

MRA Entry Assessment Information for Applicants

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V6.0

MRA Entry Assessment Team

MRA

MRA Service Company

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1. Introduction

1.1. Purpose

This document is aimed at organisations that:

- Have already acceded to the MRA,
- Do not currently operate in the Electricity Market but wish to do so,
- Already operate in the Electricity Market and now wish to operate in one, or more, additional Market Sectors,
- Already operate in the Electricity Market, are subject to an operating threshold(s) and are about to exceed the threshold(s),
- Already operate in the Electricity Market, are subject to a milestone review and are approaching a milestone.

These organisations are referred to as 'Applicants' throughout this document. This document describes in some detail the processes that will be applied during MRA Entry Assessment, which forms the major part of the MRA Entry Process.

Applicants need to perform specific tasks, as set out in this document, to facilitate the completion of MRA Entry Assessment. Successful completion of MRA Entry Assessment is a pre-requisite for Applicant entry into the Electricity Market, initially under Controlled Market Entry conditions. All documentation for the MRA Entry Process is available on the MRASCo website, www.mrasco.com

1.2. Scope

The process applies to Applicants to the Electricity Market (the Market) in Great Britain.

1.3. Governance

The governance of the MRA Entry Assessment is derived from the Master Registration Agreement (MRA) and the MRA Agreed Procedure for Entry Assessment and Re-Qualification (MAP05).

The governance body for the MRA Entry Assessment and Re-Qualification is the MRA Executive Committee (MEC), the governance body that has overall responsibility for the MRA.

1.4. Contacts

For further information regarding MRA Entry Assessment please:

- refer to the MRASCo website at <http://www.mrasco.com>
- e-mail all general enquiries and those relating to accession to helpdesk@gemserv.com
- e-mail all MRA Entry Assurance and Controlled Market Entry enquiries to assurance@gemserv.com
- telephone +44 (0) 20 7090 1029 and ask for help on MRA Entry Assessment

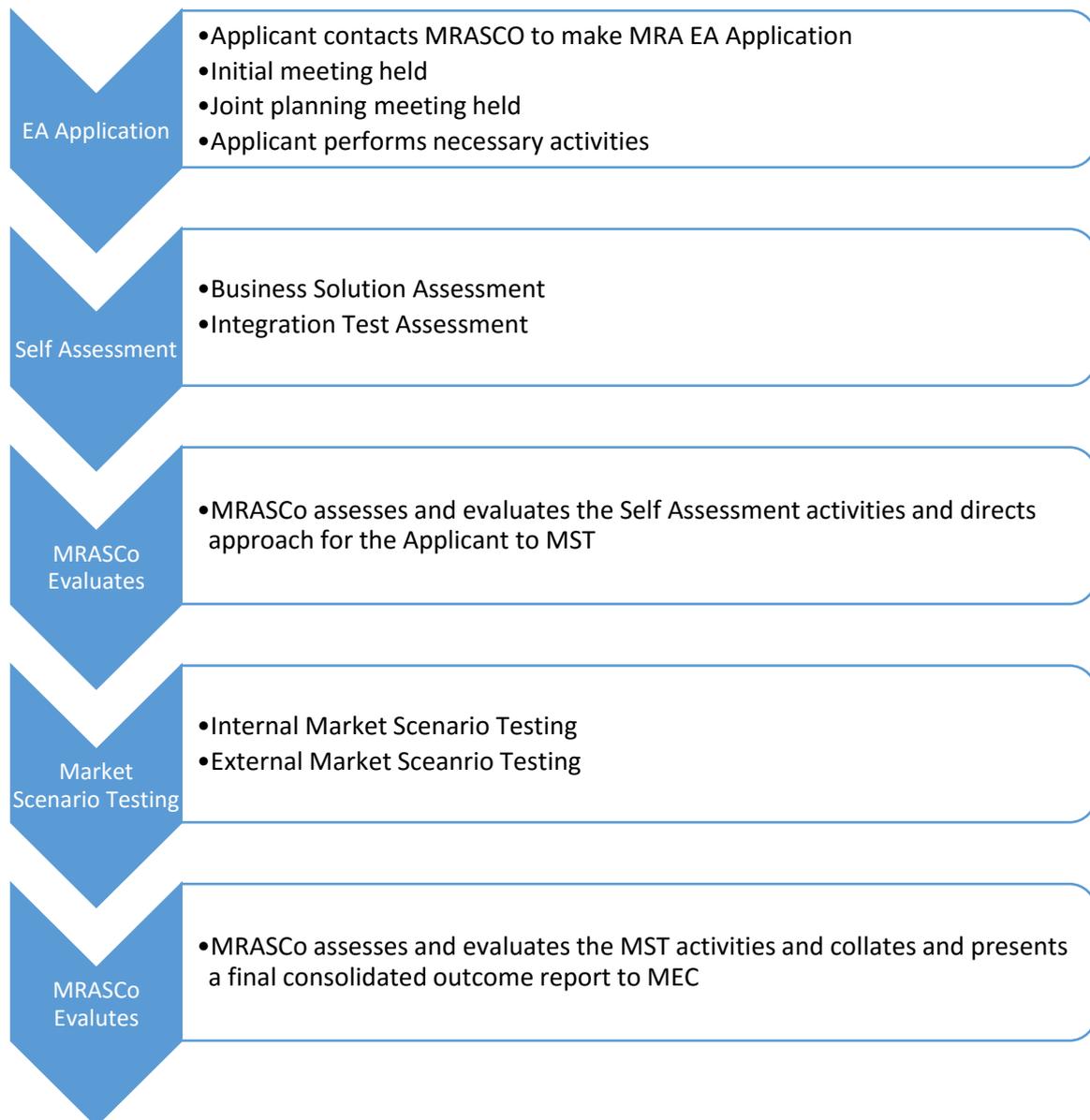
1.5. Co-ordination with the BSCCo

In order to enter the Market organisations must complete both the MRA Entry Assessment and BSCCo Qualification. The BSCCo is ELEXON Ltd.

These MRA Entry Assessment processes are closely aligned with the BSCCo Qualification Processes because the BSCCo governing body takes some assurance from the MRA Entry Assessment process in making its own decisions about its Qualification applications.

MRASCo and the BSCCo will liaise and co-ordinate activities throughout the two processes so far as is practical and where it best suits the needs of the Applicant and the two companies. This approach allows for economies of scale for the Applicants.

2. MRA Entry Assessment - Process Overview



The diagram illustrates the stages of the MRA Entry Assessment that the Applicant must complete in order to operate in the Market. This process is applied using a risk-based approach.

Applicants that are considered low risk will have a reduced workload and level of testing than high risk Applicants, but may be subject to further assessment at a later stage.

Risk factors include (but are not limited to) the number of metering points that the applicant plans to register, especially when aligned with the number of operational staff members within the business, systems and business solution to be used, the volume of energy supplied, and the experience of the organisation in the Market et al.

An Applicant who is seeking to employ systems and procedures that have a track record of use by an already approved party (where 'sameness' can be demonstrated for their MRA Entry Assessment Application) can apply for full or partial exemptions from the MRA Entry Assessment. Any Application for exemption should be discussed with MRASCo as soon as possible. Exemptions should be reflected in the Project Plan submitted by the Applicant.

An initial meeting is held between the Applicant and MRASCo at which all options and considerations for the Assessment Stages are discussed and a plan for the scope and delivery of the MRA Entry Assessment is agreed. Prior to commencement of Entry Assessment, a joint planning meeting will need to be held with MRASCo, the BSCCo and the Applicant, this is to ensure that the processes are aligned as necessary.

2.1. Self-Assessment Stage

In the Self-Assessment stage the Applicant provides evidence to MRASCo. The Self-Assessment stage consists of two sub stages;

1. Business Solution Assessment (BSA) and
2. Integration Testing Assessment (ITA).

MRASCo will carry out the assessment at the MRASCo offices. Evidence for the two sub-stages may be submitted together or separately, and the advantages of each approach will be discussed at the initial meeting.

2.1.1. BSA

The Applicant designs a business solution, comprising business processes, local work instructions, management procedures and IT applications. This must comply with the MRA requirements both in market design and in system integration, so that they are able to inter-operate with other Participants in the Market.

The Applicant must provide a copy of their business solution design so that MRASCo can assess to what extent this complies with MRA requirements.

2.1.2. ITA

The Applicant is expected to conduct end to end tests of their business solution in an integrated environment to demonstrate that they are fully compliant with the MRA requirements and market design and are ready to operate in the Market.

The Applicant must retain the evidence from these tests and provide this to MRASCo. MRASCo will assess to what extent the Applicant's business solution has been proven to comply with MRA requirements.

2.1.3. Assess & Evaluate the Self-Assessment Submission

Based on the evidence provided in the Self-Assessment Stage, MRASCo will prepare an opinion and a report of the outcome of the stage.

This will include the extent to which the Applicant's approach to the design and internal testing of its business solution is consistent with what was expected from the initial meeting and any recommendations for a refinement of the assessment approach going forward.

If the Applicant has met the criteria of the Self-Assessment (declared by the MRA Entry Assessment team), they can then move on to the next stage of the MRA Entry Assessment.

