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What stage is this document in the process?

Stage 01: Modification Proposal

01	Modification Proposal
02	Initial Modification Report
03	Draft Modification Report
04	Final Modification Report

SECMCP0031:

Adding UTRN Functionality to SMETS

SMETS1 Unique Transaction Reference Numbers (UTRNs) can be used for a number of functions beyond adding credit. This Mod seeks to increase the functionality associated to a UTRN in SMETS2 in order to prevent a retrograde step when moving from SMETS1 to SMETS2.



The Proposer recommends that this Modification Proposal should be *(delete as appropriate)*:

- Path 2 – Authority Determined
- Progressed through the Refinement Process



Potential Impact on:
DCC Users, DCC, Meter Manufacturers

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MODIFICATION PROPOSAL FORM V1.0

1. Proposer's Contact Details

Details of Proposer

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2. Modification Proposal Details

Mod Submission Date:	
Title of Mod Proposal:	Adding UTRN Functionality to SMETS
Description in Detail of the Proposed Modification:	Unique Transaction Reference Numbers (UTRN) are a key component in the prepayment functionality of a smart meter. Throughout the lengthy development of Advanced Meters and SMETS1, using functionality of a UTRN has proven crucial in the customer experience of using pay as you go technology. Amongst the functionality SMETS1 UTRNs have are: • Add credit • Deduct credit • Set credit • Change Price • Put the meter back into default settings and remove data. • Open Han In additional to the above required functionality, the following has been identified as desirable:

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- Change of mode
- Add debt
- Deduct debt
- Set debt
- Set friendly credit times

SMETS2 currently only has add credit functionality. This Mod therefore seeks to bring SMETS2 up to the standard of SMETS1 and add critical additional functionality.

The table below sets out the main rationale for each of the additional functionality:

Functionality	Rationale for inclusion
Deduct credit	This functionality enables suppliers to remove a set amount of credit from the available balance. This is useful for any non-energy costs the customer may be responsible for paying such as replacement IHDs.
Set credit	This functionality enables suppliers to disregard any outstanding credit and set a new value. This functionality supports activities such as change of tenancy as well as enabling the supplier to provide the customer with an exact value of credit on the meter.
Change price	This functionality enables suppliers to change the price on a customer's meter supporting customers with no access to the WAN. This will enable customers to benefit from price changes and ensure they are correctly charged for the energy they use supporting effective energy management. In SMETS1, this functionality can be used to keep customers on supply until any issue is resolved.
default settings and remove data	This functionality, although rarely used in SMETS1, is designed to be able to wipe down any old customer data remaining on the meter and reset the meter for future use. This can be used effectively if a meter develops a fault.
Open HAN	This functionality enables devices to be paired with the HAN, such as IHDs and PPMIDs. This is vital functionality in no WAN circumstances and supports engineers during the installation process. Furthermore, customers will be able to pair their own devices without the need for engineer visit reducing costs.
Change of mode	This functionality would enable a meter to be changed from credit to prepayment mode and vice versa. This would be key functionality to better facilitate keeping a customer on supply that the current SMETS1 work around (noted in "Change Price").
Add debt	This functionality would enable suppliers to add debt to a meter. This could be useful in numerous circumstances from replacement IHDs to theft. By not being able to add debt we are leaving ourselves open to the situation where deliberate Communications Hub tampering would ultimately lead to an engineer being sent on a warrant. This would introduce significant costs across industry.
Deduct debt	This functionality would enable suppliers to remove a set amount of debt from the available balance. For example, this can be used on Change of Tenancy where any outstanding debt does not belong to the new tenant but their top-ups would be used to repay said debt. This would be a very poor customer experience.
Set debt	This functionality would enable suppliers to disregard any outstanding debt and set a new value. This functionality supports activities such as change of tenancy as well as enabling the supplier to provide the customer with an exact value of debt on the meter.
Set Friendly Credit Times	This functionality would enable a supplier to change the friendly credit times supporting customer to remain on supply as well as ensuring a customer is no disadvantaged compared to other prepayment customers.

Many of the above functions which a SMETS1 UTRN can perform support the installation of prepayment SMETS1 where there is no WAN at site, enabling an engineer to set correct pricing on a meter and ensuring the correct balance value is transferred from the old meter. The functionality also supports the full end-to-end journey of the meter based on SMETS1 experience. This functionality is vital to ensure that customers benefiting from the CMA price cap can continue once their SMETS2 meter is installed. Without this functionality, suppliers may not be able to ensure that SMETS2 customers are in line with other prepayment customers without costly engineer visits to site. It is worth noting that legacy key meters can have price changes made without the need for an engineer visit.

