Request for Information

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

Contact

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This consultation closes at **5pm** on **Friday 29 May 2015**

The Supplier Volume Allocation Group (SVG) may not be able to consider late responses.

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About This Document

This document is a Request for Information (RFI) from the SVG for further information on the impacts of CP1434 and two potential alternative solutions and on additional questions posed by SVG Members. The SVG will consider the responses to this RFI at its meeting on 2 June 2015 before making a decision on whether or not CP1434 should be approved.

There are two parts to this document:

- This is the main document. It provides a summary of the issue, the solution options that have been raised and the discussions to date on this issue.
- Attachment A 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.

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1 Background

What is a Line Loss Factor Class?

A Line Loss Factor Class (LLFC) Identifier (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 '000') available to each DSO.

For DSOs that operate in more than one Grid Supply Point (GSP) Groups, different LLFCs are also needed to identify its different charges in each area. Should a DSO operate in all 14 GSP Groups, 999 LLFCs (an average of 71 per area) may be insufficient to cover all combinations of network connections across all voltage levels.

Rapidly increasing extra-high voltage (EHV) generation customers, which are usually registered specific Line Loss Factors (LLFs) through a site-specific LLFC, has meant that the number of available LLFCs has been quickly reducing for some DSOs.

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. This may 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.

What discussions have been held previously?

Two potential solutions to the issue were assessed by the Distribution Charging Methodologies Forum (DCMF) Methodologies Issue Group (MIG) in 2012. These two solutions were:

- **Integer solution:** Expand the number of digits in the LLFC ID to four or five, thereby increasing the total number of LLFCs per DSO to 9,999 or 99,999 respectively.
- **Alphanumeric solution:** Amend the LLFC ID to be a three digit alphanumeric ID (consisting of combinations of the digits 0-9 and the capital letters A-Z excluding I and O), thereby increasing the total number of LLFCs per DSO to 39,304.

The assessment concluded that the costs of the central system changes for the integer solution would be significantly more than for the alphanumeric solution. However, neither solution was progressed further at that time.

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What does CP1434 propose to do?

Scottish and Southern Energy Power Distribution (SSEPD) raised CP1434 'Amend the three digit numeric Line Loss Factor Class (LLFC) ID to an alphanumeric LLFC ID' in February 2015, proposing to implement the alphanumeric solution put forward in 2012. 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 developing rapidly to facilitate greater innovation and competition, increasing access to new entrants.

When would changes need to be made by?

BSC Procedure (BSCP) 128 'Production, Submission, Audit and Approval of Line Loss Factors' requires DSOs to undertake an audit of their LLFCs for a given BSC Year, which commence on 1 April, prior to that year starting. The LLF Audit commences six months prior to the year starting, with DSOs' initial submissions needing to be with ELEXON by 30 September.

In order for an LLFC to be included in the LLF Audit, it must be registered in Market Domain Data (MDD) when the DSO sends its initial submissions to ELEXON on 30 September. Therefore, any changes to the LLFC ID structure must be in effect sufficiently in advance of this date to allow any new LLFCs to then be registered in MDD in time. In practice, this means that for any changes to the structure of LLFC IDs to be effective for a given BSC Year, they would need to be implemented no later than the June BSC Systems Release of the preceding BSC Year.

At this stage the earliest such Release that can be targeted is the June 2016 BSC Systems Release, with the new LLFCs being available to use from 1 April 2017. Whether a change can be implemented in this Release will depend on the necessary implementation lead time for that change and the point at which it is approved. The lead time for each specific solution is covered in more detail in Section 3.

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2 Views and Discussions on CP1434

This section summarises the views and discussions to date on CP1434 and lists the questions that the SVG seeks information on from respondents to this RFI.

The details of each of the three solution options discussed can be found in Section 3.

CP Consultation respondents' views

17 responses were received to the CP1434 Change Proposal (CP) Consultation issued in March 2015, and the full responses can be found on the CP1434 page of our website.

Of the 17 respondents, 12 were in agreement that the alphanumeric solution proposed by CP1434 (Option A) should be progressed. One respondent highlighted that the limit on the number of LLFCs only limits Parties from implementing innovative solutions that would require more LLFCs, prevent Parties from growing and impacts DSOs' ability to operate in the market. Other respondents, though not directly impacted by the issue, recognised the need to implement a solution and so were supportive of CP1434.

