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Smart Energy Code

# Project Initiation Document Business Architecture Document – SMETS1 Services Release Changes

14 February 2019

## Version History

Version	Date	Update	Authorisation
0.1	14/02/19	Draft for TABASC Approval	n/a

DRAFT

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## 1. Project Background

The first version of the Business Architecture Document (BAD) was completed and approved by the Panel in September 2017. This first version covered functionality and processes delivered by the DCC Release 1.x.

Version 2.0 of the BAD was completed and approved by the Technical Architecture and Business Architecture Sub-Committee (TABASC) in May 2018. This version included the DCC Release 2.0 content.

The TABASC is required to maintain the BAD. As the SEC and associated systems and processes continues to develop and evolve through the implementation of changes and further releases the BAD will require amendment to align with the SEC.

The next significant set of changes that will have an impact on the BAD is the SMETS1 Services Release.

This project has been set up to enable the development and implementation of the necessary changes to the BAD to capture the applicable changes that will be implemented as part of SMETS1 Services Release.

## 2. Project Definition

### 2.1 Purpose

SEC Section F1.4(i)<sup>1</sup> sets out the requirement to establish and maintain the BAD.

SMETS1 Services Release is the next significant release of SEC changes and new system functionality following Release 2.0. The purpose of this project is to ensure that the BAD is maintained in line with the content of the SEC, and to reflect functionality and processes introduced and/or amended by the SMETS1 Services Release.

### 2.2 Objectives

The outcome of the project is to produce a new version of the BAD, covering the new requirements introduced as part of SMETS1 Services Release, that meets the industry needs and requirements.

Objective Measures:

- The BAD updates for SMETS1 Services Release will be consulted on to ensure that it meets SEC Party and other interested party needs;
- The project plan will set out timescales and project milestones with regular reporting against these timescales;
- Through the consultation with industry, the use of the Technical and Business Expert Community (TBEC), and drafting and review by technical specialists, will ensure the quality of the document. The final document will also undergo quality assurance processes in line with SECAS process; and

<sup>1</sup> SEC Section F1.4 ... (i) *to develop and thereafter maintain the Technical Architecture Document and the Business Architecture Document, and arrange for their publication on the Website;*

- The estimated costs for undertaking the SMETS1 Services Release BAD Review Project are set out in Section 3.3 below. Budget tracking will be put in place with any risks to budget escalated to the SEC Panel and SECCo Board.

## 2.3 Scope

The SEC requirement is to develop and maintain the BAD and arrange for its publication on the SEC Website. Therefore, the scope of the project sits within the scope of the following SEC definitions:

**Business Architecture:** means the business architecture which is designed to enable Parties to use the Services and/or to enable Parties, Energy Consumers and those acting on behalf of Energy Consumers to access the functionality described in the Technical Specifications

**Business Architecture Document:** means a document that describes the Business Architecture

**Technical Specifications:** means each of the CHTS and SMETS

The SMETS1 Services Release content updates have been produced as part of the initial work item agreed by TABASC in December 2018. A summary of the changes identified as having an impact on areas covered by the BAD is set out in Annex A.

## 2.4 Deliverables

The project will deliver a new version of the BAD (BAD v3.0), which will capture the additional or amended functionality and processes (as applicable) introduced by SMETS1 Services Release. The expectation is that the SMETS1 changes will be recorded as variations to SMETS2 processes.

## 2.5 Risks

Several constraints have been identified and set out in section 4 that may have an impact on the project delivery.

## 2.6 Assumptions

The following assumptions have been made regarding the development of the new version of the BAD:

- The appropriate expertise that will be utilised for the review of the updated BAD will be available through the TABASC, TBEC and/or SEC Parties. These parties will provide a means for the BAD to be reviewed.  
  
This expertise will be structured through the issuing of the changes for consultation<sup>2</sup>, with TABASC Members, TBEC Members, SEC Parties and other interested parties, supported by workshops, if required; and
- The expected activities to manage and plan updates to the BAD and BAM are counting back from when the SMETS1 Initial Operating Capability (IOC) is expected to go live at the end of May 2019, as per the Joint Industry Plan, subject to the revised SMETS1 Services Release plan, submitted by the DCC, being approved by BEIS.

<sup>2</sup> This consultation will be for a minimum of 20 Working Days  
TABASC\_39\_2102\_10 - Appendix A –  
PID BAD SMETS1 Services Release

### 3. Business Case

#### 3.1 Benefits

The development and maintenance of the BAD is a SEC requirement:

*Section F1.4 The Technical Architecture and Business Architecture Sub-Committee shall undertake the following duties on behalf of the Panel:*

- (i) *to develop and thereafter maintain the Technical Architecture Document and the Business Architecture Document, and arrange for their publication on the Website;*

The maintenance of the BAD, to bring it in line with the content of the SMETS1 Services Release, will enable the continuation of the review of impacts of changes on the business processes within it and for the impacts on the business architecture to be taken into account during decision making processes e.g. assessing the impact of Modification Proposals.

#### 3.2 Options

As the maintenance of the BAD is a SEC requirement, no other courses of action have been considered.

