

Further Electricity Market Opening

Entry Process Ability Testing

Approach and Plan

Date of Issue: 23/09/2005

Status: Approved

Version: 7.2

Author: MEPCT

Document Control – Amendment Record

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Author | Date of Issue | Reason for Issue |
| 2.0 | MEPCT | 15 Oct, 2004 | SIG Approved |
| 3.0 | MEPCT | 12 Nov, 2004 | MTI001: Amendment to Test ScenarioMTI002: Amendment to High Level Plan |
| 5.0 | MEPCT | 16 Mar, 2005 | Amendment to High Level Plan |
| 6.0 | MEPCT | 29 July, 2005 | Removal of reference to May 2005Inclusion of revised test schedule examplesCRID52 - Inclusion of data acceptance criteria |
| 7.0 | MEPCT | 23 Sept., 2005 | Clarification in section 2 that Supplier EMMA is included in test scope |
| 7.0 | MEPCT | 23 Sept., 2005 | CRID73 – Notification of MPRN used between participants |
| 7.2 | FEMO Programme |  | MTI024 – Modification of variance category identifiers |

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1. Introduction
	1. Purpose

This document is the *Entry Process Ability Testing Approach and Plan* to be adopted by the Market Entry Process Co-Ordination Team (MEPCT) within the Further Electricity Market Opening (FEMO) Programme. The *Entry Process Ability Testing Approach and Plan* will also become the basis for Entry Process Ability Testing for Suppliers entering the Retail Market Arrangements after the FEMO Programme is completed. Modifications will be made to this document at completion of the FEMO Programme to account for this completion.

Entry Process Ability Testing (EPAT) is part of the Qualification stage of the Market Entry Process. Qualification and the Market Entry Process are illustrated below.



The test activities detailed in this document address the Supplier systems and processes that interact with the central market systems operated on behalf of NIE Transmission and Distribution (T&D) for the further opening of the Northern Ireland electricity market.

NIE T&D will participate in the Entry Process Ability Test by providing systems with which the Supplier systems will communicate during EPAT.

The responsibilities for implementing the Retail Market systems and processes for Suppliers and for NIE T&D lie with each respective business. It should be noted that NIE T&D systems will be operated by Sx3.

The *Entry Process Ability Testing Approach and Plan* will provide the overarching test framework for EPAT and will enable individual participant approaches and plans for each of the test stages to be developed. Specifically, the purpose of this document is to:

* Define the overall approach to be adopted for EPAT;
* Define the entry and exit criteria for EPAT;
* Define the scope and objectives of each EPAT stage;
* Identify responsibilities of each party;
* Describe how EPAT will be managed and controlled by the MEPCT; and
* Outline the management controls and procedures required

The document also includes a High Level Plan for the development of EPAT deliverables and the execution of EPAT prior to the implementation of Further Electricity Market Opening.

Once approved, the *Entry Process Ability Testing Approach and Plan* will form part of the Retail Market Design baseline of the FEMO Programme.

* 1. Audience

The *EPAT Approach and Plan* is intended for the use of:

* Suppliers, including NIE Supply
* NIE T&D
* Sx3, in their capacity as a systems and services provider for NIE T&D. Sx3 deliver and operate key elements of the central market systems.
* Ofreg

Within this document the term ‘participant’ means Suppliers, NIE T&D or Sx3 in their capacity as a systems and services provider for NIE T&D.

Within this document the term ‘Market Participant’ means Suppliers and NIE T&D.

* 1. Scope of Document

This document focuses on the following stages of EPAT:

* **Connectivity and Data Exchange Test**; and
* **Discrete Functional Ability Test**.

This document does not include activities to test Suppliers’ internal systems and processes beyond their ability to create appropriate data to be exchanged with NIE T&D and to receive data from NIE T&D. It is the responsibility of both Suppliers’ and NIE T&D to ensure that testing of their own internal systems has been completed before taking part in EPAT.

* 1. Document Structure

Following this introduction, the remainder of this document is structured as follows:

* **Section 2 – Approach**, sets out the scope and principles of EPAT. It describes the overall test approach to be adopted and introduces the concept of test groups, scenarios and scripts;
* **Section 3 - Entry and Exit Criteria**, describes the criteria that Market Participants must satisfy to enter and complete EPAT;
* **Section 4 - Test Groups and Scenarios,** describestheTest Scenarios and the way these are organised into Test Groups for the EPAT;
* **Section 5 - Test Data and Test Environment Requirements,** gives an overview of the test data that participants will have to generate and the test environment and resources which must be made available;
* **Section 6 – Testing Process Definition,** describes in detail the preparation and review process for test scripts and data, the way tests will be scheduled, executed, reported and witnessed, the handling of any variances, and the way the Exit Report will be produced and signed off;
* **Section 7 – Definition of Testing Deliverables,** describes the content of the test schedule, test scripts, test results, incident report and the Exit Report;
* **Section 8 - Test Management and Control**, describes key management activities, controls, procedures and concepts that will be used in EPAT;
* **Section 9 - Roles and Responsibilities**, describes the roles and responsibilities of the various parties in undertaking/supporting EPAT, including MEPCT, the FEMO Programme, Suppliers, NIE T&D, Sx3 and Ofreg;
* **Section 10 – Risks and Issues,** identifies any risks and the proposed method of mitigation, and raises any issues in need of further resolution.
* **Section 11 - High Level Plan**, provides a high-level timetable of the key Entry Process Ability Tetsing activities. The planning assumptions for developing the timetable are also included in this section; and
	1. Glossary of Terms

|  |  |
| --- | --- |
| **Acronym** | **Description** |
| DFAT | Discrete Functional Ability Test, a test designed to test a single transaction within the retail market procedures |
| EPAT | Entry Process Ability Testing, the set of testing designed to demonstrate the ability of a Supplier to communicate with NIE T&D and complete market transactions. |
| EMMA | The Electricity Market Messaging Application, software that permits a Supplier to exchange messages with NIE T&D. |
| FEMO | Further Electricity Market Opening  |
| FEMO Programme | The programme that has been established to open electricity supply to all non domestic customers |
| MEPCT | Market Entry Process Coordination Team, the team responsible for implementing and manging the market entry process |
| MT&IW | Market Testing and Implementation Workstream, the workstream within the FEMO Programme responsible for Market Testing, the Market Entry Process and co-ordination of cutover activities |
| NIE T&D | The Transmission and Distribution business of NIE |
| STS | Second Tier Supplier |
| Sx3 | Service and System Solutions, the Systems and Service provider for NIE T&D |
| TCC | Test Coordination Centre, the group of people within the Market Testing and Implementation Workstream responsible for co-ordinating test activities for EPAT and Market Testing |
| T&D | The Transmission and Distribution business of NIE |

1. Approach
	1. Introduction

This section outlines the scope and principles of the EPAT activities. It describes the overall test approach to be adopted and introduces the various test stages.