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Additionally, these functions of a UTRN support customer service agents in their customer interactions – it should be noted that prepayment customers are significantly more likely to contact a call centre than credit customers. Customer service agents are able to resolve, temporarily or permanently many of the issue customers face by using UTRN functionality reducing the number of engineer visits required. This results in a significantly better customer experience than SMETS2 currently allows for.

There are a number of security concerns which we need to consider as part of this Modification. The Security Sub-Committee have considered this modification during its development and raised a number of concerns which will need to be drawn out during the refinement process.

According to legend, UTRNs were limited in functionality because of a need to keep the number of digits to 20. Utilita's SMETS1 experience shows that customers are vastly more capable than this and are both happy to and do input up to 60 digit codes today. Based on Utilita's data, approximately 2.5% of all 60 digit UTRNs are input manually by customers.

In terms of impact, based on Utilita data, over 9% of meters have poor WAN coverage. This means that the meter has WAN intermittently but is deemed too unreliable to send regular "service requests" to.

3. Path Type and Urgency Recommendation

Proposer's recommendations on Path Type (delete as appropriate)

Path 2

Statement for recommended Path Type:

this Modification is not material to the SEC although it is noted that there may be potentially large impacts to suppliers and meter manufacturers.

Statement of whether Proposal is intended to be Fast-Track Modification (only Panel may raise this type of modification):

No

Is the Proposal Urgent? (delete as appropriate)

No

Statement of whether Proposal should be treated as an Urgent Proposal:

No

4. Modification Impact Assessment

4.1 SEC Objectives

Facilitation of SEC Objectives	Tick
General SEC Objectives (C1.1)	
(a) the first General SEC Objective is to facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain;	☒
(b) the second General SEC Objective is to enable the DCC to comply at all times with the General Objectives of the DCC (as defined in the DCC Licence), and to efficiently discharge the other obligations imposed upon it by the DCC Licence;	☐
(c) the third General SEC Objective is to facilitate Energy Consumers' management of their use of electricity and gas through the provision to them of appropriate information by means of Smart Metering Systems;	☒
(d) the fourth General SEC Objective is to facilitate effective competition between persons engaged in, or in Commercial Activities connected with, the Supply of Energy;	☐
(e) the fifth General SEC Objective is to facilitate such innovation in the design and operation of Energy Networks (as defined in the DCC Licence) as will best contribute to the delivery of a secure and sustainable Supply of Energy;	☒
(f) the sixth General SEC Objective is to ensure the protection of Data and the security of Data and Systems in the operation of this Code;	☐
(g) the seventh General SEC Objective is to facilitate the efficient and transparent administration and implementation of this Code.	☐
(h) the eighth General SEC Objective is to facilitate the establishment and operation of the Alt HAN Arrangements.	
Transition Objective (X1.2)	

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X1.2 The objective to be achieved pursuant to Section X: Transition is the efficient, economical, co-ordinated, timely, and secure process of transition to the Completion of Implementation.	☐
Charging Objectives (C1.3) (in respect of the Charging Methodology)	
C1.4 The First Relevant Policy Objective: (a) applies in relation to Smart Metering Systems installed (or to be installed) at Domestic Premises; and (b) requires the Charging Methodology to ensure that Charges (other than Charges for Elective Communication Services) in respect of such Smart Metering Systems do not distinguish (whether directly or indirectly) between Energy Consumers at Domestic Premises in different parts of Great Britain.	☐

C1.5 The Second Relevant Policy Objective applies in relation to SMETS1 Meters. The Second Relevant Policy Objective is that, subject to compliance with the First Relevant Policy Objective, the Charging Methodology must (other than in respect of Elective Communication Services) (in each of the following cases, as far as is reasonably practicable in all of the circumstances of the case, having regard to the costs of implementing the Charging Methodology): (a) result in Charges that are the same for SMETS1 Meters as they are for Smart Metering Systems, save that no Charges for Communications Hub Services will apply to SMETS1 Meters; (b) notwithstanding (a) above (where the Costs of Communications for a SMETS1 Meter exceeds the Costs of Communications for a Smart Metering System, and where an Original Supplier for the Energy Supplier Contract relating to that SMETS1 Meter is (and has at all times since the adoption of the Energy Supplier Contract been) a supplier of electricity and/or gas to the premises at which that SMETS1 Meter is installed), result in Charges that ensure that the excess Costs of Communications are recovered from the Original Supplier from time to time (in addition to the Charges referred to in (a) above), (c) and, for the purposes of this Section C1.5, the terms “SMETS1 Meters”, “Costs of Communications”, “Original Supplier” and “Energy Supplier Contract” shall have the meaning given to those terms in the DCC Licence.	☐
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C1.6 The Third Relevant Policy Objective is that, subject to the Compliance with the First and Second Relevant Policy Objectives, the Charging Methodology must result in Charges that:

- a) facilitate effective competition in the Supply of Energy (or its use) under the Electricity Act and the Gas Act;
- b) do not restrict, distort, or prevent competition in Commercial Activities that are connected with the Supply of Energy under the Electricity Act and the Gas Act;
- c) do not deter the full and timely installation by Energy Suppliers of Smart Metering Systems at Energy Consumers' premises in accordance with their obligations under the Energy Supply Licence; and
- d) (d) do not unduly discriminate in their application and are reflective of the costs incurred by the DCC, as far as is reasonably practicable in all of the circumstances of the case, having regard to the costs of implementing the Charging Methodology.



Statement of how the proposed variation would better facilitate the achievement of the SEC Objectives:

This Modification is designed to enable more customers to experience the service SMETS1 customers currently have. Customers with SMETS2 meters are currently disadvantaged. Therefore, this better facilitates the customer's ability to manage their energy usage.

SMETS1 meters currently have the capability to:

- *Deduct credit*
- *Set credit*
- *Change price*
- *default settings and remove data*
- *Open HAN*

This Mod seeks to introduce comparable functionality and some important additions.

Secondly, this supports the installation of SMETS2 meters, enabling a customer's meter to be set to the correct price, correct credit, correct debt and mode where there is no SM WAN (either temporarily or permanently unavailable). This supports the effective installation of smart meters and prevents disadvantaging a customer.

Thirdly, this mod will enable SMETS2 customers with no SM WAN to be aligned with the prepayment price cap, unless customers wish to pay more. This mod would also enable universal innovation to be applied to all customers especially those in poorly service regions.

4.2 Impacts

Statement of impact on Greenhouse Gas Emission:

No

Statement of impact on which parts of the SEC would need amending (e.g. proposed legal drafting):

Initial assessment suggests the following sections of the SMETS will need amending:

4.5.2

4.5.3

5.5.7.2

5.6.2

5.6.3

Security and technical architecture and any associated documents,
section G3 to G6,
GBCS,
appendix AB

Statement of impact on likely changes to other Energy Codes:

None

Statement of impact on likely Party Categories:

Large Supplier Parties	☒	Small Supplier Parties	☒
Electricity Network Parties	☐	Gas Network Parties	☐
Other SEC Parties	☒		

Statement of impact on Consumers:

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Suppliers will be able to provide a better service to customers with SMETS2 meters.

Statement of impact on Central Systems:

DCC Systems	☒	User Systems	☒
Smart Metering Systems and/or Communications Hubs	☒	Other (i.e. on Smart Metering Key Infrastructure, or security)	☐

Change to SMETS will likely impact the above.

5. Testing

Proposed Testing Requirements

Please state whether the Modification Proposal's implementation will require the DCC to undertake testing of the DCC Total System and/or provide testing services.

We understand it can prove difficult to identify testing requirements at this stage. SECAS are able to provide support if you so require.

6. Proposed Timetable

Proposed Timetable for Modification Proposal:

Proposed implementation date November 2018 given the Prepayment Price Cap comes into force in April 2017 with 6 monthly iterations, it is important that the date is sooner rather than later.

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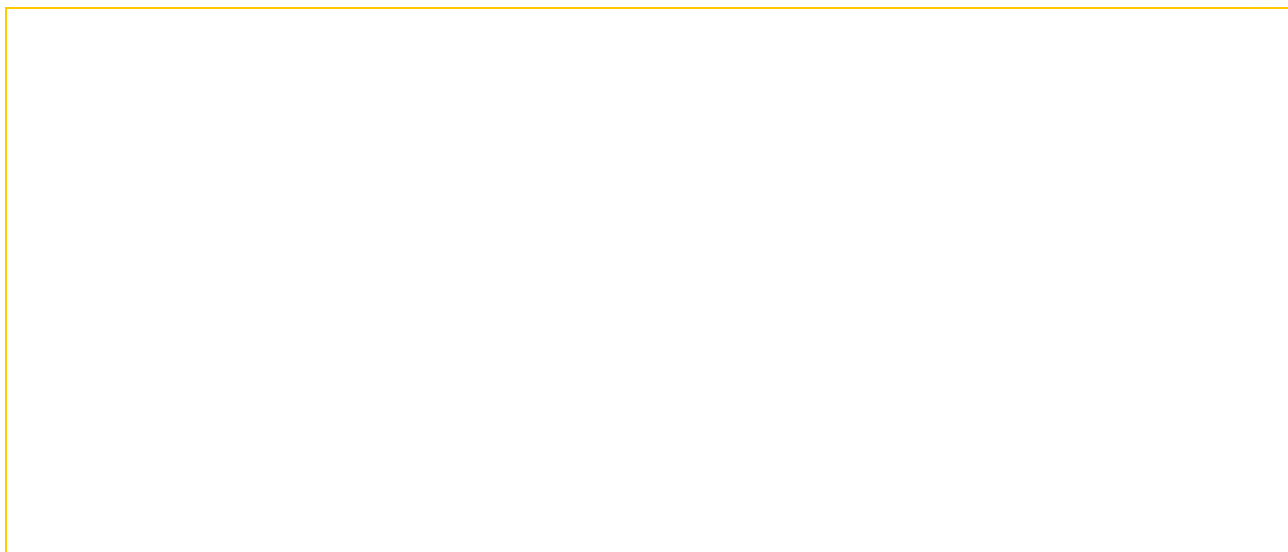
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7. Additional Information