#### 3.3 Cost and Timescales

The following sets out the effort that is anticipated to be required to develop and deliver the third version of the BAD, within the scope set out in Section 2.3:

Milestone (2019)	Activity	Resource	Effort (working days)
Milestone 1: 4 January - 21 January	Review BAD and BAM against baselined/designated Technical Code Specifications and other SEC changes to identify impacted areas in light of the SMETS1 Service Release and report back to the TABASC and provide a Product Initiation Document (PID) for undertaking the updates.	SECAS Core <b>SECAS CoE</b>	4  <b>10</b>
Milestone 2: 24 January - 14 March	Draft changes to create a version of the BAD containing the SMETS1 Services Release content.	SECAS Core <b>SECAS CoE</b>	3  <b>30</b>
Milestone 3: 22 March - 19 April	Issue draft <b>BAD</b> changes to the Technical Architecture and Business Architecture Sub-Committee (TABASC), the Technical and Business Expert Community (TBEC) and make available to other interested SEC Parties for review (20 Working Days).	n/a	20 <i>Working Days</i>
Milestone 4: 23 April - 2 May	BAD updated following receipt of any review comments.	SECAS Core <b>SECAS CoE</b>	5  <b>3</b>
Milestone 5: 16 May	BAD presented to the TABASC for review and approval, subject to any feedback.	SECAS Core	4

Milestone (2019)	Activity	Resource	Effort (working days)
Milestone 6: May 2019 (Release date minus 1 week)	BAD reflecting SMETS1 Services Release published alongside version 2.0.	SECAS Core	0.5
Milestone 7: May 2019 <sup>3</sup> (Release date)	On SMETS1 Services Release date, SEC Parties notified of new live version being in effect.	SECAS Core	0.5
Milestone 8: 8 April - 14 May	Subject to the TABASC decision, prepare changes to <b>BAM</b> to reflect <b>BAD</b> updates, incorporating review comments from <b>BAD</b> .	SECAS Core <b>SECAS CoE</b>	19 <b>13</b>
Milestone 9: 16 May	<b>BAM</b> presented to the TABASC for review and approval, subject to any feedback and actioning TABASC feedback.	SECAS Core	3
Milestone 10: End of May 2019	The <b>BAM</b> containing the changes in the new live Release is uplifted and provided in unrestricted format on the SEC Website.	SECAS Core <b>SECAS CoE</b>	1 <b>1</b>

**Table 1 – Business Architecture Document and model review activities and resource requirements**

Following the completion of the first activity to review the impacts of the SMETS1 Service Release on the BAD, the subsequent estimated resource requirements may need to be revisited and adjusted based on the extent of the impacts.

In addition to the estimate effort to prepare the new version of the BAD, 10 Working Days has been estimated to cover overarching Project Management effort.

The estimated total effort is **107 Working Days**, comprising 67 *CoE* (with the additional 10 Working Days) and 40 *SECAS Core* Working Days effort. The is expected to be approximately £114k based on the activities and effort set out above.

The cost for BAD activities undertaken in Q4 2018 Financial Year is expected to be approximately £60k, for which we have available unspent Project budget for this financial year (as this exercise was planned for 2018 but deferred to align with the delays to SMETS1 Release). The remaining BAD and BAM activities required to be undertaken in FY 2019/20, are expected to be approximately £54k, which falls within the proposed draft SEC Panel FY 2019/20 combined budget of £75k for the BAD and TAD SMETS1 updates.

The costs associated with the Evolve (formally Casewise) support and uplift of changes to the model, have been budgeted for and are covered separately under a (formally Casewise) support provision within the SEC Panel Budget.

<sup>3</sup> This is based on the current plan that the SMETS1 Service functionality will go-live in late May 2019



### 3.4 Cost/Benefit Analysis

It is assumed that a Cost/Benefit Analysis is not required for this project due to the SEC requirement to maintain the BAD. However, the TABASC elected to defer the updates to the BAD until the SMETS1 solution was stable which, by inference, reduced risk of re-work and improved the cost/benefit of the updates.

The effort per month will be monitored against the estimated resource requirement. The TABASC will also be advised if the resource assessment needs revising in light of any subsequent information, including:

- Identification of additional effort required when the first activity (review of changes) is complete; and
- The addition of new changes in SMETS1 Services Release to resolve identified issues during implementation activities.

## 4. Risk Analysis

### 4.1 Risk Identification

1. There is a risk that the resource estimate, and therefore, project cost is an underestimate or overestimate and therefore impacting on the project budget.
2. There is a risk that the required expertise to undertake the initial reviews of the document through the TBEC is not available or do not have the required expertise impacting on the quality of the document.
3. There is a risk that the additional changes arise during the drafting of the new BAD version that increases resource or time requirements on drafting and preparing the necessary update to it.
4. There is a risk that there is little benefit, beyond that provided by the BAD, of updating the BAM.
5. Some aspects of the SMETS1 solution (e.g. Dual Control Organisation) are not clearly specified in publicly-available documents, potentially for security reasons.
6. There is a risk that revising the document identifies errors or omissions from previous drafting.

### 4.2 Risk Mitigation

1. A resource schedule will be put in place based on the project plan. Reporting against this schedule and plan will be available via the monthly project updates to the TABASC.
2. The TABASC have established the TBEC to ensure industry representatives with the appropriate expertise are available to them to input into specific projects and work packages, which in this case, will be the maintenance updates to the BAD.
3. If additional changes arise during the preparation of the new version of the BAD, the impact will be assessed and the TABASC informed of the impact and associated resource impacts to ensure the resource requirements remain reflective for the project.
4. If there is no benefit of updating the BAM this will be descope, upon TABASC's agreement.



5. SECAS will determine whether these limitations relate to the timing of availability of documents. The BAD will only capture the Business Architecture to the degree possible using publicly-available documents.
6. The revisions for SMETS1 updates will address other issues identified as long as project timescales and funding is not compromised.

### 4.3 Risk Management

Monitoring against plan and budget with any issues escalated to the TABASC and Panel/Board as required. Further contingency funds are available through the Panel Approved Budget, if approved.

Where industry input is required and either not available in the time period required, or not accessible via the TBEC for document review and quality control, further technical specialists contracted with SECAS could be called in to undertake the relevant tasks and activities. This may have a further impact on budget, which is linked to risk 2 set out above. The TABASC could also encourage engagement from the TBEC or SEC Parties and interested parties.