EPAT is mandatory for any Supplier that is required to exchange messages with NIE T&D, or elects to do so, through the Electricity Market Messaging Application.

The objective of EPAT is to ensure that the Supplier can exchange messages effectively with NIE T&D and can perform retail market transactions.

* 1. Scope of EPAT

The scope of EPAT will be the following:

* Any Supplier system that provides an interface to the Electricity Market Messaging Application (EMMA) in respect of the integrated messages described in the Suppliers Application to participate in the new Retail Market Arrangements
* Supplier installation of the Electricity Market Messaging Application (EMMA)
* Central Systems; namely:
	+ The use of the EMMA and associated Gateways; and
	+ NIE T&D systems that interface with the EMMA and associated Gateways and are required to perform the necessary tests.
	+ MPRN Data Publication web-site

The scope of EPAT shall exclude:

* Supplier and NIE T&D business processes;
* UoS Billing, Data Aggregation and Generator Nomination;
* Any testing associated with the Wholesale Market Arrangements.

Suppliers should note that the systems that are intended to provide an interface to the Electricity Market Messaging Application (EMMA) in live operation must be stated in their Application to participate in the Retail Market Arrangements and must be included in the EPAT test environment. Certification of Suppliers will be limited to the scope of the Application and any subsequent additions or *significant[[1]](#footnote-1)* changes to the systems interfacing to the Electricity Market Messaging Application (EMMA) will require re-certification.

* 1. Test Stages

EPAT consists of the following stages:

* **Connectivity Test:** This will test each Suppliers’ ability to communicate with the central NIE T&D systems through the means of EMMA and associated Gateways
* **Data Exchange Test:** This will test the ability of each Supplier to send messages using the EMMA and associated Gateways in valid market message formats; and
* **Discrete Functional Ability Test:** This will test the ability of each Supplier to execute discrete market functions as specified the Retail Market Procedures. These functions will cover the sending and receipt of all market messages for which the Supplier does not have an agreed dispensation.

The Connectivity Test and the Data Exchange Test will be combined into a single **Connectivity and Data Exchange Test**.

* 1. Principles for EPAT

The overall approach for EPAT will be guided by the following high-level principles:

* Clearly defined roles and responsibilities will be specified for all parties for each test stage;
* A clearly defined, structured approach to test preparation and execution will be employed;
* Effective coordination and management of testing between MEPCT and participants is required to ensure effective conduct and completion of testing;
* Tests will be prioritized by criticality and coverage so that if time constraints mean that not all testing can be completed, the additional risk to the Market Entry Process is minimized;
* The environment used for EPAT will be configured in a manner that replicates that intended for production use following certification;
* Test stages will be kept independent from each other by each stage having an associated set of acceptance (entry and exit) criteria which must be met before testing can move on to the next stage;
* To provide predictability of results, EPAT will be conducted using simulated data.
* Required resource levels and skills will be specified as early as possible;
* Key stakeholders will be kept informed on the progress of testing throughout the testing lifecycle;
* Staff involved in testing will, where possible, be those individuals who are expected to perform their associated tasks during live operations;
* Each EPAT Test Scenario execution will involve the participation of a single Supplier only. Where a Test Scenario requires a second Supplier to play a role, NIE T&D will simulate this role; and
* EPAT progress and issues that are specific to a Supplier will not be discussed with or communicated to any other Supplier.
	1. Principles relating to Further Electricity Market Opening

For Further Electricity Market Opening there are compressed testing timescales relating to both EPAT and Market Testing. Market Testing will encompass a set of unique tests designed to test the end-to-end Retail Market Procedures and the systems that support those procedures.

* Logical Test Scripts will be base-lined prior to their use within EPAT. As part of the FEMO Programme, participants will be invited to comment on the Logical Test Scripts before they are base-lined.
* EPAT and Market Testing will be conducted within separate test environments;
* Pragmatic solutions (e.g., workarounds) will need to be adopted to address any inconsistencies between systems and processes in order to minimize any potential delay to the FEMO Programme.
	1. Organisation of Testing

The following diagram illustrates how EPAT is organised.

### MEPCT and the Test Coordination Centre

A Test Coordination Centre (TCC) will be established as part of the MEPCT to manage communication with participants. The TCC will work closely with participants throughout test execution and will be responsible for the following activities:

* Informing participants of test schedules, test re-scheduling and other information relevant to testing;
* Acting as a help desk (in relation to testing) and a single point of contact during testing for participants;
* Receiving test results, reports and variances from participants and test witnesses
* Agreeing variance action plans with participants;
* Ensuring that participants are kept informed of any variances; and
* Reporting progress and key issues to the FEMO Programme and Ofreg

The TCC will be established in advance of EPAT and contact details will be provided to participants.

### Participants

Participants are responsible for test execution and for reporting progress and variances to MEPCT.

Each participant will have a nominated testing manager and a nominated communication manager responsible for communication to and from MEPCT. The same person may perform these roles.

The testing manager will be responsible for the overall co-ordination and management of all testing activities for the participant

.

Each participant is expected to have a test team consisting of one or more persons. For the testing to work effectively, it is necessary that these teams are resourced with the right number of people with the right set of skills. All staff involved in execution of testing should be the staff expected to perform their associated tasks during live operations.

* 1. Overview of Test Approach

### Overview

This section describes the planned approach for EPAT based on: test groups and scenarios, test scripts, test execution results and test reporting. These are described below.

### Test Groups and Scenarios

A Test Scenario describes, in outline, a specific Test. A Test Group provides a logical grouping of related Test Scenarios.

### Test Scripts

A Test Script provides detailed instructions on how to carry out a specific Test; or part of a specific Test.

Once completed, the Test Scripts will be updated with the actual results achieved.

Tests Scripts will be developed in two stages:

* MEPCT will develop Logical Test Scripts that provide step-by-step process requirements, data requirements and expected results for each Test Scenario. Process Requirements will be generic and based on the Retail Market Procedures. Data requirements will be specified in accordance with the Retail Market Procedures and Market Message Business Specifications. Logical Test Scripts will not be specified in a manner that is specific to any computer system or software. The Logical Test Scripts will be used as the basis of participant progress and results reporting to the TCC.
* Participants, including NIE T&D, will develop physical Test Scripts, based on the Logical Test Scripts provided by MEPCT, that provide instructions specific to the computer system, software and/or business process that they will be using.

### Test Data Definition

Whereas the Logical Test Scripts will describe the general data requirements for a Test Scenario, the Test Data Definition will identify, for each execution of a Logical Test Script, specific data to be used. Examples of this data are the MPRN, Trading Arrangement, Meter Configuration or Reading Dates/Values to be used.

It is planned that EPAT will be conducted using converted live data. Live data used in EPAT will not be exchanged with any other Supplier.

### Test Execution and Results

Participants will be responsible for execution of tests in accordance with the schedule issued by MEPCT. Test Results will be documented by the participant and reported to MEPCT. The participant will also report to MEPCT on any variances from the expected results.

