

Appendix R

Common Test Scenarios Document

Contents

1. Introduction.....	3
2. Scope.....	5
3. Test Sequence	6
4. Test Certificates & Security Requirements.....	7
5. UEPT Procedure	8
6. Annex A: Test Artefacts.....	26
7. Annex B: Test Data	34
8. Annex C: Test Scenarios	35
9. Annex D: Forms and Templates	72
10. Annex E: TEST COMPLETION CERTIFICATE	73
11. Annex F: APPROVAL TO PROCEED INTO PRODUCTION CERTIFICATE	Error! Bookmark not defined.
12. Annex G: DEFINITIONS	74
13. Annex H: Testing Issue Severity Descriptions	76

1. Introduction

1.1 Purpose

1.1.1 The purpose of this document is to:

- a) Define the procedural steps to be undertaken by a Party wishing to complete User Entry Process Tests (UEPT) in accordance with SEC Section H14;
- b) Set out the User Entry Process Tests that must be conducted by the Relevant Party with regard to each User Role that it may want to fulfil; and
- c) Describe the role and responsibilities with regard to the conduct of UEPT, including;
 - Entry and exit requirements
 - Defining Test Scripts
 - Defining Test Data
 - Planning the manner in which tests will be undertaken
 - Executing the tests
 - Reporting the results of those tests to the Data Communications Company (DCC) for approval.

1.1.2 Additionally, this document sets out the above for a Testing Participant wishing to complete Testing in respect of additional Service Requests post completion of UEPT (“Additional SR Testing”).

1.2 Types of Testing Required

1.2.1 Clause 8 Annex C sets out:

- a) the specific tests that are required to be performed for a new Party seeking to undertake User Entry Process Testing;
- b) A complete list of Service Requests that shall be required to be tested prior to being sent to DCC Live Systems.

1.3 Not Used

1.4 Additional SR Testing

1.4.1 Where a Party has completed UEPT for a User Role and is looking to become:

- a) An Eligible User for Service Requests that were previously excluded from that Party’s scope for UEPT; and/or
- b) An Eligible User for any Service Requests that have been introduced since the Party completed UEPT for a User Role in which they operate,

and is seeking to complete Additional SR Testing, then all clauses of this CTSD shall apply to the undertaking of Additional SR Testing, except for

Clause 5.3 (Self Service Interface testing) and Clause 8.1.27 which shall not apply.

2. Scope

2.1.1 Section 8 Annex C: Test Scenarios of this document sets out:

- a) The User Entry Process Tests as required by SEC Section H14; and
- b) A complete list of Service Requests that shall be required to be tested prior to being sent to DCC Live Systems.

3. Test Sequence

- 3.1.1 The Relevant Party may undertake the test scenarios that are set out in this document in any sequence. The testing of the constituent Service Requests that comprise the SMETS2+ Install and Commission test scenario shall be undertaken in a sequence that is set out in Section C clause 8.1.2.

4. Test Certificates & Security Requirements

- 4.1.1 For the purposes of gaining IKI, SMKI and DCCKI Test Certificates Testing Participants should refer to the Enduring Testing Approach Document.
- 4.1.2 Each Testing Participant must comply with the Security Requirements set out in the Enduring Testing Approach Document.

5. UEPT and Additional SR Testing Procedure

This section describes the procedure that must be completed in order for Parties to complete UEPT or Additional SR Testing.

5.1 SMETS2+ Install and Commission

5.1.1 The SMETS2+ Install and Commission test scenario tests the Relevant Party's ability to send Service Requests to support the installation and commissioning of SMETS2+ Devices, and to receive the consequential communications and alerts. Service Requests are set out in a specific order within the test scenarios for this purpose and the Relevant Party must execute Test Scripts in the order set out in the test scenario in Section C clause 8.1.2.

5.2 DUIS Service Requests

5.2.1 Clause 8.1.4 sets out the Service Requests that a Party is required to have tested prior to it being eligible to send those Service Requests in a particular User Role. The full list of Service Requests is set out in Clause 8.1.4 (8.1.4 DUIS Matrix) together with the type of testing that they apply to.

Descoping of DUIS Service Requests

5.2.2 Excluding the Self-Service Interface test set out in Clause 5.3, a Test Participant may request to descope Service Request(s) (including descoping of a Command Variant), Device Alert(s), DCC Alert(s) or a Response Code(s) from UEPT as set out in Clause 8.1.4 where:

- a) the Testing Participant will not use this functionality in the DCC Live Systems and therefore does not wish to become an Eligible User for the relevant Service Requests; or
- b) the Testing Participant is unable to produce a Response Code due to their internal system's error handling.

5.2.3 Descoping a Service Request would mean that a Testing Participant would not become eligible to send that Service Request in a particular User Role in DCC Live Systems.

5.2.4 Each request by a Testing Participant to descope a Service Request, Device Alert, DCC Alert or a Response Code is subject to DCC's agreement or, where referred pursuant to Clause 5.2.7, a Panel determination.

5.2.5 Anything that a Testing Participant wishes to descope, must be submitted to DCC via their notification of intent to undertake UEPT and via their UEPT Test Plan. As part of this submission the Testing Participant must set out their rationale for the descoping.

5.2.6 DCC will review any submission pursuant to Clause 5.2.5 and shall confirm to the Testing Participant in writing if DCC agrees with this descoping or

not in line with the timelines set out in Table 1 of this document. In the case of UEPT, where the DCC reasonably considers that the proposed descope set out by the Testing Participant does not fulfil the minimum set of Service Requests that would be required for that Testing Participant to operate in its User Role, the DCC will not agree to the proposed descope.

5.2.7 Where the DCC and the Testing Participant do not agree on any individual or group of tests proposed for descope, as requested by the Testing Participant, the Testing Participant may refer the matter to the Panel for its determination whose decision on which tests may be descope shall be final and binding.

5.2.8 Where :

- a) the Testing Participant is in agreement with the DCC on the tests that may be de-scoped, then the Testing Participant must undertake any tests that DCC does not agree to descope in addition to those that were not proposed for de-scoping; or
- b) the Testing Participant has referred the matter to the Panel for determination pursuant to Clause 5.2.7, the Testing Participant must undertake any tests that the Panel has decided should not be descope in addition to those that were not proposed for de-scoping.

5.2.9 Should a referral be made to the Panel pursuant to Clause 5.2.7, then the Testing Participant may continue with the UEPT procedural steps for those tests that are not being disputed.

5.2.10 Where a Testing Participant subsequently wishes to be eligible to send a Service Request in the DCC Live Systems for which it has not yet undertaken either UEPT or Additional SR Testing then it must, prior to sending that Service Request in DCC Live Systems, successfully test this either via the UEPT procedural steps (as documented in Table 1, Table 3 and Table 5) or the Additional SR Testing procedural steps (as documented in Table 2, Table 4 and Table 6).

5.3 Self-Service Interface (SSI)

5.3.1 For the purpose of UEPT a Relevant Party must produce and execute Test Scripts that demonstrate that the Relevant Party can access the SSI system to the extent permitted by its User Role and to the extent set out in the SSI Interface Specification as defined in SEC Section H8.15.

5.4 Additional SR Testing

5.4.1 A Testing Participant who has completed UEPT for a User Role and is seeking to become:

- a) An Eligible User for Service Requests that were previously descope from their prior completion of UEPT; or
- b) An Eligible User for any Service Requests that have been introduced since the Party completed UEPT for a User Role in which they operate, will not be an Eligible User for any descope or newly introduced Service Requests in a particular User Role until they have completed testing of the descope or newly introduced Service Requests in respect of that User Role.

5.4.2 Additional SR Testing may be completed by the following routes:

- a) Via the process as documented in Table 1, Table 3 and Table 5.
- b) Via Device and User System Testing (DUST) as documented in Table 2, Table 4 and Table 6, where the Testing Participant is already actively participating in DUST.

If a Testing Participant that has previously completed UEPT in a particular User Role is not currently active in DUST, but wishes to use the process in Tables 2, 4 and 6 for Additional SR Testing in respect of that User Role, they must complete the entry process into the test environment used for DUST, as set out in Table 1 of the Enduring Test Approach Document, prior to being able to carry out such testing. The Testing Participant must receive confirmation from DCC of successful completion of Additional SR Testing of the Service Request(s) being tested prior to carrying out further testing of such Service Request(s) in DUST.

5.5 User Entry Process Tests Initiation

5.5.1 The Relevant Party and the DCC shall each use reasonable steps to comply with the timescales that are defined within the procedures in Table 1, Table 4 & Table 7.

5.5.2 In the event that the Relevant Party or the DCC does not comply with the timescales in Table 1, Table 4 & Table 7, the DCC will reschedule subsequent activities to occur as soon as reasonably practicable and the DCC may reschedule that Party’s test execution date.

5.6 Procedural Steps for Initiation of User Entry Process Tests

5.6.1 The table below sets out the steps that must be undertaken during Initiation of the UEPT by both the DCC and the Relevant Party seeking to undertake UEPT and the timeframes within which such steps must be complete.

Ref	When	Action	From	To	Information Required	Method
5.6.1.1	60 Working Days (WD) prior to commencement of User Entry Process Tests	Notify DCC of intention to undertake User Entry Process Tests	Relevant Party	DCC	Party notification of intention to undertake testing, including <ul style="list-style-type: none"> Name of Party Confirmation that notification provided to the Code Administrator, User Role(s) Test start date Identity of test manager and contact details if applicable, Services Requests, Device Alerts, DCC Alerts and Response Codes to be descope 	By email as attachment
5.6.1.2	Within 2 WD of receipt of the notification 5.6.1.1	Acknowledge request	DCC	Relevant Party	Confirmation of Party notification including: <ul style="list-style-type: none"> Name of Party User Roles and test start date DCC User Entry Process Tests test manager contact Date for User Entry Process Tests initiation meeting 	By email as attachment
5.6.1.3	Within 5 WD of receipt of the notification 5.6.1.2	Conduct User Entry Process Tests Initiation Meeting	DCC	Relevant Party	DCC to provide guidance information on conducting User Entry Process Tests, including clarification of test artefacts requirements and access to test environments and if	Meeting

Ref	When	Action	From	To	Information Required	Method
					applicable feedback on descoping of Service Requests, Device Alerts, DCC Alerts and Response Codes.	
5.6.1.4	In each week occurring within the period from 40 WD prior to start of testing	Provide progress report, demonstrating readiness to begin tests	Relevant Party	DCC	Test Readiness Report	By email as attachment
5.6.1.5	25 WD prior to start of testing	Provide test artefacts to support conduct of User Entry Process Tests	Relevant Party	DCC	Test Plan incorporating the Test Schedule and, if applicable, Services Requests, Device Alerts, DCC Alerts and Response Codes to be descoped Requirements Traceability Matrix (see clause 6. 7) Test Scripts (see clause 6.8) Test Data Plan (see clause 7)	By email as attachments
5.6.1.6	By 20 WD prior to start of testing	DCC complete review of test artefacts	DCC	Relevant Party	Details regarding any deficiencies in the test artefacts provided including feedback on descoping of Service Requests, Device Alerts, DCC Alerts and Response Codes, if applicable, and a revised start date for testing, where necessary – continue from 5. 6.1.7. Or confirmation that test artefacts accepted including agreement to descop Service Requests, if applicable – continue from 5. 6.1.9.	By email as attachments
5.6.1.7	By 10 WD prior to start of testing	Relevant Party to provide revised documents	Relevant Party	DCC	Revised documents	By email as attachments
5.6.1.8	By 7 WD prior to start of testing	DCC complete review of revised test artefacts	DCC	Relevant Party	Details regarding any deficiencies in the test artefacts and a revised start date for testing provided where necessary – Regress and continue from 5. 6.1.7. Or confirmation that test artefacts accepted – continue from 5. 6.1.9.	By email as attachments

Ref	When	Action	From	To	Information Required	Method
5.6.1.9	By 5 WD prior to start of testing	Review Test Readiness Report and confirm the Entry Criteria for commencing testing in relation to the relevant User Role has been met Confirm Start Date and Test Schedule for execution of tests by Relevant Party	DCC Quality Gate meeting	Relevant Party	Source: Test Readiness Report, Test Schedule Output: Confirmation of Relevant party readiness to proceed	Quality Gate review meeting Published via secure communications
	If there is any outstanding documentation presented at the Quality Gate Review the DCC shall assess it as part of its assessment of the entry criteria under clause 5.8.					

