

This document is classified as **White** in accordance with the Panel Information Policy. Information can be shared with the public, and any members may publish the information, subject to copyright.



MP178

‘Removing DSP validation against the SMI join status for SR8.8.x’

Modification Report

Version 1.0

17 May 2023

Corporate member of
Plain English Campaign
Committed to clearer
communication

592



Managed by



About this document

This document is a Modification Report. It sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions, views and conclusions.

Contents

1. Summary.....	3
2. Issue.....	3
3. Solution	5
4. Impacts	6
5. Costs	8
6. Implementation approach	9
7. Assessment of the proposal	9
8. Case for change.....	12
Appendix 1: Progression timetable	14
Appendix 2: Glossary	15

This document also has six annexes:

- **Annex A** contains the full responses received to the request for information (RFI).
- **Annex B** contains the business requirements for the solution.
- **Annex C** contains the full Data Communications Company (DCC) Impact Assessment response.
- **Annex D** contains the process flow diagrams relating to this modification.
- **Annex E** contains the full responses received to the Refinement Consultation.
- **Annex F** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.

Contact

If you have any questions on this modification, please contact:

Elizabeth Woods

020 4566 8335

elizabeth.woods@gemserv.com

1. Summary

This proposal has been raised by David Walsh from the DCC.

Installation and Commissioning (I&C) of Smart Metering Systems (SMS) or exchange of Devices within a SMS are failing due to on-site installers being unable to 'unjoin' Devices.

There are occasions when the initial join is unsuccessful or there was an issue with the Devices being joined, and therefore the engineer will need to unjoin the Devices before attempting to re-join them again. Alternatively, when a Device is being exchanged it needs to be un-joined before the new Device can be joined.

The unjoin request currently requires validation of the initial join. However, where the join has not been processed properly, the unjoin command will fail. When this occurs the only way to complete the I&C process for that specific Device is a manual update of the Smart Metering Inventory (SMI) database. This is completed by the DCC at a cost of £2,000 per update, and this cost is then socialised across SEC Parties in Fixed Charges. There are known instances where Parties replace the Device if the unjoin command fails, or the Device is left stranded.

The Proposed Solution will remove the Data Service Provider (DSP) validation of Join status in the SMI when sending an Unjoin Service Request. This will allow the processing of unjoin commands irrespective of the join status held in the SMI.

This modification will impact Suppliers, Other SEC Parties and the DCC. The DCC cost to implement is £40,404. This modification is targeted for the June 2024 SEC Release and is being progressed as a Self-Governance Modification.

2. Issue

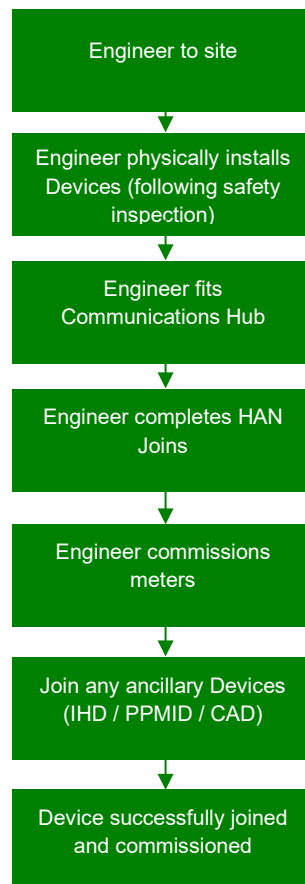
What are the current arrangements?

During the I&C process, an engineer is on site and installs the Devices. Communications Hub Commissioning of the meter is done by the Service User sending a series of Join Commands (Service Reference Variants (SRV) 8.7.x) to connect the meter(s) and any other Devices to the Communications Hub, thereby completing the I&C process.

There are occasions when the initial join is unsuccessful or there was an issue with the Devices being joined, and therefore the engineer will need to unjoin the Devices before attempting to re-join again. Alternatively, when a Device is being exchanged it needs to be un-joined before the new Device can be joined.

An issue has been raised whereby the on-site Device I&C process fails because the DSP does not receive successful messages for SRVs 8.7.x. Because the validation on the SRV 8.8.1 'Unjoin Service (Critical)' or 8.8.2 'Unjoin Service (Non-Critical)' commands check that a Device is joined to the SMI, if this has not completed properly the Service User cannot send an Unjoin command. This results in Devices failing the I&C process. The current 'work-around' is to manually update the SMI database.