### Test Reporting

MEPCT will collate all test results and will also monitor variances from the expected results.

At the completion of each stage of the EPAT MEPCT will produce a report of the testing completed and of any variances encountered. These reports will form part of the **EPAT Exit Report**

1. Entry and Exit Criteria

This section describes the criteria that participants must satisfy to enter and complete each stage of EPAT.

* 1. Notes on Variances

Where a variance occurs in EPAT that is demonstrated not to be the responsibility of the Supplier or their service providers then these variances shall not be attributable to the Supplier.

* 1. Connectivity and Data Exchange Test

### Entry Criteria

The following are the entry criteria to be completed prior to the commencement of the Connectivity and Data Exchange Test:

* Suppliers have provided to MEPCT an Application to participate in the Retail Market Arrangements in accordance with the Market Entry Process and had receipt of an acceptance of that Application. The Application and associated Dispensations must describe:
	+ The scope of the Suppliers participation in the retail and wholesale market – specifically the trading arrangements and metering classes to be supported
	+ The extent to which Supplier application systems will be used in each stage of the Entry Process Ability Test
* Completion by the Supplier of the relevant testing of any systems that provide an interface to the EMMA with no variances that would be classed as class 1, class 2 or class 3 variances according to this document.
* Provision by the Supplier of ‘Qualification Standing Data’ required for the Entry Process Ability Testing.
* NIE T&D have completed testing of all aspects of the Electricity Market Messaging Application, including the sending and receipt of all market messages with no variances that would be classed as class 1, class 2 or class 3 variances according to this document.
* EMMA software installation and installation test to be completed for the Supplier with no variances that would be classed as class 1, class 2 or class 3 variances according the this document.
* Logical Test Scripts for the Connectivity and Data Exchange Test to be available.
* Participants to have completed physical test scripts for Connectivity and Data Exchange Test
* Test schedule for the Connectivity and Data Exchange Test to have been completed and agreed
* All participants to have available the resources required to support and execute the Connectivity and Data Exchange Test and to respond to any variances in a reasonable timescale
* EPAT environment to be available to the extent required for the Connectivity and Data Exchange Test
* Data required for the Connectivity and Data Exchange Test to have been pre-populated into the systems required for the Connectivity and Data Exchange Test
* Facilities and resources for test management, co-ordination, witnessing and reporting are ready
	1. Discrete Functional Ability Test

### Entry Criteria

The following are the entry criteria to be completed prior to the commencement of the Discrete Functional Ability Test.

* NIE T&D to have completed relevant testing of any systems that provide an interface to, or receives and processes an interface from, the EMMA or Gateway with no variances that would be classed as class 1, class 2 or class 3 variances according to this document.
* Completion of the Connectivity and Data Exchange Tests for the Supplier with no class 1, class 2 or class 3 variances attributable to the Supplier.
* Participants to have set up data, according to the Test Data Definition, in each application required for the Discrete Functional Ability Test.
* Logical Test Scripts for the Discrete Functional Ability Test to be available.
* Participants to have completed physical test scripts for Discrete Functional Ability Test
* Test schedule for the Discrete Functional Ability Test to have been completed and agreed
* All participants to have available the resources required to support and execute the Discrete Functional Ability Test and to respond to any variances in a reasonable timescale.
* EPAT environment to be available to the extent required for the Discrete Functional Ability Test
* Data required for the Discrete Functional Ability Test to have been properly pre-populated into the systems required for the Discrete Functional Ability Test. The TCC will establish and report to Suppliers on a set of data acceptance criteria for the NIE T&D systems for this purpose.
* Facilities and resources for test management, co-ordination, witnessing and reporting are ready

### Exit Criteria

The following exit criteria must be satisfied in order to complete the Discrete Functional Ability Test.

* Complete Discrete Functional Ability Testing with no class 1 or class 2 variances and no more than ten class 3 variances outstanding and attributable to the Supplier. This will require that it has been possible for the Supplier to have:
	+ Successfully sent all messages described in the Testing to NIE T&D and had those messages processed by the relevant NIE T&D business application.
	+ Successfully received all messages described in the Testing at the client installation of the Electricity Market Messaging Application.
	+ Implemented an agreed work-around for each class 3 variance that is outstanding and attributable to the Supplier.

1. Test Groups and Scenarios
	1. Effect of Application Scope and Dispensations

Where a Supplier Application to participate in the Retail Market Arrangements indicates a reduced scope of participation then the Supplier will not be required to perform tests that are outside the scope of the Application.

A Supplier that will not hold or make registrations of HH Meter Points within three months after their certification is not required to undertake the following tests:

* DFAT Tests 1, 4, 7, 17 and 22.

A Supplier that will not hold or make registrations of NHH Meter Points within three months after their certification is not required to undertake the following tests:

* CDE Test 6
* DFAT Tests 2, 5, 8, 13, 14, 15, 16, 18, 19 and 20.

Where a Supplier holds an agreed dispensation that means that it is not required to send or receive specific market messages then Test Scenarios involving those messages will not form part of the Entry Process Ability Test for that Supplier.

* 1. Connectivity and Data Exchange Test

There will be a single Test Group consisting of the following Test Scenarios.

1. A Supplier connects with NIE T&D EMMA Gateway, sends message N010 and receives a positive acknowledgment
2. A Supplier connects with NIE T&D EMMA Gateway, sends message N011 and receives a positive acknowledgment
3. A Supplier connects with NIE T&D EMMA Gateway, sends message N012 and receives a positive acknowledgment
4. A Supplier connects with NIE T&D EMMA Gateway, sends message N013 and receives a positive acknowledgment
5. A Supplier connects with NIE T&D EMMA Gateway, sends message N031 and receives a positive acknowledgment
6. A Supplier connects with NIE T&D EMMA Gateway, sends message N210 and receives a positive acknowledgment

Each Test Scenario will operate using a separate Meter Point.

* 1. Discrete Functional Ability Test

There will be the following Test Groups:

* New Connection
* Change of Supplier
* Readings Data Processing
* Miscellaneous

### New Connection

This Test Group will consist of the following Test Scenarios

1. A new connection registration is accepted and completed for a HH Meter Point. This scenario involves the sending of message N010 and the receipt of messages N101P, N101 and N331
2. A new connection registration is accepted and completed for a NHH Meter Point. This scenario involves the sending of message N010 and the receipt of messages N101P, N101 and N332
3. A new connection registration is rejected. This scenario involves the sending of message N010 and the receipt of messages N101R

### Change of Supplier

This Test Group will consist of the following Test Scenarios

1. A Change of Supplier registration is accepted and the Change of Supplier completed for a customer to be supplied using on-line HH metering. This scenario involves the sending of message N010 and the receipt of messages N102P, N105 and N331.
2. A Change of Supplier registration, including a customer read, is accepted and the Change of Supplier completed for a customer to be supplied using NHH metering. This scenario involves the sending of message N010 and the receipt of messages N102P, N105 and N320.
3. A Change of Supplier registration is rejected. This scenario involves the sending of message N010 and the receipt of message N102R.
4. A HH customer is lost through a Change of Supplier: This scenario involves the receipt of messages N110 and N105L.
5. A NHH customer is lost through a Change of Supplier: This scenario involves the receipt of messages N110, N105L and N310.
6. An objection for debt is upheld and the transfer cancelled. This scenario involves the sending of message N012 and the receipt of message N111L
7. A registration cancellation request is accepted: This scenario involves the receipt of message N112, the sending of message N011 and the receipt of message N111.
8. A registration cancellation request is rejected: This scenario involves the sending of message N011 and the receipt of message N111R.
9. An objection is rejected: This scenario involves the sending of message N012 and the receipt of message N112R.

