to the Balancing Mechanism Reporting Service (BMRS) to ensure it continues to provide Market Participants with data relating to Settlement arrangements in the Great Britain (GB) Electricity Market in the most accurate and consistent manner.

The North Sea Link (NSL) Interconnector is currently under construction and due to be commissioned in 2021. The BSC requires a separate 'Fuel Type Category' to be defined for each interconnector for reporting purposes. It also requires the Panel to approve all new fuel type categories. Therefore, for the NSL interconnector data to be published on the BMRS, BSC Central System changes are needed, as is Panel approval for this new 'Fuel Type Category'.

CP1516 'New Interconnector Fuel Type Categories: Eleclink & IFA2' implemented an interim solution, on 18 December 2019, to incorporate data from IFA2 and ElecLink Interconnectors on the BMRS. As a result, there is currently no visibility of the disaggregated data for these interconnector flows or availabilities through BMRS-hosted graphs, tables and XML / CSV downloads, APIs, Data Push and TIBCO services.

Solution

A new 'Fuel Type Category' will be created for the NSL interconnector and the data will subsequently be published on the BMRS in a disaggregated manner.

This CP will also implement the original CP1516 solution whereby interconnector data is published on the BMRS in a manner consistent with previous publications.

Impacts and costs

The central implementation cost is approximately £210K.

This CP will impact BMRS Users. Market Participants consuming the data from BMRS will need to be aware of the addition of the new Interconnector. This CP ends the interim solution introduced under CP1516. This means the full functionality of the BMRS have been restored.

Implementation

We are proposing an amendment to the original Implementation Date of 3 December 2020. The new proposed Implementation Date is **1 April 2021** as a Standalone BSC Release. This will:

- ensure the BMRS is ready to receive and publish data relating to the NSL before it is commissioned;
- de-risk the delivery of TERRE and the November BSC Release;
- help create certainty for Market Participants for when CP1535 will be implemented; and
- allow CP1535 to be scheduled around other known change, such as P383, in good time to maximise efficiencies.

© ELEXON Limited 2020

2 Why Change?

What is the issue?

The new North Sea Link (NSL) interconnector is being constructed to connect the electricity systems of the UK and Norway via a High-Voltage Direct Current (HVDC) subsea cables from Kvilldal in Norway to Blyth in the UK, and is due to be operational in 2021. It is necessary to make BSC Central System changes to the Balancing Mechanism Reporting Service (BMRS), to new Interconnector fuel type, before the Interconnector becomes operational, in order that the Interconnector data can be published in a transparent manner.

CP1516 'New Interconnector Fuel Type Categories: Eleclink & IFA2' implemented an interim solution to incorporate data from IFA2 and ElecLink Interconnectors on the BMRS. The interim solution was to aggregate the ElecLink and IFA2 interconnector data into the existing field in BMRS for the IFA interconnector. As a result, BMRS users currently do not have visibility of the disaggregated data for the three interconnector flows in a manner consistent with how data for other interconnectors is published on the BMRS.

Background

The North Sea Link will be 1400MW (1.4GW) Interconnector between Great Britain (GB) and Norway carrying electricity to and from the Norway Bidding Zone.

The existing arrangements, as set out in BSC Section Q 'Balancing Services Activities', require a separate 'Fuel Type Category' to be defined for each Interconnector, for data reporting purposes. These fuel types are then published on the BMRS platform, and recognised within the documents New Electricity Trading Arrangements (NETA) Interface Definition and Design (IDD) Document Part 1 – Interfaces with BSC Parties and their Agents and NETA IDD Part 1 spreadsheet.

BSC Section Q Paragraph 6.1.8 requires National Grid Electricity System Operator (NGESO) as the National Electricity Transmission System Operator (NETSO) to send to the Balancing Mechanism Reporting Agent (BMRA) the data relating to the Interconnector Fuel Type Categories for publication on the BMRS.

BMRS

The Balancing Mechanism Reporting Service (BMRS) is the primary channel for providing operational data relating to Settlement arrangements in the Great Britain (GB) Electricity Market. Market Participants use the data on the BMRS to inform trading decisions and understand market dynamics.

