



SMETS1 Consultation on changes to the SMETS1 Supporting Requirements

A consultation on changes to Clause 17 and Clause 18 of the
S1SR that records certain Device Specific Behaviours

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1. Introduction and Context

In the initial stages of the smart meter roll-out across Great Britain, a number of energy suppliers installed first generation smart metering devices (known as SMETS1 devices), in households and small/medium non domestic premises. SMETS1 devices installed by one energy supplier, however, are not always interoperable with and supported by the systems used by another supplier. The Data Communications Company (DCC) has developed a plan and designed a solution for the incorporation of such devices into its national network. It provides important shared benefits for industry and consumers and intends to offer the ability for SMETS1 consumers to maintain their smart services following a decision to switch suppliers.

The DCC solution relies on a common DCC User interface, defined in the DCC User Interface Specification (DUIS) for users of both SMETS1 and SMETS2 devices. The SMETS1 Supporting Requirements (S1SR) – Appendix AM of the SEC, describes supplementary rules for how the DCC will process SMETS1 Service Requests / Service Reference Variants (SRs/SRVs) and includes the accommodation of behaviours that are specific to particular SMETS1 Device Models. The latest version of the SMETS1 Supporting Requirements came into effect on 4 November 2021.

DCC has identified changes that are required to the S1SR for the IOC, MOC and FOC cohorts that have arisen out of testing. DCC has considered these device specific behaviours and having taken into account the impacts on Users, DCC systems and Device Manufacturers, made decisions on the actions to be taken. As these changes impact Suppliers and the operation of devices, where appropriate, DCC will continue to consider potential solution improvements and may bring these forward in future releases – the effect of this may be to either remove or amend the affected clauses. However, for clarity, the current device and solution behaviour is documented in this version of the S1SR.

DCC is consulting on the changes identified below and once feedback has been evaluated, DCC will update the S1SR as necessary and then submit the revised S1SR to the Department for Business, Energy and Industrial Strategy (BEIS) for re-designation into the SEC on the 17th December 2021.

2. Changes to the S1SR

This consultation is seeking views on the changes to Clause 17 and Clause 18 of the S1SR that records certain device specific behaviours as set out in the Table below.

Drafting Reference	Description
New Clause 17.6A	All SMETS1 Gas Smart Metering Systems generate a successful response back to the user when a Service Request is received and not when the Service Request is executed. Users may need to account for this within their orchestration to ensure commands have been executed before moving onto the next Service Request in any process.
Amendments to Clauses 17.37, 17.39, and 17.43	Correction of the reference to Clause 19
Amendments to Clauses 18.1(m)(x) and 18.1(n)(viii)	The Secure S1SP requires a non-specified year but is dependent on the season start dates being in chronological order and not just the month as previously drafted.
DMVES amendment aligned to Clause 18.1(w)	DMVES has been updated to show that Aclara and Itron operate register switching configurations in local time and will therefore automatically account for BST.
New Clause 18.1(aa)	The Aclara ESME requires that the price scalar is always -5 and the standing charge scalar is -4. Any other values may cause any PPMID or IHD to not display any financial information correctly.
New Clause 18.1(bb)	The Elster ESME needs the thresholds to be set to 0 when configuring a Time-of-Use tariff; anything other than a zero threshold will be rejected. Where no threshold is provided, the S1SP will configure the Device to apply zero to all thresholds.
DMVES amendment aligned to Clauses 18.3(a) and 18.3(b)	DMVES has been updated to show that only the L+G GSME is affected by these clauses.
DMVES amendment aligned to Clause 18.4(m)	The Elster ESME has been added to DMVES to indicate that the ESME will reset the meter balance when switching into prepayment mode from credit mode.