Table 1 UEPT Initiation: Procedural Steps

5.7 Procedural Steps for Initiation of Additional SR Testing via DUST

5.7.1 The table below sets out the steps that must be undertaken during initiation of the Additional SR Testing by both the DCC and the Testing Participant seeking to undertake such testing via DUST and the timeframes within which such steps must be complete.

5.7.2 For Testing Participants wishing to carry out Additional SR Testing via the UEPT process, DCC and Testing Participant should follow the steps and timeframes as set out in Table 1 in Clause 5.6.1.

Ref	When	Action	From	To	Information Required	Method
5.7.2.1	At least 15 Working Days (WD) prior to commencement of Additional SR Tests	Notify DCC of intention to undertake Additional SR Tests	Relevant Party	DCC	Party notification of intention to undertake testing, including Name of Party User Role(s) The Service Reference Variant(s) of the additional Service Requests(s) to be tested Test start date Identity of test manager and contact details	By email as attachment
5.7.2.2	Within 2 WD of receipt of the notification 5.7.2.1	Acknowledge request	DCC	Relevant Party	Confirmation of Party notification including: Name of Party User Roles and test start date The Service Reference Variant(s) of the additional Service Requests(s) to be tested Provide any applicable User Guidance	By email as attachment

Table 2 Additional SR Testing Initiation: Procedural Steps

5.8 UEPT Entry Criteria

5.8.1 Each Party wishing to undertake UEPT must comply with (and, where specified below, provide evidence of complying with) the following criteria prior to entry into UEPT:

- a) Prior to start of test execution, the DCC must confirm with the Code Administrator that the person requesting to commence testing has acceded to the SEC;
- b) The Relevant Party must have identified the User Roles for which it wishes to undertake UEPT;
- c) All relevant test artefacts (as agreed with the DCC and set out in clause 5.6, 5.9, and 5.17) must have been produced by the Relevant Party and approved by the DCC. This includes:
 - Party Notification of Intention to Undertake Testing
 - Test Readiness Report
 - Test Plan incorporating the Test Schedule
 - Requirements Traceability Matrix
 - Test Scripts
 - Test Data Plan;
- d) The Relevant Party has provided evidence to the DCC that a test environment capable of supporting the planned testing has been established and is available;
- e) The Relevant Party has provided evidence to the DCC that an appropriate level of resources are available to support the UEPT process; and
- f) The Relevant Party has provided confirmation that the Security Requirements set out in the Enduring Testing Approach Document have been met.

5.8.2 Pursuant to H14.15 where the DCC considers that the Relevant Party has not met the Entry Criteria for the User Role for which it is seeking to undertake testing, the DCC may:

- a) Prevent the Relevant Party from undertaking UEPT for a particular User Role until such time as the DCC is satisfied that the Relevant Party meets the Entry Criteria; and
- b) Reschedule the test start date for the Relevant Party for that particular User Role. In so doing, the DCC shall provide the earliest practicable alternative date; or
- c) Provide provisional approval of the Test Readiness Report (and approval to proceed) with an understanding that the outstanding documentation would be provided before the start of testing otherwise testing will not commence.

- 5.8.3 Where the DCC is not satisfied that a Relevant Party meets the Entry Criteria to commence testing, the Relevant Party may refer the matter to the Panel, pursuant to SEC Section H14.16. Where the Panel determines that the Relevant Party has met the entry criteria the DCC shall schedule the start of testing as soon as reasonably practical.

5.9 User Entry Process Tests Execution

5.10 Procedural Steps for User Entry Process Tests Execution

5.10.1 The table below sets out the steps that must be undertaken during test execution by either the DCC or Relevant Party seeking to undertake User Entry Process Tests and the timeframes within which such steps must be complete as set out in the Test Schedule which will be updated by the Relevant Party from time to time to reflect test progress.

Ref	When	Action	From	To	Information Required	Method
5.10.1.1	User Entry Process Tests Start Date	Confirm connectivity (of Relevant Party's test environment) to DCC test environment where this has not already happened as a result of earlier testing.	Relevant Party	DCC	Test Results achieved	As directed by DCC
5.10.1.2	In accordance with Test Schedule and completion of 5.6.5.1	Conduct User Entry Process Tests	Relevant Party		Approved test artefacts.	As per test artefacts
5.10.1.3	Daily Basis, or alternative schedule agreed with DCC	Provide progress report to DCC	Relevant Party	DCC	Test Execution Dashboard, including details of testing issues identified	By email as attachment
5.10.1.4	User Entry Process Tests execution complete	Provide Test Completion report	Relevant Party	DCC	User Entry Process Tests completion report including details of Test Scripts executed and testing issues resolved and Test Evidence for all tests completed	By email as attachment

Table 3 UEPT Execution: Procedural Steps

5.10.2 Note: Confirming connectivity is to verify that the Testing Participant's system can connect to the DCC test environment and that the Testing Participant's system is capable of successfully sending Service Requests to and receiving Acknowledgements from the DCC System. The DUIS Connectivity Test consists of up to three test scenarios: one for each test webservice available to the Testing Participant*. This comprises:

- a) Sending a DCC-only Service Request and receiving an Acknowledgement/Response;
- b) Sending a Critical pre-command and receiving the Transformed message; and
- c) Sending a Non-Critical Service Request and receiving an Acknowledgement.
- d) This test does not need to be repeated as a subsequent part of UEPT.

5.10.3 Note: If the Testing Participant would not have access to a particular webservice once it has qualified in the User Role for which it is undertaking UEPT the test will not be required.

5.11 Procedural Steps for the Execution of Additional SR Testing via DUST

5.11.1 The table below sets out the steps that must be undertaken during execution of the Additional SR Testing by both the DCC and the Testing Participant seeking to undertake Additional SR Testing via DUST and the timeframes within which such steps must be complete.

5.11.2 For Testing Participant wishing to carry Additional SR Testing via the UEPT process, DCC and Testing Participant should follow the steps and timeframes as set out in Table 3 in Clause 5.10.1.

Ref	When	Action	From	To	Information Required	Method
5.11.2.1	User Entry Process Tests Start Date	Confirm Test execution has started	Relevant Party	DCC		Email
5.11.2.2	In accordance with the Testing Participant's test schedule	Conduct Additional SR Testing	Relevant Party			
5.11.2.3	Daily Basis, or alternative schedule agreed with DCC	Provide progress report to DCC	Relevant Party	DCC	Test Execution Dashboard, including details of testing issues identified	By email as attachment
5.11.2.4	Additional SR Testing execution complete	Provide completed Test Execution Dashboard and Test Evidence	Relevant Party	DCC	Test Execution Dashboard, including details of testing issues identified and Test Evidence for all test completed	By email as attachment

Table 4 Additional SR Testing Execution: Procedural Steps

5.12 **Test Suspension/Resumption in UEPT and Additional SR Testing**

- 5.12.1 During the execution of tests, the DCC or the Relevant Party each have the right to suspend testing where it considers that this is reasonably necessary.
- 5.12.2 Testing will only recommence when agreed by both the DCC and the Relevant Party.

5.13 **Possible Suspension Criteria**

- 5.13.1 Reasonable grounds for suspending testing may include any of the following:
- a) Application components are not available as scheduled;
 - b) A Testing Issue prevents further useful testing from proceeding;
 - c) A significant percentage of planned Test Scripts for a given day fail, taking Testing Issue severity and volume of tests into consideration which would generate root cause analysis to be undertaken to establish the cause. Testing Issues trending should also be used to determine any recommendation. The outcome of any root cause analysis activity may result in testing being suspended;
 - d) Test Scripts to be executed are in a “blocked” status due to an identified Testing Issue; or
 - e) The Relevant Party has failed to comply with the procedural steps in Table 3 for executing UEPT or Table 4 for executing Additional SR Testing.

5.14 **Test Resumption Criteria**

- 5.14.1 Where testing has been suspended, either the DCC or the Relevant Party as appropriate shall produce a test suspension report reflecting the cause of the suspension, and what actions are to be taken by whom and when in order for testing to resume – the Test Resumption Criteria. The DCC and the Relevant Party shall take reasonable steps to support each other to achieve the Test Resumption Criteria.
- 5.14.2 Testing will only resume once the DCC or Relevant Party has demonstrated to the other Party’s satisfaction that the Test Resumption Criteria have been met.

5.15 **Disputes regarding Test Suspension/Resumption**

- 5.15.1 Any dispute regarding the suspension or resumption of UEPT shall be heard in accordance with Section H14.18A of the SEC. Any dispute regarding the suspension or resumption of Additional SR Testing shall follow the same procedure as that set out in H14.18A Where a dispute regarding the suspension/resumption of testing is made, testing will not resume whilst the

dispute is being heard, or until the Test Resumption Criteria are met by the DCC or the Relevant Party.

5.16 User Entry Process Tests Completion

5.17 Procedural Steps for User Entry Process Tests Completion

5.17.1 The table below sets out the steps that must be undertaken during test completion by either the DCC or Relevant Party and the timeframes within which such steps must be complete.

Ref	When	Action	From	To	Information Required	Method
5.17.1.1	Within 2 WD of receipt of the report in 5.10.1.4	Confirm receipt of notification of Test complete (Test Completion Report)	DCC	Relevant Party	User Entry Process Tests Test Completion Report	By email
5.17.1.2	Within 5 WD of receipt of the notification 5.17.1.1	DCC review completion report and confirm that User Entry Process Tests concluded, or further testing required	DCC	Relevant Party	User Entry Process Tests completion report and supporting artefacts as requested by DCC set out in 5.10.1.1 refers	Quality Gate review meeting (see clause 5.20)
5.17.1.3	Within 2 WD of successful quality gate review meeting	Confirm Test Complete	DCC	Relevant Party	Issue Test Completion Certificate (see clause 10)	By email as attachment

Table 5 UEPT Completion: Procedural Steps

5.17.2 Notwithstanding 5.17.1.2 above pursuant to H14.19 the DCC shall confirm on request by the Relevant Party whether or not it considers that the Relevant Party has successfully completed UEPT.

5.18 Procedural Steps for Additional SR Testing Completion

5.18.1 The table below sets out the steps that must be undertaken during test completion by either the DCC or Relevant Party and the timeframes within which such steps must be complete.

5.18.2 For Testing Participant wishing to carry Additional SR Testing via the UEPT process, DCC and Testing Participant should follow the steps and timeframes as set out in Table 5 in Clause 5.17.1.

