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MP163 'T3 Aerials Requirements Removal'

Modification Report

Version 0.4

21 February 2022



About this document

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

Contents

1. Summary.....	3
2. Issue.....	3
3. Assessment of the proposal	4
Appendix 1: Progression timetable	5
Appendix 2: Glossary	5

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1. Summary

This proposal has been raised by Rochelle Harrison from Centrica.

The Smart Energy Code (SEC) currently states that in the event of the Data Communications Company (DCC) being unable to provide Smart Meter Wide Area Network (SM WAN) coverage to a Supplier Party, a T3 aerial is deployed and installed to improve the coverage so that smart metering functionality is available. The Proposer believes that the T3 aerials have a variety of problems which include additional processing costs, the logistics of organising the installation, time spent on site in order to install the unit, and that there is no guarantee that the T3 aerials will solve the coverage issue.

Following the relative success of a T3 installation pilot programme conducted in the second half of 2021 by the Department for Business, Energy and Industrial Strategy (BEIS), in conjunction with several Suppliers and Virgin Media O2, the Proposer decided to withdraw this modification.

2. Issue

What are the current arrangements?

The SEC currently states that in the event of the DCC being unable to provide SM WAN coverage to a Supplier Party, a T3 aerial is deployed and installed at the affected premise to improve the coverage so that smart metering functionality is available.

Obligations surrounding using the T3 aerials sit within SEC Appendix H 'CH Handover Support Materials', in Sections 1.4 and 7.4, and broadly throughout SEC Appendix I 'CH Installation and Maintenance Support', where a Special Installation Mesh Communications Hub (CH) is required for installation. These Special Installation Mesh CHs can use any of a T1/T2/T3 aerial or an M1/M2 aerial.

What is the issue?

The Proposer believes that the T3 aerials have a variety of problems which include:

- additional processing costs;
- location issues (sites not receiving an SM WAN and therefore requiring a T3 aerial are often located in heritage sites or places designated as areas of 'outstanding natural beauty' and hence require additional planning permissions;
- time spent on site in order to install the unit whilst simultaneously having the consumer, the Supplier installer and a Telefonica engineer present to do so presenting considerable logistical difficulty; and
- there is no guarantee that the T3 aerial will solve the coverage issue.

These combined issues call into question the suitability of the T3 aerials. Suppliers have to undertake significant efforts to address the SM WAN coverage issue and are looking for an alternative that would present fewer challenges logistically and financially.

What is the impact this is having?

The Proposer has stated that the large amount of effort to install a T3 aerial with no guarantee that the coverage would be improved is a significant barrier when marketing this to customers as a solution to signal issues. According to the Proposer, there have only been two known cases of installing T3 aerials at the time this modification was raised, where one was successful and the other didn't solve the connectivity issue. The installation requires drilling into walls; if the installation doesn't provide additional coverage the site has then been potentially damaged or altered for no benefit.

Impact on consumers

The Proposer believes that consumers could be adversely affected by having to install Devices that, although potentially solving coverage issues, could contradict planning laws and could negatively impact areas of outstanding natural beauty. This would be likely as the areas that would need improved coverage are areas such as national heritage sites and premises close to national parks.

3. Assessment of the proposal

Observations on the issue

Change Sub-Committee views

This modification was presented to the Change Sub Committee (CSC) on 25 May 2021, who recognised that the installation of T3 aerials does present an issue. Members agreed that other alternatives to T3 aerials needed to be explored, as the current approach is not practical.

One member noted the process for installing one is very resource-intensive, and if it fails there is no 'Plan B'. These aerials are seen as a stopgap until a resilient WAN is in place. They queried if T3 aerials are seen as part of the 'no-WAN' solution, noting these did not seem to be supported by the industry. They also noted there could be a lot of sites that currently have working Smart Metering Equipment Technical Specifications (SMETS)1 meters which may need a T3 aerial, which the member felt would be difficult to explain to the customer.

The consumer representative agreed with the concerns over customer experience and noted questions over risk and liability if installation goes wrong. They also noted Suppliers cannot engage with leaseholders or renters to gain permission to install these aerials adding further logistical challenges and taking additional time to process. They noted that Ofcom is consulting over indoor repeaters and wondered if the Communications Service Providers (CSPs) could look at this.

At the meeting on 28 September 2021, the CSC agreed that this modification should progress to the Refinement Process, with one member noting that the removal of the obligation to install T3 aerials may help to drive the development of alternative solutions to the WAN coverage issue.

Further assessment of the issue

The DCC has provided some feedback on the potential impact of implementing alternative solutions to network coverage issues. The CSP for the South and Central regions, which is tasked with

providing WAN coverage to allow the communication between Smart Metering Systems and the DCC, has noted there is a particularly high impact that would be experienced. It has been working towards the provision of a WAN coverage target of 99.25%; this target is referred to as the 'BMax milestone'. The DCC projects that the installation of at least 30,000 T3 aerials will be required to achieve the BMax milestone. The DCC has also cited a prior consultation which found that preliminary costs for accelerated cellular mast deployment to improve WAN coverage would be in the range of £100m-£200m.

BEIS conducted a trial on the effectiveness of T3 aerials in improving coverage, which concluded in December 2021. The Proposer was content to await the results of this trial before seeking to implement a solution. However, they supported progressing this modification to the Refinement Process as they believed the issue was clear, and to avoid delays once the BEIS trial was complete. Following the relative success of the trial, and BEIS and Ofgem's subsequent recommendation that the installation of T3 aerials was a viable solution to signal issues, the Proposer decided to withdraw the modification.

The Operations Group and the Technical Architecture and Business Architecture Sub-Committee (TABASC) have expressed an interest in this modification.

Appendix 1: Progression timetable

On 18 February 2022 the Proposer notified SECAS of their intention to withdraw the modification.

Timetable	
Event/Action	Date
Draft Proposal raised	12 May 2021
Presented to CSC for initial comment	25 May 2021
Modification discussed at CSC	27 Jul 2021
Presented to CSC for conversion to Modification Proposal	28 Sep 2021
SECAS monitor BEIS trail progress	Oct – Nov 2021
Results of BEIS trial	13 Dec 2021

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
BEIS	Department for Business, Energy and Industrial Strategy
CH	Communications Hub
CSC	Change Sub Committee
CSP	Communications Service Provider

Glossary	
Acronym	Full term
DCC	Data Communications Company
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specifications
SM WAN	Smart Metering Wide Area Network
TABASC	Technical Architecture and Business Architecture Sub-Committee
WAN	Wide Area Network