

What stage is this document in the process?

01	Modification Proposal
02	Initial Modification Report
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04	Final Modification Report

Stage 01: Modification Proposal

SECMCP0018:

Standard Electricity Distributor Configuration Settings

Amendments to the Great Britain Companion Specification (GBCS) to specify the standard Electricity Distributor configuration settings to be applied to an electricity smart meter by the Manufacturer. Application of default configuration settings will reduce the need for Electricity Distributors to apply settings immediately after commissioning.

The Proposer recommends that this Modification should be:



- progressed as a Path 2: Authority Determined

This Modification Proposal should:

- be assessed by a Work Group



Low Impact:
Insert name(s) of impact

Electricity Suppliers
Electricity Distributors (Network Parties)
Electricity Meter Manufacturers

MODIFICATION PROPOSAL FORM V1.0

1. Proposer's Contact Details

Details of Proposer

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2. Modification Proposal Details

Mod Submission Date:	23/06/2016
Title of Mod Proposal:	Standard Electricity Distributor Configuration Settings

Description in Detail of the Proposed Modification:

Background:

Smart electricity meters will provide information to the Electricity Distributor on the performance of distribution networks which should help them develop economical, efficient and co-ordinated systems of electricity distribution as required by their distribution licences.

The specification of the smart meter is set out in a number of key documents including SMETS and GBCS.

These documents define the functions of smart meters including functionality that is aimed at the Electricity Distributor :

Single phase electricity meters

- Average RMS Under Voltage Threshold
- Average RMS Over Voltage Threshold
- Average RMS Voltage Measurement Period
- RMS Extreme Under Voltage Threshold
- RMS Extreme Over Voltage Threshold
- RMS Extreme Under Voltage Measurement Period
- RMS Extreme Over Voltage Measurement Period
- RMS Voltage Sag Threshold
- RMS Voltage Swell Threshold
- RMS Voltage Sag Measurement Period
- RMS Voltage Swell Measurement Period
- Maximum Demand Configurable Time Period

Three phase electricity meters

- Phase [n] Average RMS Under Voltage Threshold
- Phase [n] Average RMS Over Voltage Threshold
- Phase [n] Average RMS Voltage Measurement Period
- Other parameters as per single phase meters

To enable the Electricity Distributor to define network events to provide operational and planning related information that is relevant to its particular network, parameters, particularly the voltage thresholds and measurement periods, are configurable by the Electricity Distributor.

Discussions with meter Manufacturers facilitated by BEAMA identified that Manufacturers may want to populate the relevant fields in the smart meter data structure in order to facilitate the manufacturing and testing process. Manufacturers indicated that it would be helpful for one set of Electricity Distributor configuration parameters to be made available to them that could be applied to all smart meters. The Electricity Distributors agreed, via the Energy Network Association, a common set of configurations which were reviewed by BEAMA members before being discussed by the DECC TSIR Workgroup. BEAMA and the TSIR Workgroup were comfortable with the proposed settings. During the discussion at the TSIR Workgroup it was agreed that the configurations could be presented in plain English and that Manufacturers would be able to convert these into the appropriate GBCS format.

The Electricity Distributor is able to change these settings post commissioning using the appropriate DCC Service Request.

This Modification Proposal is to set out these standard configurations in a new Annex to the GBCS.

Proposed Modification:

This change is to set out the Electricity Distributor Standard Configuration settings to be applied to smart electricity meters by the Manufacturer in an annex to the GBCS.

This will reduce the need for Electricity Distributors to use DCC Service Request to read any Electricity Distributor configuration settings that have been applied once the electricity smart meter has been commissioned and update them to meet their requirements.

Change required to GBCS

In the GBCS Version for Release 2 create a new Annex as shown in the following:

Annex [TBC] – Data Item Values to be set at manufacture of Devices

The configuration settings are set out in the table below.