The five respondents who disagreed with CP1434 did all agree that something needed to be done. However, they noted the high costs associated with CP1434 and believed further solution development and assessment was needed. Three respondents noted the option to expand the number of digits (Option B), with one believing this to be the logical solution and noted that their systems were already set up to accommodate this, and the other two believing this solution needed to be examined further in case costs would be lower.

SVG's views

The SVG considered CP1434 and the responses received to the CP Consultation at its meeting on 28 April 2015 (SVG171/05).

The SVG noted the views of some respondents to the CP Consultation that alternative options to CP1434 had not been sufficiently considered, and felt more assessment was needed. In particular, respondents had flagged the option to expand the number of digits in the LLFC ID to a four or five digit integer form (Option B), with one respondent noting this would be cheaper for them to implement. SVG Members highlighted the high implementation cost associated with CP1434, and felt that more work was needed to confirm if this was the most cost-effective solution. It was at this point that one Member raised the further solution option of allowing DSOs to register multiple Market Participant Identifiers (MPIDs) (Option C).

However, one SVG Member commented that the Proposer of CP1434 was the only organisation to have taken any solution to this issue forward. They felt that the Proposer had put forward clear rationale as to why DSOs need a solution, and that doing nothing was not an option.

The SVG noted that DSOs have been working to rationalise and re-use redundant LLFCs. However, one Member considered that DSOs could put in place pragmatic contingency workarounds to mitigate any risk in the short-term while the industry discussed the best long-term solution. For example, DSOs could allocate the same Metering System Specific LLFC to multiple Metering Systems, allocating them an LLFC that was 'about right'. Other Members highlighted that new sites are initially allocated a 'generic' LLFC until sufficient

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information can be gained to calculate suitable site-specific LLFCs, and observed that many Metering System specific LLFCs currently appear to use generic values.

Some Members were not convinced of the case for change or by the view that doing nothing was not an option. They commented that they had insufficient understanding of the risks posed by the issue, the consequences of DSOs running out of LLFCs and the timescales in which a solution needed to be put in place. They felt that this had not been sufficiently articulated under CP1434 for them to be able to make a decision.

The SVG concluded that it needed further information on the following areas before it could make a decision on whether CP1434 should be approved:

- When will DSOs run out of LLFCs under the existing limit of 999 LLFCs per DSO?
- Why would DSOs run out of LLFCs?
- What would be the consequences of DSOs running out of LLFCs and could these impacts be mitigated in the short-term?
- Which of the solutions outlined in Section 3 would be the most cost-effective way to address this issue?

SVG Members believed it would be beneficial to establish a CP Workgroup to examine the potential alternative solutions and its questions further, accepting that this approach would rule out the possibility of implementing CP1434 in the June 2016 Release.

BSC Panel's views

The BSC Panel considered CP1434, the responses received to the CP Consultation and the SVG's conclusions at its meeting on 14 May 2015 (Panel 239/08).

The Panel noted a separate three Working Day RFI that had been issued to DSOs between the SVG meeting and the Panel meeting. This RFI had sought further information on the questions posed by the SVG to assist the Panel in making its decision on CP1434. The information from this RFI was collected on the basis that it would be seen only by the SVG and the Panel. Panel Members felt that the information that had been obtained from this was very useful and went a long way to answering the SVG's questions.

The Panel concluded that it would be more pragmatic to issue a public RFI to a wider audience for a longer duration, to seek further information on the SVG's questions and on additional information on the potential alternative solutions. The SVG would then consider these responses at its next meeting. This would allow an informed decision to be made on CP1434 before it became too late to implement it in the June 2016 Release should it be approved.

Next steps

The lead time for the CP1434 solution is approximately 12 months, and so for this to be included in the June 2016 Release, so that DSOs can use the expanded set of LLFCs from 1 April 2017, a decision needs to be made by the end of June 2015.

This RFI has been issued to seek answers to the questions posed by the SVG. These responses will be presented to the SVG at its meeting on 2 June 2015, where the SVG will make a decision on whether or not to approve CP1434. Should the SVG be unable to make a unanimous decision or, due to the central implementation costs for CP1434, should the

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SVG elect to approve CP1434, the BSC Panel would then make the final decision at its meeting on 11 June 2015.

Request for Information Questions (DSO respondents only)
When do you expect to run out of LLFCs under the existing limit? *Please provide the approximate date you believe you will run out of LLFCs and your rationale for this.*
Why would you run out of LLFCs? *Please provide your rationale.*
What will be the consequences of you running out of LLFCs? *Please provide your rationale.*
Could you mitigate the impact of running out of LLFCs in the short-term? *Please provide your rationale.*
We invite you to give your views using the response form in Attachment A

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3 Potential Solutions

During the progression of CP1434, two further solutions were identified that could form alternatives to the proposed alphanumeric solution. The impacts, costs and lead time of each of the three proposed options to resolving this issue are assessed in this section.