The flow diagram below sets out the current step-by-step procedure of the on-site Device I&C process:



What is the issue?

It has been reported by Suppliers that the on-site I&C process for Devices can fail where the DSP does not receive successful messages for joins of SRVs 8.7.x. For example, there may be problems joining a Consumer Access Device (CAD) to Electricity Smart Metering Equipment (ESME).

When this occurs, currently, the only way to complete the I&C process is a manual update of the SMI database, which is completed by the DCC. This is because:

- it is not possible to continue the I&C process by retrying the Join; and/or
- there have been instances where the Device will reject the retry of the Join command (SR8.7.x) if a previous Join was already successfully completed.

Between August 2020 and July 2022 there have been five cases (across different Suppliers) where the response to the SRV 8.7.2 'Join Service (Non-Critical)' is not received by the DSP despite the join working within the ESME. Hence, the Service User is unable to send an Unjoin command as the DSP validation on the SRV 8.8.1 'Unjoin Service (Critical)' or 8.8.2 'Unjoin Service (Non-Critical)' commands check that only Devices joined in the SMI may be un-joined. Although there are only five instances of Users requesting the manual correction by the DCC, Users have noted there are more instances of the issue occurring where manual correction was not requested.

There are instances where if the Service User sends SRV 8.7.2 again to the ESME then this will pass through the DSP, but it is then rejected at the ESME as it is already joined.

Managed by

SEC Schedule 8 'GB Companion Specification' (GBCS) mandates that Devices should accept a re-send of the Service Request (SR) 8.7.x 'Join Service' command, even if the Device is already joined (for example, it is already in the Device Log).

The DSP currently updates the SMI and sets up the join relationship depending on the response to the Join command. As part of the Unjoin command, SRV 8.8.2 validates the SMI join relationship. For example, the system only allows the Unjoin command (SR 8.8.x) if Devices are already joined to each other, otherwise the DSP will reject the Service Request with the following error code:

DCC User Interface Specification Response Codes	
Response Code	Response Code Description
E080801	According to the DCC Systems Smart Metering Inventory the 'Other Device' is not joined to the Business TargetID Device

It should be noted that there are no Smart Metering Technical Specifications (SMETS), GBCS, Security or any other SEC requirement mandating that the DSP must apply such validation other than the detail in the DCC User Interface Specification (DUIS).

What is the impact this is having?

If the issue is not addressed, there will be:

- Further I&C failures; and
- an ongoing cost to manually correct the SMI database to allow Users to reuse any Devices.

Each manual database correction is charged to the DCC at an average of £2,000, which is socialised within Fixed Charges.

Up to July 2022 there have been five known instances, and further incidents are expected. DCC Users have noted there are more instances of the issue occurring where manual correction was not requested, due to cost and extensive length of time required to fix the issue, therefore most DCC Users replace the Device.

Impact on consumers

If the issue is left unresolved, more Devices will not have been commissioned and will therefore not be providing smart functionality and benefits of smart features to consumers.

3. Solution

The Proposed Solution will remove the DSP validation of Join status in the SMI when sending an Unjoin Service Request. This will allow the successful processing of unjoin commands irrespective of the join status held in the SMI. This solution would prevent the Response Code E080801 from being created in association with an unjoin command.

The validation of SRV8.8.1 Unjoin Service (Critical) and SRV8.8.2 Unjoin Service (Non-Critical) in DCC's system will be modified to remove the check that the Device from the SRV is flagged in the SMI as being joined to the target Device of the SRV. Any other validation will remain unchanged.

The change will apply to SMETS1 and SMETS2 Devices, and to all existing DUIS versions which are operation today.

The full redlined changes to the SEC required to deliver the Proposed Solution are in Annex F.

4. Impacts

This section summarises the impacts that would arise from the implementation of this modification.

SEC Parties

SEC Party Categories impacted			
✓	Large Suppliers	✓	Small Suppliers
	Electricity Network Operators		Gas Network Operators
✓	Other SEC Parties	✓	DCC

Breakdown of Other SEC Party types impacted			
✓	Shared Resource Providers	✓	Meter Installers
	Device Manufacturers		Flexibility Providers

Only Suppliers and Other Users can send SRVs 8.8.1 and 8.8.2. Based on the Refinement Consultation responses; one Supplier noted they would be directly impacted; however another Supplier stated that as it is a DSP only change and no adaptor upgrade is needed, they will not be impacted. The Smart Energy Code Administrator and Secretariat (SECAS) believes this modification will impact any Party that sends these Commands as they will not encounter failures due to the join status of the Device, thereby reducing the failures and follow up actions that may be required.