### 4.4 Risk Monitoring

A Risks and Issues Log will be maintained throughout the project and form part of the reporting to the TABASC as part of the monthly updates.

All risks and issues will be escalated to the Project Manager as they arise.

## 5. Roles and Responsibilities

### 5.1 Project Organisation Chart



Figure 1: Project Organisation Chart

### 5.2 Project Sponsor and Responsibilities

The TABASC will act as the Project Sponsor and will have the authority and control over the project and its implementation.

The TABASC will have the final approval of the new version of the BAD prior to publication as it will be the body that the SEC requirement is placed on to develop and maintain the document.

### 5.3 Project Manager

Jahan Haroon – SECAS Jahan Haroon– SECAS Principal Consultant will take on the role of the Project Manager, with the following roles and responsibilities:

- Manage project delivery and production within budget, timescale and to the defined requirements;
- Manage project reporting via the Panel, SECAS, the TABASC Chair/TABASC; and
- Liaise with the TABASC Chair regarding general project delivery and associated risks and issues.

#### 5.4 Project Team

The Project Team will consist of a number of key members supported by a wider Community of Experts as set out below:

##### SECAS

*Rainer Lischetzki, Phillip Twiddy, Alan Bateman and Sean Gulliford – CoE Technical Expert support.*

Rainer, Phillip, Alan and Sean's role will be to draft the content of the BAD, amending as necessary throughout the review cycles with additional resource in support, if required.

Both Rainer and Sean have extensive experience with the Technical Code Specifications, having experience working at a device manufacturer for a number of years.

Phillip has many years' experience in smart metering including two working for DCC as deputy head of test assurance and was the technical lead of SMDA Scheme Operator and Chair of the TAG.

Jahan is an experienced delivery consultant having led and managed complex programmes and projects for clients in the public and private sector, including Energy sector clients.

They also have experience of being able to take the technical content of the SEC and explain it in simple terms, which will aid the activity of updating the BAD and Model.

##### *Business Process Modelling Resource*

SECAS will, with the TABASC approval, determine whether there is value in continuing to maintain the BAM. If this is the case, named individuals will be identified.

##### *SECAS Core Delivery Resource will:*

- manage the administration and secretariat of the governance meetings, including producing the reports to provide to the TABASC. This resource will also liaise with the Project Manager ensuring risks and issues are escalated as necessary.
- prepare the updates to the model, to reflect the changes in the BAD, if this work item is approved;
- manage the consultation process, including managing the correspondence with respondents; and
- undertake a quality assurance function for the versions of the document sent out to wider stakeholders for review/consultation and prior to final publication.

## 6.1 Schedule

A detailed project plan is developed based on the activities set out above in section 3.3.

[illegible]

If during the commencement of activities to prepare the changes to the BAD, an adjustment to the expected effort is required, the TABASC will be informed, with supporting rationale.

## 6.2 Human Resources

The following table sets out the number of estimated days activity required to complete the project. This is based on the assumptions set out in Section 2.6 above.

Activity	SECAS Core	SECAS CoE	Total
BAD	17	43	60
BAM	23	14	37
Additional overarching Project Management effort		10	10
<b>Total</b>	<b>40</b>	<b>67</b>	<b>107</b>

*Table 2 – Summarised resource requirements*

## 6.3 Project Control

The following project controls will be put in place to monitor progress of the project including timescales and budget monitoring:

- The MS Project Plan will be maintained;
- Reporting to the TABASC on a monthly basis;
- Reporting to the SEC Panel and Parties on a monthly basis in the form of Operations Report, which will highlight monthly progress. Any separate issues will be reported specifically through separate updates, if required;
- Risks and Mitigation Plan – identifying project risks and mitigations;
- Issues Log; and
- Budget actuals and forecasts produced in the monthly reporting to the TABASC.

## 6.4 Quality Control

Throughout the development of the BAD there will be continuous review stages to ensure the quality of the document. These reviews will be undertaken by a number of different stakeholders:

- Internal review by SECAS Technical Experts and the SECAS Core team;
- Consultation with SEC Parties; and
- Final review and approval by the TABASC.

A final quality assurance process will be followed by the SECAS Core Delivery Team prior to any formal publications.

## Annex A – SMETS1 Services Release impacts on the BAD

The following table will provide a high-level overview of which elements of the SMETS1 Services Release content impacts the BAD. Note, this list will only show the changes where an impact has been identified, as some of the content is clarifications or changes that do not alter or add to the Business Architecture. This analysis of the SMETS1 Services Release content, against the BAD has informed this PID, and the associated resource estimates.

The SEC Documents that have been baselined to support the SMETS1 Services Release can be found on [The Developing SEC](#) webpage.