Drafting Reference	Description
New Clause 18.4(w)	The Elster ESME or GSME will reset the Accumulated Debt Register when changing from credit to prepayment mode.
New Clause 18.4(x)	The Elster ESME will not reset the Meter Balance, the Accumulated Debt Register or the Emergency Credit Balance when changing from prepayment mode to prepayment mode.
Amendment to Clause 18.5(g)	The Elster ESME and GSME has very limited capacity to store non-disconnect calendars and are therefore essentially limited to a single season.
Amendment to Clause 18.5(v)	A correction was made to the text to clarify that the emergency credit threshold is ignored when the emergency credit limit is zero.
DMVES amendment aligned to Clause 18.5(cc)	The Aclara and Itron ESME and GSME switch their non-disconnect calendars in line with local time (so automatically account for British Summer Time), these models have been added to DMVES for this clause.
New Clauses 18.5(ii) and 18.27(u)	The Itron GSME ignores any seconds that are specified in any start times and always sets the seconds part of the time to zero on the device e.g. 23:59:59 would become 23:59:00.
New Clause 18.17(k)	The Secure ESME and GSME always take snapshots based on the old tariff, e.g. there may be a different number of populated register readings returned in any of the logs from the meter. To alleviate this, DCC recommends that users run SRV 1.1.1 twice after migration so that snapshot information is returned as expected.
New Clause 18.17(l)	The Itron ESME does not take a snapshot when the price is changed, and these readings, therefore won't be available from the billing data log.
New Clauses 18.17(m), 18.18(i), and 18.21(h)	Some Elster ESME's were configured from manufacture to be limited to only 4 or 8 registers. Therefore, when these devices are read, they will only return consumption in the first 4 or 8 registers.
New Clauses 18.17(n), 18.18(j), and 18.21(i)	The Elster and Itron ESME takes a snapshot at midnight every day and stores it in the billing data log. These midnight entries will be returned as well as the snapshots taken for any other reasons as required by SMETS.

Drafting Reference	Description
<p>New Clauses 18.17(o), 18.18(k), 18.21(j), 18.22(g), 18.23(e), and 18.24(e)</p>	<p>The Elster GSME has implemented a lock whereby any write command will lock the device for a period of time (up to an hour) such that any responses returned may not show any data at all. E.g. if a user applies a tariff, and then tries too soon to read the device an empty log will be returned. This clause should also be read in conjunction with clause 17.6A.</p>
<p>New Clause 18.19(b)</p>	<p>The Elster GSME captures the collection of any Payment-based Debt within its Billing Data log, however this information is not shared with the gas mirror and therefore will not be able to be read remotely.</p>
<p>New Clause 18.27(t)</p>	<p>The Secure GSME has separate settings for time-based and payment-based collection of debt when emergency credit is activated, whereas SMETS uses just one. These settings may contain conflicting information and so are unified when the mode is changed after migration. Therefore, until the mode is changed if any one of these settings is true then the response will always return true, which might not be totally accurate until SRV 1.6 is executed then the settings are always aligned.</p>
<p>New Clause 18.33(b)</p>	<p>The value of SupplyTamperState returned in the MMC response is set according to the configuration of several tamper events on the Secure device (each of which can be configured independently).</p> <p>If there is at least one of these identified tamper events that will not disable the supply, then the SupplyTamperState value is returned as 'Unchanged'. Once the first SRV 6.7 / 6.25 (for GSME / ESME respectively) is executed on the device after migration, then these tamper events will all be consistently set with the same configuration.</p>
<p>New Clause 18.39(g)</p>	<p>The average RMS under and over-voltage thresholds can be configured on the Aclara ESME, however, the device does not generate an alert when the configured thresholds are breached.</p>
<p>Amendment to Clause 18.42(e)</p>	<p>The clause has been amended slightly to add 'Yearly', as the S1SP takes the yearly Periodicity into account when deriving a billing calendar start date that is in the past.</p>
<p>Amendment to Clause 18.45</p>	<p>The clause has been amended to include the GSME and the CHF to clarify that any log entries from before migration will be omitted from any response.</p>
<p>New Clause 18.53(b)</p>	<p>The Aclara GSME cannot be disabled when it is in an armed state - the Service Request will be rejected.</p>
<p>DMVES amendment aligned to 18.65(a)</p>	<p>The Secure S1SP does not reject any Activate Firmware request where it has been over 90 days since the Update Firmware command was received. DMVES has been updated to reflect this.</p>

Table 1 - Overview of Drafting Changes

This consultation invites views from stakeholders on the proposed amendments to the S1SR that are identified in Table 1 above. In particular, we are inviting responses to the following consultation questions:

S1SR Q1	Do you agree with the proposed amendments to Clause 17 and 18 of the SMETS1 Supporting Requirements Document (S1SR), that have been added to describe the device behaviour specific relevant to the FOC devices?
S1SR Q2	Do you agree with mappings of clauses in Clause 18 of S1SR to the relevant Device Models in DMVES?

