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.

DP094 'Supporting prepayment customers in no SM WAN scenarios'

Problem statement – version 0.2

About this document

This document provides a summary of this Draft Proposal, including the issue or problem identified, the impacts this is having, and the context of this issue within the Smart Energy Code (SEC).

Proposer

This Draft Proposal has been raised by Andy Knowles from Utilita.

What is the issue or problem identified?

Background

The Proposer predominantly supplies prepayment customers and has provided almost all of these customers with a meter compliant with the first major version of the Smart Metering Equipment Technical Specifications (a SMETS1 meter). The Proposer has raised concern that the minimum functional requirements set out in the second major version of the Smart Metering Equipment Technical Specifications (SMETS2) do not result in a device that is sufficiently robust to serve smart prepayment customers effectively. Similarly, the Adoption and Enrolment of SMETS1 meters in the Data Communications Company (DCC) leads to the same loss of resilience in relation to SMETS1 meters.

The Proposer has raised five Modification Proposals in an attempt to support the resolution of this issue, none of which have been able to find an achievable solution. Links to the original proposal forms are provided below, along with their associated submission date:

- SECMP0028 'Prioritising Service Requests' raised in December 2016;
- SECMP0031 'Adding UTRN Functionality to SMETS' raised in February 2017;
- SECMP0032 'Prioritising Prepayment Customers in No WAN Situations' raised in February 2017;
- SECMP0037 'Pairing Local PPMIDs' raised in June 2017; and
- SECMP0038 'Sending Commands via PPMIDs' raised in June 2017.

The Proposer supplements the above Modification Proposals with this Problem Statement in the hope of achieving a timely solution to the issues identified in these proposals. Modification SECMP0028 is not covered by this Draft Proposal as DCC's SECMP00067 'Service Request Traffic Management' is intended to achieve its aims.

How does SM WAN affect customers?

The Smart Meter Wide Area Network (SM WAN) is the means by which Commands are sent to meters. Utilita's SMETS1 experience suggests that around 9% of customers will experience no or very poor WAN connectivity. Utilita acknowledge that this is based on their SMETS1 experience and that SMETS2 SMWAN is an entirely separate and independent piece of infrastructure. Whilst poor SM WAN affects all customers, it has the most significant impact on prepayment customers. prepayment customers engage with their meter far more than credit customers do and inaccurate data on the meter can cause prepayment customers inconvenience or put them in financial difficulty. This is of concern because prepayment customers are more likely to be disabled or otherwise vulnerable[1].

Secure SMETS1 meter functionality in a no WAN situation includes a set of Commands which can be entered into the meter via 20,40 and 60-digit codes (UTRNs), providing a resilient solution in no/intermittent SM WAN scenarios.

However, as SMETS1 adoption and enrolment proceeds this functionality will no longer be available on these meters except for credit top-ups. Commands other than top-ups are also unavailable for SMETS2 meters. Such Commands account for approximately 1% of the Commands sent by the

[1] Ofgem Customer Vulnerability Strategy: Prepayment meters

Proposer per year (if smart meters are rolled out to all 8 million[2] prepayment customers, then this would be result in an estimated 5 million Commands). The reduced functionality resulting from the loss of these Commands degrades the customer's experience. It will also give rise to higher Supplier costs in responding to customer issues that would have previously been resolved using these Commands.

What is required to sufficiently support customers in no WAN scenarios?

The Proposer seeks a solution to be able to effectively manage SMETS2 prepayment customers in no WAN, intermittent WAN or DCC outage scenarios equivalent to the commercially developed solution available from the Secure SMETS1 product.

This, as a minimum, needs to include the ability to command the prepayment meter to action the following Commands:

- Deduct credit
- Set credit
- Change price
- Revert to default settings and remove data
- Open the Home Area Network (HAN)
- Change of mode
- Add debt
- Deduct debt
- Set debt
- Set friendly credit times/non-disconnect periods

SECMP00031 seeks to expand the capabilities of SMETS2 UTRNs to allow them to be used for the functions listed above, thus allowing full service of customers in no WAN scenarios. SECMP00038 seeks to allow for a means other than the SM WAN to deliver Service Requests. This too would allow Suppliers to fully service their customers where SM WAN coverage is poor or non-existent. SECMP00037 is supplementary to SECMP00038 and seeks to make pairing of Pre-Payment Meter Interface Devices (PPMIDs) in no WAN scenarios easier.

The functionality enabled by these Commands is needed for reasons such as:

- Providing a key tool for the resolution of emergency incidents. For example, these Commands enable the Supplier to manage extreme weather or other significant events by changing non-disconnect periods. As an illustration, during an extreme weather event on 3 – 4 March 2018, Utilita alone sent 963,118 additional messages were sent to meters to help to ensure that customers stay on supply. The extreme weather conditions meant that WAN connectivity was poorer than usual. Therefore, over 9% (86,000+ messages) would have been entered as a UTRN or else risk the customer being disconnected during freezing conditions.