2.2. Market Scenario Testing Stage

There are two parts to Market Scenario Testing:

1. Internal Market Scenario Testing – the Applicant performs a number of pre-defined scenarios within their own test environment acting as all market participants.
2. External Market Scenario Testing - the Applicant interacts in a number of scenarios with MRASCo, using the Data Transfer Network (DTN).

2.2.1. Internal Market Scenario Testing Assessment (IMST)

Applicants are required to run a set of Market Scenarios that have been jointly defined by MRASCo and the BSCCo. To achieve this, the Applicant must simulate the responses and triggers from other Market Participants so that the whole scenario is carried out entirely internally to the Applicant. The execution of these scenarios, and their results, are inspected by MRASCo.

2.2.2. External Market Scenario Testing (EMST)

The purpose of External Market Scenario Testing) is to:

1. demonstrate that the Applicant is connected to the DTN and that the connection is correctly configured.
2. test the Applicant's ability to deal with a number of exception situations

This is achieved by carrying out a series of tests in which dataflows are exchanged between the Applicant and MRASCo over the DTN.

2.2.3. Advice & Guidance

Whilst the Applicant is within the MRA Entry Assessment, advice and guidance regarding the process is available from MRASCo at any time. If a meeting is required, this is normally expected to be held at the MRASCo offices.

2.2.4. Confidentiality

All documents and information exchanged between MRASCo and an Applicant during the MRA Entry Assessment are held in confidence by all parties under the governance of the “Confidentiality” section of the Master Registration Agreement.

2.2.5. Escalation and Appeals

If the Applicant has an issue with any aspect of the MRA Entry Assessment process the appeals route is:

1. to the assigned MRASCo Assessor,
2. to the MRASCo Assessment Team Manager,
3. to MEC.

3. MRA Entry Assessment Principles

Applicants must comply with the following principles throughout the MRA Entry Assessment:

- the Applicant must have all systems and business processes and resources ready to be assessed prior to the commencement of MRA Entry Assessment,
- The Applicant must have acceded to the MRA in order to commence the MRA Entry Assessment,
- The Applicant is required to formally agree their MRA Entry Assessment plan with MRASCo,
- Applicants will be treated on a “first come, first served” basis. Whilst MRASCo will use reasonable endeavours to plan and carry out the MRA Entry Assessment in line with Applicants’ timescales, no guarantees can be given regarding the availability of MRASCo resources to achieve this,
- The Applicant undertakes to be fully prepared for each stage of MRA Entry Assessment as it takes place. A lack of preparedness is likely to result in a number of Findings being raised and a delay to the Applicant’s MRA Entry Assessment timetable,
- The Applicant is responsible for the quality and preparedness of their business processes, designs and evidence and the compliance of these with MRA requirements,
- If the Applicant intends to make use of the services of a third party for some or all of their business solution the Applicant remains responsible in all respects for those in relation to the MRA Entry Assessment,
- Each Applicant must provide all of the staff, systems and IT environments necessary to carry out all MRA Entry Assessment activities applicable to them,
- All tests executed as part of, or to provide evidence for, the MRA Entry Assessment activity must be carried out in an environment closely representing the live environment,
- All tests executed as part of, or to provide evidence for, the MRA Entry Assessment activity must include all parties that comprise the organisational unit requiring MRA Entry Assessment as stated in the Applicant’s Licence. This includes all the Applicant’s sub-contracted service

operators or partners that carry out activities included in the MRA Entry Assessment. Any exemptions granted to the Applicant that apply to this Principle will be observed,

- Applicants must provide MRASCo Assessors with a copy of any documents necessary for them to carry out the Self-Assessment stages of the MRA Entry Assessment. This would include, but is not limited to, business processes, work instructions, designs for applications, test plans, test results, management processes and / procedures and associated records,
- The Applicant is responsible for producing and securing evidence, providing this to MRASCo for assessment and explaining the significance of particular items as requested,
- MRASCo supports, advises, guides and inspects, but does not participate directly in any aspect of the design or testing of the Applicant's business solution, except where explicitly required to do so as part of the MRA Entry Assessment,
- Applicants must provide all evidence in adherence with the naming conventions agreed with MRASCo.

4. MRA Entry Assessment

4.1. Initial Meeting

An initial meeting is held with the Applicant normally held in the MRASCo offices to discuss:

- the MRA Entry Assessment as a whole,
- the Applicant's Market aspirations in terms of numbers of metering points, the rate of capture and duration and any circumstances that would have an effect on the risk posed to the Market by the Applicant (e.g. self-supply),
- the willingness of the Applicant to operate within agreed thresholds, milestones or other conditions in order to minimise the timeframe and intensity of the assessment process and to discuss what these thresholds and milestones might be,
- any exemptions that the Applicant may wish to claim,
- contact and discussion had or to be had with the BSCCo,
- an initial plan for the Assessment – to be later aligned with the BSCCo through a joint planning meeting with the Applicant, the BSCCo and MRASCo.

Following the meeting, MRASCo will determine the level of risk that the Applicant poses to the Market and formulate an Assessment approach (based on the activities described in this document and recognising the identified risks) and writes the Risk Assessment document approach. This will include recommendations for:

- thresholds and milestones, if any,
- any exemptions claimed by the Applicant,
- the extent of testing required, in both the Applicant's integration testing and Market Scenario Testing.

The Applicant will be asked to review the Risk Assessment. Following the joint planning meeting and alignment of plans with the BSCCo, MRASCo will then finalise and approve the approach and all associated documents on behalf of MEC.

MRASCo will determine the approach to be taken based on the information provided. If the Applicant and MRASCo cannot reach agreement, the recommendations made by MRASCo together with the Applicant's comments will be submitted to MEC for mediation and decision.

When the Risk Assessment and approach has been determined, MRASCo will allocate resources and work with the Applicant to implement the approach.

Further advisory meetings may be required and requested by the Applicant to discuss the MRA Entry Assessment stages. These discussions may cover the preparedness that is required for each stage, the documentation that must be submitted to MRASCo and the evidence that is required in order to demonstrate compliance with the Retail Design. These are normally held in the MRASCo offices or via teleconference / video link facilities.

MRASCo will not provide any consultancy services to Applicant in the MRA Entry Assessment. The business solution design and evidence of testing will be assessed against a detailed set of checklists covering the specific criteria required to cover the MRA requirements for a new entrant into the electricity market.

MRASCo will provide a summary of the Applicant's business solution adherence to the detailed criteria and feedback to the Applicant on at the end of each assessment stage of the MRA Entry Assessment Process.

All support provided by MRASCo during the MRA Entry Assessment is to ensure that the process is clear and unambiguous for the Applicant only and **not to assist in the development of an Applicants business solution.**

4.2. Format of Assessments

Most Assessment work is conducted at the MRASCo offices and is based on evidence provided by the Applicant to MRASCo. The process and format employed is broadly as follows:

- submission of information to MRASCo by the Applicant.
This will comprise "standard" information in the form of completed forms/questionnaires together with supporting evidence and documents appropriate to the stage of assessment.
- analysis of this by MRASCo against a detailed checklist of MRA requirements.
- where the Applicant's submissions do not comply with MRA requirements or do not provide sufficient evidence to demonstrate compliance this is documented as a Finding/s.

- where there are individual instances of a failure to follow defined MRA procedure or meet with a single detail of a MRA requirement, this may be documented as an Observation or Finding depending on the severity and impact to the Market / Market Processes.
- where the execution of a MST step does not yield the expected result as part of a single MST step, a Problem Report is documented.
- where a MST does yield the expected result and fully satisfies the MST script, this will be documented as a Test Pass.
- where a MST does not yield the expected result in its entirety, this will be documented as a Test Failure.
- daily review and progress meetings (exchanges of information and feedback) will normally take place on the phone or electronically. At these:
 - the Assessment Team reports its activities, gives details of any Findings, Observations, Problem Reports, Test Passes and Test Failures for the day. The Assessment Team requests the Applicant to agree these and propose remedial / corrective actions for all Findings, Problem Reports and Test Failures.
 - the Applicant reports progress in applying remedial / corrective actions, test progress and any issues that may affect the assessment.
 - at the final review meeting any outstanding Findings, Corrective Actions and Test Failures are reviewed.
- following completion of the MST assessment stage a consolidated outcome report is prepared by MRASCo. The Applicant is informed of the content of this and may submit their comment for inclusion. The report is then submitted to MEC for decision.

4.3. Logistical Arrangements

The Assessment Team comprises of two MRASCo Assessors. One will be appointed as Lead Assessor and will be the main point of contact for the Applicant.

The Applicant is required to provide the following:

- a co-ordinator to provide a single point of contact throughout the assessment,
- the appropriate level of resources required to demonstrate to Assessors how compliance with MRA Entry Assessment requirements is achieved.
- for any assessment work that is carried out at the Applicant's premises:
 - normal office accommodation and furniture for the assessment team.
 - private area for occasional use.
 - unrestricted connection to the Internet for the assessors' laptop computers.

If there are any difficulties in providing the above, these should be discussed with the Lead Assessor or the Assessment Team Manager.

4.4. Issues

An “issue” is one of a number of types of report of a failure to comply with requirements. These are:

- Findings.
- Observations.
- Problem Reports.

