CP Assessment Report

CP1434 'Amend the three digit numeric Line Loss Factor Class (LLFC) Id to an alphanumeric LLFC Id'

Committee

Supplier Volume Allocation Group

Recommendation

Approve

Implementation Date

30 June 2016 (June 2016 Release)

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About This Document

This document is the Change Proposal (CP) Assessment Report for CP1434, which ELEXON will present to the Supplier Volume Allocation Group (SVG) at its meeting on 28 April 2015. The SVG will consider the proposed solution and the responses received to the CP Consultation before forming a view on the merits of CP1434. Due to the implementation costs exceeding the SVG's delegated authority, if the SVG wishes to approve CP1434 it will need to recommend its implementation to the Panel. The Panel would then make the final decision at its meeting on 14 May 2015.

There are three 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 SVG's initial views on the proposed changes and the views of respondents to the CP Consultation.
- Attachments A and B contain the proposed redlined changes to deliver the CP1434 solution.

  Attachment C contains the full responses received to the CP Consultation.

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1 Why Change?

Background

The Line Loss Factor Class (LLFC) ID is a three digit numeric code. Distribution System Operators (DSOs) use LLFCs to group particular customer types and voltage levels (low, high and extra-high) together for allocating Distribution Use of System (DUoS) charges. There are currently 999 LLFCs (excluding using "000") available to each DSO.

What is the issue?

Rapidly increasing extra-high voltage (EHV) generation customers has meant that the number of LLFCs available has been quickly reducing.

Scottish and Southern Energy Power Distribution (SSEPD) operates embedded networks in other Licensed DSO (LDSO) areas. It uses LLFCs to identify its different charges in each Grid Supply Point (GSP) Group. It operates in all 14 LDSO areas. It considers that 999 LLFCs is insufficient to cover all combinations of network connections across all voltage levels. It believes that over 2,200 LLFCs would be required, and so limits growth. Other LDSOs may also face similar issues as they can also operate in all LDSO areas, at all voltage levels. So would independent DSOs, also known as independent distribution network operators (IDNOs).

Many industry participants are currently developing a broad range of low carbon and smart grid innovations, including the smart metering roll out, which will potentially require significantly more LLFCs to identify additional charging and payment tariffs. The introduction of Third Party Access to unlicensed (private) distribution networks to offer customers competitive supply requires DSOs to facilitate provision of Metering Systems. This requires unique LLFCs to ring fence such networks for market trading.

The current limitation of available LLFCs therefore needs to be resolved. The risk of not resolving the LLFC issue means a temporary workaround solution will be needed until an enduring solution is in place. The Proposer believes that this will impose additional billing and administration costs on BSC Parties. If an enduring solution is not achieved, DSOs may have to seek long term workaround solutions, which will impose higher costs and inefficiencies as well as increase business risks. The probability of exceeding the 999 LLFCs in the near future is high with SSEPD likely to be the first.

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2 Solution

Proposed solution

SSEPD has raised CP1434 'Amend the three digit numeric Line Loss Factor Class (LLFC) ID to an alphanumeric LLFC ID'. It proposes to change the three digit numeric LLFC ID to a three character alphanumeric code excluding the use of 'O' and 'I' (to avoid potential confusion with 0 and 1). This will increase the number of LLFCs available to each DSO from 999 to 39304. The Proposer considers that all DSOs should retain the current LLFCs in use until they reach the limit of the numeric LLFC IDs. It suggests that DSO could then start with A00 once the numeric LLFC IDs are exhausted.

Proposer's views

The Proposer considers this is the most cost effective solution. They believe that minimal changes are required to BSC Systems and BSC Parties' billing and IT systems; however, our analysis indicates that this is not the case. Preliminary discussions they held with a number of Parties suggested that this solution is feasible.

The Proposer believes that it is necessary to extend the current limit of 999 LLFCs to allow all market participants to trade in the electricity market without restriction. The electricity supply, generation and distribution markets are rapidly developing to facilitate greater innovation and competition, increasing access to new entrants. DSOs operating in multiple GSP Groups should be able to offer a range of tariffs for networks connected at all voltage levels.

If a DSO connects at every possible voltage level combination, the number of LLFCs required to identify the applicable DUoS tariff would exceed the current limit of 999. If the growth in EHV generation customers continues as expected, DSOs will reach their LLFCs limit in the near future. SSEPD has advised that it currently has 160 LLFCs available. The limit on LLFCs has also prevented SSEPD potentially developing embedded networks at other voltage levels.