Ref	When	Action	From	To	Information Required	Method
5.18.1.1	Within 2 WD of receipt of 5.11.2.4	Confirm receipt of notification of Test complete	DCC	Relevant Party	Completed Test Execution Dashboard and Test Evidence	By email
5.18.1.2	Within 5 WD of receipt of the notification 5.18.1.1	DCC review test evidence and execution dashboard and confirm that Additional SR Testing concluded, or further testing required	DCC	Relevant Party	Completed Test Execution Dashboard and Test Evidence	By email
5.18.1.3	Within 2 WD of successful review of Test Evidence	Confirm Test Complete	DCC	Relevant Party	Issue Authority to Proceed into Production Certificate	By email as attachment

Table 6 Additional SR Testing Completion: Procedural Steps

5.19 UEPT or Additional SR Testing Exit Criteria

5.19.1 The following Exit Criteria are to be met prior to a Relevant Party’s completion of and exit from UEPT or from Additional SR Testing, unless stated otherwise:

- a) All Tests have been executed and results have been documented by the Relevant Party and evidence captured in the Relevant Party’s Test Management Tool and is available to be provided to the DCC;
- b) All testing issues identified during a Relevant Party’s test execution have been recorded in the Test Management Tool, of those Testing Issues either:
 - the Testing Issue generated by the Relevant Party has been fixed and verified by retest; or
 - Where outstanding, the Testing Issue has been reviewed and documented, and been included as part of a remediation plan that outlines the next steps to be taken, including estimated timescales required to resolve each of their outstanding Testing Issues. The remediation plan must be agreed by the DCC;
- c) any outstanding Testing Issue count must not exceed those defined in Table 7, below:

Severity***	Threshold for Outstanding Testing Issues for UEPT	Threshold for Outstanding Testing Issues for Additional SR Testing
1	0	0
2	0	0
3	5*	3*
4	10*	5*
5	As agreed**	As agreed**

Table 7 Testing Issue Threshold

*- Work around and remediation plan to be agreed with the DCC for each issue that ensures no impact on other Users or the DCC

** - As agreed with the DCC,

*** - Refer to Annex G for definitions of Issue severities.

- d) A Test Completion Report has been created by the Relevant Party and approved by the DCC. If the Relevant Party is conducting Additional SR Testing via DUST this exit criterion does not apply.
- e) A Quality Gate Review meeting has been held between the Relevant Party, if the Relevant Party is undertaking either UEPT or Additional SR Testing via UEPT, and the DCC, with progress approved by the DCC. If the Relevant Party is conducting Additional SR Testing via DUST this exit criterion does not apply.

5.19.2 Upon completion of the criteria above a Test Completion Certificate will be issued to the Relevant Party by the DCC. Where test completion criteria

have not been met the Relevant Party will need to reschedule testing with the DCC subject to the availability of the DCC test environment.

- 5.19.3 In the case of UEPT, pursuant to SEC Section H14.21, where the DCC considers that a Party has not met the Exit Criteria, that Party may refer the matter to the Panel. In the case of Additional SR Testing, where the DCC is not satisfied that a Party has successfully completed Additional SR Testing (for a particular User Role), that Party may refer the matter to the Panel for its determination. Where the Party disagrees with any such determination of the Panel, then the Party may refer the matter to the Authority for its determination (which shall be final and binding for the purposes of this Code).
- 5.19.4 Where a dispute regarding whether a Party has met either the UEPT or the Additional SR Testing Exit Criteria occurs, the completion process will not resume whilst the dispute is being heard by the Panel, or until the relevant Exit Criteria are met by the Relevant Party.
- 5.19.5 Where the Panel decided that the Exit Criteria have been met the DCC shall supply a Test Completion Certificate to the Relevant Party.

5.20 **Quality Gate Review**

- 5.20.1 A final decision regarding whether a Party has successfully completed UEPT or Additional SR Testing will be provided to the Relevant Party no later than 2 Working Days after the date on which a quality gate review meeting is held.
- 5.20.2 In addition, pursuant to H14.19, the DCC shall confirm on request by the Relevant Party whether or not it considers that the Relevant Party has successfully completed UEPT.

5.21 **UEPT and Additional SR Test Completion Certificate**

- 5.21.1 The UEPT and Additional SR Test Completion Certificate shall be issued by the DCC to the Relevant Party for a specified User Role once the quality gate review has concluded that the Relevant Party has met the UEPT Exit Criteria for the specified User Role. This Certificate shall identify the Service Requests in respect of which the Relevant Party successfully executed UEPT and for which the Relevant Party is now an Eligible User in the specified User Role.
- 5.21.2 The UEPT and Additional SR Test Completion Certificate shall be updated and re-issued by the DCC to the Relevant Party once the quality gate review or review of test evidence, as specified in Clause 5.17.1.2, has concluded that the Relevant Party has met the Additional SR Testing Exit Criteria for those Service Requests for the specified User Role. This Certificate shall identify the additional Service Requests that have been successfully executed in Additional SR Testing, in addition to those for which the

Relevant Party has previously completed testing, and for which the Relevant Party is an Eligible User in the specified User Role.

6. Annex A: Test Artefacts

The DCC and each Relevant Party will be required to produce and maintain a number of documents, dashboards and reports during the testing lifecycle as depicted in Figure 1 Test Documentation Hierarchy, below.

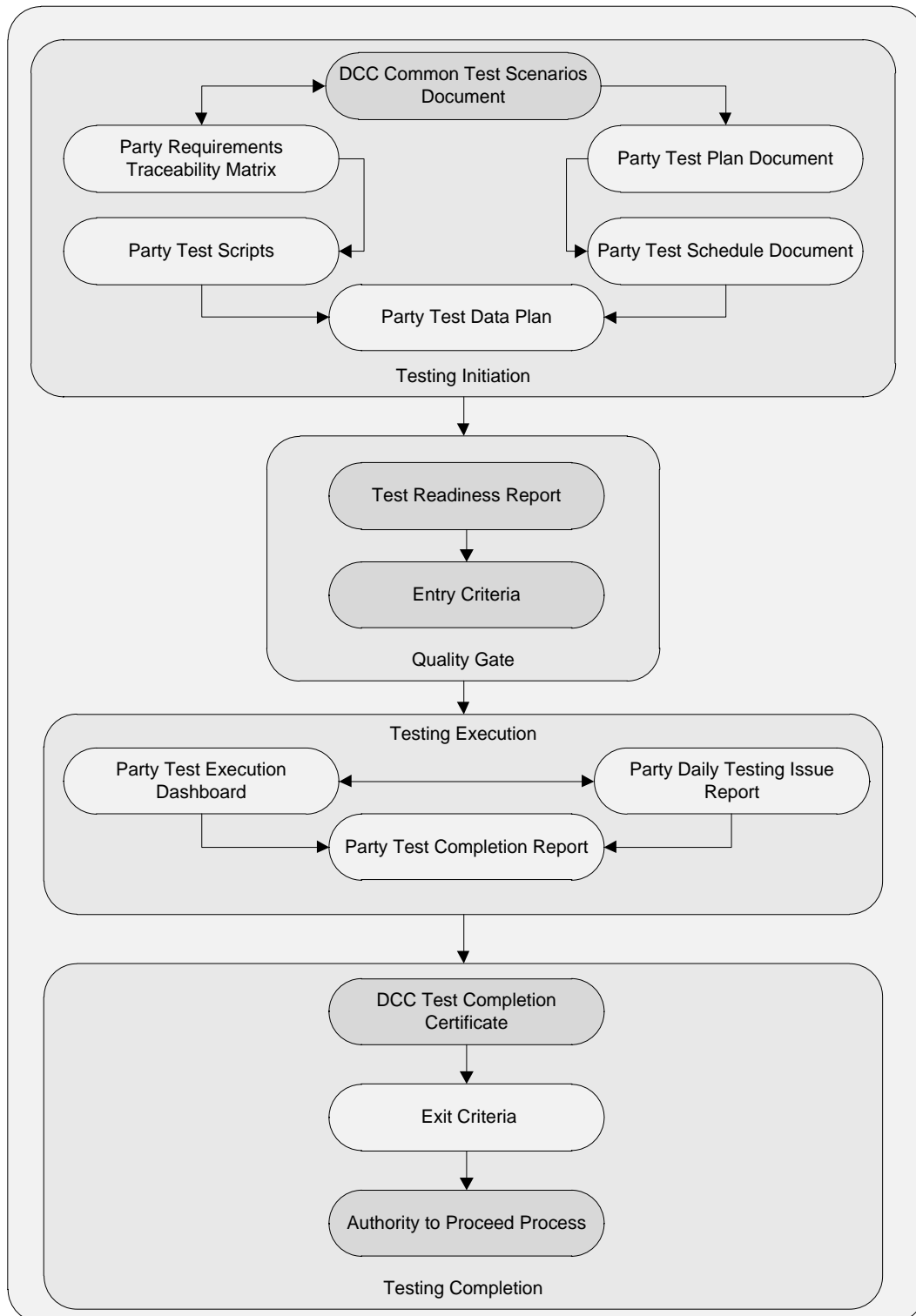


Figure 1 Test Documentation Hierarchy

Party Documents & Reports

6.1 Test Preparation Document Set

6.1.1 The following documentation must be produced by a Relevant Party before Testing commences:

- a) Test Plan including Test Schedule;
- b) Test Data (see clause 7/Annex B);
- c) Requirements Traceability Matrix (see clause 6.7); and
- d) Test Scripts (see clause 6.8).

6.2 Reports and Dashboard

6.2.1 Table 8 Test Stage Supporting Documentation Set sets out the Reports and Dashboard that a Party must produce to demonstrate progress in preparing for and executing testing.

6.3 Test Readiness Report (TRR)

6.3.1 The Test Readiness Report shall be produced by the Relevant Party if they are conducting either UEPT or Additional SR Testing via UEPT.

6.3.2 A Test Readiness Report template shall be provided by the DCC.

6.3.3 The report must be provided to the DCC by the Relevant Party on a weekly basis, commencing 40 Working Days prior to the start of Testing and must indicate progress against the following criteria:

- a) Previous Test Stage Exit Criteria (if appropriate);
- b) Relevant Party Test tool selected and available;
- c) Relevant Party key RAID (Risk, Assumption, Issue and Dependency) items, including, for each key item that has the potential to cause significant disruption to the commencement and / or completion of User Entry Process Tests or Additional SR Testing via UEPT:
 - Priority (High, Medium, Low)
 - Severities of open issues
 - Action taken
 - Target close date
 - Overall RAG status (based on progress to plan)
- d) Relevant Party Test Plan produced;
- e) Relevant Party Test Schedule produced;
- f) Relevant Party Requirements Traceability Matrix % complete to date
 - Total numbers of requirements identified
 - Actual number of testable requirements in progress
 - Actual number of testable requirements not started
 - Actual number of requirements deemed not testable;
- g) Relevant Party Test Script % complete to date – to reflect the following breakdown
 - Planned number of Test Scripts
 - Actual number of Test Scripts produced to date

- Actual number of Test Scripts in progress
- Actual number of Test Scripts not started;
- h) % Test Data readiness by Relevant Party against planned Test Scripts;
- i) Readiness of Relevant Party test resources and technical (support) resource;
- j) Relevant Party test environment readiness – to include
 - User Roles identified;
 - Environment configuration approved as suitable – to include;
 - Breakdown and description of hardware.

