ELEXON

CP Progression Paper

Creating an Approval Process for Managing New and Legacy Communication Types in Metering Systems

Contents

About This Document

You can find the definitions of the terms and acronyms used in this document in the BSC Glossary[1].

This document provides information on a new Change Proposal (CP) and outlines our proposed progression timetable for this change, including when it will be issued for CP Consultation.

We are presenting this paper to the ISG on 2 April 2024 and the SVG on 2 April 2024 to capture any comments or questions from Committee Members on this CP before we issue it for consultation.

There are four parts to this document:

- This is the main document. It provides a summary of the solution, impacts, anticipated costs, and proposed implementation approach, as well as our proposed progression approach for this CP.
- Attachment A contains the CP proposal form.
- Attachment B contains the proposed redlined changes to deliver the CP solution.
- Attachment C contains the Approved Communications Method Document.

Committee

Imbalance Settlement Group (ISG) and Supplier Volume Allocation Group (SVG)

Contact

Ayo Bammeke

020 7380 4176

ayo.bammeke@elexon.co.uk

BSC.change@-elexon.co.uk

[1] https://www.elexon.co.uk/glossary/?show=all

1. Summary

Why change?

Older metering communication types are quickly becoming redundant and are being replaced by newer communication types. Elexon are proposing to create an approvals process to allow for the managed end dating of older technologies, such as Public Switched Telephone Network (PSTN), Circuit Switched Data (CSD) and subsequently 2G. This process includes creating a public and centralised list to keep Registrants and their agents informed and educated about redundant technologies and the emerging technologies available for replacement.

Solution

To create an approvals process similar to the Compliance and Protocol Approval procedure found in BSC Procedure (BSCP) 601 'Metering Protocol Approval and Compliance Testing'[2], focusing on updating metering communication technologies. This initiative intends to simplify introducing new communication methods and phasing out old ones. This CP establishes a central management process for communication methods without immediately purging existing data methods, except for the planned discontinuation of CSD and PSTN by the end of 2025, to reduce impact on participants and allow a streamlined review post-implementation.

Impacts and costs

This CP will require changes to BSCP601. The central implementation cost will be less than £1K to implement the relevant document changes. No BSC central systems changes are anticipated.

Implementation

This CP is proposed for implementation on 27 June 2024 as part of the Standard June BSC Release.

Not sure where to start?

We suggest reading the following sections:

- Have 5 minutes? Read section 1
- Have 15 minutes? Read sections 1, 4, 5 and 6
- Have 30 minutes? Read all sections
- Have longer? Read all sections and the annexes and attachments

[2] https://bscdocs.elexon.co.uk/bsc-procedures/bscp601-metering-protocol-approval-and-compliance-testing-bscp-601

2. Why Change?

What is the issue?

The energy sector is confronting a challenge as the metering communication technologies traditionally used for data retrieval for settlement purposes grow increasingly obsolete. Notably, the Public Switched Telephone Network (PSTN), a foundational telephony infrastructure allowing voice and data transmission over a circuit-switched network, is not merely declining in efficiency but is set for a complete shutdown by the end of 2025[3], which will render it non-functional. This network has been crucial for metering data communication but faces obsolescence as digital transformation accelerates. Additionally, Circuit Switched Data (CSD), which allows for the transmission of data across the PSTN and has been used for early internet access and fax services, is facing reliability issues. This is because the industry is moving towards upgrading hardware to support 4G and 5G technologies, which inherently do not support CSD. This transition highlights the urgent need for updating communication technologies in the energy sector to ensure reliable and efficient data transmission for settlement purposes.

This transition is juxtaposed with a significant variance in industry knowledge regarding both the current state of communication technologies and the potential of emerging alternatives to fill the gap. Moreover, there exists a substantial repository of technical knowledge concerning communication methods in the advanced metering market, but it is not uniformly distributed or accessible across the industry.

To navigate these complexities, a new process is proposed not only to harmonise the industry's understanding of available modern communication technologies but also to facilitate the orderly replacement of outdated systems. This initiative is crucial to prevent meters from becoming non-operational due to obsolete or inefficient communication methods, especially considering the imminent switch-off of PSTN and the diminishing reliability of CSD. By centralising the management of this transition, the process aims to ensure a smooth and informed shift to more reliable and efficient communication technologies, thereby safeguarding continuous and effective metering operations across the industry.

Background

The energy industry has a long and reliable history with metering communication systems such as PSTN, CSD, and 2G. These systems have played an instrumental role in ensuring consistent and reliable data transmission over the years. However, the pace of technological advancement means that what was once state-of-the-art now edges closer to obsolescence. The advent of communication types like NarrowBand-Internet of Things (NB-IoT) and Category M (CAT-M) offers not only faster and more reliable data transmission but also boasts enhanced security features and adaptability.

Recognising the shifts in the technological landscape, Elexon has identified the urgency of a structured transition plan. This approach seeks to provide clarity and direction amidst this transition, with the overall goal to ensure Registrants and their Agents are equipped with the knowledge and tools they need to adapt and to maintain a consistent, industry-wide standard that promises efficiency, security, and future readiness.