Information is sought from respondents to this RFI on these areas at a high level, to assist the SVG in making a decision on whether the CP1434 proposed solution is the most cost-reflective solution to the issue. If it is felt that one of the alternative options should be progressed instead, a new CP would be raised and a detailed impact assessment sought as part of its subsequent CP Consultation.

Option A: Alphanumeric LLFCs (CP1434 proposed solution)

This solution option would amend the LLFC ID to be a three digit alphanumeric ID (consisting of combinations of the digits 0-9 and the capital letters A-Z excluding I and O), thereby increasing the total number of LLFCs per DSO to 39,304.

Central impacts and costs

This option will require updates to the Supplier Volume Allocation Agent (SVAA) system, MDD database, Non Half Hourly Data Aggregator (NHHDA) database and the 'Pool Application' of the Performance Assurance Reporting and Monitoring System (PARMS) as well as document update. The total implementation cost would be approximately £200k.

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

Changes will also be required to the Data Transfer Catalogue (DTC) to amend the J0147 'Line Loss Factor Class Id' data item, which is currently used in 15 DTC data flows. ELEXON would raise the necessary DTC CP if this option was approved.

Participant impacts and costs

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.

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.

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Only a few respondents to the CP1434 CP Consultation provided indicative costs, which ranged up to £100k, but it was clear that the number of systems impacted would mean significant costs for participants.

Participant Impacts	
Participant	Impact
Suppliers	System changes will be required to implement the solution, along with changes to associated documents.
Distribution System Operators	
Data Aggregators	
Data Collectors	
Meter Operator Agents	
Supplier Meter Registration Agents	
Unmetered Supplier Operators	

Lead times

The lead time for the central system changes is approximately seven months.

The DTC change to the J0147 data item will require 30 Working Days for impact assessment and approximately six months to implement, equating to about eight months in total.

Participants who responded to the CP1434 CP Consultation indicated a range of lead times up to around 12 months for them to implement their system changes.

Option B: Longer integer LLFCs

Under this solution option, the LLFC ID would be extended to be a five-digit integer, thereby increasing the total number of LLFCs per DSO to 99,999.

Central impacts and costs

The central impacts and costs of this solution have not been assessed, though it is expected that the same documents and systems will be impacted as under Option A. ELEXON is seeking this information in parallel with this RFI, and the results will be presented to the SVG when it considers the responses to this RFI.

As under Option A, changes will also be required to the DTC to amend the J0147 data item, which is currently used in 15 DTC data flows. ELEXON would raise the necessary DTC CP if this option was approved.

Participant impacts and costs

No participant information has been sought previously on this option, though it is anticipated this will be similar to that of Option A. We seek this information through this RFI.

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One respondent to the CP1434 CP Consultation had noted that costs for them would be minimal as their systems are already set up to accommodate longer integer values. This would likely be the same for any other organisation whose systems have been set up in a similar fashion.

Lead times

The lead time for the central system changes is being assessed in parallel with this RFI, but is expected to be similar to those under Option A. The results will be presented to the SVG when it considers the responses to this RFI.

No participant information has been sought previously on this option, though it is anticipated this will be similar to that of Option A. We seek this information through this RFI.

Option C: Multiple Market Participant Identifiers

This solution option would allow a DSO to register a second MPID when it runs out of LLFCs under its original MPID, thereby gaining a further set of 999 LLFCs. This would be similar to a Supplier registering multiple MPIDs. The DSO could repeat this as and when it runs out of LLFCs under the MPIDs it has already registered. There are a total of 456,976 MPIDs available, of which only 614 have been taken to date.

This option would have no impacts on the LLFC ID, which would remain unchanged as a three-digit integer, giving DSOs 999 LLFCs per MPID registered.

Central impacts and costs

The central impacts and costs of this solution have not been assessed. ELEXON is seeking this information in parallel with this RFI, and the results will be presented to the SVG when it considers the responses to this RFI.

Participant impacts and costs

No participant information has been sought previously on this option, and we seek this information through this RFI.