### Data Processing

This Test Group will consist of the following Test Scenarios

1. A Supplier provides a valid NHH reading. This scenario involves the sending of message N210 and the receipt of message N300.
2. A Supplier receives a scheduled NHH reading. This scenario involves the receipt of message N300.
3. A Supplier receives a special NHH reading. This scenario involves the receipt of message N300S.
4. A Supplier receives a confirmation of withdrawal of an NHH reading. This scenario involves the receipt of message N300W.
5. A Supplier receives a daily set of HH readings. This scenario involves the receipt of message N341.
6. A Supplier receives an energisation reading. This scenario involves the receipt of message N307.
7. A Supplier receives a de-energisation reading. This scenario involves the sending of message N031 and the receipt of messages N131 and N306.
8. A Supplier receives a meter exchange reading for a change of meter functionality. This scenario involves the receipt of message N332 with removed and new meter details.

### Miscellaneous

This Test Group will consist of the following Test Scenarios

1. A Supplier notification of a change of customer and address details is accepted. This scenario involves the sending of message N013 and, when the change of address is confirmed, the receipt of message N195.
2. A HH Supplier request for fieldwork is accepted. This scenario involves the sending of message N031 and the receipt of message N131. A Supplier may opt for performing this test using a range of work types.
3. A Supplier request for fieldwork is rejected. This scenario involves the sending of message N031 and the receipt of message N131.
4. A Meter Point is terminated. This scenario involves the receipt of message N122.

### Meter Point Data

In general, each Test Scenario will operate using a separate Meter Point. However, in isolated cases to reduce data set-up and simplify testing some Test Scenarios may share the same Meter Point data. Candidates for this include:

* Scenario 18 (energisation) which may be combined with scenario 19 (de-energisation)
	1. EPAT Test Schedule

The following table illustrates a potential Test Schedule for a Supplier undertaking EPAT with no dispensations. Proposed priorities are identified.

The Test Schedule is designed to meet the following requirements:

* Contingency to absorb any variances or non-completion within the schedule
* Completion of EPAT within 10 working days.

It is intended that, as far as possible, tests are conducted in ‘real-time’. Test Scenario durations are provisional and will be finalised when Logical Test Scripts are completed.

Specific Test Schedules will be developed for each Supplier that has an Application to participate in the Retail Market Arrangements accepted.



1. Test Environment and Test Data Requirements
	1. Test Environment

The Test Environment for EPAT will consist of the following components:

* The NIE T&D central systems for Registration, Data Processing and Fieldwork Management
* Other NIE T&D systems as are necessary to support the Test Scenarios
* The EMMA and associated Gateways
* Supplier systems that will interface in their environment with EMMA

The Test Environment will be a replication of that used, or intended as stated in the Application for use, in the production environment.

Participants will be responsible for the following:

* Provision of hardware on which to run the applications they will use, including EMMA
* Provision and support of software applications that they will use to interface in their environment with EMMA
* Populating the above environment with the data required for Entry Process Ability Test
* Provision of support the above environment through the Entry Process Ability Test

Sx3 will be responsible for the following:

* Installing and testing the Suppliers installation of the EMMA
* Installing and testing all aspects of the NIE T&D systems
* Supporting the above environment through the Entry Process Ability Test
	1. Test Data

EPAT will be conducted using live data.

MEPCT will define the minimum requirements for test data for each Test Scenario during Logical Test Script development. These minimum data requirements will be specified to the level necessary to determine the steps to be executed in each test (e.g. MIC, connection voltage, metering class, energisation status).

In order to execute the tests it will be necessary to pre-populate the required systems with data that meets the data requirements.

Following the Logical Test Script development MEPCT will produce a Test Data Definition summarising the data population requirement for each participant in the Entry Process Ability Test and key data to be used in each specific Test Scenario execution. This will identify specific data values (e.g. specific MPRN, meter configuration codes, trading arrangements, registration and reading dates) that must be used in EPAT. NIE T&D will be responsible for identifying the Meter Points that satisfy the data requirements and these Meter Points will form the basis of a data set that will be used by both NIE T&D and the Supplier during the testing.

Participants will be responsible for the set-up of test data meeting the requirements of the Logical Test Scripts and the Test Data Definition. Where a participant is using systems to interface to the EMMA software it is suggested that, to achieve data conformity, each participants migrates the specified Meter Point data from their production environment to the systems used in EPAT.

1. Testing Process Definition
	1. Overview

###### The following diagram illustrates the EPAT Process.

The processes illustrated above and described below must be undertaken to ensure successful completion of EPAT.

* 1. Logical Test Script Issue

MEPCT will prepare Logical Test Scripts and make these available to each participant for their review and so that participants may plan their testing activities. Logical Test Scripts will be available to Suppliers in advance of their Application to participate in the Retail Market Arrangements.

Logical Test Scripts may be changed in accordance with the Market Design Change Control Procedure. MEPCT will issue updated Logical Test Scripts to any participants yet to complete EPAT.

* 1. Physical Test Script Preparation

Participants will develop physical Test Scripts which they will use to execute the Entry Process Ability Tests. These physical Test Scripts will take account of the specific systems and operating procedures employed by the participant.

MEPCT will provide support, if required, to help participants interpret the Logical Test Scripts during the process of physical script development. MEPCT will not, however, review or provide any input into physical Test Scripts developed by a participant.

* 1. Test Data Definition

Following receipt of an Application from a Supplier and the identification of the Logical Test Scripts to be used for that Supplier, MEPCT will create and issue a Test Data Definition summarising the data that must be pre-populated for the EPAT for that Supplier and the data that must be used in each specific execution of a Logical Test Script.

Participants will translate this into the relevant physical test data necessary to ensure execution in their own environment.

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* 1. Test Environment Set-Up

The Supplier (and Sx3 for the initial installation of the EMMA software) will set up all aspects of the environment and test data required by the Supplier for EPAT.

NIE T&D and Sx3 will set up all aspects of the central systems environment and test data required by the Supplier for EPAT.