6.4 Test Plan

- 6.4.1 The Test Plan shall be produced by the Relevant Party if they are conducting either UEPT or Additional SR Testing via UEPT.
- 6.4.2 A Test Plan template shall be provided by the DCC.
- 6.4.3 The report must be provided to the DCC by the Relevant Party 25 Working Days prior to the start of Testing and will include:
- a) Scope of testing, including any Service Requests, Device Alerts, DCC Alerts and/or Response Code the Testing Participant wishes to descope along with rationale for the request to descope;
 - b) Any items out of scope of testing
 - c) Features to be tested (referencing relevant sub-clauses within clause 8 of the Common Test Scenarios Document);
 - d) Approach to testing;
 - e) Test Schedule to include tests planned for each day; and
 - f) Resources.

6.5 Test Execution Dashboard

- 6.5.1 The Test Execution Dashboard will identify the Relevant Party's progress when executing UEPT or Additional SR Testing and will be provided in a reasonable format specified by the DCC. The dashboard must be updated by the Party and provided to the DCC on a daily basis once testing commences, or per an alternative schedule agreed with the DCC.
- 6.5.2 The dashboard will include the following details:
- a) Name of Relevant Party under test;
 - b) Relevant Party Location of testing;
 - c) Date and time test execution dashboard updated by Relevant Party;
 - d) Total number of tests Relevant Party scheduled for execution and projected as a test execution glide path;
 - e) Actual number of tests executed by Relevant Party (by test run) to date reflected on an incremental daily count including Test Results (passed, failed, blocked, not run, ready for test);
 - f) Relevant Party summary of Testing Issues to include;
 - Total number of Testing Issues generated
 - Counts by status Open, Fixed, Closed etc

- Counts by Severity 1, 2, 3 etc
- g) Relevant Party Regression Test execution results;
- h) Relevant Party summary progress against Exit Criteria;
- i) Relevant Party Top 5 risks and issues - to include any environment concerns; and
- j) Relevant Party Overall RAG status (based on progress against test schedule).

6.6 Test Completion Report

6.6.1 The Relevant Party, who is conducting either UEPT or Additional SR Testing via UEPT, shall produce a Test Completion Report and submit the draft to the DCC 10 Working Days prior to the test completion date. The finalised version of the Test Completion Report will be submitted to the DCC on completion of each test execution activity.

6.6.2 A Test Completion Report template shall be provided by the DCC to ensure that all Party reports contain the same level of detail. The report will include:

- a) Relevant Party Test approach and Scope of Testing Undertaken;
- b) Details of updates made to the test environment during the course of testing;
- c) Relevant Party Summary of the Test Results
 - Total number of tests originally scheduled for execution
 - Total number of tests executed (Displayed by test run to include Overall results achieved Passed, Failed, Blocked, Not Run);
 - Relevant Party Summary of Testing Issues
 - Total number of Testing Issues generated
 - Total counts by status Open, Fixed, Closed etc
 - Total counts by Severity.

6.6.3 Any tests not run, blocked or not successfully executed must be supported by an explanation.

6.7 Test Traceability

6.7.1 To provide the DCC with a sufficient level of test assurance, all tests executed by each Party undertaking either UEPT or Additional SR Testing via UEPT will be required to demonstrate full traceability as follows:

- a) Each requirement captured in the Requirements Traceability Matrix that can be tested must be linked to one or many Test Scripts;
- b) Each Test Script executed must be reflected in one or many test execution cycles;
- c) A record of each test executed and the results of that test;
- d) Where an executed test generates a Testing Issue;
 - Each Testing Issue must be linked to the test that generated the Testing Issue

- Any subsequent retesting to validate a fix of Testing Issue carried out must be linked to the Testing Issue
- Each retest executed must reflect a result achieved as a result of execution.

6.8 **Test Scripts**

- 6.8.1 A Relevant Party shall develop its own test scripts and demonstrate how those test scripts meet the requirements in accordance with SEC Section H14.17.

Test Stage Supporting Documentation Set								
No	Phase	Description	DCC Responsibility	Party Responsibility	When/Frequency	Entry Criteria	Exit Criteria	Sign-Off Authority
1	Initiation	Test Plan including Test Schedule	Review and Approve	Produce and maintain	Test Stage Entry Quality Gate and updated during execution as required in preparation for Test Stage Exit Quality Gate	Y	Y	DCC
2	Initiation	Requirements Traceability Matrix	Review and Approve	Produce and maintain	Test Stage Entry Quality Gate and updated during execution as required in preparation for Test Stage Exit Quality Gate	Y	Y	DCC
3	Initiation	Test Scripts	Review and Approve	Produce and maintain	Test Stage Entry Quality Gate and updated during execution as required in preparation for Test Stage Exit Quality Gate	Y	Y	DCC
4	Initiation	Test Data Plan	Review	Produce and maintain	Test Stage Entry Quality Gate and updated during execution as required in preparation for Test Stage Exit Quality Gate	Y	N	DCC

Test Stage Supporting Documentation Set								
5	Initiation	Test Readiness Review Report	Provide Template Review and Approve	Produce and maintain	Test Stage Entry Quality Gate	Y	N	DCC
6	Initiation	Test Stage Entry Criteria (part of final Test Readiness Report)	Review and Approve	Produce	Test Stage Entry Quality Gate	Y	N	DCC
7	Execution	Test Execution Dashboard	Review	Produce and maintain	Produced and updated daily (or other scheduled agreed with the DCC) during execution in preparation for Test Stage Exit Quality Gate	N	Y	DCC
8	Execution	Test Completion Report	Provide Template Review and Approve	Produce and file	Test Stage during execution in preparation for Test Stage Exit Quality Gate	N	Y	DCC

Test Stage Supporting Documentation Set								
9	Execution	Test Stage Quality Gate Exit Criteria (part of Test Completion Report)	Review and Approve	Produce	Test Stage Exit Quality Gate	N	Y	DCC

Table 8 Test Stage Supporting Documentation Set

Once these steps are complete the DCC will issue a Test Completion Certificate (see clause 10).

7. Annex B: Test Data

A Test Data Plan will be developed by the Relevant Party and coordinated with DCC in accordance with clause 5.6.1.5. The DCC and Relevant Party will be responsible for set up of Test Data on their respective system which must be defined in the Relevant Party Test Data Plan. The Data defined will be based on the following principles:

No personal data which identifies any individual will be used for testing, but anonymised live Data is acceptable;

Test Data will be representative of data likely to be used in the live environment once the Relevant Party is eligible to send the Service Request in the relevant User Role;

A full range of Test Data covering all services to be tested will be used.

Co-ordination/Segregation of data usage between Relevant Parties testing during the same period will be managed by the DCC.

Table 9 Test Data Responsibilities below outlines the responsibilities in regard to preparing Test Data required to support UEPT.

Deliverable / Activity	Accountable / Responsible	Support
Test Data Preparation	DCC Licensee, Relevant Party	DSP

Table 9 Test Data Responsibilities

8. Annex C: Test Scenarios

8.1.1 Test Scenarios

The following sub clauses contain the test scenarios that reflect the Service Requests applicable to each prospective User Role.

8.1.2 SMETS2+ Install and Commission

ID	IC01*
Title:	Install & Commission the following devices, when the Relevant Party will be supplying Gas: <ul style="list-style-type: none"> • Communication Hub specified for Region • Gas Meter
Prerequisite:	<ul style="list-style-type: none"> • Relevant Party holds a Gas Supply Licence • Connection to DCC Test Laboratory • Appropriate data • Available Meter and Communication Hubs • SM WAN Available • Appropriate Security Keys have been installed in the available metering equipment • Required security credentials are present on the Communications Hub

Note: the scope of this test is intentionally limited to only those activities where there is a prescribed order for the submission Service Requests and where failure to follow this order will lead to a failed installation.

Steps	Description	Objective	Actions	Acceptance Criteria
1	Pre-Installation	Notify DCC of Device ID and device details Ascertain the security credentials are installed on the devices	The following Service Requests have been designed to support Pre-Installation: DUIS SR 12.2 – Device Pre-notification * (n) devices	The DCC has received notification of the Device ID Acknowledgement received for relevant Service Request sent
2	White List Device	Identify the Communication Hub to Meter device relationship by: Add the HAN device to HAN device log, by including the MAC addresses and the install codes	Complete the following Service Request to support white listing of device: DUIS SR 8.11- Update HAN Device Log * (n) devices	Service Responses received for all Service Requests sent Service User will receive the following Alert code when the device has been added to the white list: DCC Alert N24

Steps	Description	Objective	Actions	Acceptance Criteria
3	Commission	Send response to commission device service request to Service User Update inventory status Configure the Meter: Set Time	Complete the following Service Request to support device commission: DUIS SR 8.1.1 – Commission Device * (n) devices	Acknowledgement received for all Service Requests sent
4	Commission Gas Proxy	To hand over Gas Proxy Function from DSP to the Relevant Party, complete the following: Send Service Request to change credentials to Relevant Party’s credentials Ensure Relevant Party can update other credentials as required	Complete the following Service Request to support Commission Gas Proxy Function: DUIS SR 6.21 – Request Handover of DCC Controlled Device * (n) devices	Relevant Party receives an Service Response to confirm the credentials have been changed from the DSP to Relevant Party
5	Join Device	Join Gas meter to GPF	The following Service Requests have been designed to support joining HAN devices: DUIS SR 8.7.2 – Join Service (Non-Critical) Note: The following DUIS SRs can be sent during this step, should they not have been sent during steps 1 to 3: DUIS SR 12.2 – Device Pre-notification * (n) devices DUIS SR 8.11- Update HAN Device Log * (n) devices	Relevant Party receives acknowledgement to confirm the HAN devices are joined Acknowledgement received for all Service Requests sent
6	Set MPxN on GSME for display purposes	Set MPxN on GSME for display purposes	Complete the following Service Request to support setting the MPxN on the GSME for display purposes DUIS SR 6.20.1 – Set Device Configuration (Import MPxN)	Relevant party receives a service response to confirm successful execution of the Service Request.

ID	IC02*
Title:	Install & Commission the following devices, when the Relevant Party will be supplying Electricity: Communication Hub specified for Region Electricity Meter
Prerequisite:	Relevant Party holds an Electricity Supply Licence

<p>Connection to DCC Test Laboratory</p> <p>Appropriate data</p> <p>Available Meter and Communication Hubs</p> <p>SM WAN Available</p> <p>Appropriate Security Keys have been installed in the available metering equipment</p> <p>Required security credentials are present on the Communications Hub</p>
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Note: the scope of this test is intentionally limited to only those activities where there is a prescribed order for the submission Service Requests and where failure to follow this order will lead to a failed installation.