The Proposer asserts that LDSOs over the years have rationalised their LLFCs to the extent they can.

The Proposer notes that increasing the number of LLFCs available would promote competition in supply and distribution. The rollout of smart metering, smart grid and other innovative products will require significantly more LLFCs. Further, it anticipates that with increasing awareness of the availability of competitive supply choice in private networks, DSOs will require additional LLFCs.

Proposed redlining

Attachments A and B contain the proposed changes to BSC Procedure (BSCP) 509 Appendices 1 and 2 to deliver the CP1434 solution.

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3 Impacts and Costs

Central impacts and costs

Central impacts

CP1434 will require updates to BSCP509 Appendix 1: Changes to Market Domain Data and BSCP509 Appendix 2: MDD Change Request Entity Validation to implement the proposed solution. In addition, it will require changes to the Supplier Volume Allocation Agent (SVAA) system, Market Domain Data (MDD) database, Non Half Hourly Data Aggregator (NHHDA) database and the 'Pool Application' of the Performance Assurance Reporting and Monitoring System (PARMS).

Central Impacts	
Document Impacts	System Impacts
• BSCP509 Appendix 1 • BSCP509 Appendix 2	• SVAA system • MDD system • NHHDA • 'Pool Application' of PARMS

Central costs

The central implementation costs for CP1434 will be approximately £200,000, which include changes to:

- the MDD, SVAA and NHHDA systems;
- the 'Pool Application' of PARMS;
- ELEXON's internal systems; and
- BSCP509 Appendices 1 and 2.

The central implementation costs of CP1434 are above the SVG's delegated authority of £150,000 as set out in its Terms of Reference. This means that, if the SVG wishes to approve the CP, it will need to recommend its implementation to the Panel. The Panel would then make the final decision at its meeting on 14 May 2015. If the SVG wishes to reject the CP, then it can do so without referring the matter to the Panel (assuming that its decision is unanimous).

Changes will also be required to the Data Transfer Catalogue (DTC) to amend the J0147 'Line Loss Factor Class Id' data item, which is used in multiple data flows. ELEXON will raise the necessary DTC CP if CP1434 is approved.

BSC Party & Party Agent impacts and costs

Participant impacts

CP1434 will impact Suppliers and DSOs. This will include impacts on DSOs' and Suppliers' billing and registration systems to facilitate changes to the Meter Point Administration Number (MPAN) (but not the core 13-digit MPAN as this does not reference the LLFC), changes to validation systems and all associated documents and reporting requirements.

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Party Agents, including Supplier Meter Registration Agents (SMRAs) and Unmetered Supplier Operators (UMSOs) will be impacted due to the changes to the J0147 data item. These will require system changes and amendments to associated documents.

Participant Impacts	
Participant	Impact
Suppliers	System changes will be required to implement the solution, along with changes to associated documents.
DSOs	
DA	
DC	
MOA	
SMRA	
UMSO	

Participant costs

Only a few respondents provided indicative costs. However, it is clear that the number of systems impacted mean significant costs for participants. Even the Proposer agrees that there will be IT costs to ensure systems can send and accept alphanumeric LLFC IDs, which may increase if validation is required.

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4 Implementation Approach

Recommended Implementation Date

ELEXON recommends that CP1434 is implemented on **30 June 2016** as part of the June 2016 BSC Systems Release. The Proposer, who originally sought implementation on 1 April 2016 as a standalone release, supports this.

Rationale for amending the implementation approach

BSCP128 'Production, Submission, Audit and Approval of Line Loss Factors' requires DSOs to submit the D0265 'Line Loss Factor Data File' data flow by 30 September to set up annual LLFs. The D0265 data flow includes the J0147 data item. As a DTC CP to amend the J0147 data item will take approximately six months to progress, with an additional 30 Working Days for impact assessment, the DTC changes would not be in place in time for DSOs to submit the D0265 data flow, with the amended J0147 data item, on 30 September 2015. Therefore, the D0265 would not include the alphanumeric LLFC ID submissions for the beginning of the 2016/17 BSC Year.

A later Implementation Date of 30 June 2016 would give participants longer to implement and would align with the DTC and BSC Releases, which addresses some of the concerns raised by respondents. This would also allow DSOs to submit the LLFC IDs into MDD ahead of an April 2017 effective from date and would allow earlier mid-year Metering System specific LLFC IDs if needed. The Proposer supports the revised Implementation Date.