[3] https://business.bt.com/help/article/phone-line-and-services/move-from-traditional-lines-to-the-cloud/the-pstn-and-isdn-switch-off-what-it-means-for-you/

3. Solution

Proposed solution

To establish an approvals process, similar to the existing Compliance and Protocol Approval procedure within BSCP601, catering to the evolving metering communication technologies. This will streamline the introduction and education of innovative communications methods and the scheduled discontinuation of outdated ones.

As the new process is linked to the J0386 Data Item within the Retail Energy Code (REC) Energy Market Data Specification (EMDS), Elexon will raise a corresponding REC Change to amend the Communications Method Data Item (J0386) to remove the hard coded enumerations and instead state the valid set is defined under the BSC within the Communications Method Approval document, which can be found in Attachment C. This will align with the current process for managing the Outstation Type Data Item (J0471) but also remove the need to raise an EMDS change whenever an update to the valid set is required. It will also allow end dates to be assigned against communication types which is a critical feature of the process implemented under this CP.

The intention of this CP is to implement the foundational process for which Communication Methods can be more centrally managed. However to minimise the impact to participants it is not intended to act as a vehicle for the data cleanse of the values themselves. This activity will take place following implementation of this CP and the corresponding REC CP. This will allow a quicker and more efficient review of the current communication types. One exclusion to this will be the end-dating of CSD and PSTN as communication methods. This is due to these services becoming redundant by the end of 2025.

Proposer's rationale

Metering communication systems are currently experiencing significant evolution, highlighting the urgent need for prompt and flexible updates. Legacy infrastructures, if left unchecked, become susceptible to inefficiencies and potential security threats. This proposal, mirroring the structure of BSCP601, aspires to embed a standardised pathway for the assimilation of contemporary technologies while orchestrating the phased retirement of outdated ones. The underlying justifications shaping this proposal encompass:

- To permit the central management of end-dating redundant communication techniques, synchronising with the stipulated timelines marking their transition into redundancy and unreliability.
- To widen the educational horizon, disseminating knowledge on the new-generation of communication technologies to the industry at large.
- To champion transparency, ensuring all industry stakeholders are in the loop about the latest communication technologies available and the sunset dates for retiring legacy communication systems.

Proposed redlining

The CP proposes to update BSCP601. The redlining to support this change can be found in Attachment B.

4. Impacts and Costs

BSC Party & Party Agent impacts and costs

This CP is considered to be a document only change and does not materially impact any BSC Party or Party Agent. There are also no anticipated impacts on any BSC systems.

BSC Party & Party Agent Impacts	
BSC Party/Party Agent	Impact
• Suppliers • SVA Meter Operator Agents • Data Collectors	Will have to use the new central approved list in order to install compliant communications methods.

Central impacts and costs

Central impacts

The proposed solution in this CP only affects BSC documentation. No BSC Central Systems or Agents will be impacted.

Central Impacts	
Document Impacts	System Impacts
BSCP601 'Metering Protocol Approval and Compliance Testing'[4]	None

Impact on BSC Settlement Risks

Impact on BSC Settlement Risks
This CP is anticipated to have a positive impact on reducing Settlement Risks, because it will mitigate any risk of meters not being able to communicate due to redundant communications methods.

Impact on Market-wide Half Hourly Settlement (MHHS)

Impact on MHHS
None

[4] https://bscdocs.elexon.co.uk/bsc-procedures/bscp601-metering-protocol-approval-and-compliance-testing-bscp-601

Central costs

The central implementation costs for this CP will be approximately less than £1K.

5. Implementation Approach

Recommended Implementation Date

This CP is recommended for implementation on 27 June 2024 as part of the standard June 2024 BSC Release.

6. Proposed Progression

Progression timetable

The table below outlines the proposed progression plan for this CP:

Progression Timetable	
Event	Date
CP Progression Paper presented to ISG for information	2 April 2024
CP Progression Paper presented to SVG for information	2 April 2024
CP Consultation (15 Working Days)	3 April 2024 – 24 April 2024
CP Assessment Report presented to ISG for decision	7 May 2024
CP Assessment Report presented to SVG for decision	7 May 2024
Proposed Implementation Date	27 June 2024 (June 2024 Release)

CP Consultation questions

We intend to ask the standard CP Consultation questions for this CP. We do not believe any additional questions need to be asked for this CP.

Standard CP Consultation Questions
Do you agree with the proposed solution?
Do you agree that the draft redlining delivers the proposed solution?
Will this CP impact your organisation?
Will your organisation incur any costs in implementing this CP?
Do you agree with the proposed implementation approach for this CP?

7. Recommendations

We invite you to:

- **NOTE** the proposed progression timetable for the CP; and
- **PROVIDE** any comments or additional questions for inclusion in the CP Consultation; and
- **NOTE** that this CP will be presented to:
    - the SVG on 2 April 2024; and
    - the ISG on 2 April 2024.