Steps	Description	Objective	Actions	Acceptance Criteria
1	Pre-Installation	<p>Notify DCC of Device ID and device details</p> <p>Ascertain the security credentials are installed on the devices</p>	<p>The following Service Requests and Self-Service Interface Use Cases have been designed to support Pre-Installation:</p> <p>DUIS SR 12.2 – Device Pre-notification * (n) devices</p>	<p>The DCC has received notification of the Device ID</p> <p>Acknowledgement received for relevant Service Requests sent</p>
2	White List Device	<p>Identify the Communication Hub to Meter device relationship by:</p> <p>Add the HAN device to HAN device log, by including the MAC addresses and the install codes</p>	<p>Complete the following Service Request to support white listing of device:</p> <p>DUIS SR 8.11 - Update HAN Device Log * (n) devices</p>	<p>Service Responses received for all Service Requests sent</p> <p>Service User will receive the following Alert code when the device has been added to the white list: DCC Alert N24</p>
3	Commission	<p>Send response to commission device Service Request to Service User</p> <p>Update Smart Metering Inventory status</p> <p>Configure the Meter:</p> <p>Set Time</p>	<p>Complete the following Service Request to support device commission:</p> <p>DUIS SR 8.1.1 – Commission Device * (n) devices</p>	<p>Acknowledgement received for all Service Requests sent</p>
4	Set MPxN on ESME for display purposes	<p>Set MPxN on ESME for display purposes</p>	<p>Complete the following Service Request to support setting the MPxN on the ESME for display purposes</p> <p>DUIS SR 6.20.1 – Set Device Configuration (Import MPxN)</p>	<p>Relevant party receives a service response to confirm successful execution of the Service Request.</p>

8.1.3 DUIS

The scenarios outlined in this clause are the high-level Test scenarios which are supported by the DUIS Test Matrix in clause 8.1.4. For example, Scenario SR01 refers to all Tests mandated in column CV1 – On Demand in the DUIS Matrix.

ID	SR01
Title:	Non-Critical Command with a command variant of CV1 and a Mode of Operation of On Demand
Scenario	Exercise Non-Critical On Demand Service Requests using Command Variant CV1 applicable to the User Role

ID	SR02
Title:	Non-Critical Command with a command variant of CV1 and a Mode of Operation of Future Dated (either DCC or Device, as determined by DUIS)
Scenario	Exercise Non-Critical Future Dated Service Requests using Command Variant CV1 applicable to the User Role

ID	SR03
Title:	Non-Critical Command with a command variant of CV2 and a Mode of Operation of On Demand
Scenario	Exercise Non-Critical On Demand Service Requests using Command Variant CV2 applicable to the User Role

ID	SR04
Title:	Non-Critical Command with a command variant of CV3 and a Mode of Operation of On Demand
Scenario	Exercise Non-Critical On Demand Service Requests using Command Variant CV3 applicable to the User Role

ID	SR05
Title:	Critical Command with a command variant of CV4 and a Mode of Operation of On Demand
Scenario	Exercise Critical On Demand Service Requests using Command Variant CV4 applicable to the User Role

ID	SR06
Title:	Critical Command with a command variant of CV5 and a Mode of Operation of On Demand
Scenario	Exercise Critical On Demand Service Requests using Command Variant CV5 applicable to the User Role

ID	SR07
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Title:	Critical Command with a command variant of CV5 and a Mode of Operation of Future Dated (either DCC or Device, as determined by DUIS)
Scenario	Exercise Critical Future Dated Service Request using Command Variant CV5 applicable to the User Role

ID	SR08
Title:	Critical Command with a command variant of CV6 and a Mode of Operation of On Demand
Scenario	Exercise Critical On Demand Service Request using Command Variant CV6 applicable to the User Role

ID	SR09
Title:	Critical Command with a command variant of CV7 and a Mode of Operation of On Demand
Scenario	Exercise Critical On Demand Service Request using Command Variant CV7 applicable to the User Role

ID	SR010
Title:	Service Requests with a command variant of CV8
Scenario	Exercise Service Request using Command Variant CV8 applicable to the User Role

8.1.4 DUIS Matrix

New User

The following User Role tables reflect the test Service Requests that must be executed by a new Party seeking to undertake UEPT, unless the Testing Participant has descoped a subset of Service Requests and this subset has been agreed with DCC or, where referred to the Panel, has been determined by the Panel. The tests are those indicated as ‘Mandatory, Mandatory SMETS1 and Mandatory SMETS2+’ in the CV column, for which they must be executed for each specific User Role. Those indicated as ‘Mandatory’ must be executed in respect of a SMETS1 Device and a SMETS2+ Device. Those indicated as ‘Mandatory SMETS1’ must be executed in respect of a SMETS1 Device. Those indicated as ‘Mandatory SMETS2+’ must be executed in respect of a SMETS2+ Device. Where the test Service Requests are indicated as N/A there is no requirement to test during execution of the test scenarios.

Additional SR Testing

Where a Party is seeking to become an Eligible User for Service Request(s) that they have not successfully previously completed UEPT for in that same User Role, then they must be executed where indicated by User Role and ‘Mandatory’, ‘Mandatory SMETS1’ or ‘Mandatory SMETS2+’ in the CV column in the table below. Those indicated as ‘Mandatory’ must be executed in respect of a SMETS1 Device and a SMETS2+ Device. Those indicated as ‘Mandatory SMETS1’ must be executed in respect of a SMETS1 Device. Those indicated as ‘Mandatory SMETS2+’ must be executed in respect of a SMETS2+ Device. Where the test Service Requests are indicated as N/A there is no requirement to test during execution of the test scenarios:

8.1.5 Import Supplier (IS) User Role

Service Reference	Service Reference Variant	Name	Critical	CV1 – On Demand	CV1 – Future Dated	CV2 – On Demand	CV3 – On Demand	CV4 – On Demand	CV5 – On Demand	CV5 – Future Dated	CV6 – On Demand	CV7 – On Demand	CV8 – DCC Only	IS
1.1	1.1.1	Update Import Tariff (Primary Element)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
1.1	1.1.2	Update Import Tariff (Secondary Element)	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	IS
1.2	1.2.1	Update Price (Primary Element)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
1.2	1.2.2	Update Price (Secondary Element)	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	IS
1.5	1.5	Update Meter Balance	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	N/A	N/A	Mandatory SMETS 2	N/A	IS
1.6	1.6	Update Payment Mode	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	IS
1.7	1.7	Reset Tariff Block Counter Matrix	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	IS
2.1	2.1	Update Prepay Configuration	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
2.2	2.2	Top Up Device	N	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	IS
2.3	2.3	Update Debt	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
2.5	2.5	Activate Emergency Credit	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS

3.1	3.1	Display Message	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
3.2	3.2	Restrict Access For Change Of Tenancy	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
3.3	3.3	Clear Event Log	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
3.4	3.4	Update Supplier Name	N	N/A	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	IS
3.5	3.5	Disable Privacy PIN	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.1	4.1.1	Read Instantaneous Import Registers	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.1	4.1.2	Read Instantaneous Import TOU Matrices	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.1	4.1.3	Read Instantaneous Import TOU With Blocks Matrices	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.3	4.3	Read Instantaneous Prepay Values	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.4	4.4.2	Retrieve Change Of Mode / Tariff Triggered Billing Data Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.4	4.4.3	Retrieve Billing Calendar Triggered Billing Data Log	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.4	4.4.4	Retrieve Billing Data Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS

		(Payment Based Debt Payments)												
4.4	4.4.5	Retrieve Billing Data Log (Prepayment Credits)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.6	4.6.1	Retrieve Import Daily Read Log	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.8	4.8.1	Read Active Import Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.8	4.8.2	Read Reactive Import Profile Data	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.10	4.10	Read Network Data	N	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.11	4.11.1	Read Tariff (Primary Element)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.11	4.11.2	Read Tariff (Secondary Element)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.12	4.12.1	Read Maximum Demand Import Registers	N	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.13	4.13	Read Prepayment Configuration	N	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.14	4.14	Read Prepayment Daily Read Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.15	4.15	Read Load Limit Data	N	Mandatory	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.16	4.16	Read Active Power Import	N	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	IS

4.17	4.17	Retrieve Daily Consumption Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
4.18	4.18	Read Meter Balance	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
5.1	5.1	Create Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	IS
5.2	5.2	Read Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	IS
5.3	5.3	Delete Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	IS
6.2	6.2.1	Read Device Configuration (Voltage)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.2	6.2.2	Read Device Configuration (Randomisation)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.2	6.2.3	Read Device Configuration (Billing Calendar)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.2	6.2.4	Read Device Configuration (Identity Exc MPxN)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.2	6.2.5	Read Device Configuration (Instantaneous Power Thresholds)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.2	6.2.7	Read Device Configuration (MPxN)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.2	6.2.9	Read Device Configuration (Payment Mode)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.2	6.2.10	Read Device Configuration (Event Alert Behaviours)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS

6.4	6.4.1	Update Device Configuration (Load Limiting General Settings)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.4	6.4.2	Update Device Configuration (Load Limiting Counter Reset)	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.8	6.8	Update Device Configuration (Billing Calendar)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.11	6.11	Synchronise Clock	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.12	6.12	Update Device Configuration (Instantaneous Power Threshold)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.13	6.13	Read Event Or Security Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.14	6.14.1	Update Device Configuration (Auxiliary Load Control Description)	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.14	6.14.2	Update Device Configuration (Auxiliary Load Control Scheduler)	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	N/A	Mandatory SMETS 2	N/A	N/A	N/A	IS
6.14	6.14.3	Update Device Configuration (Auxiliary Controller Scheduler)	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.15	6.15.1	Update Security Credentials (KRP)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS

6.15	6.15.2	Update Security Credentials (Device)	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.17	6.17	Issue Security Credentials	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.20	6.20.1	Set Device Configuration (Import MPxN)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.21	6.21	Request Handover Of DCC Controlled Device	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.22	6.22	Configure Alert Behaviour	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.23	6.23	Update Security Credentials (CoS)	N	N/A	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.24	6.24.1	Retrieve Device Security Credentials (KRP)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.24	6.24.2	Retrieve Device Security Credentials (Device)	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.25	6.25	Set Electricity Supply Tamper State	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.26	6.26	Update Device Configuration (Daily Resetting Of Tariff Block Counter)	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
6.28	6.28	Set CHF Sub GHz Configuration	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.29	6.29	Request CHF Sub GHz Channel Scan	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS

6.30	6.30	Read CHF Sub GHz Configuration	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.31	6.31	Read CHF Sub GHz Channel	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
6.32	6.32	Read CHF Sub GHz Channel Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
7.1	7.1	Enable Supply	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
7.2	7.2	Disable Supply	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
7.3	7.3	Arm Supply	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
7.4	7.4	Read Supply Status	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
7.5	7.5	Activate Auxiliary Load	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
7.6	7.6	Deactivate Auxiliary Load	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	Mandatory SMETS 2	N/A	IS
7.7	7.7	Read Auxiliary Load Control Switch Data	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
7.8	7.8	Reset Auxiliary Load	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
7.9	7.9	Add Auxiliary Load To Boost Button	N	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
7.10	7.10	Remove Auxiliary Load From Boost Button	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
7.11	7.11	Read Boost Button Details	N	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
7.10	7.12	Set Randomised Offset Limit	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS

7.13	7.13	Set Auxiliary Controller State	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
7.14	7.14	Read Auxiliary Controller Configuration Data	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
7.15	7.15	Read Auxiliary Controller Operational Data	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
8.1	8.1.1	Commission Device	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
8.2	8.2	Read Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	IS
8.3	8.3	Decommission Device	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	IS
8.4	8.4	Update Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	IS
8.7	8.7.1	Join Service (Critical)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
8.7	8.7.2	Join Service (Non Critical)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
8.8	8.8.1	Unjoin Service (Critical)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	IS
8.8	8.8.2	Unjoin Service (Non Critical)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
8.9	8.9	Read Device Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
8.11	8.11	Update HAN Device Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
8.12	8.12.1	Restore HAN Device Log	N	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
8.12	8.12.2	Restore Gas Proxy Function Device Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
8.13	8.13	Return Local Command Response	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	IS

