

APPENDIX [XX]

**SEC Variation Testing Approach Document for Changes
required to support the Future DSP**

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1 **Definitions and Interpretations**

- 1.1 In this SEC Variation Testing Approach Document for the Future DSP (hereafter “Future DSP SVTAD”), except where the context otherwise requires, the expressions in the left-hand column within Table 1.1 shall have the meanings given to them in the right-hand column within Table 1.1. Where not defined in this Future DSP SVTAD, words beginning with a capital letter used in this document are defined in Section A of the SEC.
- 1.2 Where there are conflicts between this Future DSP SVTAD and the related Future DSP Test Approach Document(s) or any other documents produced pursuant to this Future DSP SVTAD, this Future DSP SVTAD shall take precedence.
- 1.3 Where obligations are expressed in respect of DCC Service Providers in this Future DSP SVTAD, the Future DSP Test Approach Document(s) or any other documents produced pursuant to this Future DSP SVTAD, these shall be construed as obligations on the DCC. Where text is included in this Future DSP SVTAD, or the Future DSP Test Approach Document or any other documents produced pursuant to this Future DSP SVTAD which does not explicitly place obligations on a Party, the Panel, or Testing Participant, these shall be construed as obligations on the DCC.

Table 1.1 Future DSP SVTAD Definitions

Term	Meaning
Completion Report	means a report that is produced setting out evidence demonstrating how the criteria for the completion of a phase of testing have been met.
Future DSP Testing Device Selection Methodology (DSM)	Means the document containing the criteria and approach to selecting Device Types and Device Models for use in Future DSP testing undertaken by the DCC produced pursuant to Clause 5.
Device Model Combination (DMC)	means the combinations of Device Models that have been selected for use in testing undertaken by the DCC.
Exit Criteria	means the criteria that must be met in order for a phase of testing to complete.
Future DSP Release(s)	means any changes to all or part of the DCC Total System that are planned to be implemented at the same time, and which are necessary to support the delivery of the Future DSP SEC Variations, as set out in the document produced pursuant to Clause 6.
Future DSP Test Approach Document (TAD)	means the testing approach document produced pursuant to Clause 4 for the Future DSP Release(s).

Term	Meaning
Future DSP Mandated User Testing Document	means any document prepared pursuant to Clause 8 that sets out the approach to mandatory User Testing.
Joint Industry Plan (JIP)	means the part of the joint industry plan that is agreed at the Department for Energy, Security and Net Zero's smart metering design group that relates to the Future DSP Programme.
LC13B Plan	means the plan for delivery of the DSP services pursuant to Condition 13B of the DCC Licence
Modified DCC Total System	means the DCC Total System as will be modified as a result of Future DSP SEC Variations.
TAG	means the Panel's Testing Advisory Group.
Test Baseline Requirements Document (TBRD)	Means a document published by the Secretary of State from time to time setting out baseline versions of the Smart Energy Code for the purposes of test exit decisions.
Testing Issue Thresholds	means the maximum number of extant Testing Issues that may be permitted at test phase completion.
User Testing	means testing by one or more Users of all or part of any changes to the DCC Total System that form part of a Future DSP Release.

2 **General**

- 2.1 This document is the Future DSP SVTAD.
- 2.2 Section X11.7 of the Code requires that the DCC and each person other than the DCC that participates in (or is required to participate in) testing under the Future DSP SVTAD shall comply with the Future DSP SVTAD.
- 2.3 Section X11.8 of the Code specifies that Section H14 of the Code (Testing Services) and the Enduring Testing Approach Document shall apply in respect of testing under the Future DSP SVTAD as if such testing was a Testing Service under Section H14.34 (Modification Implementation Testing); and each participant in such testing shall be deemed to be a Testing Participant for such purposes.
- 2.4 This Future DSP SVTAD sets out:
- the framework for the testing that is required to be undertaken for the introduction of the Future DSP SEC Variations;
 - the arrangements that apply to the development of Future DSP Test Approach Document(s) for each Future DSP Release;
 - the rules to apply to the development of any Future DSP Mandated User Testing Document(s) for each Future DSP Release;

- d) the rules to apply to the DCC's selection of Devices where Devices are to be used in DCC testing; and
- e) the arrangements that apply to the specification of any Future DSP Release(s).

2.5 Each of the documents described in Clause 2.5 (b)-(c) may be produced:

- (a) as separate documents for the version of the Modified DCC Total System that will exist for each Future DSP Release;
- (b) as separate documents for each of PIT and/or SIT in respect of a Future DSP Release;
- (c) in the case of PIT for a Future DSP Release, as separate documents per increment of PIT testing; or
- (d) as any combination of the aforementioned permutations, as the DCC considers appropriate.