BMRS receives, stores and publishes data relating to the Interconnectors to GB. This information is made available to BMRS users via several graphs, tables and XML / CSV downloads, along with API, Data Push services and TIBCO services. The BMRS contains generation data for interconnectors. This generation data can be subsequently separated by 'Fuel Type Category', with the list of required fuel types recorded in BSC Section Q.

What are Interconnectors?

Electricity Interconnectors are the physical links which allow the transfer of electricity across country borders. There are currently operational Interconnectors linking the GB System to Ireland, France and the Netherlands.

What is a Bidding Zone?

A bidding zone is the largest geographical area within which market participants are able to exchange energy without capacity allocation.

What is the Data Push Service?

A near real-time information publication Capability from the BMRS system to industry participants.

What are Application Programming Interfaces (APIs)?

A set of programming instructions for participants to access BMRS data directly from their systems outside of the firewall.

© ELEXON Limited 2020

Addition of New Fuel Type Categories

BSC Modification P244 'Provision of BritNed flow data to the BMRS' introduced provisions to allow the BSC Panel to approve new external Interconnector flows, as further Fuel Type Categories, without the need for a BSC Modification. This was progressed on efficiency grounds to remove the need for a Modification to be raised for each Interconnector prior to P244, Fuel Type Categories were required to be introduced into BSC Section Q.

Therefore, a CP is required to gain approval for the system changes to the BMRS to enable the publication of the interconnector data through a fuel type category. These provisions have been utilised to add new interconnector ever since; namely:

- the East-West Interconnector (EWIC) (Panel 194/04);
- the Nemo Link Interconnector (Panel 280/09);and
- the IFA2 and ElecLink Interconnectors (Panel 292/06)

CP1516

CP1516 'New Interconnector Fuel Type Categories: Eleclink & IFA2' implemented an interim solution to incorporate data from IFA2 and ElecLink Interconnectors on the BMRS. This was due to constraints on the BMRS at the time, created by the need to deliver a number of complex changes which all impacted the BMRS (P344 'Project TERRE', P384 'The publication of European Electricity Balancing Guideline (EB GL) balancing data by BMRS', and CP1516) over the same timeframe.

The CP1516 interim solution reduced the impact on BMRS and ensured the addition of the new interconnectors was delivered on 18 December 2019 without impacting the delivery of P344 or P384. The interim solution aggregated the ElecLink and IFA2 interconnector data into the existing field in BMRS for the IFA interconnector. As a result, there is currently no visibility of the disaggregated data for the three interconnector flows or availabilities through BMRS-hosted graphs, tables and XML / CSV downloads, APIs, Data Push and TIBCO services. Instead, BMRS users can currently get access to the disaggregated data for the interconnectors via a separate webpage, processed by the ELEXON Portal. This means Market Participants have to use a new API to access the disaggregated interconnector data. What's more, interconnector users (using TIBCO) do not have immediate visibility of trips on individual interconnectors which can be an issue if they needed to make changes to their trading positions.

What is the BMRA?

The Balancing Mechanism Reporting Agent (BMRA) collects and publishes information about the electricity system in Great Britain. Balancing Mechanism and System Related Information is sourced from National Grid, and Registration Information from the Central Registration Agent.

© ELEXON Limited 2020

3 Solution

Proposed solution

A new 'Fuel Type Category' will be created for the NSL interconnector and the data will subsequently be published on the BMRS.

This CP will also implement the original CP1516 solution whereby interconnector data is published on the BMRS in a manner consistent with previous publications. This will be achieved by creating new fields in a BMRS database table for IFA2 and ElecLink so they can be published separately from IFA. Market Participants will then have visibility of the disaggregated interconnector flows and the data will be available through the existing BMRS content e.g. graphs, tables and XML / CSV downloads, along with API, Data Push services and TIBCO services.

BMRS data submission/receipt

National Grid ESO will need to amend its Balancing Mechanism (BM) Systems and Electricity Balancing System (EBS) EBS to include the relevant new Interconnector data in the flows submitted to the BMRS.

The Interconnector mapping table, which maps interconnectors to bidding zones and is managed by ELEXON's service provider, and the NETA IDD Part 1 Document and Spreadsheet documentation will require updating with the new Fuel Type Category for and North Sea Link interconnectors, which will be designated as **INTNSL** respectively. The ElecLink and IFA2 were added as fuel types by CP1516.

