

Guide to ECA Membership Certification Scheme



Representing the best in electrical
engineering and building services

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This guide to the ECA Membership Certification Scheme ('the Scheme') has been compiled to help you prepare for your Initial Assessment (if you are in the process of joining the ECA) or your Monitoring Assessment (if you are already an ECA Registered Member).

Please read it carefully in advance of your assessment and use the checklist at the end to ensure that you are properly prepared on the day. If you do not have all the necessary information, documentation and other materials assembled and ready for inspection by the Assessor, your assessment may be delayed and/or you may receive avoidable non-conformances.

This guide should be read in conjunction with the ECA Membership Certification Scheme document, which is available on request from your local Regional Manager. If you have any queries about the Scheme requirements or the assessment process, please contact your Regional Manager or the ECA Membership team on 020 7313 4800.

About the Scheme

The purpose of the ECA Membership Certification Scheme is to ensure all Registered Members carry out safe electrical work, installed to recognised industry standards and practice.

ECA also welcomes applications for Registered Membership from electrical engineering and building services businesses who may work solely outside the scope of BS7671. This does not preclude you from joining the ECA so if this applies to your business please contact your local Regional Manager for more information.

The Scheme covers the assessment of technical competence for electrical and/or electronic installation activities in buildings and industrial locations up to 1kV. It is a rule of the Scheme that all such installation activities comply with the requirements of:

- BS 7671: 2008 'Requirements for Electrical Installations'
- The memorandum of guidance on the Electricity at Work Regulations (HS(R) 25)
- Building Regulations as applicable
- Other appropriate industry standards and documents for the work undertaken

About the assessment

Your assessment will be conducted by an Assessor. It will normally take one working day to complete (additional time may be required and may be chargeable) and a plan with approximate timings will be sent to you in advance. The assessment will comprise four key stages:

1. **An 'opening meeting'** will be held at your main contracting office (where your business is based). It is essential that the Principal Duty Holder and proposed Qualified Supervisor(s) are present at the opening meeting (see below for more information). If either are unable to attend, the assessment will need to be rescheduled. At the opening meeting, the Assessor will:
 - 1.1. Agree the range of work to be assessed
 - 1.2. Agree the site(s) to be visited where representative examples of your business's work can be inspected
 - 1.3. Explain how the assessment will be conducted
 - 1.4. Define 'observations' and 'non-conformances', in relation to the Scheme
- An observation is an issue that does not meet the Scheme requirements but equally does not significantly affect the functionality or safety of an installation

- A non-conformance is an issue that materially affects the functionality and/ or safety of an installation.
2. Following the opening meeting, **an assessment of your business's non-technical activities** will be conducted at your main contracting office (see sections 1-12 below).
 3. **The site visit(s)** will then take place. The Assessor is required to visit at least two installations, which must include completed work and that are typical and representative of the work activities you undertake. For more information see the 'Site Visit' section on page 6.
 4. **A closing meeting** will then be held. The purpose of the closing meeting is to summarise the assessment's findings. Feedback will be provided on any observations or non-conformances identified by the Assessor, and the corrective actions will be agreed. At the closing meeting, the Assessor will also recommend whether an ECA Technical Assessment Certificate be awarded to your business.

Please note that the Technical Assessment Certificate is granted for the sole purpose of confirming your technical competence to the ECA and is not valid in any other context.

NON-TECHNICAL ASSESSMENT

The following non-technical aspects of your business's operations will be assessed. Please ensure all the appropriate documents etc. are available to the Assessor.

1. Principal Duty Holder

Under the Scheme, your business is required to appoint a Principal Duty Holder, a person who has responsibility for the maintenance of the overall standards and quality of installation work undertaken by your business. It is their role to ensure that appropriate information for certification and other technical documentation is issued and that appropriate, suitably qualified, Qualified Supervisors are assigned to the respective installation work.

The Principal Duty Holder must also have an understanding of, and have overall responsibility for, the health and safety and other statutory requirements relating to the installation work being undertaken by your business. The Principal Duty Holder must be present at the opening meeting and may also be the Qualified Supervisor.

2. Qualified Supervisor(s)

Under the Scheme, your business's Principal Duty Holder must appoint a Qualified Supervisor(s). The Qualified Supervisor(s) is required to accept day-to-day responsibility for the safety, quality and technical standards of your business's work. They must be fully conversant with industry standards and in the installation, inspection, testing, certification and reporting procedures relevant to the work undertaken.

As the role of the Qualified Supervisor(s) is central to the effective management of your business's technical standards and site operations, the Assessor will ask the Qualified Supervisor(s) to:

- Answer technical questions to gauge their competence
- Explain how they go about fulfilling their supervisory responsibilities
- Review examples of recorded test results on issued certification
- Demonstrate a full range of electrical tests for compliance with BS7671.

Please note that the Qualified Supervisor(s) for the work(s) to be assessed must be present throughout the assessment, including the site visit(s).