8.14	8.14.1	Communications Hub Update-Status Success	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	IS
8.14	8.14.2	Communications Hub Update-SMWAN Status No	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	IS
8.14	8.14.3	Communications Hub Update-Status Fault Return	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	IS
8.14	8.14.4	Communications Hub Update-Status No Fault Return	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	IS
11.1	11.1	Update Firmware	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	IS
11.2	11.2	Read Firmware Version	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IS
11.3	11.3	Activate Firmware	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	IS
12.1	12.1	Request WAN Matrix	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	IS
12.2	12.2	Device Pre-notification	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	IS
Count of N/A				52	106	104	105	74	81	106	109	108	96		
Count of Mandatory				36	2	0	0	19	0	0	0	0	8	65	
Count of Mandatory SMETS 2				12	3	6	5	15	27	4	1	2	6	89	
													Total Tests	154	

8.1.6 Gas Supplier (GS) User Role

Service Reference	Service Reference Variant	Name	Critical	CV1 – On Demand	CV1 – Future Dated	CV2 – On Demand	CV3 – On Demand	CV4 – On Demand	CV5 – On Demand	CV5 – Future Dated	CV6 – On Demand	CV7 – On Demand	CV8 – DCC Only	GS
1.1	1.1.1	Update Import Tariff (Primary Element)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
1.2	1.2.1	Update Price (Primary Element)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
1.5	1.5	Update Meter Balance	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	N/A	N/A	Mandatory SMETS 2	N/A	GS
1.6	1.6	Update Payment Mode	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	GS
2.1	2.1	Update Prepay Configuration	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
2.2	2.2	Top Up Device	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
2.3	2.3	Update Debt	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
2.5	2.5	Activate Emergency Credit	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
3.1	3.1	Display Message	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
3.2	3.2	Restrict Access For Change Of Tenancy	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
3.3	3.3	Clear Event Log	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
3.4	3.4	Update Supplier Name	N	N/A	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	GS
3.5	3.5	Disable Privacy PIN	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS

4.1	4.1.1	Read Instantaneous Import Registers	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.1	4.1.2	Read Instantaneous Import TOU Matrices	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.1	4.1.4	Read Instantaneous Import Block Counters	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.3	4.3	Read Instantaneous Prepay Values	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.4	4.4.2	Retrieve Change Of Mode / Tariff Triggered Billing Data Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.4	4.4.3	Retrieve Billing Calendar Triggered Billing Data Log	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.4	4.4.4	Retrieve Billing Data Log (Payment Based Debt Payments)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.4	4.4.5	Retrieve Billing Data Log (Prepayment Credits)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.6	4.6.1	Retrieve Import Daily Read Log	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.8	4.8.1	Read Active Import Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.10	4.10	Read Network Data	N	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.11	4.11.1	Read Tariff (Primary Element)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.13	4.13	Read Prepayment Configuration	N	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.14	4.14	Read Prepayment Daily Read Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS

4.17	4.17	Retrieve Daily Consumption Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
4.18	4.18	Read Meter Balance	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
5.1	5.1	Create Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GS
5.2	5.2	Read Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GS
5.3	5.3	Delete Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GS
6.2	6.2.3	Read Device Configuration (Billing Calendar)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.2	6.2.4	Read Device Configuration (Identity Exc MPxN)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.2	6.2.7	Read Device Configuration (MPxN)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.2	6.2.8	Read Device Configuration (Gas)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.2	6.2.9	Read Device Configuration (Payment Mode)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.2	6.2.10	Read Device Configuration (Event Alert Behaviours)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.6	6.6	Update Device Configuration (Gas Conversion)	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	N/A	N/A	N/A	N/A	GS
6.7	6.7	Update Device Configuration (Gas Flow)	Y	N/A	N/A	N/A	N/A	Mandatory	N/A	N/A	N/A	N/A	N/A	GS
6.8	6.8	Update Device Configuration (Billing Calendar)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
6.11	6.11	Synchronise Clock	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS

6.13	6.13	Read Event Or Security Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.15	6.15.1	Update Security Credentials (KRP)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	GS
6.15	6.15.2	Update Security Credentials (Device)	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	GS
6.17	6.17	Issue Security Credentials	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	GS
6.20	6.20.1	Set Device Configuration (Import MPxN)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.21	6.21	Request Handover Of DCC Controlled Device	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.22	6.22	Configure Alert Behaviour	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.23	6.23	Update Security Credentials (CoS)	N	N/A	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.24	6.24.1	Retrieve Device Security Credentials (KRP)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.24	6.24.2	Retrieve Device Security Credentials (Device)	Y	N/A	N/A	N/A	N/A	Mandatory SMETS 2	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	GS
6.28	6.28	Set CHF Sub GHz Configuration	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.29	6.29	Request CHF Sub GHz Channel Scan	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.30	6.30	Read CHF Sub GHz Configuration	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.31	6.31	Read CHF Sub GHz Channel	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
6.32	6.32	Read CHF Sub GHz Channel Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS

7.2	7.2	Disable Supply	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
7.3	7.3	Arm Supply	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
7.4	7.4	Read Supply Status	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
8.1	8.1.1	Commission Device	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
8.2	8.2	Read Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GS
8.3	8.3	Decommission Device	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GS
8.4	8.4	Update Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GS
8.7	8.7.1	Join Service (Critical)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
8.7	8.7.2	Join Service (Non Critical)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
8.8	8.8.1	Unjoin Service (Critical)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
8.8	8.8.2	Unjoin Service (Non Critical)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
8.9	8.9	Read Device Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
8.11	8.11	Update HAN Device Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
8.12	8.12.1	Restore HAN Device Log	N	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
8.12	8.12.2	Restore Gas Proxy Function Device Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
8.13	8.13	Return Local Command Response	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	GS
8.14	8.14.1	Communications Hub Status Update- Install Success	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	GS
8.14	8.14.2	Communications Hub Status Update-	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	GS

8.14	8.14.3	Communications Hub Status Update- Fault Return	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	GS
8.14	8.14.4	Communications Hub Status Update- No Fault Return	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	GS
11.1	11.1	Update Firmware	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GS
11.2	11.2	Read Firmware Version	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GS
11.3	11.3	Activate Firmware	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GS
12.1	12.1	Request WAN Matrix	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	GS
12.2	12.2	Device Pre-notification	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GS
Count of N/A				38	81	77	79	61	65	81	82	81	68	
Count of Mandatory				30	0	0	0	18	0	0	0	0	8	56
Count of Mandatory SMETS 2				14	1	5	3	3	17	1	0	1	6	51
													Total Tests	107

8.1.7 Export Supplier (ES) User Role

Service Reference	Service Reference Variant	Name	Critical	CV1 – On Demand	CV1 – Future Dated	CV2 – On Demand	CV3 – On Demand	CV4 – On Demand	CV5 – On Demand	CV5 – Future Dated	CV6 – On Demand	CV7 – On Demand	CV8 – DCC Only	ES
4.2	4.2	Read Instantaneous Export Registers	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES

4.6	4.6.2	Retrieve Export Daily Read Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES
4.8	4.8.3	Read Export Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES
4.12	4.12.2	Read Maximum Demand Export Registers	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES
5.1	5.1	Create Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ES
5.2	5.2	Read Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ES
5.3	5.3	Delete Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ES
6.2	6.2.4	Read Device Configuration (Identity Exc MPxN)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES
6.2	6.2.7	Read Device Configuration (MPxN)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES
6.2	6.20.2	Set Device Configuration (Export MPAN)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES
7.4	7.4	Read Supply Status	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES
8.2	8.2	Read Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ES
8.4	8.4	Update Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ES
11.2	11.2	Read Firmware Version	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ES
12.1	12.1	Request WAN Matrix	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	ES
12.2	12.2	Device Pre-notification	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ES
Count of N/A				7	16	16	16	16	16	16	16	16	9	
Count of Mandatory				5	0	0	0	0	0	0	0	0	6	11
Count of Mandatory SMETS 2				4	0	0	0	0	0	0	0	0	1	5

Total Tests	16
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8.1.8 Electricity Distributor (ED) User Role

Service Reference	Service Reference Variant	Name	Critical	CV1 – On Demand	CV1 – Future Dated	CV2 – On Demand	CV3 – On Demand	CV4 – On Demand	CV5 – On Demand	CV5 – Future Dated	CV6 – On Demand	CV7 – On Demand	CV8 – DCC Only	ED
4.1	4.1.1	Read Instantaneous Import Registers	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.1	4.1.2	Read Instantaneous Import TOU Matrices	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.1	4.1.3	Read Instantaneous Import TOU With Blocks Matrices	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.2	4.2	Read Instantaneous Export Registers	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.8	4.8.1	Read Active Import Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.8	4.8.2	Read Reactive Import Profile Data	N	Mandatory	N/A	Mandatory y SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.8	4.8.3	Read Export Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.10	4.10	Read Network Data	N	Mandatory	N/A	N/A	Mandatory y SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.12	4.12.1	Read Maximum Demand Import Registers	N	N/A	Mandatory y SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED

4.12	4.12.2	Read Maximum Demand Export Registers	N	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.15	4.15	Read Load Limit Data	N	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.16	4.16	Read Active Power Import	N	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	ED
4.17	4.17	Retrieve Daily Consumption Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
5.1	5.1	Create Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ED
5.2	5.2	Read Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ED
5.3	5.3	Delete Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ED
6.2	6.2.1	Read Device Configuration (Voltage)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.2	6.2.2	Read Device Configuration (Randomisation)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.2	6.2.4	Read Device Configuration (Identity Exc MPxN)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.2	6.2.7	Read Device Configuration (MPxN)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.2	6.2.10	Read Device Configuration (Event Alert Behaviours)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.5	6.5	Update Device Configuration (Voltage)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.13	6.13	Read Event Or Security Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.15	6.15.1	Update Security Credentials (KRP)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	ED
6.18	6.18.1	Set Maximum Demand Configurable Time Period	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED

6.18	6.18.2	Reset Maximum Demand Registers	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.22	6.22	Configure Alert Behaviour	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.24	6.24.1	Retrieve Device Security Credentials (KRP)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
6.27	6.27	Update Device Configuration (Daily Resetting Of Tariff Block Counter)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
7.4	7.4	Read Supply Status	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
7.7	7.7	Read Auxiliary Load Control Switch Data	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
7.14	7.14	Read Auxiliary Controller Configuration Data	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
7.15	7.15	Read Auxiliary Controller Operational Data	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
8.2	8.2	Read Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ED
8.4	8.4	Update Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ED
11.2	11.2	Read Firmware Version	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ED
12.1	12.1	Request WAN Matrix	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	ED
12.2	12.2	Device Pre-notification	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	ED
Count of N/A				10	35	37	36	37	37	38	38	38	31	
Count of Mandatory				17	0	0	0	1	0	0	0	0	6	24
Count of Mandatory SMETS 2				11	3	1	2	0	1	0	0	0	1	19
													Total Tests	43