* 1. Test Schedule Creation

On acceptance of an Application from a Supplier, MEPCT will create and issue an Entry Process Ability Test Schedule for the Supplier and provide this to the Supplier, NIE T&D and Sx3.

The Test Schedule will be reviewed and agreed between the Supplier, NIE T&D, Sx3 and MEPCT.

* 1. Entry Process Ability Testing

### Entry Criteria

Prior to the commencement of the Connectivity and Data Exchange Test the Supplier, NIE T&D and Sx3 will confirm to MEPCT that the relevant Entry Criteria have been satisfied.

Prior to the commencement of the Discrete Functional Ability Test the Supplier, NIE T&D and Sx3 will confirm to MEPCT that the relevant Entry Criteria have been satisfied.

### Test Execution and Reporting

Participants will execute each step of the Logical Test Scripts for which they are responsible in accordance with the Test Schedule and their own physical test scripts.

Participants will document the completion of each step within the Logical Test Scripts and will create and retain evidence of the completion of each step.

At the end of each day Participants will provide a Detail Test Progress Report to the TCC by updating the Detail Test Schedule with the steps completed and failed.

Market Participants are responsible for determining whether a variance has occurred. Whenever a variance is encountered this will be documented on a Variance Report, assigned a severity classification by the tester and communicated immediately to the TCC. The classification of severity should be as described in the section *Variance Logging and Classification*.

### Variance Management

MEPCT will review variances as they are received in order to assess their impact. MEPCT will discuss the variance with all participants impacted and, as a result, may change the variance category or severity classification.

For variances in severity classes 1, 2 and 3, a Variance Action Plan will be agreed as soon as possible with the impacted participants and recorded on the system. For variances in severity class 4, a Variance Action Plan will be agreed by the end of EPAT with the impacted participants and recorded in the Exit Report.

Participants will report to the TCC their progress against the elements of Variance Action Plans for which they are responsible.

MEPCT will review on a daily basis the progress of Variance Action Plans in severity classes 1,2 and 3 and will issue an updated Test Schedule to participants in accordance with the completion of the Variance Action Plans.

Where a participant has failed to meet its responsibilities under a Variance Action Plan there will be an escalation procedure appropriate to severity class. The escalation procedure will operate through participant project management, participant senior management, FEMO Programme management and Ofreg.

### Daily Wash Up Conference Call

At the completion of testing for a day the TCC will conduct a Daily Wash Up Conference Call with NIE T&D, Sx3 and the Supplier to:

* Review Test Progress for the day
* Review Variances that have occurred
* Confirm Variance Action Plans
* Review progress against Variance Action Plans
* Agree re-testing schedules and changes to testing schedules
* Preview Testing for the following day

### Schedule Management

TCC will liaise with participants to ensure timely re-scheduling of appropriate tests where there has been a delay during execution or where variances are reported which necessitate re-execution of tests. Re-scheduling will be agreed with participants on or before the day on which testing is due to take place.

Prior to the commencement of testing for a day the TCC will provide an updated Test Schedule and Detail Test Schedule to each participant to reflect:

* Test Progress to date
* Scheduled testing for the day

### Witnessing

The MEPCT will reserve the right to witness any tests or part of tests at the participant site during EPAT Test Execution. These visits will be arranged by prior arrangement with the participant, the minimum notice period being by 5pm on the previous business day.

The witness will not seek any visibility of the participant internal systems but will require reasonable access to ascertain the actions required by the Logical Test Scripts are being followed correctly and in accordance with the participants Application, that results are recorded correctly and that supporting evidence is available.

The only facilities required are a dedicated and clear desk for the use of the witness during the visit and access to the testers themselves during testing. This desk must be within the same building in which the tests are executed. The role of the witness should not be considered as an intrusion or hindrance to the participants’ normal mode of operation.

### Test Scenario Completion

A Test Scenario will be completed when all the steps of a Logical Test Script have been completed successfully or when it is agreed between MEPCT, the Supplier and NIE T&D that it is not possible to complete all the steps of a Logical Test Script successfully.

At the completion of a Test Scenario both the Supplier and NIE T&D should provide to MEPCT:

* A completed copy of the Logical Test Script; and
* The evidence of the Test Results for the Test Scenario.

### EPAT Progress Reporting

On a weekly basis MEPCT will provide an EPAT Progress Report to the Supplier, NIE T&D and the FEMO Programme of the testing progress for a Supplier.

* 1. Execution of Tests

Under the management of the TCC, participants will be expected to co-operate and follow the scheduled execution of script scenarios, ensuring that all successful and unsuccessful actions and irregularities are reported.

To aid variance management and progress reporting, a participant initiating a script will be expected to inform receiving participants of the MPRN used by the day prior to script commencement.

* 1. Exit Reporting

EPAT will be completed when all the Test Scenarios have been completed successfully or when it is agreed between MEPCT, the Supplier and NIE T&D that it is not possible to complete all the Test Scenarios successfully.

At the completion of EPAT MEPCT will develop an Exit Report summarising the results of the Entry Process Ability Test.

The Exit Report will be issued to the Supplier and to the Market Entry Process Co-Ordinator. The Exit Report will form part of the *Certification Report* issued by MEPCT to Ofreg.

1. Definition of Testing Deliverables
	1. Logical Test Script

The Logical Test Scripts developed by MEPCT will provide step-by-step requirements for each Test Scenario within EPAT. Some Test Scenarios may require multiple Logical Test Scripts.

The Logical Test Script will form the basis for:

* Test Scheduling
* Development of Physical Test Scripts by Participants
* Progress Reporting

Logical Test Scripts will provide step-by-step process requirements, data requirements and expected results for each Test Scenario. Process Requirements will be generic and based on the Retail Market Procedures. Data requirements will be specified in accordance with the Retail Market Procedures and Market Message Business Specifications.

A Logical Test Script will contain:

* Identification materials including:
	+ Logical Test Script Number
	+ Test Script Title
	+ Test Stage, Group and Scenario
	+ References to applicable Retail Market Procedures and Business Specifications for Market Message
	+ Document Control and History
	+ Test Description
* General Test Data Requirements including:
	+ Meter Point and Messaging Data Requirements
* Step-by-step Requirements including:
	+ Test Reference and Step Number
	+ Market Participant responsible for executing step and sending messages
	+ Market Participant responsible for receiving messages
	+ Logical Business Day for execution of step, expressed as an offset from the day on which the execution of the Logical Test Script shall start
	+ Instruction as to action to be taken by Market Participant
	+ Description of the Expected Result
	+ Completion Details, to be completed during test execution by the participant, including:
		- Date of completion of the step
		- Completion status
* Result Details, to be completed during test execution by the participant, including:
	+ Identification of testers and of any MEPCT witness
	+ Evidence of test results for each step
	+ Reference to Variance Reports
	1. Test Data Definition

The Test Data Definition sets out specific data that will be used in EPAT.