Potential consequential impact on the Distributor Short Code

While this option would not impact the format of the LLFC ID, it may have consequential impacts on the Distributor Short Code (DTC data item J1310 'Distributor Business Id') and how this is used. Under the DTC the J1310 data item is only used in the D0269 'Market Domain Data Complete Set' and D0270 'Market Domain Data Incremental Set' data flows as an optional data item, and this code has no use under the BSC. However, unlike the LLFC ID, this code is referenced in the core 13-digit MPAN and so may impact participants' systems. This will be dependent on whether participant systems can allocate more than one MPID to a particular Short Code.

If it is possible for all relevant participants' systems to allocate multiple MPIDs to a single Short Code then no changes to the DTC data item itself will be needed, but this may cause

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issues elsewhere where multiple instances of the same LLFC ID via different MPIDs are mapped to the same Short Code with no reference to which MPID the LLFC originated from[1].

If it is not possible for all relevant participants' systems to allocate multiple MPIDs to a single Short Code then it is likely that the 100 available Short Codes would run out in time if enough DSOs were to register enough additional MPIDs, each with a unique Short Code. This may mean a change to this data item's format is required at a later date, such as more digits and/or inclusion of alphabetical characters.

Information from affected participants on this potential impact is sought as part of this RFI.

Lead times

The lead time for the central system changes is being assessed in parallel with this RFI and will be presented to the SVG when it considers the responses to this RFI.

No participant information has been sought previously on this option, and we seek this information through this RFI.

Request for Information Questions
What impacts would each solution option have on your organisation and what activities would you need to undertake in order to implement that option? *Please provide a description of the impact(s) on your organisation and any activities which you will need to undertake between the approval of each option and the Implementation Date (including any necessary changes to your systems, documents and processes), stating clearly any differences between each option. Where applicable, please state which of the roles that you operate as will be impacted and any differences in the impacts between each role.*
What implementation costs would your organisation incur in implementing each of the solution options? *Please provide details of these costs for each option, how they arise and whether they are one-off or on-going costs, stating clearly any differences between each option.*
How long from the point of approval would you need to implement each solution option? *Please provide a description of why you would need this length of time for each option with reference to the impacts and activities you identified previously, stating clearly any differences between each option.*
Which of the three solution options do you believe would be the most cost-effective way to address the issue? *Please state your chosen solution option and your rationale for this.*
We invite you to give your views using the response form in Attachment A

[1] For example: A DSO registers two MPIDs 'ABCD' and 'BCDE' and maps both to the Short Code '01'. It then registers LLFC ID '123' under each MPID. For any databases that use only the Short Code and the LLFC ID, it may not be possible to ascertain which LLFC 123 is being referred to and hence which LLF values to use. This may also create duplicate LLFC/Short Code combinations in the relevant databases.

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Appendix 1: Glossary & References

Acronyms

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

Acronyms	
Acronym	Definition
BSCP	Balancing and Settlement Code Procedure *(Code Subsidiary Document)*
CP	Change Proposal
DCMF	Distribution Charging Methodologies Forum
DSO	Distribution System Operator *(BSC Party)*
DTC	Data Transfer Catalogue
DUoS	Distribution Use of System *(charge)*
EHV	Extra-high voltage
GSP	Grid Supply Point
ID	Identifier
LLF	Line Loss Factor *(value)*
LLFC	Line Loss Factor Class
MDD	Market Domain Data *(database)*
MIG	Methodologies Issue Group
MPAN	Meter Point Administration Number
MPID	Market Participant Identifier
NHHDA	Non Half Hourly Data Aggregator *(Party Agent)*
PARMS	Performance Assurance Reporting and Monitoring System
RFI	Request for Information
SMRA	Supplier Meter Registration Agent *(Party Agent)*
SVAA	Supplier Volume Allocation Agent *(BSC Agent)*
SVG	Supplier Volume Allocation Group *(Panel Committee)*
UMSO	Unmetered Supplier Operator *(Party Agent)*

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
D0269	Market Domain Data Complete Set
D0270	Market Domain Data Incremental Set
J0147	Line Loss Factor Class Id
J1310	Distributor Business Id

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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	Distribution Charging Working Groups page on the Energy Networks Association website	http://www.energynetworks.org/electricity/regulation/distribution-charging/distribution-charging-working-groups.html
3, 4	CP1434 page on the ELEXON website	https://www.elexon.co.uk/change-proposal/cp1434/
3	BSCPs page on the ELEXON website	https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/
4	SVG171 page on the ELEXON website	https://www.elexon.co.uk/meeting/svg-171/
5	Panel 239 page on the ELEXON website	https://www.elexon.co.uk/meeting/bsc-panel-238/

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