ELEXON

CP Consultation

CP1594 ‘Creating an Approval Process for Managing New and Legacy Communication Types in Metering Systems’

Contents

1.	Summary	2
2.	Why Change?	3
3.	Solution	4
4.	Impacts and Costs	6
5.	Implementation Approach	8
6.	Initial Committee Views	9

About This Document

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

The purpose of this Change Proposal (CP) Consultation is to invite BSC Parties, Party Agents and other interested parties to provide their views on the impacts and the merits of CP1594. The ISG and SVG will then consider the consultation responses before making a decision on whether or not to approve CP1594.

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 ISG and SVG’s initial views on the proposed changes.
- 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.
- Attachment D contains the specific questions on which we seek your views. Please use this form to provide your response to these questions, and to record any further views or comments you wish to be considered.

Committee

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

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

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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. CP1594 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

CP1594 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

CP1594 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

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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/

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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 CP1594.

The intention of CP1594 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 CP1594 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.

CP Consultation Question
Do you agree with the CP1594 proposed solution? *Please provide your rationale.*
We invite you to give your views using the response form in Attachment D

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Proposed redlining

CP1594 proposes to update BSCP601. The redlining to support this change can be found in Attachment B.

CP Consultation Question
Do you agree that the draft redlining delivers the CP1594 proposed solution? *If 'No', please provide your rationale.*
We invite you to give your views using the response form in Attachment D

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4. Impacts and Costs

BSC Party & Party Agent impacts and costs

CP1594 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 CP1594 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
CP1594 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

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Central costs

The central implementation costs for CP1594 will be approximately less than £1K.

CP Consultation Question
Will CP1594 impact your organisation? *If 'Yes', please provide a description of the impact(s) on your organisation and any activities which you will need to undertake between the approval of CP1594 and the CP1594 Implementation Date (including any necessary changes to your systems, documents and processes). Where applicable, please state which of the roles that you operate as will be impacted and any differences in the impacts between each role.*
Will your organisation incur any costs in implementing CP1594? *If 'Yes', please provide details of these costs, how they arise and whether they are one-off or on-going costs.*
We invite you to give your views using the response form in Attachment D

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5. Implementation Approach

Recommended Implementation Date

CP1594 is recommended for implementation on 27 June 2024 as part of the standard June 2024 BSC Release.

CP Consultation Question
Do you agree with the proposed implementation approach for CP1594? *Please provide your rationale.*
We invite you to give your views using the response form in Attachment D

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6. Initial Committee Views

ISG's initial views

At their meeting on 2 April 2024 (278/03[5]) The ISG was invited to note the progression of the CP and provide any comments or additional questions for inclusion in the CP Consultation.

The committee made no further comments and did not provide any additional consultation questions.

SVG's initial views

At their meeting on 2 April 2024 (278/01[6]) The SVG was invited to note the progression of the CP and provide any comments or additional questions for inclusion in the CP Consultation.

An SVG member questioned how the new communication types being introduced would be tested. Elexon clarified that no testing will be required. The process being established in BSCP601 is about central education as well as validation. It exists as a process to mimic the necessary admin involved in education and end-dating of metering communication types. The SVG member was satisfied with this response.

Another SVG member asked for clarity on the value CP1594 seeks to provide. Elexon responded by stating that the knowledge of these changes in metering communication types within the industry is varied. Elexon wishes to show Registrants and their agents which communication types are end dating and when, information which is currently not centrally managed. Additionally, this process will allow Registrants to know which new communication types are being introduced. Thereby, for example, giving them the knowledge of which communication's type they are able to replace their current, soon to be end-dated communications type. The SVG member was satisfied with this response.

The committee made no further comments and did not provide any additional consultation questions.

[5] https://www.elexon.co.uk/meeting/svg278/
[6] https://www.elexon.co.uk/meeting/isg276/

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