Participant views on the notification period for DUoS charges

A respondent noted that due to DCUSA CP (DCP) 178 'Notification Period for Change to Use of System Charges', which comes into effect in November 2015, LDSOs must give 15 months' and IDNOs 14 months' notice of charges. As such, they believe that it would be difficult to include the new LLFCs in the charging statement until that period has completed, therefore pushing any benefits to a much longer period. ELEXON understands that DSOs will publish the final tariffs for April 2016 three months in advance rather than the currently required 40 days (that is, the final tariffs will be published in December 2015 rather than February 2016). This would mean that DSOs would publish the April 2016 and April 2017 final tariffs in December 2015. We also understand that DSOs would publish the tariffs applicable in the charging statement without specifying the LLFC ID. Under this process, DSOs can add a footnote on the availability of the LLFC ID for trading. Some DSOs have already done this for April 2015 under DCP179 'Amending the CDCM Tariff Structure'. As such, we do not see any issues with the notification period for DUoS charges and CP1434.

5 Initial Committee Views

SVG's initial views

We presented CP1434 to the SVG at its meeting on 3 March 2015 (SVG169/06). The SVG had no initial comments on this change.

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6 Industry Views

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

Summary of CP1434 CP Consultation Responses[1]				
Question	Yes	No	Neutral/ No Comment	Other
Do you agree with the CP1434 proposed solution?	12	5	0	1
Do you agree that the draft redlining delivers the intent of CP1434?	12	4	1	0
Will CP1434 impact your organisation?	17	0	0	0
Will your organisation incur any costs in implementing CP1434?	17	0	0	0
Do you agree with the proposed implementation approach for CP1434?	9	8	0	1
Do you have any further comments on CP1434?	2	15	0	0

Views on the proposal

A DSO respondent suggested that a full impact assessment across all parties is needed. We note that the CP Consultation is issued to all Parties and Party Agents, with a key part of its purpose being to impact assess the proposed solution. We have received a significant number of responses from a range of impacted roles, and so we do not see the need for further consultation.

The respondent also suggested that there should be a review of the existing DUoS tariffs, with a view to rationalising them before undertaking changes to increase the number even further. Before raising this, the Proposer advised ELEXON that DSOs have already carried out rationalisation and that the significant number of enquiries into Third Party Access will require a substantial number of new LLFC IDs and is the driver for this change.

The Proposer and an IDNO noted that the solution is required to ensure that they can grow their businesses. They both also highlighted benefits to competition and enabling the introduction of innovative products.

A Supplier suggested that other options than amending LLFC ID format should be looked at, which could include an assessment of whether site specific LLFCs are required, changing the charging methodology or even changing DSO systems.

[1] One response included views from the Supply business and Distribution business, with opposing views on the proposed solution and implementation approach.

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Potential alternative solution

Three respondents noted that a potential alternative solution, where the LLFC ID is extended to a four or five digit integer, would incur reduced or no costs for them compared with the proposed solution. Those that said there would be no cost for them have systems that already allow for this. Those that said that the alternative solution would be less costly for them report that the change is still significant.

ELEXON previously assessed both the proposed solution and the option to extend the numeric integer for the Distribution Charging Methodologies Forum (DCMF) Methodologies Issue Group (MIG) in 2012. The conclusions were that extending the numeric integer would be significantly more costly than amending to an alphanumeric solution in terms of central system impacts, as existing LLFC IDs would need a leading '0' to be introduced. It was for this reason that the Proposer has raised CP1434 using the alphanumeric solution.

View on format

One respondent asked for clarification on what currently happens with LLFC IDs that don't use the full three digits (LLFCs 1-99). Related to this, another respondent asked for clarification on whether CP1434 is mandating upper case characters only. The Data Transfer Service (DTS) Handbook[2], which includes guidelines for what characters are available, allows for spaces and both lowercase and uppercase characters. Spaces and lowercase are appropriate for things like addresses. However, we believe that it is not appropriate to have LLFC IDs with spaces or lowercase characters as this could cause confusion and have therefore clarified the redlined text accordingly.

Comments on the proposed redlining

We received three specific comments on the proposed redlined changes to BSCP509 Appendix 1, which were all clarifications to the text. We have included these amendments in the draft redlining in Attachment A. There were no comments on BSCP509 Appendix 2.

Comments on the CP1434 Proposed Redlining		
Document & Location	Comment	ELEXON's Response
MDD entity Id 63, valid MTC/LLFC/SSC/PC	Line Loss Factor Class Id is still referenced as Integer (3), this should be Character (3).	Amended.