Title	Section	Impacted BAD sections	Additional comments on the changes required
SEC Appendix B - Organisation Certificate Policy v1.2 draft	No Impact to BAD	No Impact to BAD	No Impact to BAD
SEC Appendix I - CH Installation and Maintenance Support Materials v1.3 draft	No Impact to BAD	No Impact to BAD	No Impact to BAD
SEC Appendix M - SMK1 Interface Design Specification v1.2 draft	No Impact to BAD	No Impact to BAD	No Impact to BAD
SEC Appendix Z - CPL Requirements Document v1.1 draft 2	Section 2 Central Products List	Multiple Sections	All instances of Certified Product List to be replaced with Central Products List.
	Section 2.1 Central Products List	7.1.2.4.1 CPL Submission	Text in BAD table to be updated in line with changes to Appendix Z.
	Section 3.1 Addition of device Models to the List	7.1.2.4.1 CPL Submission	Text in BAD table to be updated in line with changes to Appendix Z.
	Section 3.2 Addition of device Models to the List	7.1.2.4.1 CPL Submission	Section 3.2 Appendix Z to be added to the table in the BAD.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	Section 3.3 Addition of device Models to the List	7.1.2.4.1 CPL Submission	Section 3.3 Appendix Z to be added to the table in the BAD.
	Section 6.2A Removal of Device models from the list	7.1.2.4.1 CPL Submission	Section 6.2a Appendix Z to be added to the table in the BAD.
	Section 6.2B Removal of Device models from the list	7.1.2.4.1 CPL Submission	Section 6.2b Appendix Z to be added to the table in the BAD.
SEC Appendix AB - Service Request Processing Document v1.2 draft 2	Section 2.1 - Obligations of Users: Suspended Devices and Firmware	7.1.2.6 Governance	Table to be updated to align with SEC text.
	Section 2.2 Obligations of Users: Suspended Devices and Firmware	7.5.3.8 Governance	Table to be updated to align with SEC text.
	Section 5.1 Obligations of the DCC: SMETS2+ Communications Hub firmware	7.5.3.8 Governance	Table to be updated to align with SEC text.
	Section 5.1 Obligations of the DCC: SMETS2+ Communications Hub firmware	7.5.3.6.5 Upgrade CH Firmware	Text to be updated to clarify applicable only to SMETS2 CHs.
	6.1 Obligations of the DCC: Processing Service Requests	7.8.4.6 Governance	Table to be updated to align with SEC text.
	6.1 Obligations of the DCC: Processing Service Requests	7.8.4.4.2 Critical Service Request Processing	Additional replay checks to be made for specific SMETS1 SRs.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	6.4 Obligations of the DCC: Processing Service Requests	7.8.4.6 Governance	Table to be updated to align with SEC text.
	6.5 Obligations of the DCC: Processing Service Requests	7.8.4.6 Governance	6.5 to be added to the Governance Table.
	Section 6.5 Obligations of the DCC: Processing Service Requests	7.5 Manage Device	<p>Impacts to SR processing for SMETS1 devices to be integrated across the section.</p> <p>Each SR process described in this section to be reviewed separately and indicated whether applicable to SMETS1 devices and any differences highlighted i.e. future dated command processing variations between SMETS1 and SMETS2.</p>
	Section 8 Obligations of the DCC: 'CoS Update Security Credentials' Service Requests (other than SMETS1 Service Requests) and Corresponding Pre-Commands	7.7.1 Transitional Change of Supplier	Current method described in BAD is applicable to SMETS2 only, SMETS1 CoS process to be added.
	Section 9 Obligations of the DCC: 'Request Handover of DCC Controlled Device' Service Requests	7.7.2.5.5 Request Handover of DCC Controlled Device	BAD process only applicable to SMETS2 devices.



Title	Section	Impacted BAD sections	Additional comments on the changes required
	Section 10 User and DCC Obligations: 'Restore HAN Device Log' Service Requests	7.6.1.6.5 Restore HAN Device Log 7.6.1.6.6 Restore GPF device Log	BAD process only applicable to SMETS2 devices.
	Section 11 Obligations of the DCC: 'Join Service' and 'Unjoin' Service Requests for Pre-Payment Meter Interface Devices and Gas Smart Meters	7.6.1.6.12 Join Service 7.6.2.5.3 Unjoin Service	BAD process only applicable to SMETS2 devices.
	Section 12.2A Threshold Anomaly Detection	7.8.2.7 Governance	SEC clause 12.2A to be added to Governance table.
	Section 12.2A Threshold Anomaly Detection	7.8.2 Threshold Anomaly Detection	Update to include obligations related to SMETS1.
	14 DCC Obligations: Sending Countersigned Service Requests	7.7.1.7 Governance 7.8.3.7 Governance	Table to be updated to align with new SEC text.
	15 Orchestration of Service Requests	7.8.4 Service request processing	Difference with SMETS1 service request processing to be captured.
	16 Obligations of a SMETS1 Service Provider: Countersigned Service Request Processing	7.8.4 Service request processing	SMETS1 process and obligations to be captured:  Note: Multiple SRs are captured in section 16 (Appendix AB) and therefore the sections of the BAD relating to those specific SRs must also be updated.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	17.3 Obligations of the DCC: Service Responses and Alerts	7.7.2.7 Governance	Text from Appendix AB section 17.3 to be added to the governance table.
	17.3, 17.5, Obligations of the DCC: Service Responses and Alerts	7.8.4 Service request processing	Difference with SMETS1 service response/Alert processing to be captured.
SEC Appendix AD - DCC User Interface Specification v3.0 draft 3  <i>Note: Governance sections of the BAD are not included in the impact analysis here, see impact analysis against SEC changes in:</i> <ul style="list-style-type: none"> <li>Section 14 <b>Error! Reference source not found..</b></li> <li>Section 15 <b>Error! Reference source not found..</b></li> </ul> Section 16 <b>Error! Reference source not found..</b>	1.4 Variation of requirements in relation to SMETS1 Devices	Section 3 Scope	Update to scope to include SMETS1.
	1.4 Variation of requirements in relation to SMETS1 Devices	Table 3. Device Certification	Check device certification requirements for SMETS1 – likely to be picked up by analysis against the CPL Requirements document.
	1.4 Variation of requirements in relation to SMETS1 Devices	6 Change management	Update to include SMETS1 in the BAD.
	1.4 Variation of requirements in relation to SMETS1 Devices	Table 13. Retry and back-off periods	Comment to be added – not applicable to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	Table 6. Non-Critical Configuration Service Requests	New column to Table 6 to indicate if SR is applicable to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	Table 7 - Critical configuration Service Requests	New column to Table 7 to indicate if SR is applicable to SMETS1 devices.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	1.4.2 SMETS1 Service Requests	Table 8. Read (Device) Service Request	New column to Table 8 to indicate if SR is applicable to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	Table 9. Read (non-Device) Service Requests	New column to Table 9 to indicate if SR is applicable to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	Table 10. Manage Load Control Service Requests	New column to Table 10 to indicate if SR is applicable to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.5.1.5.1 Display Message	SRV 3.1 not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.5.1.5.2 Update Supplier Name	SRV 3.4 not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.5.1.5.3 Disable Privacy PIN	SRV 3.5 not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.5.5.3 Inputs	SRVs 6.14.1 & 6.14.2 not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.2.1.6.12 Join Service	Whilst the join service is available to SMETS1 devices, certain combinations will not be allowed, for example HCALCS, SRVs 6.14.1 & 6.14.2 not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.2.3.5.4 Update Security Credentials	SRV 6.15.2 not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.7.2.5.8 Update Security Credentials (Device)	SRV 6.15.2 not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.2.1.6.11 Configure Device - Set Device Configuration (Import MPxN)	SRV 6.20.1 not available to SMETS1 devices.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	1.4.2 SMETS1 Service Requests	7.2.2.6.9 Configure Device - Set Device Configuration (Import MPxN)	SRV 6.20.1 not available to SMETS1 devices.  There is a question here as to how the MPxN is configured across SMETS1 devices?
	1.4.2 SMETS1 Service Requests	7.2.3.5.1 - Read (Device) - Retrieve Device Security Credentials	SRV 6.24.2 not available to SMETS1 devices.  How are security credentials managed across SMETS1 devices? Each manufacturer is likely to have different methods. Do we have to capture this in the BAD for each manufacturer of enrolled smets1 devices?
	1.4.2 SMETS1 Service Requests	7.7.2.5.10 - Read (Device) - Retrieve Device Security Credentials	SRV 6.24.2 not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.4.1.6.1 Update Device Configuration (Billing Calendar)	SRV 6.26 not available to SMETS1 devices
	1.4.2 SMETS1 Service Requests	7.5.5 Manage load control	All SRVs in this section are not available on SMETS1 devices
	1.4.2 SMETS1 Service Requests	7.6.1 Replace Communications Hub	This section is not applicable to SMETS 1, specifically SRVs 8.12.1 Restore HAN Device Log and 8.12.2 Restore GPF Device Log.  What is the replacement scenario for SMETS1 communications hubs (note the smets1 solutions may not have a physical CH but rather included as a function of the ESME)?