Shared Resource Providers (SRPs) and Meter Installers work on behalf of Suppliers to install and send SRVs during the I&C process, therefore this modification will reduce I&C failures and reduce time on site.

The DCC will need to make system and internal process changes.

DCC System

Security Impact

This change impacts on the conduct of DCC Access Control Broker (ACB) validation checks, de-activating a current check. It does not impact the security posture of the service or its infrastructure, but, as with any change to security related code, its implementation will be security assured by the DCC throughout.

Technical Specifications

The DCC Impact Assessment confirmed that the changes will apply to both SMETS1 and SMETS2 Devices and to all existing versions of DUIS which are in operation today. The removal of this validation check will require a change to the documentation, but the related error code will remain in the DUIS schema. Therefore, this change on its own does not require a DUIS schema uplift. A change will be made to update Annex 8 of DCC User Gateway Interface Design Specification (DUGIDS) to remove the validation check associated with Response Code E080801 from SRVs 8.8.1 and 8.8.2. No updates to the DUIS schema will be made as a result of this documentation change.

The full impacts on DCC Systems and DCC's proposed testing approach can be found in the DCC Impact Assessment response in Annex C.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Appendix AD 'DCC User Interface Specification' (DUIS)

The changes to the SEC required to deliver the Proposed Solution can be found in Annex F.

Technical specification versions

This modification will impact DUIS.

Other documentation

This modification will impact DUGIDS. The Business Architecture Document (BAD) and Business Architecture Model (BAM) will need to be updated following SECAS articulating the as-is and to-be processes in Annex D.

Devices

Devices impacted			
✓	Electricity Smart Metering Equipment	✓	Gas Smart Metering Equipment
	Communications Hubs	✓	Gas Proxy Functions
✓	In-Home Displays	✓	Prepayment Meter Interface Devices
	Standalone Auxiliary Proportional Controllers	✓	Home Area Network Connected Auxiliary Load Control Switches
✓	Consumer Access Devices	✓	Alternative Home Area Network Devices

No Device behaviour will be impacted by this modification. However, DUIS lists that the above Device types are applicable for SRV 8.8.1 and SRV 8.8.2, and therefore will be impacted.

Consumers

Consumers will benefit from this modification. The improved I&C success rate would ensure Devices are able to be commissioned, provide smart functionality and benefits of smart features to consumers.

Other industry Codes

There will be no impact on other Codes from this modification.

Greenhouse gas emissions

There is no impact on greenhouse gas emissions for this modification.

5. Costs

DCC costs

The DCC implementation costs to implement this modification is £40,404. The breakdown of these costs are as follows:

Breakdown of DCC implementation costs	
Activity	Cost
Design, Build and Pre-Integration Testing (PIT)	£39,055
Systems Integration Testing (SIT)	£0
User Integration Testing (UIT)	£0
Implementation to Live	£1,349
Application Support	£0

Any testing executed during SIT would be a repeat of a subset of the testing executed during PIT. Therefore, no SIT execution is proposed for this modification, because there are no changes for DCC Users when not in receipt of the error code, we believe no UIT is needed. An element of regression testing will be carried out as part of the SEC Release that includes this change.

More information can be found in the DCC Impact Assessment response in Annex C.

SECAS costs

The estimated SECAS implementation cost to implement this as a stand-alone modification is one day of effort, amounting to approximately £600. This cost will be reassessed when combining this modification in a scheduled SEC Release. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.

SEC Party costs

As this modification will reduce the number of failures for an unjoin request, SECAS believes that there will be a reduction in Parties' time and effort spent troubleshooting and retrying commissioning activities. SECAS also believes there will be no additional costs to SEC Parties to facilitate implementation. One Large Supplier Refinement Consultation respondent agreed that they would not incur any costs. However, another Large Supplier respondent stated they were unable to determine they would incur any costs due to this modification.

6. Implementation approach

Approved implementation approach

The Change Sub-Committee (CSC) has agreed an implementation date of:

- **27 June 2024** (June 2024 SEC Release) if a decision to approve is received on or before 27 September 2023; or
- **26 June 2025** (June 2025 SEC Release) if a decision to approve is received after 27 September 2023 but on or before 26 September 2024.