Each document shall clearly state its scope and the Future DSP Release(s) to which it pertains, and where combined, the DCC shall state in the combined document the individual parts of which it is comprised.

- 2.6 Testing undertaken pursuant to this Future DSP SVTAD shall be performed by the DCC and any other Party that participates in it in accordance with Good Industry Practice.
- 2.7 The DCC shall not commence any tests in respect of the Future DSP Solution until the Future DSP Test Approach Document(s) that set out the approach to and coverage of those tests has been approved by the TAG.
- 2.8 The DCC shall not commence testing with devices in respect of the Future DSP solution until the Device Selection Methodology that requires use of those devices has been approved by the TAG.
- 2.9 Where the Future DSP Test Approach Document produced pursuant to Clause 4.1 does not set out the approach to the entirety of testing that will be undertaken during the test phase to which the document relates (PIT, a PIT increment and/or SIT) in respect of the Future DSP Release, this shall be clearly stated in the Future DSP Test Approach Document. The DCC shall subsequently seek TAG approval of an updated Future DSP Test Approach Document(s) and/or separate Future DSP Test Approach Documents as and when the remaining approach to testing is planned. As set out in Clause 2.7, the DCC shall not commence any tests without the Future DSP Test Approach Document setting out the approach to those tests having been agreed pursuant to Clause 4.1.

Timetable for Testing

- 2.10 Test phases shall be commenced in the timescales that are necessary to facilitate testing in accordance with the milestones on the LC13B Plan or the Joint Industry Plan, whichever outlines the latest planned dates.

Future DSP Testing Objective

- 2.11 The objective of testing undertaken pursuant to this Future DSP SVTAD (the "Future

DSP Testing Objective”) is to demonstrate that the DCC and the component parts of the Modified DCC Total System in respect of each Future DSP Release operate and interoperate with User Systems and Smart Metering Systems to the extent necessary for the DCC to comply with the relevant requirements that will exist in the SEC that pertain to that Future DSP Release.

Test Entry Criteria

- 2.12 The fulfilment of the following Entry Criteria is required to permit entry into PIT or SIT in respect of each Future DSP Release:
- a) test plan signed off by the DCC;
 - b) all relevant Testing Approach Documents approved by the TAG;
 - c) Test Completion Certificates for any precursor test phase issued;
 - d) test specification prepared, including the production of a test traceability matrix;
 - e) confirmation that the required test laboratories, Devices, tools, stubs, environments, and data are in place, secure and are ready for testing; and
 - f) an approval to proceed certificate for the test phase has been issued by the DCC.

3 Modification to the Future DSP SVTAD

3.1 This Future DSP SVTAD:

- a) shall be modified by the DCC in accordance with any direction to do so made by the Secretary of State. The DCC shall consult with Parties concerning any proposed modification to this document in accordance with any direction to do so by made by the Secretary of State;
- b) may be modified by the DCC following consultation with Parties and other relevant persons, the TAG, the Authority, and the Secretary of State, provided that:
 - i. prior to making any such modification, DCC must present to the Secretary of State a summary of the consultation responses received and an explanation of how the DCC has taken them into account; and
 - ii. it may not be modified to the extent that the Secretary of State directs otherwise; and
- c) may be modified by DCC without consultation where the modification is of a minor typographical nature, or where the modification does not have any material effect on the rights or obligations of SEC Parties or any other person who is entitled to undertake testing in accordance with this document.