Title	Section	Impacted BAD sections	Additional comments on the changes required
	1.4.2 SMETS1 Service Requests	7.2.2. Install and Leave	This feature is not supported by SMETS1 devices, specifically SRV 8.13 Return Local Command.
	1.4.2 SMETS1 Service Requests	7.2.1.6.6. Communications Hub Status Update	SRV 8.14.1, Communications Hub Status Update - Install Success, not available to SMETS1 devices. See also governance table.
	1.4.2 SMETS1 Service Requests	7.2.2.6.1 Communications Hub Status Update – Install No SM WAN	SRV 8.14.2, not available to SMETS1 devices, not available to SMETS1 devices.
	1.4.2 SMETS1 Service Requests	7.2.3.5.7 Post Commissioning Management and Reporting	SRV 8.14.3 not supported for SMETS1.
	1.4.2 SMETS1 Service Requests	7.9.1.6.2 Communications Hub Status Update – Fault Return and No-Fault Return	SRVs 8.14.3 and 8.14.4 not supported for SMETS1.
	1.4.2 SMETS1 Service Requests	7.5.1.5.4 Request Customer Identification Number	SRV 9.1 “Request Customer Identification Number” not available to SMETS1.
	1.4.2 SMETS1 Service Requests	7.9.5.4.1 Read (Non-Device) – Request WAN Matrix	SRV 12.2 not available to SMETS1.
	1.4.2 SMETS1 Service Requests	7.5.7.5.3 Record Network Data (Gas)	SRV 14.1 not available to SMETS1.
	1.4.4. Future Dating of Service requests for SMETS1 devices	7.5.3.6.3 Activate firmware	Changes to handling of future dated Cs06 activate firmware command. SMETS1 future dating handled by the DCC not the smarting metering equipment.
	1.4.4. Future Dating of Service requests for SMETS1 devices	7.7.1.5.3 Update Security Credentials (CoS)	Note to state that SMETS1 meters will not update future dated commands so they never execute.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	1.4.4. Future Dating of Service requests for SMETS1 devices	Table 13. Retry and back-off periods	Future date response pattern only applicable to SMETS2 devices.
	1.4.7.1 Update Tariff (Primary Element) SRV 1.1.1	Table 7. Critical configuration Service Requests	SRV supported by smets1 devices but additional processing required by DCC, reference DU1A in table.
	1.4.7.2 Update Price (Primary Element) SRV 1.2.1	Table 7. Critical configuration Service Requests	SRV supported by smets1 devices but additional processing required by DCC, reference DU1S in table.
	1.4.7.4 Update Prepay Configuration SRV 2.1	7.3.2.5.5 Top-up device	Final paragraph in this section, SMETS1 devices are not required to support Maximum meter balance or maximum credit threshold. If SMETS1 meters do support equivalents the DCC will set them.  How does the supplier know if these values are set or not?
	1.4.7.5 Top Up Device SRV 2.2	7.3.2.5.5 Top-up device	Variations of the use of the UTRN field to be added to this section, i.e. either UTRN or monetary value in pence.
	1.4.7.6 Read Instantaneous Import TOU with Blocks Matrices SRV 4.1.3	Table 8. Read (Device) Service Request	Update SRV 4.1.3, whilst SRV is supported by Smets1 meters, RegisterMatrixTOUValue fields within the SRV is not supported – Reference out to DU1S.
	1.4.7.7 Read Tariff Primary Element SRV 4.11.1	Table 8. Read (Device) Service Request	DCC specific processing of SRV response from meter to be added to SRV 4.11.1 in table 8, reference out to DU1S.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	1.4.7.8 Read Prepayment Configuration SRV 4.13	Table 8. Read (Device) Service Request	DCC specific processing of SRV response from meter to be added to SRV 4.13 in table 8, reference out to DUIS.
	1.4.7.9 Read Device Configuration (Gas) SRV 6.2.8	Table 8. Read (Device) Service Request	SRV supported by smets1 devices but additional processing required by DCC, see DUIS in table.
	1.4.7.10 Update Device Configuration SRV 6.7	Table 6. Non-Critical Configuration Service Requests	SRV supported by smets1 devices but additional processing required by DCC, reference DUIS in table.  Stabilisation and measurement period may not be supported by smets1 meters. If available, the DCC will set.
	1.4.7.11 Read Device Log SRV 8.9	Table 8. Read (Device) Service Request	SRV supported by smets1 devices but additional processing required by DCC, see DUIS in table.
	1.4.7.11 Read Device Log SRV 8.9	7.6.2.5.1 Read (Device)	SRV supported by smets1 devices but additional processing required by DCC, see DUIS.
	1.4.7.12 Update HAN Device Log SRV 8.11	7.2.1.6.7 Update HAN Device Log – Add Device	SRV supported by smets1 devices but additional processing required by DCC, see DUIS.
	1.4.7.13 Update Firmware SRV 11.1	7.5.3.6.2 Update Firmware	SRV supported by smets1 devices but additional processing required by DCC, see DUIS.
	1.4.7.14 Activate Firmware SRV 11.3	7.5.3.6.3 Activate Firmware	SRV supported by smets1 devices but additional processing required by DCC, see DUIS.
	1.4.7.15 Read Inventory SRV 8.2	7.4.1.6.3 Read (Non-Device)	SRV supported by smets1 devices but additional data items required in response from DCC (CSP region – new value), see DUIS.