Meter Type	SMETS2 V1.59 Ref	Configurable Data Item Name	Configurable Data Item Description	Configuration Value	Units	Configured to Alert (SMETS 5.7.4.1)
Single Phase	5.7.4.4	Average RMS Over Voltage Threshold	The average RMS voltage above which an over voltage condition is reported. The threshold shall be configurable within the specified operating range of ESME.	258	V	Y
Single Phase	5.7.4.5	Average RMS Under Voltage Threshold	The average RMS voltage below which an under voltage condition is reported. The threshold shall be configurable within the specified operating range of ESME.	212	V	Y
Single Phase	5.7.4.6	Average RMS Voltage Measurement Period	The length of time in seconds over which the RMS voltage is averaged.	1800	s	n/a
Single Phase	5.7.4.26	Maximum Demand Configurable Time Period	A single time period of up to 24 hours comprising a number of half-hour periods (commencing at the start of minutes 00 and 30 in each hour) during which recording to the Maximum Demand (Configurable Time) Active Power Import Value (5.7.5.20) is active	16:00 to 20:00 hrs	n/a	n/a
Single Phase	5.7.4.34	RMS Extreme Over Voltage Measurement Period	The duration in seconds used to measure an extreme over voltage condition.	180	s	n/a
Single Phase	5.7.4.35	RMS Extreme Over Voltage Threshold	The RMS voltage above which an extreme over voltage condition is reported. The threshold shall be configurable within the specified operating range of ESME.	265	V	Y
Single Phase	5.7.4.36	RMS Extreme Under Voltage Measurement Period	The duration in seconds used to measure an extreme under voltage condition.	180	s	n/a
Single Phase	5.7.4.37	RMS Extreme Under Voltage Threshold	The RMS voltage below which an extreme under voltage condition is reported. The threshold shall be configurable within the specified operating range of ESME.	190	V	Y
Single Phase	5.7.4.38	RMS Voltage Sag Measurement Period	The duration in seconds used to measure a voltage sag condition.	180	s	n/a

Meter Type	SMETS2 V1.59 Ref	Configurable Data Item Name	Configurable Data Item Description	Configuration Value	Units	Configured to Alert (SMETS 5.7.4.1)
Single Phase	5.7.4.39	RMS Voltage Swell Measurement Period	The duration in seconds used to measure a voltage swell condition.	180	s	n/a
Single Phase	5.6.3.40	RMS Voltage Sag Threshold	The RMS voltage below which a sag condition is reported. The threshold shall be configurable within the specified operating range of ESME.	190	V	N
Single Phase	5.6.3.41	RMS Voltage Swell Threshold	The RMS voltage above which a swell condition is reported. The threshold shall be configurable within the specified operating range of ESME.	265	V	N
Three Phase	5.19.1.1	Phase [n] Average RMS Over Voltage Threshold	The average RMS voltage for phase [n] above which an over voltage condition is reported. The threshold shall be configurable within the specified operating range of ESME.	258	V	Y
Three Phase	5.19.1.2	Phase [n] Average RMS Under Voltage Threshold	The average RMS voltage for phase [n] below which an under voltage condition is reported. The threshold shall be configurable within the specified operating range of ESME.	212	V	Y
Three Phase	5.19.1.3	Phase [n] Average RMS Voltage Measurement Period	The length of time in seconds over which the RMS voltage is averaged for phase [n].	1800	s	n/a
Three Phase	Other parameters are as per single phase meter					

Proposed content of new GBCS Annex

3. Path Type and Urgency Recommendation

Proposer's recommendations on Path Type (delete as appropriate)	Path 2
Statement for recommended Path Type:	Whilst this is a minor modification of limited impact to Electricity Distributors and Electricity Suppliers the advice from DECC is that the change is likely to require EC Notification as it restricts meters that can be sold in the GB market to those meters with specific settings, hence this Modification Proposal should be managed under Path 2 – Authority Determined.
Statement of whether Proposal is intended to be Fast-Track Modification (only Panel may raise this type of modification):	Not applicable
Is the Proposal Urgent? (delete as appropriate)	No
Statement of whether Proposal should be treated as an Urgent Proposal:	N/A

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.	☐
Transition Objective (X1.2)	
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 is that, subject to compliance with the First Relevant Policy Objective, the Charging Methodology must result in Charges that: (c) facilitate effective competition in the Supply of Energy (or its use) under the Electricity Act and the Gas Act; (d) 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; (e) 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 (f) 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.	☐

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 facilitates General SEC Objectives (C1.1) (a) and (e).