8.1.9 Gas Transporter (GT) User Role

Service Reference	Reference Variant	Name	Critical	CV1 – On Demand	CV1 – Future Dated	CV2 – On Demand	CV3 – On Demand	CV4 – On Demand	CV5 – On Demand	CV5 – Future Dated	CV6 – On Demand	CV7 – On Demand	CV8 – DCC Only	GT
4.1	4.1.1	Read Instantaneous Import Registers	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
4.1	4.1.2	Read Instantaneous Import TOU Matrices	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
4.8	4.8.1	Read Active Import Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
4.10	4.10	Read Network Data	N	Mandatory	N/A	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	GT
4.17	4.17	Retrieve Daily Consumption Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
5.1	5.1	Create Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GT
5.2	5.2	Read Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GT
5.3	5.3	Delete Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GT
6.2	6.2.4	Read Device Configuration (Identity Exc MPxN)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
6.2	6.2.7	Read Device Configuration (MPxN)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
6.2	6.2.8	Read Device Configuration (Gas)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
6.13	6.13	Read Event Or Security Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
6.15	6.15.1	Update Security Credentials (KRP)	Y	N/A	N/A	N/A	N/A	Mandatory	Mandatory SMETS 2	N/A	N/A	N/A	N/A	GT
6.24	6.24.1	Retrieve Device Security Credentials (KRP)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
7.4	7.4	Read Supply Status	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT

8.2	8.2	Read Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GT
8.4	8.4	Update Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GT
11.2	11.2	Read Firmware Version	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
12.1	12.1	Request WAN Matrix	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	GT
12.2	12.2	Device Pre-notification	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	GT
14.1	14.1	Record Network Data (GAS)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GT
Count of N/A				8	21	21	20	20	20	21	21	21	14	
Count of Mandatory				10	0	0	0	1	0	0	0	0	6	17
Count of Mandatory SMETS 2				3	0	0	1	0	1	0	0	0	1	6
													Total Tests	23

8.1.10 Registered Supplier Agent (RSA) User Role

Service Reference	Service Reference Variant	Name	Critical	CV1 – On Demand	CV1 – Future Dated	CV2 – On Demand	CV3 – On Demand	CV4 – On Demand	CV5 – On Demand	CV5 – Future Dated	CV6 – On Demand	CV7 – On Demand	CV8 – DCC Only	RSA
6.2	6.2.1	Read Device Configuration (Voltage)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.2	6.2.2	Read Device Configuration (Randomisation)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.2	6.2.3	Read Device Configuration (Billing Calendar)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA

6.2	6.2.4	Read Configuration (Exc MPxN)	Device (Identity)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.2	6.2.5	Read Configuration (Instantaneous Thresholds)	Device (Power)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.2	6.2.7	Read Configuration (MPxN)	Device (MPxN)	N	Mandatory	SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.2	6.2.8	Read Configuration (Gas)	Device (Gas)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.2	6.2.9	Read Configuration (Mode)	Device (Payment Mode)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.13	6.13	Read Event Or Security Log	Device (Security Log)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.3	6.3	Read CHF Sub Configuration	CHF Sub GHz	N	Mandatory	SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.31	6.31	Read CHF Sub Channel	CHF Sub GHz	N	Mandatory	SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
6.32	6.32	Read CHF Sub Channel Log	CHF Sub GHz	N	Mandatory	SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
7.4	7.4	Read Supply Status		N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
8.2	8.2	Read Inventory		N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	RSA
8.4	8.4	Update Inventory		N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	RSA
8.14	8.14.3	Communications Status Update- Return	Hub (Fault)	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	SMETS 2 RSA
8.14	8.14.3	Communications Status Update- Returned	Hub (No Fault)	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	SMETS 2 RSA
11.2	11.2	Read Firmware Version		N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RSA
12.1	12.1	Request WAN Matrix		N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	SMETS 2 RSA

12.2	12.2	Device Pre-notification	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	RSA
		Count of N/A		6	20	20	20	20	20	20	20	20	20	14	
		Count of Mandatory		9	0	0	0	0	0	0	0	0	0	3	12
		Count of Mandatory SMETS 2		5	0	0	0	0	0	0	0	0	0	3	8
														Total Tests	20

8.1.11 Other User (OU) User Role

Service Reference	Reference Service Variant	Name	Critical	CV1 – On Demand	CV1 – Future Dated	CV2 – On Demand	CV3 – On Demand	CV4 – On Demand	CV5 – On Demand	CV5 – Future Dated	CV6 – On Demand	CV7 – On Demand	CV8 – DCC Only	OU
4.8	4.8.1	Read Active Import Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
4.8	4.8.2	Read Reactive Import Profile Data	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
4.8	4.8.3	Read Export Profile Data	N	N/A	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
4.11	4.11.1	Read Tariff (Primary Element)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
4.11	4.11.2	Read Tariff (Secondary Element)	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
4.17	4.17	Retrieve Daily Consumption Log	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
5.1	5.1	Create Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	OU
5.2	5.2	Read Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	OU
5.3	5.3	Delete Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	OU

6.2	6.2.4	Read Configuration Exc MPxN)	Device (Identity	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
6.2	6.2.7	Read Configuration (MPxN)	Device	N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
7.7	7.7	Read Auxiliary Load Control Switch Data		N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
7.11	7.11	Read Boost Button Details		N	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
7.14	7.14	Read Auxiliary Controller Configuration Data		N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
7.15	7.15	Read Auxiliary Controller Operational Data		N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
8.2	8.2	Read Inventory		N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	OU
8.4	8.4	Update Inventory		N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	OU
8.7	8.7.2	Join Service (Non Critical)	(Non Critical)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
8.8	8.8.2	Unjoin Service (Non Critical)	(Non Critical)	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
8.9	8.9	Read Device Log		N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
8.11	8.11	Update HAN Device Log		N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
9.1	9.1	Request Customer Identification Number		N	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
11.2	11.2	Read Firmware Version		N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OU
12.1	12.1	Request WAN Matrix		N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory SMETS 2	OU
12.2	12.2	Device Pre-notification		N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	OU
Count of N/A					9	224	224	25	25	25	25	25	25	18	
Count of Mandatory					9	0	0	0	0	0	0	0	0	6	15
Count of Mandatory SMETS 2					7	1	1	0	0	0	0	0	0	1	10

Total Tests	25
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8.1.12 Device Alert Tests

The following table outlines the Device Alert tests required to be executed by User Role. The purpose of these tests is to prove that a party can receive a subset of Device Alerts based on the differing types of Alerts that can be received.

New User

The following User Role tables reflect the Device Alerts that must be executed by a new Party seeking to undertake UEPT, unless the Testing Participant has descoped a subset of Device Alert Tests and this has been agreed with DCC or, where referred to the Panel, has been determined by the Panel. The tests are those indicated as ‘Mandatory, Mandatory SMETS1 and Mandatory SMETS2+’ in the test scenario column, for which they must be executed for each specific User Role. Those indicated as ‘Mandatory’ must be executed in respect of a SMETS1 Device and a SMETS2+ Device. Those indicated as ‘Mandatory SMETS1’ must be executed in respect of a SMETS1 Device. Those indicated as ‘Mandatory SMETS2+’ must be executed in respect of a SMETS2+ Device. Where the Device Alert tests are indicated as N/A there is no requirement to test during execution of the test scenarios.

8.1.13 Device Alert Tests – IS

Event / Alert Code	Event / Alert Code Meaning	Device Alert Variant	Critical	Test Scenario	User Role
0x8F32**	Supply Armed	Device Alert – Type 1 (Alert Code and Timestamp) DLMS	Y	Mandatory	IS
0x8183	Device joined SMHAN	Device Alert – Type 1 (Alert Code and Timestamp) DLMS	N	Mandatory SMETS2+	IS
0x8F66	Future – date HAN Interface Command Successfully Actioned	Device Alert – Type 2 (Alert Code, Timestamp and Specific Data) DLMS	Y	Mandatory SMETS2+	IS

**Where the Device being used in testing is not able to support the generation of this Alert, the DCC shall notify the Testing Participant of a different Alert that needs to be tested.

8.1.14 Device Alert Tests – GS

Event / Alert Code	Event / Alert Code Meaning	Device Alert Variant	Critical	Test Scenario	User Role
0x8F32**	Supply Armed	Device Alert – Type 1 (Alert Code and Timestamp) Zigbee	Y	Mandatory	GS
0x8183	Device joined SMHAN	Device Alert – Type 1 (Alert Code and Timestamp) Zigbee	N	Mandatory SMETS2+	GS

0x8F66	Future – date HAN Interface Command Successfully Actioned	Device Alert – Type 2 (Alert Code, Timestamp and Specific Data) Zigbee	Y	Mandatory SMETS2+	GS
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**Where the Device being used in testing is not able to support the generation of this Alert, the DCC shall notify the Testing Participant of a different Alert that needs to be tested.

8.1.15 Device Alert Tests – ES

Event / Alert Code	Event / Alert Code Meaning	Device Alert Variant	Critical	CTS Test Scenario	User Role
No alerts identified from Device to Export Supplier					

8.1.16 Device Alert Tests – ED

Event / Alert Code	Event / Alert Code Meaning	Device Alert Variant	Critical	Test Scenario	User Role
0x8002	Average RMS Voltage above Average RMS Over Voltage Threshold (current value above threshold; previous value below threshold)	Device Alert – Type 1 (Alert Code and Timestamp) DLMS	N	Mandatory SMETS2+	ED
0x8F35	Supply Outage Restored	Device Alert – Type 2 (Alert Code, Timestamp and Specific Data) DLMS	Y	Mandatory SMETS2+	ED
0x8F36	Supply Outage Restored – Outage >= 3 minutes	Device Alert – Type 2 (Alert Code, Timestamp and Specific Data) DLMS	Y	Mandatory SMETS2+	ED
0x8F40	Average RMS Voltage above Average RMS Over Voltage Threshold (current value above threshold; previous value below threshold)	Device Alert – Type 1 (Alert Code and Timestamp) DLMS	N	Mandatory SMETS1	ED
0x8F411	SMETS1 Average RMS Voltage below Average RMS Under Voltage Threshold (current value below threshold; previous value above threshold)	Device Alert – Type 1 (Alert Code and Timestamp) DLMS	N	Mandatory SMETS1	ED

8.1.17 Device Alert Tests – GT

Event / Alert Code	Event / Alert Code Meaning	Device Alert Variant	Critical	Test Scenario	User Role
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No alerts identified from Device to Gas Transporter

8.1.18 DCC Alert Tests

The following table outlines the DCC Alert tests required to be executed by User Role. The purpose of these tests is to prove that a party can receive a subset of DCC Alerts based on the differing types of Alerts that can be received.

New User

The following User Role tables reflect the DCC Alert Tests that must be executed by a new Party seeking to undertake UEPT unless the Testing Participant has descoped a subset of DCC Alert Tests and this have been agreed with DCC or, where referred to the Panel, has been determined by the Panel. The tests are those indicated as ‘Mandatory, Mandatory SMETS1 and Mandatory SMETS2+’ in the test scenario column, for which they must be executed for each specific User Role. Those indicated as ‘Mandatory’ must be executed in respect of a SMETS1 Device and a SMETS2+ Device. Those indicated as ‘Mandatory SMETS1’ must be executed in respect of a SMETS1 Device. Those indicated as ‘Mandatory SMETS2+’ must be executed in respect of a SMETS2+ Device. Where the DCC Alert Tests are indicated as N/A there is no requirement to test during execution of the test scenarios.

The Alerts highlighted in Blue are Device Alert Tests to be executed against Dual Band Communications Hub by User Role.

