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MP089 ‘Changes to Appendix R ‘Common Testing Scenarios Document’ Annex A Legal text – version 1.0

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

These changes have been drafted against SEC Version 6.18.

This document contains the changes required to deliver the Proposed Solution.

Appendix R 'Common Testing Scenarios Document'

Amend Section 1 as follows:

1 Introduction

1.1 Purpose

The purpose of this document is to:

- Define the procedural steps to be undertaken by a Party wishing to complete User Entry Process Tests (UEPT) in accordance with SEC Section H14;
- 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
- 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.

Additionally, this document sets out the above for a Testing Participant wishing to complete:

- Additive UEPT in respect of R2.0 Functionality; ~~and~~
- Eligibility Testing in accordance with the User Testing Services Approach Document under the SVTAD for SMETS1; and
- Additive UEPT in respect of November 2019 SEC Release.

1.2 Types of Testing Required

Clause 8 sets out the specific tests that are required to be performed:

- For a new Party seeking to undertake User Entry Process Testing;
- For an existing User seeking to send Service Requests in respect of SMETS1 Devices (Eligibility Testing); ~~and~~
- For an existing User seeking to access R2.0 functionality (Additive UEPT); and
- For an existing User seeking to access November 2019 SEC Release functionality (Additive UEPT).

Amend Section 5.4 as follows:

5.4 Completing Additive UEPT for Release 2.0 or November 2019 SEC Release

Testing Participants that have completed UEPT prior to the release of R2.0 functionality into the production environment have the option of executing R2.0 Service Requests by the following routes:

- Completing UEPT style testing through the formal process as stated in this document; or
- Successfully executing the R2.0 Service Request in end to end Testing In accordance with the provision of the SEC Variation Testing Approach Document for Release 2.0.

Testing Participants will submit evidence of successful execution of R2.0 Service Requests to the DCC. After DCC accepts this evidence, the Testing Participant will be Eligible Users of those Service Requests.

For November 2019 SEC Release

Testing Participants that have completed UEPT prior to the release of November 19 functionality into the production environment must complete UEPT style testing through the formal process as stated in this document and the Testing Approach Document for November 2019 SEC Release.

Amend Section 8.1.4 as follows:

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. 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.

Existing User seeking to send Service Request to SMETS1 Devices

The Service Request tests that must be executed if a Testing Participant has already completed UEPT and is seeking to send Service Requests to SMETS 1 Devices in a particular User Role (Eligibility Testing), as set out in clause 4.3 of the UTSAD, are those indicated as ‘Mandatory or Mandatory SMETS1 ’ in the CV column for the relevant User Role. Those indicated as ‘Mandatory’ must only be executed in respect of a SMETS1 Device and those indicated as

‘Mandatory SMETS1’ must only be executed in respect of a SMETS1 Device. Where the test Service Requests are indicated as N/A there is no requirement to test during execution of the test scenarios.

Existing User seeking to send Service Requests that access R2.0 functionality

For SMETS2+ when executing Additive UEPT for R2.0, the Service Requests that must be executed are as listed below and need to be executed where indicated by User Role and ‘Mandatory’ or ‘Mandatory SMETS2+’ in the CV column:

- Service Requests for Single Band Comms Hub – 2.1, 6.2.2, 6.2.3, 6.2.10, 6.5, 6.8, 6.15.1, 6.21, 6.22, 6.23, 6.26, 6.27, 14.1
- Service Requests for Dual Band Comms Hub – 6.28, 6.29, 6.30, 6.31, 6.32
- Service Requests which are not mandatory but can be executed by a User for that User Role if they wish are indicated by ‘N/A’ in the DUIS Matrix.

Those indicated as ‘Mandatory’ must only be executed in respect of a SMETS2+ Device.

Existing User Seeking to send Service Requests that access November 19 functionality

For SMETS2+ if a Testing Participant has already completed UEPT and is executing Additive UEPT for November 19, the Service Requests that must be executed in a particular User Role are those indicated as ‘Mandatory’ or ‘Mandatory SMETS2+’ in the CV column for the relevant User Role and are listed below:

- Service Request for Read Auxiliary Load Control Switch Data – 7.7
- Service Request for Communications Hub Status – 8.14.3 and 8.14.4

Amend Table 8.1.8 as follows:

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 <u>SMETS 2</u>	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
<u>7.7</u>	<u>7.7</u>	<u>Read Auxiliary Load Control Switch Data</u>	<u>N</u>	<u>Mandatory SMETS 2</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>ED</u>
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	<u>323</u>	<u>345</u>	<u>334</u>	<u>345</u>	<u>345</u>	<u>356</u>	<u>356</u>	<u>356</u>	<u>289</u>	

Managed by

Count of Mandatory	1817	0	0	0	1	0	0	0	0	6	254
Count of Mandatory SMETS 2	79	3	1	2	0	1	0	0	0	1	157
Total Tests											4041

Amend Table 8.1.10 as follows:

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	RSA
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	RSA
8.14	8.14.3	Communications Hub Status Update- No Fault Returned	N	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	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	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	Mandatory	RSA
Count of N/A				46	1820	1820	1820	1820	1820	1820	1820	1820	14	
Count of Mandatory				9	0	0	0	0	0	0	0	0	3	162
Count of Mandatory SMETS 2				5	0	0	0	0	0	0	0	0	43	68
Total Tests													230	

Amend Section 8.1.12 as follows:

Existing User seeking to send Service Requests that access R2.0 functionality

For SMETS2+ when executing Additive UEPT for R2.0, the Alerts as listed below need to be executed where indicated by User Role and 'Mandatory' or 'Mandatory SMETS2+' the test scenario column:

- Device Alerts IS — Ox81A0 Smart Meter Integrity Issue Warning (Optional)
- Device Alerts GS — Ox81A0 Smart Meter Integrity Issue Warning (Optional)

Those indicated as 'Mandatory' must only be executed in respect of a SMETS2+ Device.

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

Amend Table 8.1.13 as follows:

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

Amend Table 8.1.14 as follows:

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

Amend Table 8.1.16 as follows:

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

Amend Table 8.1.19 as follows:

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

Amend Table 8.1.20 as follows:

8.1.21 DCC Alert Tests – ES

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

Amend Table 8.1.21 as follows:

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

Amend Table 8.1.22 as follows:

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