Title	Section	Impacted BAD sections	Additional comments on the changes required
			Note: the DUIS document has a missing reference here.
	1.4.8 Sensitive Data	7.4.1.6.2 Read (Device)	SMETS1 responses never contain sensitive data.
	1.4.8 Sensitive Data	Table 8. Read (Device) Service Request	Note – text before Table 8 in the BAD says “The list of Read (Device) Service Requests is below. Those with sensitive Responses are in bold.” The bold has been removed from the text. This need to be replaced and a note added that encrypted responses are not supported by SMETS1 device.
	1.4.8 Sensitive Data	7.4.1.1 Introduction	SMETS1 responses do not contain sensitive data.
	1.4.9 SMETS1 service provider Access control	4.5 Processes	Additional processing required by DCC for SMETS1 regarding access control to SR's – see DUIS.  This will also be covered in the impact analysis of the Service Request processing document.
	1.4.10 DCC Protection against replay	7.3.2.5.5 Top-up Device	Changes to anti-replay protection for SMETS1 devices.  Note: Impacted service requests are identified in the Service Request Processing document and will be cover in that IA.  Note – this is the only time replay protection is mentioned in the BAD, this should be reviewed.
	1.4.11 SMETS1 Responses and SMETS1 Alerts	4.5 Processes	Additional information describing the differences in how the DCC process Response and Alerts from SMETS1 devices.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	1.4.11 SMETS1 Responses and SMETS1 Alerts	4.5 Processes	Addition of text to include SMETS1 Devices in the BAD.
	1.4.12 SMETS1 Key Cryptographic protection	4.5 Processes	Additional text to cover additional DCC processing around countersigning.
	1.4.13 Recording of SMKI Organisation Certificate Information	7.7.2 Manage security credentials	The meaning of the N42 "Security Credentials updated on the device" alert is different from SMETS1 devices. It means that the certificate has been stored by the SMETS1 documents opera service provider.
SEC Appendix AF - Message Mapping Catalogue v3.0 draft 2	1.4 - Variation of requirements in relation to SMETS1 Responses and SMETS1 Alerts	7.8.4 Service Request Processing	Additional text in the introduction to reference Appendix AF section 1.4 for differences in SMETS1 alert and response processing.
SEC Appendix AG - Incident Management Policy v1.2 draft	2.1.3 - Incident Parties other than Registration Data Providers	7.9.4.5.1 Manage Incident	SEC text has been updated
SEC Appendix AH - Self Service Interface Design Specification v1.2 draft  <i>Note: Governance sections of the BAD (containing experts from SEC) are not included in the impact analysis against the SSI, see impact analysis against SEC</i>	1 self-service interface design specification	4.4 Major DCC Interfaces	Self-service interface – text to be updated to clarify SSI contains information for both SMETS1 and SMETS2 devices
	1.10.3 Smart Meter Inventory: UC_Inventory_002 (Ext. 1 – Specific Device Details View)	7.4.1.6.3 Read (non-device)	Read Inventory via the SSI – Update to include data returned for a SMETS1 Communications HUB. Specifically, CSP region = SMETS1
	1.10.3 Smart Meter Inventory:	7.4.1.6.3 Read (non-device)	All SMETS1 Devices = the name of the SMETS1 Service Provider that provides services in respect of that Device.