ELEXON will amend its flow loaders, which is the coding that reads the flows incoming from National Grid ESO, to include the new Interconnector's data in BSC Central System databases. Therefore, flow loaders for FUELINST, FUELHH, FOU2T14D, FOU2T52W, UOU2T14D, UOU2T52W (please see Attachment C for details) will be modified to recognise the INTNSL Interconnectors fuel types.

Proposer's rationale

The benefits of this CP are firstly that it will remove the requirement created by the CP1516 to create a new API to pull data from the webpage created as part of the CP1516 interim solution and ensure those using TIBCO have visibility of trips on individual interconnectors. Secondly, by adding the soon-to-be commissioned NSL interconnectors to the BMRS, the CP will also enable the BMRS to receive, store and publish data relating to this interconnector as soon as it goes live.

Proposed redlining

Attachment B contains the proposed redlining to the NETA IDD: Part 1 Documentation – Interfaces with BSC Parties and their Agents. Attachment C contains changes to NETA IDD: Part 1 spreadsheet.

What is the NETA IDD Part 1 document?

This document contains the definition and design of all interfaces related to all BSC Parties and their Agents between the BSC Service Systems and other Systems. It includes the specification of file formats and structure of electronic files.

© ELEXON Limited 2020

Governance

BSC Section Q reserves the right for the Panel to approve Fuel Type Categories relating to further Interconnectors without making changes to the BSC itself.

However, as BSC Central System changes are required to enable the BMRS to publish data relating to the new Interconnectors, along with changes to associated documentation, a CP must also be progressed.

BSC Panel approval will be sought for both the addition of the Interconnectors as Fuel Type Categories, and for this CP, as part of the CP's Assessment Report for efficiency purposes. The impacted Configurable Items under this CP usually require approval solely by the ISG. However, as the BSC Panel is required to make the determination on the Fuel Type Category, and has oversight of the ISG as one of its sub-Committees, the Assessment Report will be presented directly to the BSC Panel at its meeting on 14 August. CP1535 was presented as a verbal update to the ISG for information on 7 July 2020 (ISG231/03) to invite the ISG to note the proposed progression timetable and provide any comments or additional questions for inclusion in the CP Consultation. The ISG's views are summarised in section six of this report.

© ELEXON Limited 2020

4 Impacts and Costs

Central impacts and costs

Central impacts

The NETA IDD: Part 1 Document and Spreadsheet will be updated with the proposed Fuel Type Category names for the North Sea Link interconnector (INTNSL).

The CP1516 interim solution added INTIFA2 and INTELEC to the NETA IDD: Part 1 Document and Spreadsheet. On the BMRS, the values of all French Interconnectors were added together and stored in the INTFR field and hence the France Bidding zone. Simultaneously, the ELEXON Portal reprocessed the incoming data and displayed all Interconnectors separately on an "Additional Detail" page linked from the BMRS website.

This CP will add INTNSL to the NETA IDD: Part 1 Document and Spreadsheet and modifies BMRS to process interconnector data individually. This involve creating fields for INTELEC, INTIFA2 and INTNSL and mapping these to the correct bidding zones. The data for IFA will also be reprocessed so that the INTFR field contains data for IFA only - not an aggregated total of all the Interconnectors to the French Bidding Zone.

The functionality that was temporarily added to ELEXON Portal, for our interim solution, will be decommissioned.

Central Impacts	
Document Impacts	System Impacts
• NETA IDD Part 1 Documentation • NETA IDD Part 1 Spreadsheet	• BMRS

Central costs

The central implementation costs for This CP will be approximately £210K. This includes the costs to amend the BMRS and to implement the changes to the IDD documentation.

BSC Party & Party Agent impacts and costs

Participant impacts

BSC Party & Party Agent Impacts	
BSC Party/Party Agent	Impact
BMRS Users	Market Participants consuming the data from BMRS will need to be aware of the addition of the new Interconnectors.

National Electricity Transmission System Operator (NETSO) Impacts
The NETSO has indicated that its Balancing Mechanism (BM) and Electricity Balancing System (EBS) will be impacted by CP1535.

© ELEXON Limited 2020

5 Implementation Approach

CP1535 was initially proposed for implementation on 3 December 2020 as a Standalone BSC Release and was issued for industry consultation with this Implementation Date. We are proposing to change the Implementation Date put forward for approval by the BSC Panel from 3 December 2020 to **1 April 2020**.