During the Refinement Process, Large Suppliers advised that if approved, the modification should be implemented as soon as possible. Parties also indicated that they would not require any lead time to implement this modification. This modification will impact the DUIS. For efficiency, it should be implemented in a scheduled SEC Release along with other DUIS changes, also minimising SEC Party costs. Therefore, the June 2024 SEC Release is the earliest available Release whilst allowing the DCC sufficient time to complete the required build and testing.

7. Assessment of the proposal

Observations on the issue

During the Development Stage, this proposal was presented to the Sub-Committees and had no initial comment, however the Proposed Solution was agreed to be presented to the Technical Architecture and Business Architecture Sub-Committee (TABASC) for comment during the Refinement Process.

SECAS initial investigation

SECAS investigated the issue with the Proposer. The DCC commented that it is difficult to understand why the SRVs do not reach the DSP as the Suppliers are responsible for sending them rather than the DCC or the DSP. The DCC further advised that if the DSP is not aware the SRV has or hasn't been sent, it will be extremely difficult for the DSP to investigate the root cause any further.

The manual database correction costs are socialised within Fixed Charges therefore, implementing the modification would save costs for all Suppliers and Network Parties.

Request for information responses

SECAS received three responses to the RFI (two Large Suppliers and one Other SEC Party). Two of the three respondents stated that the issue impacts their organisation.

The respondent that was not impacted (a Large Supplier) stated that their organisation's orchestration does not rely on the unjoin being successful when removing a Device. This is because the command could be failing because the Device is faulty. They advised that the cost of any Proposed Solution developed should be compared to the number of manual corrections being requested by Users.

The second Large Supplier stated that it was supportive of the need to address the issue but is concerned as to why the DSP is not receiving the keys in the second 8F12 Alert. The DCC stated that this issue is not related to this modification as it involves the Communications Services Providers (CSPs) and their Alert delivery success. The Large Supplier commented that a preferred solution would be to reduce the current £2,000 cost to amend the SMI. This would allow the validation to remain in place. One respondent was not convinced that the cost-benefits to the DCC for the proposed approach will outweigh the security benefits of the current approach. At this time the DCC did not believe there was an increased security risk by removing the validation.

The Other SEC Party commented that successful SR 8.7.2s are not always registered within the DSP systems, which prevents, the subsequent SR 8.8.2 from succeeding. It stated that it is directly impacted when it attempts to add or remove Type 2 In Home Displays (IHDs) or CADs. It felt the need for a SEC modification to address the issue as it results in a negative customer experience as it can take a long time, possibly several weeks, for the SMI to be updated.

Refinement Consultation responses

One respondent to the Refinement Consultation queried the scenario where the Device does not join and the User tries to Unjoin, and if there was no response code. They asked how Users would know if the Device did not join and an Unjoin is attempted. SECAS noted that there will be the same response code returned as when a User sends an Unjoin for a Device that is not currently joined. The respondent also queried why this modification should go ahead as there has only been five occurrences. SECAS noted, although there are only five instances of Users requesting the manual correction by the DCC, Users have noted there are more instances of the issue occurring, however no manual correction was requested.

Another respondent was supportive of the modification and considered it would be a positive change which will benefit Suppliers during I&C when problems arise with Device joins. The respondent also noted that the issue occurs more frequently than requests for the manual updates to the SMI. This is due to the cost and time spent to update the SMI, therefore there is no statistics on how this occurs, and the Devices are exchanged instead. The Working Group agreed that the frequency of issues with this is recognised as being higher than originally noted in the Modification Report and requested the report be updated to reflect this. If a Device install does stall for this reason, the process to sort it out should be smoother, which will benefit consumers who might otherwise have needed a further visit. It was also noted that this is a DSP only change, so the DSP will stop applying the check and no adaptor upgrade is required.

Solution development

The Proposer advised that there have been multiple requests to manually update the SMI status, which cost £2,000 per request. Removing the unnecessary DSP validation rule would be a low impacting DUIS change that could resolve the issue. The Proposer also confirmed it is only proposing to remove the DSP validation rule for the Service Requests mentioned in the problem statement, not all Service Requests.

Validating the 'Join'

A Requirements Workshop attendee questioned if there was a reason this DSP validation was originally put in place. Attendees could not identify why this DSP validation was in place but agreed it should be removed. The Working Group also queried why the GBCS has no requirement for the validation and why the current DCC implementation requires it. They also highlighted that there is no validation for a join request.