4.4.1. Findings

Findings are raised when:

- the Applicant fails to demonstrate compliance with an obligation within the MRA Products,
- the Applicant fails to comply with any of the MRA Entry Assessment Principles.

Each Finding is individually documented and discussed at the review and progress meeting. All Findings for any MRA Entry Assessment stage or element must be cleared before MRA Entry

Assessment can be completed and some Findings, because of their nature, may need to be cleared prior to commencement of a subsequent stage or next step within a stage.

Corrective action to clear a Finding is identified by the Applicant and agreed with the Assessor involved.

Findings may be cleared during the course of the assessment. However, any Findings that are not cleared by the close of an assessment should have corrective actions and timescales agreed at the closing meeting and this may impact on the outcome of the entire MRA Entry Assessment.

4.4.2. Observations

An Observation may be raised when:

- there are individual instances where an Applicant fails to follow defined procedure or to demonstrate compliance with any single detail of the MRA Entry Assessment Baseline,
- failures are detected but they do not affect the outcome,
- MRASCo wish to make known to the Applicant something they have observed but this does not affect the outcome of the assessment.

MRASCo does not require the Applicant to take corrective action for Observations.

4.4.3. Problem Report (PR)

Problem Reports are raised during Market Scenario Testing when an individual item of evidence does not, or several related items of evidence do not, match expected results. This may, but does not necessarily, result in a Test Failure.

This is dependent on the severity of the failure and whether the test can be brought back on track by taking action that would normally be available during normal business operation.

5. Self-Assessment Stage

5.1. Business Solution Assessment

5.1.1. BSA Objectives

The objective of BSA is for the Applicant to provide sufficient evidence to give an assurance that:

- the business solution covers all applicable obligations of the MRA Products,
- the business solution is coherent i.e. Applicant staff can navigate the business processes required for typical business scenarios and it is clear what functions are automated,
- there is a strategy and plan that covers all the requirements for,
 - Internal Testing, including Integration Testing (consisting of interface and business process testing),
 - External Market Scenario Testing,
 - Internal Market Scenario Testing.
- there are management processes defined for the control of documents, changes, problems and configuration as well as release management, test management and Market Domain Data management
- all required agreements have been initiated, including for example (but not limited to) bi-laterals for manual dataflows, Supplier Agents (Suppliers only), Use of System.

5.1.2. BSA Entry Criteria

The Applicant is required to meet the following entry criteria prior to the commencement of BSA:

- agree an MRA Entry Assessment start date and duration with the Lead Assessor, through the use of a comprehensive and robust plan.
- submit the following documents to MRASCo prior to the assessment:
 - Entry Assessment Questionnaire (EAQ) with parts 1 and 2 completed, and the declaration signed by an appropriate company executive.
 - Configuration Management Return (CMR)
the dataflow routing worksheet within the CMR complete except for test references;
 - all other worksheets within the CMR complete
 - copies of any documents referenced in the above.
- within the above, self-declare that all the accessions, agreements etc. that are required to enter the Market are in place or have been initiated.
- respond satisfactorily to requests from MRASCo for clarification on the above.

5.1.3. BSA Process

When MRASCo is satisfied that the information received from the Applicant is complete, the plan for the BSA and the members of the assessment team are confirmed to the Applicant.

So that the Applicant can demonstrate that they have met BSA objectives, a number of activities are undertaken during the assessment and assessed against a detailed checklist.

5.1.4. BSA Method

The Applicant's business processes must encompass all applicable obligations from the MRA Products. Each business process should have a start point, defined path(s) and an end point. The business processes should be stable and coherent and navigation between business processes, including supporting work instructions, should be clearly defined. It should also be clear how it is determined which business process is used to process any incoming dataflow and how overdue dataflows are detected and dealt with.

A copy of all relevant business processes must be made available to the Assessment Team at the beginning of the BSA. The assessment concentrates on the existence of defined processes, whether these are documented procedures or automated processes. Assessment of the testing of the processes is undertaken during ITA.

The MRASCo Assessor checks a sample of references as defined in the Configuration Management Report (CMR) (which can be found on the MRA Products website) and confirms the accuracy of the mappings to the Applicant's business processes.

The coherence of business processes is checked through assessment against typical scenarios.

The routing mechanism for dataflows is inspected using a sample of dataflows detailed within the business processes for adherence to the MRA market design.

The Assessors will observe any exemptions to the MRA Entry Assessment granted to the Applicant.

5.2. Integration Testing Assessment

5.2.1. ITA Objectives

The objective of the ITA is for the Applicant to provide sufficient evidence to give assurance that internal integration testing of its business solution has been thoroughly and successfully completed and this is assessed against a detailed checklist.

5.2.2. ITA Entry Criteria

The Applicant is required to meet the following entry criteria prior to the commencement of ITA:

- have completed BSA.
- submit the following document to MRASCo prior to the assessment:
 - Entry Assessment Questionnaire (EAQ) part 3,
 - CMR with test references included,
 - copies of any documents referenced in the above,
 - test evidence.
- respond satisfactorily to requests for clarification from MRASCo.

5.2.3. ITA Process

When MRASCo is satisfied that the information received from the Applicant is complete, the plan for review of ITA is confirmed.

MRASCo then finalises a plan of areas to be investigated as a result of analysing the MRA Entry Assessment documents, taking into account the previous assessments and any resultant follow-up.

Any exemptions granted to the Applicant that apply to this Assessment will be observed by the Assessors.

5.2.4. ITA Method

Test evidence is inspected to obtain a level of assurance that Integration Testing is comprehensive, complete and effective.

The test plan should provide adequate coverage of the applicable functionality within the MRA Products. As part of the risk assessment that MRASCo carries out the coverage and thoroughness of the testing will be taken into account when deciding the degree of Market Scenario Testing necessary.

Tests must be executed according to the Applicant's defined business processes and in an integrated environment that replicates, where appropriate to do so, the proposed operational environment. Where processes are carried out on behalf of the Applicant by a third party service operator, there should be appropriate provision for this in the tests. Dataflows from external Participants should be simulated.

Test evidence should include, but is not limited to, the following to demonstrate that appropriate actions have occurred, and that data is contiguous throughout the test:

- flat-file prints of the dataflows involved,
- before and after screenshots,

- before and after database extracts,
- all documents that would normally be produced as part of the business process must be provided e.g. letters, contracts.

Test results must be collated and indexed so that it is clear to which test and test step evidence relates, the naming conventions should be agreed with the Lead Assessor beforehand.

5.3. Self-Assessment Reporting and Exit

Following completion of the BSA and ITA, MRASCo reviews the outcomes against the detailed checklists and prepares an exit report.

This will include the extent to which the Applicant's approach to the design and internal testing of its business solution is consistent with what was expected from the initial meeting and the level of confidence that MRASCo has that the Applicant's business solution has been designed and demonstrated to be in compliance with the MRA Products.

Any recommendations for a refinement of the assessment approach going forward will be included. This may be for a lesser or greater amount of Market Scenario Testing based on the level of confidence achieved.

The Applicant may exit the Self-Assessment stage of the MRA Entry Assessment when the detailed checklists have been satisfied and confirmed by MRASCo. Updates on the Applicant's progress will be provided to MEC at its monthly meetings.

Full exit from this stage will require all Findings raised during this stage (if applicable) to have been satisfactorily cleared and confirmed as such by MRASCo.

6. Market Scenario testing

The Market Scenario Testing stage of the MRA Entry Assessment comprises internal and external aspects.

In the internal aspect the Applicant is asked to perform a number of defined Market Scenarios using their normal business processes and business staff in operational timescales. The scenarios are performed wholly within the Applicant's environment, with simulation of other Market Participants by the Applicant as necessary.

In the external aspect the Applicant interacts with MRASCo over the Data Transfer Network.

Both aspects are assessed against a detailed checklist.

6.1. Market Scenario Testing Entry Criteria

In order to commence Market Scenario Testing:

- The Applicant must have fulfilled the exit criteria for the Self-Assessment stage.
- Agreed a plan for execution of both the internal and external aspects of the Market Scenario Tests with MRASCo.
- Completed Part 4 of the EAQ, and
- have responded satisfactorily to requests for clarification from MRASCo.

6.2. Internal Market Scenario Testing

Each Market Scenario is a series of business events that will be encountered in live operation. They must be executed under operational conditions (except that other external Participant roles must be simulated by the Applicant) and some operational time constraints may be relaxed. The results of the scenarios must be submitted to MRASCo for assessment.

The Market Scenarios are defined in document 10634 MRA Entry Process & BSC Qualification Storyboards and detailed checklists will be used to assess the outcomes of the Market Scenarios.

6.2.1. Internal MST Objectives

The objective of the execution of the Market Scenarios is to gain a level of assurance that the Applicant can effectively operate in the live Market by successfully completing a number of scenarios that they will typically undertake in the Market:

- with their business staff.
- using their business processes.
- under operational conditions.