Reason for change the Implementation Date

Following the National Grid ESO (NGESO) announcement that the TERRE go-live would be delayed until October 2020, ELEXON has been working with NGESO to agree a new test plan. We have recently agreed the detailed test plans and it has become apparent that there is now a significant risk CP1535 will be delayed dependent on the amount of defects and re-tests that are required. This is largely driven by constraints with the test environments, which, following the new detailed test plan do not leave much room for switching between different projects. We believe it is better to move the CP1535 Implementation Date now to de-risk BSC deliveries, whilst still ensuring the NSL Interconnector is added to BMRS before it commences commercial operations and extending the CP1516 interim solution for three months.

Benefits of the new Implementation Date

The risk that CP1535 is delayed is significant, so we believe it is better to move CP1535 to 1 April 2021 now, rather than wait to see if the risk materialises into an issue. Implementing CP1535 on 1 April 2020 will:

- Ensure the BMRS is ready to receive and publish data relating to the NSL before it is commissioned.
- de-risk the delivery of TERRE and the November BSC Release;
- help create certainty for Market Participants for when CP1535 will be implemented; and
- allow us to schedule CP1535 around other known change, such as P383, in good time to maximise efficiencies.

The CP1535 Assessment Report will be presented to the Panel on 13 August for decision. We intend to recommend to the Panel that the CP1535 Implementation Date is changed from 3 December 2020 to 1 April 2021. The ISG (ISG232) endorsed this approach at its meeting on 4 August 2020.

As part of the CP Assessment Report, we will request that the BSC Panel approves the new Interconnector as a BMRA Fuel Type Category with effect on **1 April 2021** as outlined in Section two of this paper.

What is P344 'Project TERRE'

P344 'Project TERRE' aims to establish a pan-European market for Balancing Energy. The project seeks to design and develop a central platform to facilitate the close to real-time exchange of Replacement Reserves (balancing energy products) between Transmission System Operators (TSOs) in participating EU Member States.

© ELEXON Limited 2020

6 Initial Committee Views

CP1535 was presented as a verbal update to the ISG for information on 7 July 2020 (ISG231/03).

The ISG noted that CP1535 will follow the same progression route as CP1516 'New Interconnector Fuel Type Categories: ElecLink & IFA2', meaning it will be presented to the BSC Panel for final decision on 13 August 2020 following CP Consultation.

ISG's initial views

An ISG member, after noting support for CP1535, highlighted that whilst there is currently an interim solution in place to access data for the two interconnectors added by CP1516, the two interconnectors are not yet operational. The ISG Member queried whether Eleclink of IFA2 were expected to come online before this new change is implemented. ELEXON noted its latest understanding is that IFA2 is likely to come on line in September 2020 and ELECLINK and NSL will operational by mid-to-late 2021.

The ISG did not provide any further areas for consideration as part of CP1535 consultation.

© ELEXON Limited 2020

7 Industry Views

We published CP1535 for industry consultation over the period 14 July 2020 to 10 August 2020, to which we received one response. The respondent represents the BSC roles of Interconnector User and Interconnector Error Administrator.

This section summarises the response received to the CP Consultation. You can find the full responses in Attachment D.

Summary of CP1535 CP Consultation Responses				
Question	Yes	No	Neutral/ No Comment	Other
Do you agree with the CP1535 proposed solution?	1	0	0	0
Do you agree that the draft redlining delivers the intent of CP1535?	1	0	0	0
Will CP1535 impact your organisation?	1	0	0	0
Will your organisation incur any costs in implementing CP1535?	0	1	0	0
Do you agree with the proposed implementation approach for CP1535?	1	0	0	0
Do you have any further comments on CP1535?	0	1	0	0

View on proposed solution

The respondent supported the proposed CP1535 solution as it removes the interim CP1516 solution and provides for the efficient publication of the disaggregated interconnector data.

The respondent added that the publication of the disaggregated Interconnector data will benefit all Market Participants and will provide greater transparency especially regarding interconnector trip events.

The respondent agreed the draft redlining delivers the proposed CP1535 solution as it will allow all Interconnectors to viewed as individual 'Fuel Type Category' on the BMRS.