8.1.19 DCC Alert Tests - IS

Reference	Name	Test Scenario	Applicable User Role
N17	DSP Schedule Removal – Schedule removal due to Change of Supplier	Mandatory	Previously Registered IS
N24	Update HAN Device Log Result – Successful Communications Hub Function Whitelist Update	Mandatory SMETS2+	IS
N27	Change of Supplier – Device Change of Supplier	Mandatory	Previously Registered IS
N49, N50, N51, N52	Firmware Version Mismatch	Optional	IS
N53	Command Not Delivered To ESME	Mandatory SMETS2+	IS
N54	Dual Band CH Sub GHz Alert	Mandatory SMETS2+	IS
N55	SMETS1 Service Provider Alert	Mandatory SMETS1	IS
N56	SMETS1 Service Provider Provision of prepayment top-up UTRN	Mandatory SMETS1	IS

8.1.20 DCC Alert Tests – GS

Reference	Name	Test Scenario	Applicable User Role
N17	DSP Schedule Removal – Schedule removal due to Change of Supplier	Mandatory	Previously Registered GS
N24	Update HAN Device Log Result – Successful Communications Hub Function Whitelist Update	Mandatory SMETS2+	GS
N27	Change of Supplier – Device Change of Supplier	Mandatory SMETS2+	Previously Registered GS
N49, N50, N51, N52	Firmware Version Mismatch	Optional SMETS2+	GS
N54	Dual Band CH Sub GHz Alert	Mandatory SMETS2+	GS
N55	SMETS1 Service Provider Alert	Mandatory SMETS1	GS
N56	SMETS1 Service Provider Provision of prepayment top-up UTRN	Mandatory SMETS1	GS
N57	SMETS1 CH Firmware notification	Mandatory SMETS1	GS

8.1.21 DCC Alert Tests – ES

Reference	Name	CTS Test Scenario	Applicable User Role
N1	Device Status Change – Electricity Smart Meter Decommission or Withdrawal	Mandatory SMETS2+	Registered ES
N55	SMETS1 Service Provider Alert	Mandatory SMETS1	Registered ES

8.1.22 DCC Alert Tests – ED

Reference	Name	Test Scenario	Applicable User Role
AD1	Power Outage Event	Mandatory SMETS2+	Registered ED
N1	Device Status Change – Electricity Smart Meter Decommission or Withdrawal	Mandatory SMETS2+	Registered ED
N16	Device Identity Confirmation	Mandatory SMETS2+	Registered ED
N53	Command Not Delivered To ESME	Mandatory SMETS2+	Registered ED
N55	SMETS1 Service Provider Alert	Mandatory SMETS1	Registered ED

8.1.23 DCC Alert Tests – GT

Reference	Name	Test Scenario	Applicable User Role
AD1	Power Outage Event	Mandatory SMETS2+	Registered GT

N2	Device Status Change - Gas Smart Meter Decommission or Withdrawal	Mandatory SMETS2+	Registered GT
N16	Device Identity Confirmation	Mandatory SMETS2+	Registered GT
N55	SMETS1 Service Provider Alert	Mandatory SMETS1	Registered GT

8.1.24 DCC Alert Tests - RSA

Reference	Name	Test Scenario	Applicable User Role
N55	SMETS1 Service Provider Alert	Mandatory SMETS1	RSA

8.1.25 DCC Alert Tests - OU

Reference	Name	Test Scenario	Applicable User Role
N24	Update HAN Device Log Result - Successful Communications Hub Function Whitelist Update	Mandatory SMETS2+	OU
N55	SMETS1 Service Provider Alert	Mandatory SMETS1	OU

8.1.26 Response Code Tests

The following table outlines the Response Code Tests required to be executed by User Role. The purpose of these tests is to prove that a party can receive a subset of Response Code messages based on the differing types of response codes that can be received.

New User

The following User Role tables reflect the test Response Codes that must be executed by a new Party seeking to undertake UEPT, unless the Testing Participant has descoped a subset of Service Requests and this have been agreed with DCC or, where referred to the Panel, has been determined by the Panel. The tests are those indicated as ‘Mandatory, Mandatory SMETS1 and Mandatory SMETS2+ ‘ in the test scenario column, for which they must be executed for each specific User Role. Those indicated as ‘Mandatory’ must be executed in respect of a SMETS1 Device and a SMETS2+ Device. Those indicated as ‘Mandatory SMETS1’ must be executed in respect of a SMETS1 Device. Those indicated as ‘Mandatory SMETS2+’ must be executed in respect of a SMETS2+ Device. Where the Response Code Tests are indicated as N/A there is no requirement to test during execution of the test scenarios.

Reference	Name	Test Scenario	User Role
E11	Failed Validation - Invalid Service Request / Device Type combination	Mandatory	IS ES GS ED GT RSA OU
E13	Failed Validation – Invalid Request Type for URL	Mandatory	IS ES GS ED GT RSA OU
E19	Failed Validation – Device doesn't exist	Mandatory	IS ES GS ED GT RSA OU
E60	Failed Validation – Invalid Service Request for SMETS1 Devices	Mandatory SMETS1	IS ES GS ED GT RSA OU
E61	Failed Validation – Invalid Command Variant for SMETS1 Service Request	Mandatory SMETS1	IS ES GS ED GT RSA OU

8.1.27 Self Service Interface Test

The following tables outline the test required to be executed by a Testing Participant to determine whether the prospective User can access the SSI.

Test Scenario	
Title:	Testing Participant can successfully log into and access the Self Service Interface.
Prerequisite:	Testing Participant holds the role of IS, ES, ED, GT, RSA or OU for testing purposes. Connection to DCC System. Party SSI login authentication via DCC or own IDP.

Steps	Description	Objective	Actions	Acceptance Criteria
1	Login via IDP	Authenticate via IDP	Party to open the web service for SSI logon and complete Party login via DCC or own IDP.	Login success and the authenticating SEC Party will be presented with Self Service Interface.

9. Annex D: Forms and Templates

Extant versions of templates for the following documents will be maintained on the DCC Website or SharePoint.

Forms and Templates
Party Notification of Intention to Undertake Testing template
DCC Acknowledgement of Intention to Undertake Testing template
Test Readiness Report template
Test Plan template
Test Execution Dashboard template
Test Completion Report template

10. Annex E: UEPT AND ADDITIONAL SR TEST COMPLETION CERTIFICATE

UEPT AND ADDITIONAL SR TEST COMPLETION CERTIFICATE

To: [Party]

From: [DCC]

[Date]

Dear Sir or Madam,

TEST COMPLETION CERTIFICATE UEPT OR ADDITIONAL SR TESTING

We confirm that the relevant Exit Criteria have been achieved in respect of UEPT or Additional SR Testing

Party: [Party]

SEC Party Signifier: [Signifier]

User Role: [User Role]

The table, below, includes all SRs the Party has completed either UEPT or Additional SR Testing to date as indicated by the Date Test Completion Certificate issued column.

Service Request Variant	Tested as part of UEPT or Additional SR Testing	Date Test Completion Certificate issued

Yours faithfully

[Name]

[Position]

Acting on behalf of the DCC

11. Annex F: DEFINITIONS

Term	Definition	Source
Entry Criteria	The criteria that must be satisfied before testing can commence	Clause 5.8 of this document
Exit Criteria	The criteria that must be satisfied before testing can be considered complete	Clause 5.19 of this document
SMETS2+ Install and Commission	The process of installing and commissioning a SMETS2+ Communications Hub Function, a SMETS+ Gas Proxy Function (in the case of Gas Smart Meters) and SMETS2+ Smart Meters with the DCC.	Clause 5.1 of this document
Regression Testing	Testing of a previously tested programme following modification of that programme to ensure that defects have not been introduced or uncovered in unchanged areas of the software, as a result of the changes made (and Regression Test shall be construed accordingly)	International Software Testing Qualifications Board
Relevant Party	The Party which is undertaking the necessary steps for the purposes of User Entry Process Tests	This document
(Requirements) Traceability Matrix	A matrix of defined requirements that provides traceability (linkage) to Test Scripts for the purpose of providing a measurement of test coverage.	International Software Testing Qualifications Board
Test Completion Certificate	A certificate issued by the DCC to a Party in a particular User Role upon request and in any event in accordance with 5.6.1.3 when that Party successfully completes UEPT.	Clause 10 of this document
Test Completion Report	A document summarising testing activities and results. It also contains an evaluation against Exit Criteria.	Clause 6.6 of this document
Test Data	The data constructed for the purposes of undertaking User Entry Process Tests	Clause 7 of this document
Test Data Plan	The document that sets out: the size and type/format of data, who is responsible for providing the data; and when the data is required to be available to support test activities in a Test Plan	Clause 7 of this document
Test Execution Dashboard	The document summarising testing activities and results, produced at regular intervals, to report progress of testing activities against a baseline (such as the original test plan) and to communicate risks.	Clause 6.5 of this document
Test Management Tool	A tool that has the ability to log and track Testing Issues.	Clause 5.19.1 of this document

Term	Definition	Source
Test Plan	A document describing the scope, approach, resources and schedule of intended test activities within a Test Stage that will be produced as set out in clause 6.1.4	Clause 6.4 of this document
Test Result	The consequence/outcome of the execution of a test script	Clause 6.4 of this document
Test Readiness Report	A report that when completed provides the capability to assess the status of test preparation and determine the readiness to proceed into test execution	Clause 6.3 of this document
Test Schedule	A list of test process activities, tasks or events identifying their intended start and finish dates and/or times and interdependencies.	Clause 6.4 of this document
Test Script	A document specifying a sequence of actions for the execution of a test	Clause 6.8 of this document

References

Abbreviation	Title & Originator’s Reference
SEC	Smart Energy Code
DUIS	DCC User Interface Specification
ETAD	Enduring Testing Approach Document
E2EAD	End to End Testing Approach Document
None	Guide for Testing Participants

12. Annex G: Testing Issue Severity Descriptions

Severity	Description
Severity 1	<p>An Issue which in relation to the Relevant Party:</p> <ul style="list-style-type: none"> would prevent user from using their systems would have a critical adverse impact on business activities would cause significant financial loss would result in any material loss or corruption of Data. <p>Non-exhaustive examples:</p> <ul style="list-style-type: none"> an Issue leading to non-availability of systems all test progress is blocked.
Severity 2	<p>An Issue which in relation to the Relevant Party:</p> <ul style="list-style-type: none"> would have a major (but not critical) adverse impact on use of systems would cause limited financial loss <p>Non-exhaustive examples:</p> <ul style="list-style-type: none"> an Issue leading to non-availability of or to loss of resilience of a material part of their systems large areas of functionality will not be able to be tested testing not completely blocked but has been significantly impacted.
Severity 3	<p>An Issue which in relation to the Relevant Party:</p> <ul style="list-style-type: none"> would have a major adverse impact on business activities but which can be reduced to a moderate adverse impact through a work-around would have a moderate adverse impact on the business activities <p>Non-exhaustive examples:</p> <ul style="list-style-type: none"> testing can progress but the work-around will impact test progress.
Severity 4	<p>An Issue which in relation to the Relevant Party:</p> <ul style="list-style-type: none"> would have a minor adverse impact on business activities <p>Non-exhaustive examples:</p> <ul style="list-style-type: none"> minor service interruptions in the business process
Severity 5	<p>An Issue which in relation to the Relevant Party:</p> <ul style="list-style-type: none"> would have minimal impact on business activities <p>Non-exhaustive examples:</p> <ul style="list-style-type: none"> trivial Issues with work-arounds which are noted for future releases but minimal impact of running existing activities tests can still pass but there are cosmetic issues.