Title	Section	Impacted BAD sections	Additional comments on the changes required
<i>changes sections 14, 15 and 16.</i>	UC_Inventory_002 (Ext. 1 – Specific Device Details View)		
SMETS1 Supporting Requirements version 0012 draft  <i>Note: Governance sections of the BAD are not included in the impact analysis against S1SR, see impact analysis against SEC changes sections 14-16 in this document.</i>	General	Table 6. Non-Critical Configuration Service Requests  Table 7. Critical configuration Service Requests  Table 8. Read (Device) Service Request	For each SR identified in S1SR, reference the S1SR in the relevant BAD tables.
	5 Originator Counters	Appendix A - Glossary	Current originator counter definition references GBCS, for SMET1 variations reference S1 Supporting requirements.
	17.9 Adjust meter balance	7.3.2.5.7 Update Meter Balance	SMETS1 devices may not support this SR, reference S1SR.
	17.10 Update payment mode	7.3.2.5.1. Update payment mode	Variation from SMETS2, reference S1SR.
	17.12 Update Prepay Configuration	7.3.2.5.2 Update Prepay Configuration	MaxMeterBalance and MaxCreditThreshold may not be supported by SMETS1 devices – reference S1SR.
	17.14 Update Debt	7.3.2.5.6 Update Debt	Variations from SMETS2 regarding TimeBasedDebt1, TimeBasedDebt2 and PaymentDebtRegister values see S1SR.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	17.15 Activate Emergency Credit	7.3.2.5.4 Activate emergency Credit	Variations from SMETS2 see S1SR.
	17.16, 17.17 Restrict access for change of tenancy	7.5.2.5.1 Restrict access for change of tenancy	Variations from SMETS2 see S1SR.
	17.18 Clear Event Log (SRV 3.3)	7.5.7.5.1. Clear Event Log	Variations from SMETS2 see S1SR.
	17.19 Read Instantaneous Import TOU With Blocks Matrices	Table 8 Read (Device Service request)	SMETS1 device may not return TOU block register matrix see S1SR.
	17.20 – 17.22 Retrieve Change Of Mode / Tariff Triggered Billing Data Log (4.4.2) and Retrieve Billing Calendar Triggered Billing Data Log (SRV 4.4.3)	Table 8 Read (Device Service request)	SRs 4.4.2 and 4.4.3, for SMETS 1 recoding of the Total Consumption Register, Total Active Import Register and Tariff TOU Block Register matrix may not be supported.
	17.23, 17.24 Retrieve Import Daily Read Log (SRV 4.6.1)	Table 8 Read (Device Service request)	Tariff TOU Block Register Matrix not supported by SMETS1.
	17.25 Read Tariff Primary Element (SRV 4.11.1)	Table 8 Read (Device Service request)	Additional processing and SMETS2 data items not supported.
	17.26 Read Prepayment Configuration SRV 4.13	Table 8 Read (Device Service request)	MaxMeterBalance or MaxCreditThreshold not supported in SMETS1.
	17.27 – 17.28 Read Load Limit Data (SRV 4.15)	Table 8 Read (Device Service request)	Load Limit Period and Load Limit Restoration Period not supported by SMETS1.
	17.27 – 17.28 Read Load Limit Data (SRV 4.15)	7.5.4.6.4 Disable Supply Device Alerts	Load Limit Period and Load Limit Restoration Period not supported by SMETS1.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	17.30 Read Device Configuration (Identity Exc MPxN) (SRV 6.2.4)	Table 8 Read (Device Service request)	MeterVariant or ModelType values not supported by SMETS1.
	17.31 Read Device Configuration (Gas) (SRV 6.2.8)	Table 8 Read (Device Service request)	StabilisationPeriod or MeasurementPeriod may not be supported by SMETS1.
	17.32 Update Device Configuration (Load Limiting General Settings) (SRV 6.4.1)	Table 7. Critical configuration Service Requests	Load Limit Period and a Load Limit Restoration period not supported.
	17.32 Update Device Configuration (Load Limiting General Settings) (SRV 6.4.1)	7.5.4.6.4 Disable Supply Device Alerts	Load Limit Period and Load Limit Restoration Period not supported by SMETS1.
	17.34 Update Device Configuration (SRV 6.7)	Table 7. Critical configuration Service Requests	Partially supported by SMETS1, additional processing required by S1SP, reference out to S1SR.
	17.35 Read Event Or Security Log (SRV 6.13)	Table 8. Read (Device) Service Request	additional processing required by S1SP, reference out to S1SR.
	17.36 Update Security Credentials (KRP) (SRV 6.15.1)	7.7.2.5.6 Update Security Credentials (KRP)	Variation in processing from SMETS2 – reference S1SR
	17.37,17.38 Update Security Credentials (CoS) (SRV 6.23)	7.7.1.5.4 Update Security Credentials (CoS)	Variation in processing from SMETS2 – reference S1SR.
	17.39 – 17.41 Retrieve Device Security	7.7.2.5.10 Read (Device) - Retrieve Device and	Variation in processing from SMETS2 – reference S1SR.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	Credentials (KRP) (SRV 6.24.1)	Organisation Security Credentials	
	17.42 Request Handover Of DCC Controlled Device (SRV 6.21)	7.7.2.5.5 Request Handover of DCC Controlled Device	Additional processing at DCC for this SR in SMETS1.
	17.43 Enable Supply (SRV 7.1)	7.5.4.6.2 Enable Supply	Enabling of supply is unconditional in SMETS1.
	17.44 Arm Supply (SRV 7.3)	7.5.4.6.1 Arm Supply	Arming of supply is unconditional in SMETS1.
	17.45 Join Service (Critical) (SRV 8.7.1) and Join Service (Non-Critical) (SRV 8.7.2)	7.2.1.6.12 Join Service	S1SP processing required – reference S1SR.
	17.46 Unjoin Service (Critical) (SRV 8.8.1) and Unjoin Service (Non-Critical) (SRV 8.8.2)	7.6.2.5.3 Unjoin Service	S1SP processing required – reference S1SR.
	17.47 – 17.49 Read Device Log (SRV 8.9)	Table 8. Read (Device) Service Request	SMETS1 variations reference out to S1SR.
	17.50 Update HAN device Log (SRV8.11)	7.2.1.6.7 Update HAN device Log – Add Device	Variations in SMETS1 processing reference out the S1SR.
	17.50 Update HAN device Log (SRV8.11)	7.6.2.5.4 Update HAN device Log – Remove Device	Variations in SMETS1 processing reference out the S1SR.
	17.50 – 17.54 Update Firmware (SRV 11.1)	7.5.3.6.2 Update Firmware	Variations in SMETS1 processing reference out the S1SR.