The Test Data Definition will provide a list of MPRN to be used by each Market Participant and, for each MPRN will describe:

* Data to be pre-populated prior to commencement of EPAT
* Specific transactional data to be used in EPAT test execution
	1. Test Schedule

The Test Schedule focuses on the test execution period, matching each Logical Test Script Day to a calendar day. It is initially produced by MEPCT prior to the commencement of EPAT and agreed with the Supplier and NIE T&D.

The Test Schedule will be prioritised to allow the most important Test Scenarios to be scheduled first and will show any dependencies between Logical Test Scripts.

During the test execution period, the Test Schedule will be updated by MEPCT on a day-to-day basis to reflect testing progress. It will also be used to re-schedule testing as a result of variances or non-completions. On a daily basis, the TCC will communicate the updated Test Schedule to each participant.

An example of a Test Schedule can be found at Appendix A.

* 1. Detail Test Schedule

The Detail Test Schedule focuses on the test execution period, matching each Logical Test Script Day and Step for each participant for a specific calendar day.

On a daily basis, the TCC will communicate the Detail Test Schedule for the day to each participant.

An example of a Detail Test Schedule can be found at Appendix B.

* 1. Detail Test Progress Report

The Detail Test Progress Report is produced on a daily basis by a participant and provided to the TCC. The report will identify:

* Each Logical Test Script step completed on the day
* Each Logical Test Script step scheduled to be completed on the day but not completed
* Each Variance encountered
* Any other comments and observations that the participant wishes to make.

The participant can produce the Detail Test Progress Report by updating the Detail Test Schedule.

An example of a Detail Test Progress Report can be found at Appendix B.

* 1. Variance Report

The Variance Report is produced by a Participant and provided to MEPCT when any Variance is encountered during testing. It will identify:

* The Logical Test Script and step where the variance was encountered
* A description of the variance
* An assessment of the impact
* The category and the severity classification of the variance
* Any suggested solution, to be taken by the participant or by others, to correct the variance

The Variance Report will be closed when the corrective action documented in the associated Variance Action Plan has been completed and re-testing, if required, has been completed.

* 1. Variance Action Plan

This is a plan agreed between a Participant and MEPCT of actions to correct a Variance encountered during testing. It will identify:

* The variance for which the Variance Action Plan is raised
* The steps to be taken to correct the variance and the responsibility and target date for the completion of each step. Steps may include:
	+ Changes to Retail Market documentation
	+ Changes to Logical Test Scripts
	+ Changes to participant operating procedures
	+ Changes to systems or software, which must include any regression testing activities
* Any work-rounds to be implemented in the absence of a solution being implemented within the timescale for EPAT
* Whether the Test Scenario is able to continue; or whether a partial or complete re-run of the Test Scenario is required
	1. Test Results

Participants are required to retain evidence of test results and to prove a copy to MEPCT at the completion of each Test Scenario.

Evidence of test results may be a report, a copy of a message or file produced or a copy of a screenshot.

* 1. EPAT Progress Report

The EPAT Progress Report is produced by MEPCT for each Supplier at the end of each week. It will summarise:

* The Test Scenarios that have been completed
* The Test Scenarios that have stopped due to variances or other reasons
* Progress against the Test Scenarios that are in progress
* Variances raised, closed and outstanding according to responsibility for clearance, category, severity classification
* Variance actions due to be completed but outstanding according to responsibility for clearance, category, severity classification

The EPAT Progress Report will also highlight any other issues arising from the EPAT that require the attention of the Supplier or NIE T&D.

* 1. Exit Report

The Exit Report is produced by MEPCT at the end of EPAT for a Supplier. It will summarise:

* The Test Scenarios that have been completed
* The Test Scenarios that have not been completed with reasons
* Variances raised, closed and outstanding according to responsibility for clearance, category, severity classification
* Variance actions due to be completed but outstanding according to responsibility for clearance, category, severity classification

The Exit Report will also highlight any issues arising from the EPAT for the Supplier that should be taken into account in the Certification Report to be issued to Ofreg.

1. Test Management and Control
	1. Introduction

This section describes the key management activities, controls and procedures that will be used to support Further Market Opening testing. Specifically, this section includes the following:

* Test Scheduling;
* Release Management
* Variance Logging and Classification;
* Regression Testing;
* Reporting and Communication; and
* Support and Queries
	1. Test Scheduling

### Introduction

The success of EPAT depends on the ability to schedule and execute tests effectively. In advance of testing, it is important that the test schedule and scope is clear so that all parties know exactly what needs to be performed every day during the testing period. The ability to act promptly to deal with variances discovered during testing and to reschedule tests accordingly is also key to the successful completion of testing.

### Approach

Test scheduling will be a crucial element of EPAT because of possible compressed testing timescales. In advance of EPAT, an initial Test Schedule will be developed and agreed with the Supplier and NIE T&D detailing when each test will be executed. This Test Schedule will be maintained throughout the testing execution process to incorporate the impact of any re-scheduling of tests resulting from variances or non-completions.

Depending on the progress of testing it may not be possible for all tests to be performed within the planned execution period. Therefore, it will be crucial to ensure that tests have been scheduled so that those of high-priority are performed first, while those that are less important are scheduled for the end of test execution period. Prioritisation will be based on an assessment of the risk to market operations.

The responsibility for scheduling EPAT activities will lie with the Market Entry Process Coordination Team (MEPCT). This is described in more detail later on in the document.

### Implications

The scheduling of tests will have a significant impact on all parties involved. Plans will be provided to the relevant parties so that it is clear when and to what extent they will be involved in the testing activities. This will have the following implications:

* Participants will need to support prompt discussion and resolution of business market related issues;
* Participants will need to provide the required level of staff to participate in the various testing activities; and
* Participants will need to meet the entry criteria for EPAT on time, follow the testing schedule, and quickly resolve any variances identified in their systems.

All parties must be flexible to deal with potential revisions to the test schedules. Any delay caused by one party is likely to delay testing as a whole, and will impact all other parties involved.

* 1. Release Management

Release management schedules the development, testing and roll-out of new software and hardware versions that are being implemented to correct errors and/or to deliver planned enhancements to software products. It ensures that the migration from one version of software (and hardware) to a subsequent version is performed in a controlled manner and that all product releases are properly documented such that a complete audit trail is maintained at all times. In addition, release management ensures the ability to revert to the exact conditions under which any test has been performed, should it prove necessary to rerun that test.

Throughout testing, each participant is expected to have adequate release management controls in place.

* 1. Variance Logging and Classification

### Introduction

Variances are defined as being observed discrepancies between expected and actual test results and may be functional (system-related), non-functional or operational (process-related). Each time a deviation from a Logical Test Script is identified, a detailed variance report will be logged and resolved in accordance with this document.

MEPCT will log all reported variances electronically using an appropriate variance management tool (e.g., customised MS-Access database or any other commercially available product).