Additional information:

APPENDIX 1: Glossary of Terms

The table below illustrates useful definitions of the terms used in this form. If you require any further information please contact the [SECAS Helpdesk](#).

Term	Definition
DCC Systems	Means the Systems used by the DCC and/or the DCC Service Providers in relation to the Services and/or this Code (Section A1, SEC Stage 3.0). The Proposer may wish to consider anticipated impacts on the DCC Licensee's enterprise systems (e.g. billing) or the Data Service Provider or Communications Service Providers.
Fast-Track Modifications	Means Modification Proposals (Path 4 Modifications) to correct typographical or other minor errors or inconsistencies to the Code (Section D2.8, SEC Stage 3.0).
General SEC Objectives	Has the meaning given to that expression in Section C1 (SEC Objectives) (Section C1, SEC Stage 3.0). The SEC Objectives are those objectives that the SEC has been designed to achieve.
Greenhouse Gas Emission	Means emissions of Greenhouse Gases, as defined in section 92 of the Climate Change Act 2008 (Section A1, SEC Stage 3.0).
Other Systems	Other systems identified in the section Statement of Impact on Central Systems. The Proposer may wish to consider Prepayment vendors, Electricity Central Online Enquire Service (ECOES), Single Centralised Online Gas Enquiry Service (SCOGES), BSC Settlement Systems, etc.
Path Type	Means the Modification Path to be followed in respect of a Modification Proposal. The type of Path will depend upon the nature of the variation proposed in the Modification Proposal (D2.1, SEC Stage 3.0). The four Modification Paths under the SEC are: Path 1 Modifications: Authority-led (Section D2.4/D2.5, SEC Stage 3.0) Path 2 Modifications: Authority Determination (Section D2.6, SEC Stage 3.0) Path 3 Modifications: Self-Governance (Section D2.7, SEC Stage 3.0) Path 4 Modifications: Fast-Track Modifications (Section D2.8, SEC Stage 3.0)

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Party Category	Means one of the following categories: - the Large Supplier Parties collectively; - the Small Supplier Parties collectively; - the Electricity Network Parties collectively; - the Gas Network Parties collectively; or - the Other Sec Parties collectively. (Section A1, SEC Stage 3.0).
Smart Metering Systems	Means a system installed at premises for the purposes of the Supply of Energy to the premises that, on the date it is installed, as a minimum; 1. consists of the apparatus identified in; 2. has the functional capability specified by; and 3. complies with the other requirements of, the Smart Metering Equipment Technical Specification that is applicable at the date (Section A1, SEC Stage 3.0). In summary, this includes: 4. Gas Smart Metering Equipment; 5. Electricity Smart Metering Equipment; 6. In Home Display; 7. Prepayment Interface Device; and 8. HAN Connected Auxiliary Load Control Switch.
Urgent Proposal	Means a Modification Proposal deemed an Urgent Proposal where the Authority directs the Panel to treat the Modification Proposal as an urgent Proposal (whether following a referral by the Panel pursuant to Section D4.5, or at the Authority's own initiation) (Section D4.5/D4.6, SEC Stage 3.0).
User Systems	Means, in respect of each User (DCC User), the Systems of that User (including, where relevant, those of its Supplier Nominated Agent) used in relation to the Services and/or Smart Metering Systems (Section A1, SEC Stage 3.0). The Proposer may wish to consider Suppliers; Network Operators; Registration Data Providers; Other DCC Users (e.g. Authorised Third Parties / Switching Sites); Supplier Nominated Agents.