6.2.2. Internal MST Execution Principles

During the preparation and execution of the Market Scenarios, the Applicant (and any other Market Participant or managed services provider who the Applicant arranges to include in execution of these scenarios) must adhere to the following test principles:

- Pre-Requisites:
 - the version of the Market Domain Data (MDD) to be used will be agreed with MRASCo.
 - the test data that the Applicant has used/will use should be finalised and provided to MRASCo in advance of the execution of the Market Scenarios in the agreed format (using the Pre-Requisite Data sheet that is applicable to the Applicant type and can be found on the MRASCo website <https://www.mrasco.com/about-the-mra/becoming-a-party-to-the-mra/mra-entry-assessment>).

- other Market Participants (e.g. for a Supplier their Supplier Agents) may take part in the scenarios if desired. It is the Applicant's responsibility to arrange this.
- whenever carrying out assessment work at the Applicant's site, the MRASCo Assessor must have reasonable access to the facilities being used for, and all of the staff involved in, Internal MST execution.
- Scenario execution must be business driven:
 - by the trained business staff that are to be deployed for live operation.
 - the current, normal business processes that are to be deployed for live operation must be used.
 - any additional (or variations in) process undertaken during this MRA Entry Assessment stage, that will not be performed in live operation, must be notified to and agreed with MRASCo beforehand.
 - all activities that would occur as part of normal business process must be included e.g. data sourced and files updated as specified for live operation.
 - should normally include all Applicant locations that would be involved in normal operations.
- Scenarios must be executed in a timely manner:
 - execution of tests should not be unnecessarily delayed awaiting review or adjudication by MRASCo and MRASCo will ensure that the Applicant is aware of all review and progress on a regular basis.
 - abandonment of a scenario requires the prior written authorisation by the MRASCo Assessor.
 - only one version of a Market Scenario can be run at any one time.
 - all Market Scenarios, including any re-runs, must be completed within the agreed Internal MST execution schedule.
 - the Applicant must provide MRASCo with an accurate daily progress report of Internal MST execution, in an agreed format.
 - MRASCo must provide the Applicant with an accurate daily progress report of the review and adjudication of all internal MST processes, in an agreed format.
 - scenarios must conform to MPAS timing rules (see MRA) except as agreed in writing by MRASCo.
 - scenarios must use realistic timeframes (as agreed with MRASCo).
 - Incoming/outgoing dataflows must be realistic.
 - ALL dataflows (manual and electronic) that would normally be received must be simulated by the Applicant. The medium, structure and content that the Applicant will use in the live Market must be replicated.
 - ALL dataflows (manual and electronic) that would normally be sent must be created by the Applicant. The medium, structure and content that the Applicant will use in the live Market must be replicated.

- no dataflows may be edited outside of the Applicant's normal business process without prior written authorisation by the Assessor and must conform to the agreed and provided pre requisite test data given at the start of internal MST execution.
- where an MPAS system is being simulated, the rules for that MPAS system under simulation must be correctly and consistently applied throughout the scenario.
- the test data flag on header records of User Files should be set to a valid test setting (e.g. TR01).
- Dealing with problems and errors:
 - all problems encountered must be notified to the MRASCo Assessor as soon as possible after they are detected.
 - problems and changes to processes and applications must be dealt with through the Applicant's normal management and exception management processes.
 - changes must be reflected in the CMR and must be reviewed and approved by the Assessor.
 - exemption from an error cannot be granted on the basis of an undetected error in a previous step, even where a flow simulation error was the cause.

6.2.3. Internal MST Preparation

The Applicant develops a plan for Internal MST execution that includes start dates and expected duration of each scenario.

MRASCo provides an Internal MST generic plan on which the Applicant plan may be based. The overall duration of the plan must correspond with the overall plan agreed with MRASCo.

Any exemptions granted to the Applicant that apply to this Assessment will be observed and should be reflected in the MST execution plan.

The Applicant prepares and submits the MRA Entry Assessment Documents prior to the start of the Internal MST execution. The Applicant is also required to submit the following documents to MRASCo:

- the plan for execution of all Market Scenarios including expected start, duration and end dates.
- the pre requisite data (test data used by the Applicant) used during the internal MST execution.
- part 4 of the Entry Assessment Questionnaire.
- the latest copy of the CMR along with impact analysis of any changes since the last submission.
- a sample Internal MST physical script.

The Market Scenarios are defined in the form of Storyboards. Each storyboard provides sufficient information for the Applicant to create the conditions required before the scenario can begin.

When this has been done, but prior to starting any story, the Applicant must provide MRASCo with the pre-requisite data that has been used. MRASCo will provide a Pre-Requisite Data Sheet for this purpose.

Sufficient detail is given to enable the Applicant to apply normal business processes to enact the scenario. Other external Participants (e.g. the appropriate agents, where Suppliers are concerned) may be included in the scenarios but it is expected that their role will normally be simulated. It is the Applicant's responsibility to determine their approach and make appropriate arrangements.

6.2.4. Activities Prior to Internal Market Scenarios Execution

6.2.4.1. Applicant Documentation

The Assessor requires the following documentation prior to the start of Internal MST:

- the plan agreed with MRASCo and showing the execution of all Market Scenarios including expected start, duration and end dates. The first two days of the plan should be allocated to preliminary assessment activities by MRASCo.
- a complete set of the business processes and work instructions that are to be used during MS execution.
- a copy of the data to be used in each script.
- a list of named business users involved in the MS execution.
- a list of organisations, sites, roles and service operators partaking in MS execution.

6.2.4.2. Business Users

Internal MST execution must be conducted by the Applicant's business staff and they must be available during the pre-execution period as they may be required to clarify aspects relating to the testing.

6.2.4.3. Initial Conditions

The initial conditions for a scenario must be set up before the scenario is started. For example, in a change of supplier (loss) the customer must be set up on the Applicant system (whether they be application or paper based) in a way that allows the customer to be lost - with an historic Supplier Start Date (SSD), all agents appointed and with any customer contract, historic meter readings and meter technical details present.

The Applicant's data for all scenarios must be supplied to MRASCo. A Pre-Requisite Data Sheet will be provided for this. It is the responsibility of the Applicant to ensure the suitability of the data provided by them giving consideration to the fact that this data will be used to assess compliance to the MRA market design and procedures i.e. tests may fail if the test outcomes do not match the pre requisite data provided.

Initial conditions may be achieved through normal business processes or by other means, and it is the Applicant's responsibility to ensure that the initial conditions have been correctly set up. Manual systems required to support Internal MST, such as filing systems must be in place prior to the execution of the scenarios.

During scenario execution, normal business process must be used and all information sourced from/filed in the same place that it would be in normal operations.

6.2.5. Internal MST Execution

The Applicant executes the scenarios as scheduled in the plan agreed with MRASCo. The Applicant agrees with the Assessor when each scenario may start and conducts the scenario according to the instructions given in the script.

Inbound dataflows are either simulated or received from a Market Participant (where the Applicant has determined to involve them). The dataflows are validated, routed and processed and application and physical files updated, normal business output produced and outbound dataflows constructed - all using the Applicant's normal business processes.

All scenarios are run to completion, or if the objectives cannot be met then they may be abandoned with agreement of the Assessor. As each step is completed, the Applicant delivers appropriate evidence to the MRASCo Assessor.

Where deviations occur, normal business process must be used to recover the situation.

Any local agreements between MRASCo and the Applicant must be in writing and record the date of the agreement and the Applicant representative with whom the agreement is made.

During the execution of Internal MSTs, the Applicant must strictly adhere to the Internal MST Execution Principles and any plan to deviate from these must be discussed and agreed with the Assessor.

6.2.6. Evidence

Evidence must be provided at least at each incoming and outgoing Inter-Participant dataflow and include proof of execution of all material tasks. Evidence must be clearly labelled and referenced to the script and step from which it is produced and submitted to the Assessor as soon as possible after the evidence point is completed and no later than the end of the day that the step was executed. Ideally, MRASCo will receive the evidence for each storyboard in its entirety, once completed. However, this may not be practical for the Applicant and evidence provision will be discussed and agreed in preparation for Market Scenario Testing.

Evidence must demonstrate that the scenario has been conducted in an integrated environment; integrity of data was maintained, timestamps were chronological and business context was appropriate.

The evidence must be sufficiently complete to show that all business processes are carried out and must include before and after reports, screen and file prints and any dataflows that would be transmitted over the DTN.

6.2.7. Changes to Applicant Configuration

The Applicant must inform the Assessor of any material configuration changes together with an impact assessment of the change. MRASCo is responsible for determining which, if any, areas require scenarios to be re-run and the Assessor will confirm the re-run requirements with the Applicant. Material changes to the Applicant configuration may require a restart of the MRA Entry Assessment.

If any changes to configuration are made which are not notified to the Assessor this is a breach of principles and may lead to a number of scenarios having to be re-started.

6.2.8. Problem Reports

A Problem Report (PR) is raised by the Assessor whenever a discrepancy is identified in the execution of a scenario. A copy of the PR is passed to the nominated person within the Applicant organisation as soon as the problem is detected, reviewed and documented by MRASCo. The Applicant must record the problem using their defined procedure and provide a cross-reference to allow traceability between the MRASCo PR and their own problem recording. The Applicant is required to nominate a Problem Report co-ordinator to act as single point of contact for the resolution of all PR queries.