Variances will be assigned a **category** that reflects the type of variance and a **severity classification** that reflects the impact that it has on the systems/processes. Severity classifications will be used to determine how quickly a variance needs to be analyzed and resolved.

On exceptional circumstances, it may be possible to defer the fixing of a variance by implementing a workaround. It should be noted that workarounds may increase the risk to the running of the new market arrangements and as such, should only be viewed as temporary arrangements with a view of resolving them in the long-term.

### Categorisation

Variances will be categorized as being:

* **Category M – a market process definition error** - the market process is incorrect in that the expected results cannot be produced; or
* **Category P – a participant process or system error** - the system or process did not execute in accordance with the expected results (i.e. the expected results were correct and the correct data was used but the system or process did not produce the expected results); or
* **Category S – a test script/data error** - the market or system requirement or expected result is not correctly reflected in the test script or test data documentation; or
* **Category E – an execution error** - the process did not execute in accordance with the expected results (e.g. the expected results were correct but were not achieved because incorrect data was used)

### Severity Classification

The classification of severity should be as follows:

* **Class 1** - Variances that render the **entire system or process unusable**. All testing activities shall be immediately stopped and evaluation and correction of the variance will be completed before testing is resumed.
* **Class 2 -** Variances that render unavailable a **critical function** of the system or process. They include drastic program or system errors such as application failures, inability to perform data transfers, failure to access databases, and inability to display information to the users. These types of variances do not permit the continuation of a Test. Testing shall be stopped and evaluation and correction of the variance will be completed before Testing is resumed. Variances that will fall into this category will include those that would prevent the correct processing of:
	+ Meter Point Registrations
	+ Readings
	+ UoS Billing or Data Aggregation
* **Class 3 -** Variances that produce **erroneous results** from any material function of the systems and are not class 1 or class 2 variances. These are variances that prevent a Test from completing with the expected results. Testing will continue and either:
	+ The variance will be evaluated, corrected and re-tested prior to the end of the current testing stage; or
	+ A workaround will be agreed and implemented which enables the expected results to be essentially realized by the end of the current testing stage. In this case the variance remains outstanding.
* **Class 4 -** This class of **minor or cosmetic** variance includes items that do not significantly affect the usability of the systems, such as an error in text or view displayed, spelling errors, documentation or data errors that do not materially affect the results achieved. Testing will continue.

For all variances, a Variance Action Plan will be agreed whereby the variance will be evaluated and corrected at a mutually agreed time.

All variances will be resolved within the timescales agreed in the Variance Action Plan and, following resolution, for class 1, 2 and 3 variances the Test Scenario will be continued or repeated as appropriate. Where variances are not resolved within the timescales agreed in the Variance Action Plan there shall be an escalation process.

### Implications for Further Electricity Market Opening

The analysis and resolution of variances may have significant implications for the FEMO Programme. The solution that minimizes the risk of extra cost or delaying the FEMO implementation will generally be the preferred option, provided that this does not entail unacceptable risks to the business operations of market participants. Accordingly, it should be expected that there may be a number of workarounds (and potentially dispensations) that must be adopted for ‘live’ operations. This may increase the workload of operational staff and may also increase the risk during the early period of ‘live’ operations. Participants should undertake a risk assessment and base their acceptance of variance action plans on this assessment.

* 1. Regression Testing

The objective of regression testing is to re-test systems and processes in the light of changes made during debugging, maintenance, variance fixing or the development of a new release of the system.

Each time a modification is made to a system or process, it is very important that a subset of previously performed tests is performed again. Regression testing involves re-testing systems and processes that have already been tested before the change was implemented, in order to check that the change has not adversely impacted other areas or introduced new errors.

Where a variance occurs it is expected that participants will execute regression testing in accordance with their test strategies and procedures.

The testing timescales will have a significant impact on the approach adopted for regression testing. There may be little time available to perform regression tests in addition to planned tests. Therefore the participants will have to be very selective when choosing which regression tests to perform, and it is likely that only the most critical will be performed. Participants should undertake a risk assessment and base their acceptance of variance action plans on this assessment.

* 1. Reporting and Communication

### Introduction

Testing requires effective communication with all impacted parties. Furthermore, it requires frequent reporting to programme management to monitor progress against the agreed plan.

### Approach

Prior to the commencement of testing participants will confirm to MEPCT that the entry criteria for which they are responsible have been satisfied.

Throughout testing, the TCC will communicate to Market Participants as follows:

* Updated Test Schedule on a daily basis
* Detailed Test Schedule on a daily basis
* Variance Action Plans as and when updated
* EPAT Progress Report on a weekly basis

Throughout testing, participants are expected to produce and communicate to the TCC as follows:

* Detail Test Progress reports at the completion of each day of testing
* Variance Reports as soon as a variance is detected
* Completed Logical Test Script and Test Results at the completion of a Test Scenario
* Progress against Variance Action Plans

At the end of EPAT for a Participant, MEPCT will provide an Exit Report to the Supplier, the Market Entry Process Co-Ordinator and to Ofreg.

### Implications

The compressed testing timescales mean that scheduling, and therefore communication is particularly important two-way process within the programme. If parties are having difficulty implementing a change or may not be able to meet the agreed timescales, this must be highlighted as early as possible, so that the testing team can take appropriate actions and/or reschedule the tests if necessary.

* 1. Support and Queries

### Introduction

The TCC will support participants by:

* Responding to queries as described below.
* Accommodating any reasonable request to meet with a participant to provide guidance or explanation of the EPAT process or deliverables.

### Query Categorisation and Response Times

Queries will be categorized as being **high, medium** or **low** priority.

High priority queries will be permitted during test execution only.

TCC will endeavour to respond to queries in accordance with the following timescales:

* **High priority** – within two hours during the test execution process
* **Medium priority** – by the end of the following business day
* **Low priority** - within the following five business days
1. Roles and Responsibilities
	1. Introduction

Successful testing of the systems, processes, procedures as well as interfaces required for the new electricity market, is highly dependent on the preparations made by a number of key organizations. These are as follows:

* NIE T&D and Sx3;
* Market Participants
* FEMO Programme; and
* Ofreg.

This section describes the roles and responsibilities of these key organisations for EPAT.

### NIE T&D and Sx3

NIE T&D and Sx3 will have the primary responsibility for the following preparation activities for EPAT

* Provision and maintenance of tested central (NIE T&D Application and Market Messaging) systems
* Provision and maintenance of EPAT environment and data for the central systems; but excluding the hardware for the Supplier installation of EMMA

The requirements for NIE T&D during EPAT are:

* Executing tests in line with the agreed test schedules issued by the TCC;
* Informing the TCC of test progress, test results, variances and any problems experienced;
* Contributing to the wider sharing of knowledge and experience from testing;
* Contributing to the resolution of any variance arising from EPAT in accordance with Variance Action Plans; and
* Escalating the resolution of variances not resolved in accordance with Variance Action Plans

### Suppliers

Prior to test execution, there are several preparation and planning activities that Suppliers will need to undertake internally, such as:

* Mobilizing their internal market implementation programme team;
* Understanding the requirements as stated in the various documentation to be provided by the FEMO Programme;
* Procuring and testing their own systems to interface with the central market systems;
* Designing and developing their own internal procedures to interface with the Market Procedures;
* Undertaking internal system testing;
* Understanding the approach to EPAT;
* Developing physical test scripts and data as required for EPAT; and
* Confirming that their systems and data are ready for EPAT.