3. Next Steps

Following the closure of this consultation, DCC will take into account respondents' views. DCC will amend the S1SR and DMVES as appropriate and will submit an amended version of the S1SR to BEIS that it considers suitable for re-designation into the SEC by the Secretary of State.

DCC is aiming to provide a report to the Department for Business, Energy and Industrial Strategy (BEIS) by no later than 10 December 2021. This report will contain DCC's consideration of the consultation and its responses as well as a version of the S1SR that DCC considers is appropriate to designate into the SEC.

DCC has discussed the re-designation of the S1SR with BEIS and it is proposed that, subject to timely receipt of DCC's report and copies of relevant stakeholder responses to this consultation, BEIS will re-designate the S1SR on 17 December 2021 (or as soon as reasonably practicable within one month thereafter).

In order to expedite the re-designation of the S1SR, DCC is also seeking views on behalf of BEIS on the proposed date for re-designation of the S1SR as well as the draft direction which is presented in Attachment 1 of this consultation document for stakeholder consideration.

S1SR Q3	Do you agree with the proposed re-designation date of 17 December 2021 (or, if necessary, as soon as reasonably practicable within one month thereafter) for the updates to the S1SR using draft notification at Attachment 1?
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4. How to Respond

Please provide responses by 1600 on 3 December 2021 to DCC at consultations@smartdcc.co.uk.

Consultation responses may be published on our website www.smartdcc.co.uk. Please state clearly in writing whether you want all or any part, of your consultation to be treated as confidential. It would be helpful if you could explain to us why you regard the information you have provided as confidential. Please note that responses in their entirety (including any text marked confidential) may be made available to the Department for Business, Energy and Industrial Strategy (BEIS) and the Gas and Electricity Markets Authority (the Authority). Information provided to BEIS or the Authority, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004). If BEIS or the Authority receive a request for disclosure of the information we/they will take full account of your explanation (to the extent provided to them), but we/they cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

If you have any questions about the consultation documents, please contact DCC via consultations@smartdcc.co.uk.

5. Attachments

- Attachment 1: SEC Appendix AM SMETS1 Supporting Requirements v11.1 – redlined
- Attachment 2: SEC Appendix AM Annex A Device Model Variations to Equivalent Steps Matrix
- Attachment 3: S1SR November 2021 consultation Response Template

Attachment 1

This attachment contains the text that BEIS plans to use for direction of changes to the S1SR.

S1SR Draft Direction Text

This direction is made for the purposes of the smart meter communication licences granted under the Electricity Act 1989 and the Gas Act 1986 (such licences being the "DCC Licence") and the Smart Energy Code designated by the Secretary of State pursuant to the DCC Licence (such code being the "SEC").

Words and expressions used in this direction shall be interpreted in accordance with Section A (Definitions and Interpretation) of the SEC.

Pursuant to Condition 22 of the DCC Licence and Section X5 (Incorporation of Certain Documents into this Code) of the SEC, the Secretary of State directs that, with effect from [DD MM YYYY], the SMETS1 Supporting Requirements previously designated and incorporated into the SEC as Appendix AM is hereby re-designated and incorporated in the form set out in Annex [XX] to this direction.

For the avoidance of doubt such re-designation of the SMETS1 Supporting Requirements shall be without prejudice to anything done under the DCC Licence or the SEC on or after this document first being designated, or to the continuing effectiveness of anything done this document prior to its re-designation (which shall have effect as if done under the re-designated document).

This direction is also being notified to the SEC Administrator.