[2] Ofgem report on vulnerable consumers in the energy market 2018 – Section 3.11, page 39.

- Enabling us to offer our full range of services to customers, even when they do not have a WAN connection. These services include discretionary credit for customers in payment difficulty and other such activities which prevent self-disconnection.
- Enabling suppliers to ensure that top-up prices are in line with the prepayment price cap, which is updated by Ofgem every six months, in April and October. Without the ability to change prices in a no WAN situation, the customer may be paying more for their energy than they should be; and there is an additional cost for the supplier in reconciling how much money should have been paid and refunding the difference
- Enabling debt to be added to a meter. For example, when a customer requires a new device, such as a new In-Home Display (IHD). If the debt is not added promptly, a customer may face a one-off bill or commence paying for their device at a time when they face higher energy bills (e.g. during winter).
- Enabling a new IHD/PPMID to be joined to the HAN in the absence of WAN. In the absence of this functionality, customers will not be able to use their IHD/PPMID until WAN is resumed, which may disadvantage less physically able customers.
- Enabling the Supplier to refund a customer if there is a change of tenancy and reset any debt and credit balances for the new customer. Without this, customers will face delays reclaiming their money
- Reducing the number of site visits that Suppliers would otherwise be required to conduct. For example, the free top ups described in the example above would have required a site visit to over 10,000 customers. Site visits usually require the customer to be at their property, resulting in a potential loss of work or leisure time and an overall worse customer experience.
- In no WAN situations, the time taken to resolve issues relating to customer accounts is greatly reduced when UTRN functionality is available – i.e. customers do not have to wait for WAN to be re-established to update their meter.

How does this issue relate to the SEC?

DCC obligations regarding solution of reported no WAN Incidents

The obligations set out in SEC Sections F ‘Smart Metering System Requirements’ (F7.18 through to F7.22) place timescales and resolution targets on the DCC for resolution of SM WAN coverage incidents during initial installs. The obligations are that the DCC must, within 90 days;

> *provide a response to the installing Supplier Party that either (i) confirms that the SM WAN is now available in the relevant area such that Communications Hubs installed at premises in that area can be expected to be able to connect to the SM WAN; or (ii) provides reasons why the SM WAN is not so available.*

The obligation goes on to say the DCC must be able to confirm SM WAN availability in at least 99% of cases raised. In the absence of the additional Commands set out above, which provide additional functionality in no WAN situations, the timescales under these Sections of the SEC are highly problematic.

The Proposer believes that the 90 days for which the DCC shall resolve the SM WAN in the given area is too long, as this could leave a customer without full prepayment functionality for 90 days. Where the SM WAN issue was relating to a prepayment customer, the Proposer sought to shorten the 90-day obligation to 30 days – the details are set out in SECMP0032 ‘Prioritising Prepayment

Customers in No WAN Situations'. However, the DCC advised an estimated cost of £1bn. The Proposer also believes that there is neither clarity as to how the DCC is going to deliver against this, nor what the scenario is where the DCC cannot resolve the SM WAN within 90 days. If the DCC is unable to remotely resolve the SM WAN coverage in an area, the next step may require an engineer to be sent to the site by the Supplier to resolve the problem. However, given that the market has a prepayment price cap in operation limiting Suppliers' income, sending an engineer to site is not economically viable.

If a suitable solution to SECMP0031, SECMP0032, SECMP0037 and SECMP0038 can be delivered then this issue becomes materially insignificant as prepayment customers will have the functionality to manage their accounts during a period of no WAN.

What is the impact this is having?

Impacts on prepayment customers

The Proposer believes that no WAN scenarios greatly diminish Suppliers' ability to service prepayment customers, placing prepayment customers at a disadvantage compared to credit customers. Furthermore, the customers impacted by this lack of functionality are more likely to be vulnerable, as noted above.

Impacts on the Proposer

The loss of functionality during no WAN incidents will significantly reduce the mechanisms available to call centre operatives to manage customer accounts. Given that intermittent SM WAN results in more customer contact with the Proposer, this will result in longer calls, more complaints and, less customer engagement. Furthermore, the Proposer will incur the additional cost of relying on engineer visits in situations that are currently resolved through a UTRN.

The impacts on other Parties will be further investigated during the Development Stage.

What are the views of the industry?

Views of the DCC

The views of the DCC will be gathered during the Development Stage.

The DCC believe this problem statement re-iterates the same issues that were raised under the previous modifications noted above, with the Proposer still in need of a solution.

The DCC note that more SMETS2 installs having taken place since the previous modifications were raised. This increase in installs may provide more background information on what the problems now look like. The DCC's initial thoughts are that there isn't anything that suggests the situation has changed or worsened.

Views of SEC Parties

The views of Parties will be gathered during the Development Stage.

Views of Panel Sub-Committees

The views of Panel Sub-Committees will be gathered during the Development Stage.

Views of the Change Sub-Committee

The views of the Change Sub-Committee will be gathered during the Development Stage.