View on impacts

The respondent stated they will be impacted by the CP1535 as the published data relates to power flows over their Interconnector. They highlighted that Market Participants utilise the BMRS data to inform trading decisions and understand market dynamics.

View on implementation approach

The respondent supported the initially proposed implementation approach of 3 December 2020 (they responded to the consultation before the proposed Implementation Date was changed). We informed the respondent of the intention to move the Implementation Date to 1 April 2021, the reasons for which are outlined in section five of this paper. They stated, currently the change to the CP1535 Implementation Date does not have any

© ELEXON Limited 2020

impacts on them, as they expect their interconnector to go-live in January 2022. However, they added any further delay in the Implementation Date for CP1535, i.e. beyond April 2021, would impact them.

© ELEXON Limited 2020

8 Recommendations

We invite you to:

- **APPROVE** the proposed changes to the NETA Interface Definition and Design: Part 1 - Interfaces with BSC Parties and their Agents for CP1535;
- **Approve** an Implementation Date for CP1535 of 1 April 2021 as part of a standalone BSC release;
- **Approve** CP1535; and
- **APPROVE** the North Sea Link Interconnector as a Fuel Type Category under paragraph 6.1.18 (l) of section Q of the BSC effective from 1 April 2021.

© ELEXON Limited 2020

Appendix 1: Glossary & References

Acronyms

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

Acronyms	
Acronym	Definition
API	Application Programming Interfaces
BM	Balancing Mechanism
BMRA	Balancing Mechanism Reporting Agent
BMRS	Balancing Mechanism Reporting Service
BSC	Balancing and Settlement Code
CP	Change Proposal
CPC	Change Proposal Circular
ESO	Electricity System Operator
GB	Great Britain
HVDC	High-Voltage Direct Current
IDD	Interface Definition and Design
IFA	Interconnexion France – Angleterre
IFA2	Interconnexion France – Angleterre 2
ISG	Imbalance Settlement Group
MW	Megawatt
NETA	New Electricity Trading Arrangements
NETSO	National Electricity Transmission System Operator
NG	National Grid
NGESO	National Grid Electricity System Operator

© ELEXON Limited 2020

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	Interconnector Definition	https://www.elexon.co.uk/about/interconnectors/
2	ELEXON Portal	https://www.elexonportal.co.uk/
2	Balancing Mechanism Reporting Service	https://www.bmreports.com/bmrs/
2	BSC Section V 'Reporting'	https://www.elexon.co.uk/the-bsc/bsc-section-v-reporting/
2	BSC Section Q 'Balancing Services Activities	https://www.elexon.co.uk/the-bsc/bsc-section-q-balancing-services-activities/
2	NETA Interface Definition and Design (IDD) Part 1 Documentation	https://www.elexon.co.uk/csd/neta-programme-interface-definition-and-design-part-1-interfaces-with-bsc-parties-and-their-agents/
2	NETA Interface Definition and Design (IDD) Part 1 Spreadsheet	https://www.elexon.co.uk/csd/interface-definition-and-design-part-1-interfaces-with-bsc-parties-and-their-agents/
3	P244: 'Provision of BritNed flow data to the BMRS'	https://www.elexon.co.uk/mod-proposal/p244-provision-of-britned-flow-data-to-the-bmrs/
3	Panel Meeting 194	https://www.elexon.co.uk/meeting/bsc-panel-194/
3	Panel Meeting 280	https://www.elexon.co.uk/meeting/bsc-panel-meeting-280/
4	CP1367: 'Reporting Data relating to the East-West Interconnector on the BMRS'	https://www.elexon.co.uk/change-proposal/cp1367-reporting-data-relating-to-the-east-west-interconnector-on-the-bmrs/
5	P344 'Project TERRE implementation into GB market arrangements'	https://www.elexon.co.uk/mod-proposal/p344/
5	P384 'The publication of European Electricity Balancing Guideline (EB GL) balancing data by BMRS	https://www.elexon.co.uk/mod-proposal/p384/
6,9	CP1506: New Interconnector Fuel Type'	https://www.elexon.co.uk/change-proposal/cp1506-new-interconnector-fuel-type/
9	ISG Meeting 214	https://www.elexon.co.uk/meeting/isg214/

© ELEXON Limited 2020