Title	Section	Impacted BAD sections	Additional comments on the changes required
	17.55 Read Firmware Version (SRV 11.2)	Table 8. Read (Device) Service Request	SMETS1 variations reference out to S1SR in BAD.
	17.52 – 17.56 Activate Firmware (SRV 11.3)	7.5.3.6.3 Activate firmware	SMETS1 variations reference out to S1SR in BAD.
	17.57 Read Firmware Version (SRV 11.2)	7.5.3.6.6 Read (Device) – Read Firmware Version	SMETS1 variations reference out to S1SR in BAD.
	17.58, 17.59 Activate Firmware (SRV 11.3)	7.5.3.6.3 Activate Firmware	S1SP processing required – reference S1SR.
	17.60, 17.61 Synchronise Clock (SRV 6.11) and Commission Device (SRV 8.1.1)	7.5.7.5.2 Synchronise clock	S1SP processing required – reference S1SR.
SEC Changes – Annex B – Final SEC amendments	Appendix AC – 2.4, 2.6 and 2.9	General	All instances (23) of “Certified Product List” in the BAD to be changed to “Central products List”.
	Appendix AC – 2.8	7.1.19	Changes to 2.8
	Appendix AC - Pre-Commissioning obligations in relation to SMETS1 Devices – 3.4 – 3.10	7.1 Manage inventory	Pre-Commissioning obligations in relation to SMETS1 Devices to be added to 7.1 manage inventory.
	Appendix AC - Pre-Commissioning obligations in relation to SMETS1 Devices – 3.4 – 3.10	7.1.1.9 Governance	Relevant sections to be added to governance table.



Title	Section	Impacted BAD sections	Additional comments on the changes required
	Appendix AC - Post-Commissioning Obligations in relation to SMETS1 Devices 6.1 to 6.4	7.2.3 Post commission obligations	Post Commissioning obligations in relation to SMETS1.
	Appendix AC - Post-Commissioning Obligations in relation to SMETS1 Devices 6.1 to 6.4	7.2.3.7 Governance	Relevant sections to be added to governance table.
	Appendix AC - Removal of SMETS1 Communications Hub 10.1	7.6.1.6.8 Decommission Device – Decommission CH	SMETS1 obligations to be added.
	SEC Section A - DEFINITIONS AND INTERPRETATION – Central Products List	General	“Certified Product List” to “Central products List”.
	SEC Section A – Communications Hub function	Appendix A Glossary	Communications Hub Function refers to GBCS this should be changed to refer to SEC section A to capture SMETS1 changes.
	SEC Section A – ESME	Appendix A Glossary	ESME refers to SMETS this should be changed to refer to SEC section A to capture SMETS1 changes.
	SEC Section A – Gas Proxy function	Appendix A Glossary	GPF refers to CHTS this should be changed to refer to SEC section A to capture SMETS1 changes.
	SEC Section A – Gas Proxy function	Appendix A Glossary	GSME refers to SMETS this should be changed to refer to SEC section A to capture SMETS1 changes.
	SEC Section B ACCESSION B2.10	All Impacts captured in Appendix AC - Post-Commissioning Obligations in	

Title	Section	Impacted BAD sections	Additional comments on the changes required
		relation to SMETS1 Devices 6.1 to 6.4	
	SEC Section F SMART METERING SYSTEM REQUIREMENTS  F2 Central Products List	7.1.2 CPA/CPL	Update to incorporate changes in SEC F2 – SMETS1 devices do not have CPA.
	SEC Section F2 Central Products List – 2.1, 2.2A, 2.2B	7.1.2.4.1 Governance	Impacted Governance sections to be update.
	SEC section F5 through F9	7.9.1 Order and Return Communications Hub	Updated to intro to indicate this section is only applicable to SMETS2 CHs that comply to CHTS.
	SEC Section G SECURITY G6.3	7.8.2.7 Governance	SEC text changed.
	SEC Section G 6.6	7.8.2.7 Governance	SEC text changed.
	SEC Section H6.2	7.6.2.7 Governance	SEC text changed.
	SEC Section H6.3	7.6.2.7 Governance	SEC text changed.
	SEC Section H7.14	7.9.7.6 Governance	SEC text changed.
	SEC section H8.16 (f)	7.9.2.4.2 Self-Service Interface	SEC text changed.

Title	Section	Impacted BAD sections	Additional comments on the changes required
SEC Changes – Annex C – Energy Supplier License Amendments	Annex C - Electricity Supply Licence Conditions	Annex A Glossary	New defined term “SMETS2+” to be added to glossary. Note - All instances referring to SMETS in the current document should use the SMETS2+ term.
	Annex C - Gas Supply Licence Conditions	Annex A Glossary	As above.
SEC Changes – Annex D – DCC License Amendments	No impact to BAD	No impact to BAD	No impact to BAD



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