[2] Under the User File Design Specification, Rule 14 of the handbook states that:

> "CHAR(n) is a set of characters of length 'n'. Any characters supported by the EDIFACT Level B character set, which is a sub-set of ISO 646, may be used (the complete list in Appendix B). In addition, the underscore character '_' (not part of the EDIFACT Level B character set) may be used. If the length of the character string to be encoded is less than 'n', characters shall be left justified. If the fixed format variant of the User File Format is used, the remainder of the character string shall be padded with spaces. If the variable length format variant is used, the character string may be terminated prematurely by the data item delimiter '|'. When delivering a variable file format or Pool Transfer File format file, the MDNS will ensure that trailing spaces are removed from each CHAR data item."

The EDIFACT Level B character set allows upper and lower case characters. This is to be expected as CHAR fields are also used for things like names and addresses as well as alphanumeric codes.

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Comments on the CP1434 Proposed Redlining		
Document & Location	Comment	ELEXON's Response
MDD Entity Id 17 Line Loss Factor Class Id (page 15)	The data type/length description should say "3 alphanumeric characters". The valid values for this in brackets in the red line draft of "(0-999)" have been replaced with a valid data set of "(3)" which should be removed.	Amended.
MDD Entity Id 17 Examples (page 15)	The second example needs to be changed. It shows an LLFC Id of "0". A three character alpha numeric code would now be appropriate in this example.	Amended.

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7 Recommendations

We invite you to:

- **AGREE** the amendments to the proposed redlining for BSCP509 Appendix 1 for CP1434 made following the CP Consultation;
- **RECOMMEND** to the Panel the proposed changes to BSCP509 Appendix 1 and BSCP509 Appendix 2 for CP1434;
- **RECOMMEND** to the Panel that CP1434 should be approved for implementation on 30 June 2016 as part of the June 2016 Release; and
- **NOTE** that, if you recommend CP1434 for approval, we will present it to the Panel for decision at its meeting on 14 May 2015.

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Appendix 1: Glossary & References

Acronyms

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

Acronyms	
Acronym	Definition
BSC	Balancing and Settlement Code *(industry Code)*
BSCP	Balancing and Settlement Code Procedure *(Code Subsidiary Document)*
CP	Change Proposal
CPC	CP Consultation
DA	Data Aggregator *(Party Agent)*
DC	Data Collector *(Party Agent)*
DCMF	Distribution Charging Methodologies Forum (*industry forum)*
DCMF MIG	Distribution Charging Methodologies Forum Methodologies Issue Group (*industry issue group)*
DTC	Data Transfer Catalogue
DTS	Data Transfer Service
DUoS	Distribution Use of System
EHV	extra-high voltage
GSP	Group Supply Point
HH	Half Hourly
HHDA	Half Hourly Data Aggregator *(Party Agent)*
HHDC	Half Hourly Data Collector *(Party Agent)*
HHMOA	Half Hourly Meter Operator Agent *(Party Agent)*
IDNO	independent Distribution Systems Operator/ independent distribution network operator
LDSO	Licenced Distribution Systems Operator
LLFC	Line Loss Factor Class
MDD	Market Domain Data
MOA	Meter Operator Agent *(Party Agent)*
MPAN	Meter Point Administration Number
NHH	Non Half Hourly
NHHDA	Non Half Hourly Data Aggregator *(BSC System)*
PARMS	Performance Assurance Reporting and Monitoring System
SSEPD	Scottish and Southern Energy Power Distribution
SVA	Supplier Volume Allocation
SVAA	Supplier Volume Allocation Agent *(BSC System)*

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Acronyms	
Acronym	Definition
SVG	Supplier Volume Allocation Group *(Panel Committee)*

DTC data flows and data items

DTC data flows and data items referenced in this document are listed in the table below.

DTC Data Flows and Data Items	
Number	Name
D0265	Line Loss Factor Data File
J0147	Line Loss Factor Class Id

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
3	CP1434 page on the ELEXON website	https://www.elexon.co.uk/change-proposal/CP1434/
4, 6	BSCPs page on the ELEXON website	https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/
6	ElectraLink website	http://www.electralink.co.uk/services/governance-services/dcusa
6	SVG169 page on the ELEXON website	https://www.elexon.co.uk/meeting/svg-169/
8	Distribution Charging Working Groups page on Electricity Networks Association website	http://www.energynetworks.org/electricity/regulation/distribution-charging/distribution-charging-working-groups.html
8	United Nations Directories for Electronic Data Interchange for Administration, Commerce and Transport	http://www.unece.org/trade/untdid/texts/d422_d.htm#p5.1

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