The Working Group was supportive for removing the unjoin validation as it would help with stranded Devices and Device reuse. A Working Group member stated that the tracking in the SMI should remain, as this is used for other business needs within industry. Another Working Group member highlighted that there are alternative ways to check the Device status via a Read Device Log.

The DSP confirmed that the removal of this validation is not something that will cross impact other parts of the DSP solution.

The Preliminary Assessment was presented to the TABASC, who noted that this change would only affect the DSP, with no impact on the CSPs. The TABASC agreed that the Proposed Solution was appropriate and considered that the Modification Proposal should proceed to Impact Assessment.

Is this a DCC defect?

Upon the return of the DCC Impact Assessment, most Working Group members were supportive of this modification going ahead, although one Working Group member queried why this was a modification and not being progressed as a DCC issue (defect). The DCC noted this will be a change of DSP behaviour and not design. The DCC added that within the DCC and past discussions at Working Groups no one knew why it was designed in this way initially. The Working Group agreed that a simple legal text addition was required in DUIS stating that the SMI is no longer checked for a join under SRV 8.8.1 and 8.8.2.

Business Processes

The Proposed Solution was presented to the TABASC, where there was concern about removal of the Response Code E080801 and the impacts on Parties Business Processes. SECAS provided two Process diagrams (refer to Annex D) which were circulated to the TABASC and Parties. The TABASC subsequently advised it does not see any impacts arising from the removal of the Response Code E080801. The Working Group and the Proposer decided to keep the response code but amend to clarify it's no longer used, as this was a cheaper option and would not impact DUIS Schema.

Testing requirements

Upon the return of the DCC Preliminary Assessment, Working Group members queried why there was no SIT or UIT. The DCC advised, for this modification there is no specific SIT or UIT, as there is no system impact. UIT would take place as part of the corresponding SEC Release and Users would be able to take part in that if they want too as usual.

Legal text

Working Group members reviewed and agreed the legal text is suitable.

8. Case for change

Business case

This modification will improve I&C success rates and reduce the number of stranded Devices. This will reduce instances where Devices are unable to be commissioned or provide smart functionality and those benefits of smart features to consumers. This will also save the ongoing cost and effort to manually correct the SMI database to allow Users to reuse any Devices. Those costs are on average £2,000 per manual correction, which is socialised via Fixed Charges, and can take over 12 months for the manual correction to take place.

There have only been five instances recorded and manually corrected by the DCC between August 2020 and July 2022. This low number is likely due to Parties exchanging stranded Devices instead of having them manually corrected by the DCC due to the cost. If this is the case, there is also an environmental impact of exchanging meters to be considered.

As the existing manual database correction costs are socialised within Fixed Charges, implementing the modification would save costs for all Suppliers and Network Parties over time. If 20 manual corrections are made in the SMI then the modification will break even. Considering the number of Devices is expected to double it is likely that will require more than 20 corrections going forward.

The CSC discussed the business case and commented that only five instances did not seem to support the business case for the change. SECAS highlighted that an RFI had taken place at the beginning of the process, which highlighted at least five instances. Through informal discussions, SECAS believed installers on site for I&C may not be able to diagnose the problem to the level required to gather this data and would likely exchange the Devices instead. Likewise, any further site visits may take place without the installer knowing the full background. A CSC member noted that Meter Asset Providers (MAPs) have seen cases where multiple Devices were installed at a site in the same day. They suggested that there is a possibility it was due to the unjoin issue, although this cannot be confirmed or quantified on a large scale.

Another CSC member agreed that it was difficult to quantify incidences, however, they identified that the specific Response Code (E080801) had been generated 6,500 times for one Supplier in the last three months. They noted that additional human intervention is needed to triage the issue, however, removing the Response Code (E080801) triage would no longer be needed.

The CSC acknowledged that quantifiable data may not be possible to obtain but believed that it would be helpful to the Change Board to have any further information on the volume of Response Codes

and for a question to be included in the Modification Report Consultation to see if any further data was available.

Views against the General SEC Objectives

Proposer's views

The Proposer believes that SEC Objective (a)¹ will be better facilitated as there is less likely to have issues on Devices when being commissioned. This will increase the instances of smart functionality and benefits of smart features to consumers.