A PR is raised by the Assessor to record that, on a scenario step:

- actual results do not match those expected.
- results do not meet one or more requirements of the MRA Products.
- the storyboard was not followed.
- the business process was not followed.
- an MRA Entry Assessment or Internal MST Execution Principle was not observed.

The Applicant must analyse the problem and determine the reason for its occurrence. This analysis, which must be in sufficient detail for the Assessor to determine the outcome of the PR, is recorded by the Applicant on the PR together with the proposed corrective action, and returned to the Assessor. The Assessor checks the analysis and requests further clarification if necessary.

A PR raised by the Assessor does not necessarily result in a scenario failure. However, if a PR is raised that will result in failure of the Internal MST test, then the Applicant is informed as soon as possible.

6.2.9. Internal MST Adjudication

In order to maintain transparency, consistency and accuracy, adjudication is carried out by a MRASCo Assessor (a different assessor to that which reviewed the MST test step outcomes initially) and each scenario is adjudicated individually. All scenarios are of equal weight and all must be passed to complete MST execution.

The evidence for each individual scenario step is reviewed as soon as possible after it is presented and a PR is raised if necessary.

The execution of a scenario is considered to be finished when:

- the final conditions have been met.
- all evidence has been made available to, and assessed by, the Assessor.
- the Applicant has provided satisfactory responses to all Problem Reports raised during execution.

The Assessor adjudicates the scenario when it is finished and determines whether it is passed or failed.

The outcome, for both passes and failures, is reported formally to the Applicant.

6.2.10. Internal MST Findings

Failure of a scenario will be reported as a single Test Failure (referred to as a Finding/s), regardless of the number of Problem Reports raised. The Test Failure will reference any Problem Reports raised directly.

Reasons for failure include:

- the execution of the scenario does not meet one or more of the requirements of the MRA Products.
- the storyboard has not been followed.
- the final conditions have not been achieved.
- normal business processes have not been followed throughout the scenario.
- Internal MST execution principles have not been observed.

Copies of Failure Reports are handed to the Applicant as soon as possible after adjudication of the scenario has occurred. The Corrective Action for a failure will be proposed by the Applicant along with any further testing requirements. These are discussed and agreed with the MRASCo Lead Assessor.

6.2.11. Internal MST Abandonment

A scenario may be abandoned only with the express written permission of the MRASCo Assessor and results in the scenario being adjudicated as having failed.

Abandonment of a number of scenarios is regarded as lack of readiness for MST execution and may result in termination of the assessment stage.

6.2.12. Internal MST Re-runs

The Applicant is responsible for scheduling the re-run of any scenario that is adjudicated as failed and must ensure that it can be completed in the timescale of the agreed plan and should take account of this when preparing its MST execution plan.

Requests for any extension of the plan must be discussed and agreed with MRASCo.

6.2.13. Reviews / Progress Reports

On a basis agreed between the MRASCo Lead Assessor and Applicant, representatives will exchange progress and problem information as a means of tracking the progress of the execution of the scenarios and discussing any issues that have arisen. This may be in the form of a meeting if the Assessor is on site, or otherwise using phone and email.

The Applicant is required to report on the status of each scenario by providing the following information, as applicable:

- actual start date.
- actual end date.
- the last step completed.
- evidence produced that day but not yet lodged with the MRASCo Assessor.
- any comments relevant to the scenario including any problems encountered.

The Applicant is also required to inform the MRASCo Assessor of any slippage to the Internal MST execution schedule, which may impact their ability to complete scenarios or re-runs within the allocated Internal MST slot.

The Applicant is informed of any Problem Reports (PR) or Findings that have been raised and these are discussed with the Applicant.

PRs for which the Applicant has conducted their analysis and documented the reason for the problem and the proposed corrective action are discussed with the Assessor.

6.3. External Market Scenario Testing (EMST)

6.3.1. EMST Entry Criteria

In order to commence EMST the Applicant must:

- Have completed IMST successfully.
- Have installed and configured a DTS Gateway.

6.3.2. EMST Objectives

There are two parts and objectives of the EMST:

- Confirm that the Applicant's DTS Gateway has been correctly configured and that any internal routing mechanisms are working. This test is referred to as Data Transfer Service Connectivity Testing (DTSCT).
- Test the Applicant's ability to deal with exception situations.

These tests are done in collaboration between the MRASCo Assessor and the Applicant.

6.3.3. DTSCT

The Data Transfer Service Connectivity Tests (DTSCT) are designed to demonstrate that the Applicant:

- has configured their DTS gateway correctly.
- can transmit all relevant DTC dataflows¹ from each's normal point of origin to the required destination.
- can receive all relevant, valid DTC dataflows¹ from the gateway and route them to the appropriate point from which processing would normally take place.
- can detect invalid incoming dataflows and route them to a holding area.

6.3.4. DTSCT Process

Outbound Dataflows

The Applicant must send a complete set of relevant dataflows to MRASCo. The Applicant is responsible for creating the dataflows prior to the test using the mechanisms that form their business solution. Dataflows must have the Test Flag set to an agreed valid value, normally TR01.

¹ Relevant flows are those that are applicable to the Applicant type and, for Suppliers, the market for which they wish to be approved. Dataflows to or from the following parties are deemed out of scope of the MRA Entry Assessment; BSC Agent; Settlement Administration Agent (SAA); Supply Volume Allocation Agent (SVAA); Market Domain Data Administrator (MDDA); ISRA; ISRA (DPP); IARA; IARA (DPP) and GA Agent. Additionally, any dataflows for which there is a bi-lateral agreement with the other Market Participants to exchange them manually, are also deemed out of scope for the DTSCT.

The Applicant must inform MRASCo of the flows they intend to send. MRASCo will confirm that this is a complete set for the type of Applicant and, in the case of Suppliers, appropriate to the Market Sector(s) for which they are seeking approval.

The Applicant is responsible for providing evidence to MRASCo showing the routing of the dataflows from their point of origin to the gateway.

MRASCo will receive the dataflows from their own gateway and confirm that they are valid in accordance with the DTC and Market Domain Data.

Inbound Dataflows

MRASCo will send the Applicant a number of files containing a complete set of dataflows appropriate to the Applicant. MRASCo is responsible for providing the dataflows. Dataflows will have the Test Flag set to an agreed valid value, normally TR01.

The Applicant is responsible for providing evidence that valid dataflows are correctly routed to the normal point of entry to their systems.

Some of the dataflows sent by MRASCo will contain errors and is designed to assess the Applicants ability to handle exceptions. The Applicant is expected to detect these and route them in accordance with their normal business processes, including the exception management processes. The Applicant must be able to correctly identify the errors.

Files will contain a mixture of single dataflows and multiple dataflows, as can be expected when operating in the live Market.

Findings and Observations will be raised for issues found during the tests and reported to the Applicant. The Applicant must agree corrective actions with MRASCo for any Findings raised. This may require updates to systems and/ or business processes together with further testing.

It is suggested that the Applicant may wish to produce Physical Test Scripts (PTS) for the DTSC – one for each of the sets of flows in the two directions.

6.3.5. External MST Exit Criteria

This stage of the MRA Entry Assessment may be exited on successful completion and when any Findings raised during the assessment process have been cleared by MRASCo.

6.4. MST Reporting

Following the completion of the Market Scenario Testing stage, MRASCo prepares a Consolidated Outcome Report based on the outcomes of the testing and all prior assessment stage and a recommendation on whether, and at what point, any further testing is required and if, in the opinion of MRASCo, the Applicant should be approved to operate on the live electricity market. This report will be delivered to MEC for decision at the next available meeting; either to go live or for further action, as recommended by MRASCo.

7. Exit from Self-Assessment and Market Scenario Testing

The first two stages of MRA Entry Assessment may be exited only when:

- all MRA Entry Assessment stages (BSA, ITA, External MST, Internal MST) have been completed in line with the agreed plan.
- all Findings have been cleared by the effective implementation of suitable corrective actions, as agreed with and verified by MRASCo Assessors. Corrective actions may include the necessity for further MRA Entry Assessment activity.
- The Applicant has submitted Part 5 of the Entry Assessment Questionnaire, duly signed by a Senior Company Executive.
- MRASCo has prepared a consolidated outcome report for MEC that summarises the outcomes of the MRA Entry Assessment.
- MEC has approved the Applicant to exit the process together with any conditions for thresholds and/or milestones that are to apply.

When MEC has approved the Applicant to operate in the Market the MRASCo Helpdesk and Finance departments will be notified and they will arrange for access to the ECOES system and the inclusion of the Applicant in the billing cycle respectively. The next step for the Applicant is to propose conditions for, and enter the Controlled Market Entry stage of MRA Entry Assessment. For further details on the Controlled Market Entry (CME) process, please refer to EP-10477 Controlled Market Entry Process (<https://www.mrasco.com/about-the-mra/becoming-a-party-to-the-mra/mra-entry-assessment>).

8. MRA Resource Allocation

8.1. Purpose

MRASCo has limited resources available within MRA Entry Assessment Operations. It is therefore necessary to have in place a formal approach designed to best use these resources in both a cost effective and equitable manner.

This section describes the process whereby Applicants arrange their MRA Entry Assessment with MRASCo and, in so doing, secure the necessary MRASCo resources required to support their MRA Entry Assessment activities.

