

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.

Paper Reference:	CSC_10_0201_03
Action:	For Decision

DP102 Draft Proposal decision

1. Purpose

This paper provides a summary of [DP102 'Power Outage Alerts triggered by an OTA firmware upgrade'](#). We are asking the Change Sub-Committee (CSC) to agree that this Draft Proposal should progress to a Modification Proposal.

2. What is the issue?

DP102 has been raised by Matthew Alexander from Scottish and Southern Electricity Networks (SSEN).

Implementing an Over The Air (OTA) firmware update on some Electricity Smart Metering Equipment (ESMEs) generates a Power Outage Alert (POA). This is because when some ESMEs activate a new firmware version it results in an interruption of the power supply to the Communications Hub (CH). If the power supply for the CH is interrupted for more than three minutes then the CH must send a POA (AD1 Alert).

However, the Distribution Network Operator (DNO) can't tell whether there is a real issue with the power to the premises or whether it was just a firmware upgrade to the ESME. DNOs therefore need to put in place systems to check every POA to establish if it relates to a genuine power outage.

This issue was previously highlighted in industry forums and resolved by current ESME manufacturers agreeing that all future OTA firmware updates would be designed so as not to initiate a POA event. However, this agreement should be seen as being an interim solution until an enduring obligation is implemented through this modification. A new ESME manufacturer may be unaware or not comply with such an agreement.

Alongside this, there are still a set of ESMEs, approximately 500,000, that will continue to initiate a POA when an OTA firmware update is implemented.

In summary there are two issues:

1. There is no obligation in the SEC to require an OTA firmware update not to generate a POA
2. There is no means of identifying or suppressing erroneous POAs associated with an OTA firmware update from the 500,000 ESMEs in service where this issue can't be addressed.

3. Comments on the issue

The Proposer has requested a retrospective change to the technical specification to apply a solution to this issue. However, if the issue is too complicated to resolve this may cause issues for Manufactures.

An OTA has already been carried out to rectify the issue, but not all manufactures have done this and there are still 500,000 ESMEs that continue to cause this issue. It may be that some meters on earlier firmware versions may require several firmware upgrades applied in a particular order prior to applying the final one which resolves the POA issue.

A retrospective change needs careful evaluation and buy-in from all ESME manufacturers for all ESME models on the CPL (in the “current” state and where models are still in use on the DCC production system).

4. Next steps

We recommend that this Draft Proposal is presented to the Panel at its January meeting and then proceed into the Refinement Process so a solution can be investigated.

5. Recommendations

The Change Sub-Committee is requested to:

- **AGREE** that the issue identified under DP102 is clearly defined and understood;
- **RECOMMEND** to the Panel that this Draft Proposal should be converted to a Modification Proposal; and
- **RECOMMEND** to the Panel that the Modification Proposal should proceed to the Refinement Process.

Adam Lattimore

SECAS Team

19 December 2019

Attachments

- **Appendix A:** DP102 problem statement