Industry views

One respondent to the Refinement Consultation agreed with the Proposer's views and felt the modification better facilitated SEC Objective (a). The other respondent was opposed to the modification and did not believe that the modification better facilitated any SEC Objectives. The full responses to the Refinement Consultation can be found in Annex E.

Views against the consumer areas

Improved safety and reliability

This modification will be positive in this area, as issues with Devices being able to be commissioned should be reduced. Thereby providing smart functionality and benefits of smart features to more consumers.

Lower bills than would otherwise be the case

This modification will be positive in this area, as the improved I&C success rate would ensure Devices are able to be commissioned, provide smart functionality and benefits of smart features to consumers. Therefore, consumers can monitor their usage to help bring down their energy consumption which will lead to lower bills in the process.

Reduced environmental damage

This modification will be positive in this area, as this would ensure Devices previously unable to be commissioned won't require a site visit or replacement.

Improved quality of service

This modification will be positive in this area, as the improved I&C success rate would ensure more Devices are able to be commissioned, thereby providing smart functionality and benefits of smart features to consumers.

¹ Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain.

Benefits for society as a whole

This modification will have a neutral impact against this consumer area.

Final conclusions

TABASC

The TABASC noted that this change would only affect the DSP, with no impact on the CSPs. They agreed that the Proposed Solution was appropriate and does not see any impacts arising from the removal of the Response Code E080801.

Working Group

The Working Group are supportive for removing the unjoin validation as it would help with stranded Devices and Device reuse. They also noted that if a Device install does stall due to this issue, the process to sort it out should be smoother if this change goes ahead, which will benefit consumers who might otherwise have needed a further visit.

Change Sub-Committee

The CSC questioned the business case, noting the recorded manual corrections are low. They noted that MAPs have seen cases where multiple Devices were installed at site in the same day. They suggested that there is a possibility it was due to the unjoin issue, although this cannot be quantified. One CSC member identified that the specific Response Code (E080801) had been generated 6,500 times for one Supplier in the last three months.

They agreed the Proposed Solution would likely reduce revisits and help consumer experience and agreed that it was difficult to quantify incidences. The CSC requested that the Modification Report Consultation highlight this to encourage any additional evidence of occurrences which respondents are able to share.

Appendix 1: Progression timetable

Timetable	
Event/Action	Date
Draft Proposal raised	15 Jul 2021
Presented to CSC for initial comment	27 Jul 2021
Problem Statement discussed with Sub-Committees	Aug 2021
RFI issued to industry	Aug 2021
Presented to CSC for final comment and recommendations	28 Sep 2021
Modification placed on hold	Oct 2021 – May 2022
Business requirements developed with Proposer	Jun 2022
Business Requirements discussed with Working Group	3 Aug 2022

Timetable	
Event/Action	Date
Modification discussed with TABASC	1 Sep 2022
DCC Preliminary Assessment requested	23 Sep 2022
DCC Preliminary Assessment returned	21 Oct 2022
Modification discussed with Working Group	2 Nov 2022
Refinement Consultation	8 Nov – 26 Nov 2022
Modification discussed with TABASC	1 Dec 2022
Impact Assessment costs approved by Change Board	21 Dec 2022
Impact Assessment requested	22 Dec 2022
Impact Assessment returned	1 Mar 2023
Modification discussed with Working Group	5 Apr 2023
Modification discussed with Working Group	3 May 2023
Modification Report approved by CSC	16 May 2023
Modification Report Consultation	17 May 2023 – 8 Jun 2023
Change Board Vote	21 Jun 2023
Targeted Release	27 Jun 2024

Italics denote planned events that could be subject to change

Appendix 2: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	Full term
ACB	Access Control Broker
BAD	Business Architecture Document
BAM	Business Architecture Model
CAD	Consumer Access Device
CSC	Change Sub-Committee
CSP	Communications Services Provider
DCC	Data Communications Company
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
GBCS	Great Britain Companion Specification
HAN	Home Area Network
I&C	Installation & Commission

Glossary	
Acronym	Full term
IHD	In Home Display
MAP	Meter Asset Provider
PIT	Pre-Integration Testing
PPMID	Prepayment Meter Interface Device
RFI	Request for information
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SMETS	Smart Metering Equipment Technical Specifications
SMI	Smart Metering Inventory
SMS	Smart Metering Systems
SR	Service Request
SRP	Shared Resource Providers
SRV	Service Reference Variant
TABASC	Technical Architecture and Business Architecture Sub-Committee
UIT	User Integration Testing