8.2. Scope

This section applies to both the initial entry to the Market by new Applicants and to those existing Participants who wish to extend their trading activities into Market Sectors for which they have not yet approved.

Although Controlled Market Entry is part of the MRA Entry Process, it is not covered by this document because significant MRASCo resource is applied only in exceptional circumstances.

This document is not applicable to Re-Qualification, documents in relation to the re-Qualification process can be found on the MRA Products webpage.

8.3. Principles

- all requests concerning an MRA Entry Assessment Application and associated resource allocation must be made to the MRASCo MRA Entry Assessment Lead Assessor or Manager.
- the *Applicant must develop a plan* for the whole of the MRA Entry Assessment (i.e. covering BSA, ITA, EMST and IMST). MRASCo will support in developing such a plan.
- the plan must be *discussed and agreed with MRASCo* and may need to be adjusted to take account of MRASCo and Applicant resource availability.
- MRASCo receives a number of Applicants for MRA Entry Assessment and will consider plans and commit resources on a 'first come, first served' basis.
- once agreed, both parties are committed to using reasonable endeavours to support the plan.
- where the Applicant fails to complete an Assessment stage within the planned timeframe for the stage, or fails to complete the MRA Entry Assessment as a whole within the timescale of the plan, or for other reasons wishes to extend the plan, MRASCo will use reasonable endeavours to provide resource in support of the extended requirement, but *reserves the right to minimise or withdraw support in order to meet MRASCo commitments that have been agreed with Applicants*.
- where the Applicant is ready to commence an MRA Entry Assessment stage earlier than planned, MRASCo will use reasonable endeavours to provide resource to support this requirement where possible but *note that this may not be possible* and adherence to the agreed plan may be maintained (note that all entry criteria must still be met).
- if the Applicant's MRA Entry Assessment is terminated by the Applicant or MRASCo for any reason, all commitments by MRASCo to support the Applicant are withdrawn. The Applicant will need to develop a new plan and discuss and agree this with MRASCo, as if commencing the MRA Entry Assessment for the first time.

- MRASCo will normally commit resources for the standard working day, which is 09:00 – 17:00. Bank holidays and statutory holidays are excluded. A reasonable allowance for travelling for MRASCo staff to attend the Applicant's site if required will be needed, depending on its location.

8.4. Resource Allocation Process

8.4.1. Planning

MRASCo provides a generic plan for the MRA Entry Assessment in Appendix 2 within this document. Following the initial meeting / briefing between the Applicant and MRASCo, the Applicant develops a plan for their MRA Entry Assessment and, in more detail, for MST execution. The Applicant should discuss this with MRASCo during this period so that account may be taken of MRASCo resource constraints.

The plan must be agreed formally, in writing, by both parties before the Applicant may commence the formal stages of the MRA Entry Assessment.

MRASCo will use reasonable endeavours to support multiple Applicants concurrently by deploying resources to best effect, however once MRASCo resources have been allocated they are no longer available to support another Applicant's MRA Entry Assessment. Where all MRASCo resources are already allocated, subsequent Applicants will be unable to commence the MRA Entry Assessment until these resources are scheduled to become free.

Where MRASCo is unable to meet the Applicant's proposed timeframes, and this is wholly unacceptable to the Applicant, the recourse available to the Applicant is to take the matter to MEC for resolution.

8.4.2. Commitment of Resources

On agreeing to the plan, MRASCo allocates the necessary resources to support the plan from the beginning through to completion. Equally, the Applicant must commit to the provision of a robust, sufficient and appropriate level of resource to support the plan.

MRASCo will not agree to an Applicant plan unless:

- the Applicant has acceded to, or has a confirmed application for accession to, the MRA.
- a manager has been appointed with responsibility for execution of the plan.
- the architecture of the business solution has been defined and confirmed as ready for MRA Entry Assessment, that is that the business solution and all supporting documentation is complete.
- the resource requirements have been identified and authorised by the appropriate executive or body within the Applicant organisation.

- agreements with any Managed Service Operators are in place.
- the plan includes a reasonable consideration for contingency.

When the Applicant submits the plan, it should be accompanied by appropriate evidence to support the above points, this may be done through the EAQ part 0 and discussion with the Lead Assessor.

8.4.3. Changes to the Plan

Where the Applicant fails to complete an Assessment stage within the planned timeframe, it may be necessary to adjust the plan for subsequent and dependent stages. MRASCo must agree any such changes in writing, and will use reasonable endeavours to provide support.

Where there is an extension to overall timeframes, the ability of MRASCo to support such changes will be dependent on commitments to other Applicants.

If the Applicant is ready to commence a stage early, either because a previous stage was completed sooner than expected, or for other reasons, provided that all entry criteria for the stage are met, MRASCo will use reasonable endeavours to accommodate such a change to plan, though where this is not possible the original agreed plan will be adhered to.

8.4.4. Timescales

The precise plan for the MRA Entry Assessment is dependent on several factors:

- The type of Applicant – Supplier or Distributor.
- For a Supplier, the Market Sectors involved.
- The risk that the Applicant poses to the Market. A lower risk would normally lead to a shorter/less intensive assessment – this is assessed during the Planning stage with MRASCo.
- the Applicant can mitigate (and evidence such mitigation) the risk posed to the Market by carrying out more rigorous internal assurance of the design and test of their business solution.
- the Applicant can opt to lower the risk to the Market by agreeing to operate within defined thresholds, for example by registering a limited number of Metering Points.

9. Planning for Market Scenarios Testing

9.1. Overview

In order for any Applicant to build an overall business plan, it will be necessary for them to construct a detailed plan of how they intend to conduct and complete the MRA Entry Assessment and in what timescales. Indeed, one of the areas inspected by MRASCo during the formal BSA Inspection is aimed at seeking evidence that the Applicant has detailed plans available for inspection for each of the assessment/ testing phases within the MRA Entry Assessment.

Of all the MRASCo Assessment stages, completion of the Internal Market Scenario Assessment (IMST) phase of the MRA Entry Assessment is certainly the most volatile in terms of predicting the amount of elapsed time it will take to complete the phase along with the necessary Applicant resources required.

9.2. Assumptions

When constructing the approach for the execution of Market Scenarios, unless otherwise directed by the specific scenario, the following assumptions should be made:

- the Registration on MPAS is applied for 5 working days in advance of the Supply Start Date (dataflow D0055 sent).
- the MST phase will always start on a Monday and weekends are not worked.
- it is assumed that the Applicant has the ability to fully process up to 30 (thirty) individual steps of a market scenario of any type/combination in any working day (i.e. all evidence produced and submitted to MRASCo for each step).
- dataflow requests for work (to be done by the MOP/Distributor) will be requested for the next working day. Subsequent responses on such work done should be available the working day after that, unless the scenario storyboard explicitly states otherwise.
- dataflows sent to other Market roles that *do not* require an appointment or site visit to be arranged should generally be simulated as replied to on the next working day (e.g. D0155/D0153 flows will be responded to the following day with D0011's). For the New Connection scenarios JSS012, JSS101, JSD207 & JSD302 SSD is assumed to be one week after the start of the scenario.

When constructing your plan for IMST execution, each individual Applicant will need to take account of circumstances peculiar to their business architecture.

Things to consider will include, but are not limited to:

- in what Market Segment(s) does the Applicant intend to operate?
- to what degree are the Applicant's systems automated and will this impact the time spent to complete each particular scenario in either a positive or adverse way?
- will IMST execution be run on more than one operational site and will this impact the time spent to complete each particular scenario in either a positive or adverse way?
- will the Applicant be using the services of a fully Managed Service or partially Managed Service Operator and will this impact the time spent to complete each particular scenario in either a positive or adverse way?
- what are the Applicant's normal timing rules for sending D0302's and D0225's to Distributor?
- does the Applicant appoint agents upon receipt of a D0217 or do they elect to wait for the objection period to expire first?

- does the Applicant de-appoint immediately on notification of the loss of a customer, or wait until the end of the objection raising period?
- a contingency period will also need to be allowed for.

9.3. Summary

It is the responsibility of the Applicant to produce a clear, logical, meaningful and achievable plan in support of their MRA Entry Assessment programme.

During the time in which an Applicant is going through the MRA Entry Assessment, MRASCo will be required to commit resources in order to ensure an Applicant's MRA Entry Assessment is not impeded, please see section 'MRA Resource Allocation' for further information.

All Applicant's plans for the MRA Entry Assessment will need to be formally agreed with MRASCo in advance of an Applicant being eligible to commence the MRA Entry Assessment process.

APPENDICES

10. APPENDIX 1: DTSCT Sample Physical Test Script

10.1. Test Script Headings

The following notes describe the suggested content of each column of the Physical Test Script that needs to be provided to document the necessary tests. Fewer or greater steps may be necessary depending on the application architecture of individual Applicants.

It is suggested that a generic script be prepared for each direction of testing (outbound and inbound) for each application, though an Applicant may find a more appropriate manner of scripting DTSCT.