4 Future DSP Test Approach

- 4.1 The DCC shall produce each Future DSP Test Approach Document(s) in accordance with the requirements in Clause 2.5, which shall include the approach to testing for PIT or a PIT increment (as the case may be) and for SIT in respect of each Future DSP Release including:
- a) the proposed amendments to this Code that are the subject of, or which pertain to the testing, an explanation of the associated changes to the DCC Total System, and the testing objective;
 - b) the scope of the Future DSP Release(s) to which the Testing Approach Document relates;
 - c) the principles and approach to apply to PIT(s), including PIT increments, and SIT(s);
 - d) the depth and breadth of testing and the approach to test coverage;
 - e) the testing environments to be used;
 - (a) whether devices are to be used in PIT and/or SIT for a Future DSP Release and if so, the Device Model Combinations to be used are consistent with the Device Selection Methodology (which must be included in the Test Approach Document before testing against those devices commences)
 - f) the process for resolving Testing Issues, the Testing Issue Thresholds for use in the relevant PIT completion(s) and relevant SIT completion(s) and the process for excluding Testing Issues;
 - g) the exit criteria for testing to complete successfully for the relevant PIT and for the relevant SIT;
 - h) any perceived risks associated with the approach to testing and the proposed mitigations;
 - i) the approach to providing for assurance of the testing undertaken; and
 - j) matters to be included in any Completion Reports for the relevant PIT and SIT.
- 4.2 The DCC shall submit the draft of any Future DSP Testing Approach Document (s) in respect of a Future DSP Release to the TAG for review (and such submission by the DCC and review by the TAG may take place prior to this Clause 4.2 coming into effect); and:
- a) where the TAG and the DCC can reach an agreement on the document, the relevant draft Future DSP Testing Approach Document shall be updated by the DCC as necessary and deemed to be final; or
 - b) where the TAG and the DCC cannot reach an agreement on the document, the matters of disagreement shall be referred by the DCC to the Secretary of State for determination. The Secretary of State's decision on such matters shall be final and binding for the purposes of this Code and the relevant draft Future DSP Testing Approach Document shall be updated by the DCC as necessary and deemed to be final.
- 4.3 The DCC shall comply with each Future DSP Testing Approach Document in respect

of a Future DSP Release.

- 4.4 Revisions to a Future DSP Testing Approach Document finalised pursuant to Clause 4.2:
- a) may, from time to time, be submitted by the DCC to the TAG for agreement in accordance with the provisions of Clause 4.2, and the provisions of Clause 4.2 shall apply (again) to the revised version of the document; or
 - b) shall be made by the DCC in accordance with any direction to do so issued by the Secretary of State. The DCC shall consult with TAG concerning any such proposed revision in accordance with any direction to do so issued by the Secretary of State

5 Future DSP Device Selection Methodology

- 5.1 The DCC shall prepare a Future DSP Device Selection Methodology setting out the process to be followed to select Device Model Combinations to be used in testing. Any devices used by the DCC in PIT or SIT shall be consistent with the Device Selection Methodology approved pursuant to this Clause 5.
- 5.2 The DCC shall submit any Future DSP Device Selection Methodology to the TAG for review (and such submission by the DCC and review by the TAG may take place prior to this Clause 5.2 coming into effect) and:
- a) where the TAG and the DCC can reach an agreement on the document, the relevant draft Future DSP Selection Methodology shall be updated by the DCC as necessary and deemed to be final; or
 - b) where the TAG and the DCC cannot reach an agreement on the document, the matters of disagreement shall be referred by the DCC to the Secretary of State for determination. The Secretary of State's decision on such matters shall be final and binding for the purposes of this Code and the relevant draft Future DSP Device Selection Methodology shall be updated by the DCC as necessary and deemed to be final.
- 5.3 Revisions to any Future DSP Device Selection Methodology finalised pursuant to Clause 5.2:
- a) may, from time to time, be submitted by the DCC to the TAG for agreement in accordance with the provisions of Clause 5.2, and the provisions of Clause 5.2 shall apply (again) to the revised version of the document; or
 - b) shall be made by the DCC in accordance with any direction to do so issued by the Secretary of State. The DCC shall consult with TAG concerning any such proposed revision in accordance with any direction to do so issued by the Secretary of State.
- 5.4 Prior to submission to TAG for approval of a Future DSP Device Selection Methodology pursuant to clause 5.2 or 5.3, the DCC shall consult on the proposed methodology with SEC parties and other relevant stakeholders.

6 Future DSP Release Definitions

- 6.1 The DCC shall publish a document, 'the Future DSP Release Document' that shall set

out the scope and contents of each Future DSP Release, including any SEC variations that are planned to be implemented at the time of each release, and the planned date for implementation of each release.

- 6.2 The Future DSP Release Document shall be first published prior to the submission to the TAG of any Future DSP Release Test Approach Document for approval. Should the Future DSP Release Document need to be subsequently amended, that amended version shall be published by the DCC prior to the submission to the TAG for approval of any new or updated Test Approach Documents that are impacted by that amendment.
- 6.3 The DCC shall comply with any direction from the Secretary of State to amend or update the Future DSP Release Document.