The modification facilitates SEC Objective (a) by increasing the efficiency of the installation and operation of smart metering systems:

- In order to enable the Electricity Distributors to define network events to provide operational and planning related information that is relevant to its particular network, parameters, particularly the voltage thresholds and measurement periods, are configurable by the Electricity Distributor.
- Discussions with meter manufactures facilitated by BEAMA identified that Manufacturers may want to populate the relevant fields in the smart meter data structure in order to facilitate the manufacturing and testing process. Manufacturers indicated that it would be helpful for one set of configuration parameters to be made available to them that could be applied to all smart meters.
- The Electricity Distributor is able to change these settings post commissioning using the appropriate DCC Service Request. If the application of standard configuration settings are mandated to be applied by the Manufacturer, the Electricity Distributor will not necessarily need to use DCC Service Requests to read and set configurations on meters immediately on receipt of the N16 commissioning alert. This could result in a reduction in DCC traffic or enable the traffic to be scheduled to reduce the impact on the DCC systems, therefore increasing the efficiency of the Smart Meter installation.

The modification facilitates SEC Objective (e) by facilitating innovation in the design and operation of Electricity Networks.

- Smart electricity meters will provide information to the Electricity Distributor on the performance of distribution networks which should help them develop economical,

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efficient and co-ordinated systems of electricity distribution as required by their distribution licences. Furthermore the information will be enable the Electricity Distributor explore innovative design and operational approaches.

4.2 Impacts

Statement of impact on Greenhouse Gas Emission:

The proposed variation would have no material impact on Greenhouse Gas Emissions

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

If this modification involves changes to the SEC Technical Specification documents, EC notification may be required, which requires an additional three months to be factored into the implementation timetable.

Change required to GBCS

In the GBCS Version for Release 2 create a new Annex as shown in the following:

Annex [TBC] – Data Item Values to be set at manufacture of Devices

The proposed table is included in Section 2 of this document.

Statement of impact on likely changes to other Energy Codes:

No other Energy Codes will be impacted

Statement of impact on likely Party Categories:

Large Supplier Parties	☒	Small Supplier Parties	☒
Electricity Network Parties	☒	Gas Network Parties	☐
Other SEC Parties	☐		
<i>Please state the reasons behind your choice.</i> The change would impact Large and Small Electricity Suppliers as they would need to arrange with smart meter manufacturers for the configuration settings to be applied by the manufacturer. Electricity Suppliers would need to be confident that the correct configurations had been applied by the Manufacturer.			

Electricity Distributors would be impacted because there would be a reduced need for them to apply the standard configurations immediately after commissioning of the meter.

Statement of impact on Consumers:

There is no expected impact on Consumers.

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)	☐

Please state the reasons behind your choice.

The setting would be applied by the electricity smart meter Manufacturer; there should be no impact on DCC central systems or User Systems.

5. Proposed Timetable

Proposed Timetable for Modification Proposal:

If this modification involves changes to the SEC Technical Specification documents, EC notification may be required, which requires an additional three months.

It is not intended to be a fast tracked modification but we believe it should be delivered in SEC Release 2.0 or shortly thereafter.

Current understanding is that the earliest that this Release could be is November 2017, although the precise timings will be affected by the scope and associated leads times of other changes in the release.

The proposed timetable below has been put together around a June 2017 implementation date, noting that the implementation date may need to move back, based on the necessary implementation (and testing lead times), if the Modification is approved.

The proposed timetable includes some assumed timescales for the turnaround of DCC detailed Impact Assessments (40 Working Days) and Authority (SoS) determination (25 Working Days),

The proposed timetable doesn't currently capture the 3 month EC notification pause if the changes associated with this Modification requires EC Notification as part of the Authority (SoS) approval process.

Modification Timetable

Activity	Date
Modification Proposal raised	TBD
IMR considered by Panel	8 th July 2016
Working Group meetings Indicative activities: - Initial considerations - Legal drafting - Sub-Committee feedback - Alternative(s) identified - Impact Assessments - Detailed evaluation	August – December 2016
Working Group Consultation	November 2016
Final Working Group meeting Indicative Activities:	November 2016

• Consultation response summary • WG deliverables met • Assessment for Modification Report	
Panel reviews Modification Report	December 2016
Modification Report phase consultation	January 2017
Change Board vote	January 2017
Modification Decision by the Authority (Path 2) (if required)	February 2017
Implementation	November 2017

6. Additional Information

Additional information:

None

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.

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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)
Party Category	Means one of the following categories: (a) the Large Supplier Parties collectively; (b) the Small Supplier Parties collectively; (c) the Electricity Network Parties collectively; (d) the Gas Network Parties collectively; or (e) 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; (a) consists of the apparatus identified in; (b) has the functional capability specified by; and (c) compiles 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: • Gas Smart Metering Equipment; • Electricity Smart Metering Equipment; • In Home Display; • Prepayment Interface Device; and • 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.