The requirements for Suppliers during EPAT are:

* Executing tests in line with the agreed test schedules issued by the TCC;
* Informing the TCC of test progress, test results, variances and any problems experienced;
* Contributing to the wider sharing of knowledge and experience from testing;
* Contributing to the resolution of any variance arising from EPAT in accordance with Variance Action Plans; and
* Escalating the resolution of variances not resolved in accordance with Variance Action Plans

### FEMO Programme

In the transitional period the FEMO Programme will have oversight responsibility for the following preparation activities for EPAT

* Review of the EPAT Approach and Plan
* NIE T&D and Sx3 activities as above
* Providing facilities for MEPCT

and responsibility for the following activities during EPAT test execution:

* Escalating the resolution of variances not resolved in accordance with Variance Action Plans.

### Ofreg

The role of Ofreg during the EPAT will include:

* Approving the Entry Process Ability Test Approach and Plan.
* Making decisions on major requests for change required by the FEMO Programme as a result of issues or problems that arise in testing, especially where these requests for change impact the scope, cost and/or timetable for the Programme
* Reviewing the EPAT Progress Reports prepared by the MEPCT.
* Reviewing the Entry Process Ability Test Exit Report.

* 1. Responsibility matrix

The following table provides details of the roles and responsibilities of the various entities for each EPAT activity. These responsibilities include:

* Managing or co-coordinating the activity;
* Preparing or developing deliverable(s) produced as part of the activity;
* Reviewing the deliverable(s) produced as part of the activity;
* Approving or accepting the deliverable(s) produced as part of the activity;
* Performing the activity; and
* Witnessing test execution.

Market Participant includes NIE T&D and Suppliers.

Participant includes NIE T&D, Sx3 and Suppliers.

**Table 1 Test Roles and Responsibilities**

| **Responsibility** **Activity**  | **Manage /Coordinate** | **Prepare /Develop** | **Review** | **Approve /Accept** | **Perform** | **Witness** |
| --- | --- | --- | --- | --- | --- | --- |
| EPAT Approach and Plan | MEPCT | MEPCT | Participants & FEMO Programme | Market Participants & Ofreg | − | − |
| Logical Test Scripts | MEPCT | MEPCT | Participants | Market Participants | − | − |
| Test Data Definition (logical) | MEPCT | MEPCT | Participants | Market Participants | − | − |
| Physical Test scenarios/scripts for supplier systems  | Suppliers | Suppliers | Suppliers | Suppliers | − | − |
| Physical Test scenarios/scripts for central systems  | T&D and Sx3 | T&D and Sx3 | T&D and Sx3 | T&D and Sx3 | − | − |
| Test environment set-up and maintenance and data population (central systems) | T&D and Sx3 | T&D and Sx3 | T&D and Sx3 | T&D and Sx3 | − | − |
| Test environment set-up and maintenance and data population (external systems) | Suppliers | Suppliers | Suppliers | Suppliers |  |  |
| Test Schedule (initial) | MEPCT | MEPCT | Participants | Market Participants | − | − |
| Test Schedule (updates) and Detail Test Schedule | MEPCT | MEPCT | − | − | − | − |
| Test execution, test reporting and provision of results  | MEPCT | Market Participants | − | − | Market Participants | MEPCT |
| Variance fixing | Participants& FEMO Programme |  | − | − | Participants | − |
| Test results collation  | MEPCT | MEPCT | − | − | − | − |
| EPAT Progress Reporting | MEPCT | MEPCT | Market Participants& FEMO Programme & Ofreg | − | − | − |
| Exit Report | MEPCT | MEPCT | Supplier& Ofreg | - | − | − |

1. Risks and Issues
	1. Risks

The following table identifies risks associated with EPAT and their mitigation actions.

|  |  |  |
| --- | --- | --- |
| **Risk** | **Description** | **Mitigation** |
| 1 | Central messaging systems / data are not available | No mitigation; testing cannot take place |
| 2 | NIE T&D Application systems / data are not available | Test using messaging solution only and manually review/produce messages at NIE T&D.  |
| 3 | Entry criteria for NIE T&D Application systems have not been met | Test using messaging solution only and manually review/produce messages at NIE T&D; orCommence EPAT with NIE T&D applications and accept risks |
| 4 | Supplier systems are not ready | Reduce scope of certification to exclude Supplier systems and re-certify with Supplier systems at later date; orDelay EPAT for Supplier and run in parallel with Market Testing. |
| 5 | High number of Supplier attributed variances results in delayed completion of EPAT | Accept delay of completion and possible certification. |
| 6 | High number of NIE T&D attributed variances results in delayed completion of EPAT | Accept delay of completion and possible certification. |

Note that risks 2, 4 and 5 will also potentially increase the risk or reduce the scope for Market Testing.

* 1. Issues

The following issues must be resolved.

* No issues are currently identified
1. High Level Plan

This section provides the High Level Plan for EPAT. The High Level Plan relates only to EPAT activities conducted within the remit of the FEMO Programme.

* 1. Assumptions

The following assumptions have been made in developing the High Level Plan:

* EPAT participation will be mandatory for all Suppliers wishing to be active and required or requiring to use the EMMA software at Further Electricity Market Opening. Based on this the following Market Participants are expected to participate in EPAT:
* Airtricity;
* Bord Gáis Éireann;
* Energia;
* ESBIE;
* NIE Supply;
* NIE T&D;
* All participants involved in testing understand their obligations and commit to meet agreed timescales;
* All entry criteria for EPAT will be met on time
* Adequate staff will be assigned by the FEMO Programme and by each participant to work on testing activities; and
* Direct support will be provided to Market Participants by the MEPCT and by the FEMO Programme to assist participants in understanding what they need to achieve for EPAT.
	1. High Level Plan

The following figure provides the High Level Plan for EPAT including activities required to:

* MT&IW to develop test schedule and identify data;
* NIE T&D to migrate and prepare data
* Participants to execute tests; and
* MT&IW to prepare test exit reports.

**High Level Test Plan for EPAT associated with implementation of the new market arrangements for all Suppliers**



**High Level Test Plan for EPAT associated with introduction of a new Supplier**



## Appendix A – Test Schedule Example



## Appendix B – Detail Test Schedule and Progress Report Example



1. A significant change would include the creation of a new interface or the replacement of an interfacing application. Re-certification activities will normally be limited to the scope of the changes. [↑](#footnote-ref-1)