COLUMN NAME	REQUIRED CONTENT
Step Reference	A reference for the test step.
Action	The action to be undertaken by the Applicant. There may be many actions for a particular flow
Inspection point/Evidence	Identification of the inspection points that will be associated with the action (could be pre, during, and post action), and the evidence that will be available at each of these inspection points
Expected Observation	What the result of the step should be and the evidence should show if the test step runs according to expectation
Actual Observation	This field will be completed by the Applicant to record the actual result of the test.

10.2. Physical Test Script Steps

OUTBOUND FLOWS (FROM THE APPLICANT)

This table provides an example sequence of test steps for an outbound flow. **This should be used as a guide only** – differing Applicant architectures will require different test steps and different scripts, the exact nature being determined during discussions between the Applicant and the MRASCo assessors in the preparation phase of EMST.

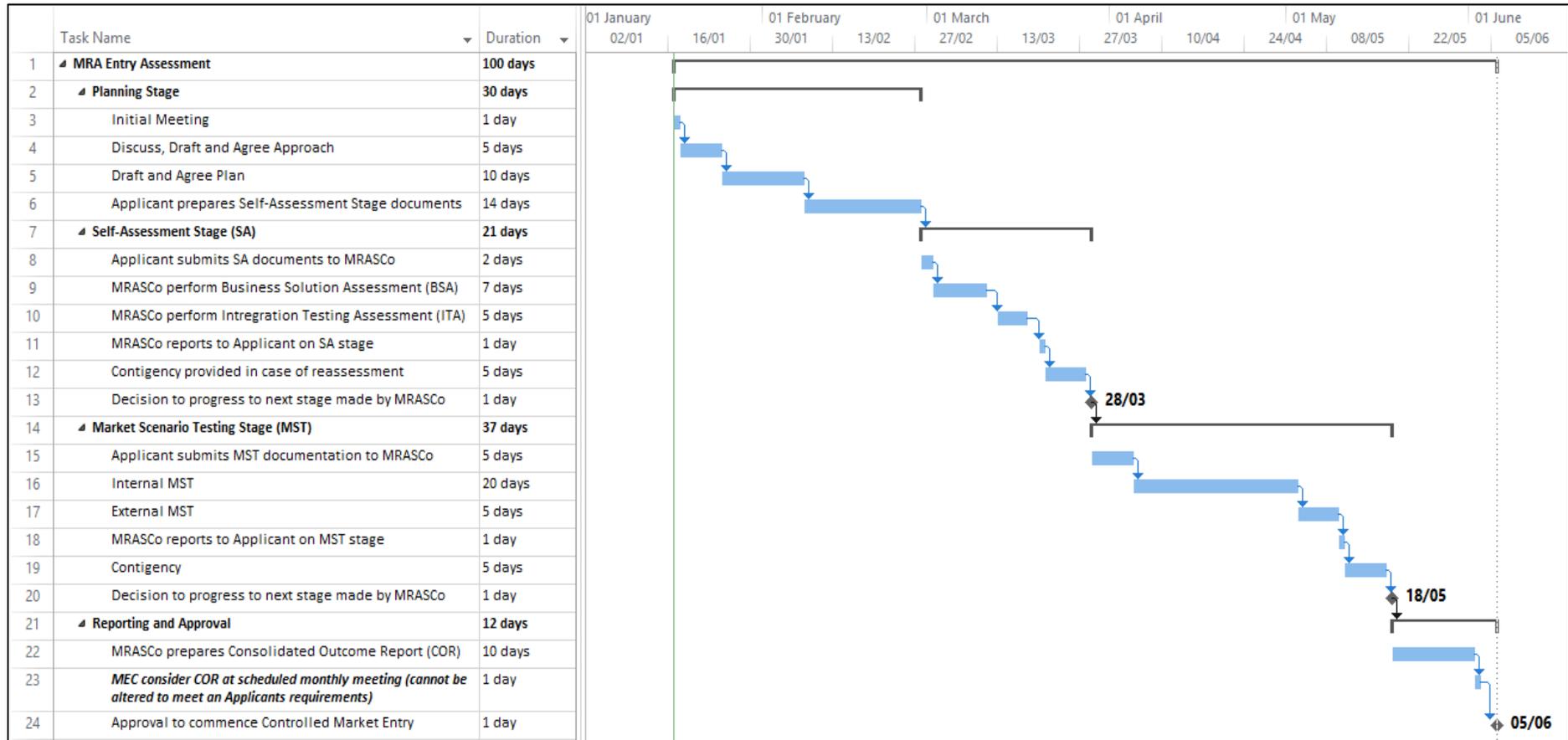
STEP REFERENCE	ACTION	INSPECTION POINT/EVIDENCE	EXPECTED OBSERVATION	ACTUAL OBSERVATION
MPIDDTSCTOut1	Show test environment clean.	Screen dumps of empty directories	Test environment clean.	
MPIDDTSCTOut2	Trigger flow generation from appropriate point in application/business process.	Print flow including file name, screen dump of file in application out directory.	Valid flow generated, User File created in expected directory.	
MPIDDTSCTOut3	Switch on routing application that moves flow to router.	Screen dump of appropriate directories on router.	Flow routed successfully to router out directory.	
MPIDDTSCTOut4	Switch on routing application that moves flow to gateway.	Screen dumps or logs showing file successfully moved to gateway.	File appears on gateway for processing.	
MPIDDTSCTOut5	Ensure file reaches intended recipient.	Amtrix logs or acknowledgement prints	File reaches intended recipient.	

INBOUND FLOWS (TO THE APPLICANT)

This table provides an example sequence of test steps for an incoming flow. **This should be used as a guide only** – differing Applicant architectures will require different test steps and different scripts, the exact nature being determined during discussions between the Applicant and the MRASCo assessors in the preparation phase of EMST.

STEP REFERENCE	ACTION	INSPECTION POINT/EVIDENCE	EXPECTED OBSERVATION	ACTUAL OBSERVATION
MPIDDTSCTIn1	Show test environment clean, routing software switched off.	Screen dumps of empty directories	Test environment clean.	
MPIDDTSCTIn2	Ask MRASCo assessor to arrange for files to be sent.	Gateway logs/screen dumps of files in gateway directories. Need to map file ID to filenames.	Files sent from MRASCo received on gateway.	
MPIDDTSCTIn3	Switch on software that moves files onto router.	Screen dump of files in router directory. File list to map file ID to filenames.	Files received in router in directory.	
MPIDDTSCTIn4	Switch on software that routes files to validation directory.	Screen dump of files in appropriate directory. File list to map file ID to filenames.	Files received in appropriate directory.	
MPIDDTSCTIn5	Run validation routines.	Screen dump of good files in accepted directory. Print of error logs for rejected files.	Valid files pass validation, invalid files rejected for appropriate reasons.	

11. APPENDIX 2: Generic MRA Entry Assessment Plan



12. APPENDIX 3: Glossary of Terms

For definitions of terms used in this document for the MRA Entry Assessment, refer either to the Master Registration Agreement, or the following sections.

ACRONYM	ENTITY NAME
AA	Annualised Advance
BETTA	British Electricity Trading and Transmission Arrangements
BP	Business Process
BSA	Business Solution Assessment
BSC	Balancing & Settlement Code
CEM	Competitive Electricity Market
CME	Controlled Market Entry
CMR	Configuration Management Return
CoA	Change of Agent
CoMC	Change of Measurement Class
CoR	Customer Own Read
CoS	Change of Supplier
CR	Completion Return
DA	Data Aggregator (See MRA definitions)
DC	Data Collector (See MRA definitions)
DIST	Distributor
DTC	Data Transfer Catalogue (See MRA definitions)
DTN	Data Transfer Network (See MRA definitions). Synonymous with DTS & MDNS.
DTS	Data Transfer Service (See MRA definitions) Synonymous with DTN & MDNS
DTSA	Data Transfer Service Agreement
DTSCT	Data Transfer Service Connectivity Tests
DUoS	Distribution Use of System (See LLF/DUoS in MRA definitions)
EAC	Estimated Annual Consumption
BSCCo	The settlement body for the Balancing & Settlement Code Company (Provided by ELEXON Ltd)
EMST	External Market Scenario Testing
Gemserv	The MRA Assurance Body appointed to administer the MRA Contract for Entry Assessment and Controlled Market Entry
H&S	Health and Safety
HH	Half Hourly
HH DA	Half Hourly Data Aggregator
HH DC	Half Hourly Data Collector
HH MO	Half Hourly Meter Operator
HH & PP MO	Half Hourly and Pre Payment Meter Operator
IARA	Initial Allocation and Reconciliation Agency
ID	Identity or Identifier
IMST	Internal Market Scenario Testing
IREG	Issues Resolutions Expert Group
ISR	Initial Settlement and Reconciliation
ISRA	Initial Settlement and Reconciliation Agent (Now superseded by SVAA)
ITA	Integration Testing Assessment
LTS	Logical Test Script
LWI	Local Working Instruction
MAP	Meter Asset Provider
MAP05	MRA Procedure for Market Entry Assessment & Re-Qualification