7 Test Completion

- 7.1 Completion of testing for:
 - (a) PIT in respect of a Future DSP Release (for clarity, where PIT is conducted in increments there shall be a single PIT Completion decision); and
 - (b) SIT in respect of a Future DSP Release,

shall, in each case, only complete when the Panel determines that the exit criteria for completion as set out in the relevant Testing Approach Document have been met.
- 7.2 When the DCC considers that such completion ought to occur, the DCC shall prepare a Completion Report as further provided for in the relevant Future DSP Testing Approach Document. The DCC shall:
 - a) notify the Secretary of State, the Authority, the Panel, and the Parties that the DCC considers that testing has been completed for the test phase in question in respect of a Future DSP Release;
 - b) provide the Authority, the Panel, and the Secretary of State with copies of the Completion Report and a list of the sections of such report that the DCC considers should be redacted prior to publication; and
 - c) review the supporting documentation and evidence with regards to the relevant exit criteria with the TAG.
- 7.3 The Panel shall confirm the completion of testing for PIT or SIT in respect of a Future DSP Release (as the case may be) or shall highlight where it believes the Exit Criteria have not been met.
- 7.4 Where the Panel confirms the completion of testing for the relevant test phase (subject to the Panel and the DCC reaching an agreement regarding resolution of any issues raised by the Panel) the Completion Report shall be updated by the DCC as necessary and deemed to be final.
- 7.5 Where the Panel declines to confirm the completion of testing for the relevant test phase, the DCC shall update the Completion Report to reflect resolution of any issues where the DCC and the Panel reached an agreement, and the DCC shall then either:
 - a) refer the matters where the Panel and the DCC are in disagreement to the Secretary

of State for determination; or

b) continue with testing (and Clause 7.2 onwards shall apply again).

7.6 Where a referral has been made by the DCC pursuant to Clause 7.5 the determination of the Secretary of State shall be final and binding for the purposes of this Code as follows:

a) where the Secretary of State agrees that testing for the relevant test phase is complete, the relevant Completion Report shall be updated by the DCC as necessary and shall be deemed to be final; or

b) where the Secretary of State disagrees that testing for the relevant test phase is complete, the DCC shall continue with testing (and Clause 7.2 onwards shall apply again).

7.7 The DCC shall publish the final Completion Report for the PIT and SIT test phases on the DCC Website, which shall be anonymised and redacted where directed by the Panel. The DCC shall notify the Panel, the Secretary of State, the Authority, and the SEC Parties of the publication of the report

8 User Testing

8.1 Where the DCC considers that User testing is required prior to implementation of a Future DSP Release, it shall set out its proposals for User testing in a draft Future DSP Mandated User Testing Document for the Future DSP Release, including those Users that should be required to participate in the testing and the User Role in which they are required to participate; the entry requirements for those Users required to participate in the testing, the approach to testing; the arrangements for test completion; the process for resolving testing disputes; and notification of test completion. In developing any Future DSP Mandated User Testing Document, the DCC shall consult with the TAG, Parties, and other relevant stakeholders prior to the submission of the document to the Secretary of State.

8.2 Following consultation under Clause 8.1, the DCC shall submit each draft Future DSP Mandated User Testing Document to the Secretary of State, indicating:

a) why the DCC considers the draft to be fit for purpose;

b) copies of the consultation responses received; and

c) any areas of disagreement that arose during the consultation process and that have not been resolved.

8.3 The DCC shall comply with any direction given by the Secretary of State to re-consider, re-consult, and/or re-submit the draft document(s).

8.4 Should a Future DSP Mandated User Testing Document be approved by the Secretary of State for a Future DSP Release, the DCC and each Party other than the DCC that participates in (or is required to participate in) testing, as set out in such approved document, shall comply with that Future DSP Mandated User Testing Document for that Future DSP Release.

9 Future DSP Testing Interoperability Issues

- 9.1 Prior to the completion of the ‘Future DSP Device Migration Complete’ milestone set out in the Joint Industry Plan, where interoperability Testing Issues arise during testing in environments used for System Integration Testing or User testing between the DCC Total System and User Systems or enrolled Smart Metering Systems, the DCC shall triage and investigate the issue (in conjunction with relevant experts both internal and external) and:
- a) where the DCC determines that the DCC Total System is non-compliant with the baseline version of the SEC specified in the Testing Baseline Requirements Document (“TBRD”), the DCC shall take the steps necessary to rectify and close the issue, or
 - b) where the DCC considers that the DCC Total System is compliant with the baseline version of the SEC specified in the TBRD, the DCC shall provide to the Secretary of State a description of what the issue is and the results of its investigation, including a view of how the issue should be rectified and shall refer the matter to the Secretary of State for consideration. The Secretary of State shall determine how the Testing Issue should be rectified and shall notify its decision to the DCC and other stakeholders.