MDB	MRA Development Board
MDD	Market Domain Data (See MRA definitions)
MEC	MRA Executive Committee (See MRA definitions)
MO, MOp	Meter Operator (See MRA definitions)
MPAN	Meter Point Administration Number
MPAS	Metering Point Administration Service (See MRA definitions)
MPRS	Metering Point Registration Service
MRA	Master Registration Agreement
MRASCo	MRA Service Company (Provided by Gemserv)
MROCoS	Meter Reading on Change of Supplier
MS	Market Scenario for Suppliers & Distribution Businesses
MSTA	Market Scenario Test Assessment
MSS	Market Scenario Specifications
NETA	New Electricity Trading Arrangements (superseded by BETTA)
NGC	National Grid Company
NHH	Non-Half Hourly
NHH DA	Non Half Hourly Data Aggregator
NHH DC	Non Half Hourly Data Collector
NHH MO	Non Half Hourly Meter Operator
NHH & PP MO	Non Half Hourly and Pre Payment Meter Operator
OFGEM	Office of Gas & Electricity Markets
OIF	Operational Issues Forum
Pool	Electricity Pool of England and Wales. (Superseded by the BSC, March 2001)
PP	Pre-Payment
PPM	Pre-Payment Meter
PPMIP	Pre-Payment Meter Infrastructure Provider
PPMOp	Pre-Payment Meter Operator
PR	Problem Report
PRD	Pre-requisite Data
PTS	Physical Test Script
EAQ	Entry Assessment Questionnaire
RPS	Revenue Protection Service
SAA	Settlement Administration Agent
SP	Service Provider
SFIC	Supply Faults Information Centre
SMRS	Supplier Meter Registration Service. Same as MPAS
SPOC	Single Point of Contact
SRR	Self-Re-Entry Assessment Return
SSD	Supply Start Date (See MRA definitions)
SVAA	Supply Volume Allocation Agent
TUoS	Transmission Use of System
UFDS	User File Design Specification (See DTC)
UoS	Use of System
WoPR, WP	Working Practice

Terms used in documents relating to the MRA Entry Assessment and Re-Qualification.

TERM	DEFINITION
Applicant	An MRA Applicant having applied to be Approved, Re-Assessed or Re-Qualified through either the MRA Entry Assessment Process or the MRA Re-Qualification Process.
Approved	An Applicant is “Approved” when it has successfully demonstrated to a reasonable level of assurance that its business solution meets the requirements of the MRA and Retail Design. An Approved Applicant is permitted to progress to Controlled Market Entry.
Assessment Team Manager	The Gemserv Manager responsible for the MRASCo Assessors, who provides the initial contact for the Applicant for Market Entry Assessment and Re-Qualification, reports progress to MEC and is responsible for managing and co-ordinating assessment resources.
Assessor	A member of MRASCo who carries out the Entry Assessment Process, under the management of a Lead Assessor.
Business Solution	Applicant’s suite of systems and processes that support the requirements of the MRA
Business Solution Assessment	The initial stage of the Applicant MRA Entry Assessment, during which the suitability and design of the Application ‘solution’ is assessed by MRASCo.
Completion or Exit Criteria	The criteria an Applicant must satisfy.
Confidentiality Undertaking	Certification by the Secretariat and the MRA Entry Process Board that they will maintain the confidentiality of all information received from an Applicant for the purposes of the MRA Entry Assessment and subsequently for any application made under the Re-Qualification Process.
Configuration Management Return	A report produced by the Applicant for that gives a detailed specification of its business systems and processes – template provided by MRASCo.
Consolidated Outcome Report	A report produced by the Secretariat for MEC at the conclusion of Entry Assessment, which details the performance of the Applicant for each aspect of the process undertaken.
Controlled Market Entry	The process by which an Applicant enters the Market under operating conditions required by MEC in order to prove its business process inter-operability under live conditions.
Dom/Non-Dom	Domestic premises (see MRA definitions). Non-domestic premises.
DTS Connectivity Testing	Tests requiring the Applicant to demonstrate the correct configuration of its DTS Gateway and correct transmission, receipt and validation of relevant DTC flows.
Entry Assessment Products	The set of documents that describe to Applicants the details of the Entry Assessment Process.
Finding	A report raised by MRASCo during the MRA Entry Assessment which indicates that an Applicant does not comply with a particular requirement of the MRA or Retail Design.
Integration Testing Assessment	The stage of the MRA Entry Assessment in which the integration testing carried out by the Applicant is assessed by MRASCo for completeness and compliance.
Lead Assessor	The Assessor who manages the MRA Entry Assessment for a specific Applicant.
Market	The competitive Electricity Market of England and Wales and Scotland.
Market Scenario	A series of events that is representative of situations/transactions that an Applicant would be expected to encounter during ‘live’ Market operation.
Storyboards	The storyboards that define the events and actions to be carried out by Applicants during the Market Scenario Assessment stage of the MRA Entry Assessment.
Market Scenario Test Assessment	The stage of the MRA Entry Assessment during which the simulation of specific Market Scenarios is required to be completed by Applicants and assessed by MRASCo.
Metering Agent	See Supplier Agent
MRA Entry Assessment Process (or “Entry Assessment Process”)	The process by which an Applicant demonstrates its ability to meet its obligations under the MRA with respect to one or more Sectors of the Market that it has not already entered.
MRA Entry Assessment Process Baseline	The baseline set of documents, which comprises the Retail Design, Entry Assessment Products and other documentation with which Applicants must comply in order to complete the Entry Assessment Process.
MRA Executive Committee	The governance body responsible for the operation of the MRA Entry Assessment and Re-Qualification processes.
MRA party, Party	A signatory to the MRA (see MRA definition of “party”).

MRA Products	The mandatory and industry-recommended approaches by which obligations are to be fulfilled by Market Participants. It comprises the MRA, MRA Agreed Procedures, MRASCo Model, DTC, Working Practices Product Set and MRA Guidelines.
MRASCo Model	A diagrammatic representation of the interactions between the Participants in the Competitive Electricity Supply Market.
Operating Conditions	The conditions set by the MEPB within which the Applicant must operate to mitigate the risk of the Applicant disrupting the Market.
Party	An MRA party
Pre-requisite Data	Data to be used by Applicants during the execution of Market Scenario Tests.
Problem Report (PR)	A report raised by MRASCo during the Market Scenario Assessment stage of the Entry Assessment Process and which indicates that some element of either a Scenario or its execution is 'not as expected'.
Re-Assessment Milestone, Milestone	A point in time set by MRASCo during Entry Assessment at which the Applicant is to commence the Re-Assessment process.
Re-Assessment Process	The process by which an Applicant demonstrates its ability to continue to meet its obligations under the MRA upon approaching a threshold or milestone set by the MEPB.
Re-Assessment Thresholds	Agreed levels of operation, set by MRASCo during Entry Assessment, deviation from which requires the Applicant to consult with MRASCo and potentially undertake Re-Assessment.
Re-Qualification	The Entry Assessment process applied to the development and implementation of a Material Change by an MRA Party as required under MAP05.
Retail Design	The MRA, MRA Agreed Procedures, Data Transfer Catalogue, MRASCo Model, User File Design Specification, Working Practices Product Set
Service Operator	A third party that operates on behalf of an Applicant, and/or has management responsibility for, any aspect of the business of the Applicant.
Supplier Agent	An agent of a Supplier providing meter operation, data collection or data aggregation services or a combination of the three.
Testing Principle	The principles that set the standards within which the MRA Entry Assessment process operates.
Working Practice Product Set	The MRA Product that contains the Working Practices.
Working Practices	Working Practices are used to clarify those areas of the MRA and Retail Design where varying interpretations may cause inter-operational problems.

13. Change History

VERSION	STATUS	DATE	REASON FOR CHANGE
1.0	Authorised	30/09/99	Revised process
2.0	Authorised	01/08/00	Revised process
3.0	Authorised	10/01/02	Oct and Nov 2001 baseline upgrade including Utilities Act, and Scotland change.
4.0	Authorised	28/08/02	Include other Party types, exemptions, and incorporate DTT.
4.1	Authorised	12/02/03	Remove references to ECT, and tidy up wording
4.2	Authorised	17/09/03	Update of fields and tidy up wording
4.3	Draft	9/3/05	Removal of need for re-qualification for Scotland, following introduction of BETTA
4.3	Authorised	29/04/05	Authorised by MEPB.
4.3	Authorised	10/09/05	QA Review. Authorised by MEPB.
5.0	Authorised	16/08/07	Updated to combine other documents now viewed as duplication. 10450, 10463, 10467, 10513
5.1	Draft	06/06/08	Updated after internal review.
As EFD	Authorised	25/08/2009	Correct refs to EAQ sections. General tidy up of terminology
As EFD	Authorised	08/08/2011	Update contact details; remove reference to 10636; add para on access to ECOES; include notification to Helpdesk & Finance of new Party approval to operate.
6.0	Draft ready for approval	03/02/2017	Updates made to reflect MEC governance and make process updates.

14. Quality Assurance

NAME	ORGANISATION	ROLE
Elizabeth Montgomerie	Gemserv	Author
Dajana Hanusek	Gemserv	Reviewer
Richard Nichols	Gemserv	Reviewer

MEC	MRA Executive Committee	Approver
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15. Related Documents

MRA Products (<https://www.mrasco.com/mra-products>)

MRA Entry Assessment Products (<https://www.mrasco.com/about-the-mra/becoming-a-party-to-the-mra/mra-entry-assessment>)

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