2.1. Qualified Supervisor(s) qualifications

The minimum qualifications that the Qualified Supervisor(s) must have are listed below:

- NVQ Level 3 in Electrotechnical Services (Installation – buildings and structures) (or approved equivalent qualification as accepted by ECA) relevant to the area of work undertaken
- Or
- A relevant Level 3 Technical Certificate (or an ability to demonstrate equivalent technical underpinning knowledge)

In addition, all Qualified Supervisors will be required to have a full recognised qualification in the current edition of BS7671 (IEE Wiring Regulations), certified by a licensed, industry recognised awarding body, from 31st December 2010 and by no later than 31st December 2011. If you are undergoing an Initial Assessment or a Monitoring Assessment in 2010 and your Qualified Supervisor(s) does not have a 17th Edition qualification, this will be flagged as an observation in your assessment. Your Qualified Supervisor(s) must then attain their 17th Edition qualification prior to your next Monitoring Assessment.

Though an inspection and testing qualification is not a specific Scheme requirement, the Qualified Supervisor(s) must be able to demonstrate that they are fully capable of undertaking the relevant inspection and testing relevant to the type of installations your business typically undertakes. The Assessor will require the Qualified Supervisor to demonstrate their ability to use the equipment and to complete the relevant test record sheets and certificates.

3. Changes to details (Monitoring Assessments only)

The Assessor will check that no changes have been made to the information you provided on application to ECA Registered Membership, including your trading name or title, legal constitution, address, Principle Duty Holder, Qualified Supervisor(s) or other details relevant to the Technical Assessment Certificate.

If details have changed and you have not notified EC Certification Ltd, as required by the ECA Membership Certification Scheme, this could result in an additional Monitoring Assessment and/or suspension and withdrawal of your Technical Assessment Certificate.

4. Management control

The Assessor will ask to see your management control methods and policies, including documentation relating to the use and supervision of sub-contractors, where appropriate. The level of documentation and detail required will depend on the size and complexity of your business and the type of work undertaken.

5. Company documentation

The Assessor will ask to see evidence of the methods used to manage your company documentation and a sample of relevant documentation, relative to the size of your business. Company documentation refers to the letters, work instructions, procedures, drawings and reports generated by your business. This documentation must have a unique identity (for example, a job number, a date or QA reference) and where necessary, authorisation.

6. Insurance

All ECA Registered Members are required to hold both:

- Public liability insurance for a minimum of £2 million
- Employer's liability insurance (which must be displayed as required by law)

Certificates and schedules of insurance will be assessed to ensure that they are current, cover the

scope of work carried out and are appropriately displayed.

Though not a requirement of the Scheme, if you are involved in detailed design of electrical installations, it is recommended that you consider obtaining Professional Indemnity insurance.

7. Health and safety

All ECA Registered Members are required to have a written, dated and signed Health & Safety Policy Statement and appropriate risk assessment procedures. If your business has more than 5 employees, your risk assessment procedures should be documented.

8. Customer care and complaints

The Assessor will ask to see:

- Written estimates and/or contracts to ensure they are being used for the majority of your business's work. Using estimates and/or contracts, no matter how brief, protect your business, should a dispute arise.
- A complaint log or register including details of any complaints received and the corrective and preventative actions taken to satisfy the complaint. The corrective actions should address the cause of the complaint and its implications on other aspects of your work. The preventative actions should include the measures taken to ensure that similar complaints do not arise in the future.

Please note that legitimate complaints relate to either your action or inaction; they do not include incidents of snagging. Any negative feedback relating to your work, including complaints and incidents of snagging, should be recorded in the complaint log or register.

The Assessor will also check to confirm that the procedure for handling complaints is understood by all staff. For smaller businesses, your procedure may be communicated verbally. If your business has more than 5 employees, your complaint handling procedure should be documented and will be reviewed by the Assessor.

9. Technical reference documents

The Assessor will ask to see current editions (including all amendments) of relevant National and Industry Standards as well as Statutory Legislation and guidance material appropriate to the range, scale and type of work undertaken by your business.

As a minimum, you must hold current editions of BS7671 IEE Wiring Regulations and the HSE publication HS (R) 25, the Memorandum of Guidance for the Electricity at Work Regulations. If you carry out work outside the scope of BS7671, you will be expected to hold the appropriate primary standard for that type of work e.g. BS5839-1 for fire alarm work.

Please refer to this Guide's Appendix for the full list of the technical reference documents that you will be required to hold and show to the Assessor, depending on the type of work undertaken by your business.

10. Test instruments and equipment

The Assessor will require you to demonstrate that you have an adequate number of serviceable test instruments and test leads appropriate to the range, scale, geographical spread and category(s) of work undertaken by your business.

For all low voltage electrical installation work, you must hold the following test instruments as a minimum (additional test instruments may be required, depending on the scope of the work being assessed):

- insulation resistance test instrument
- continuity test instrument
- voltage indicating instrument (note that this does not require calibration)
- phase/earth loop impedance test instrument
- residual current device test instrument
- suitable test leads for all test instruments

Two or more of the functions of the above test instruments may be combined in a single instrument.

The Assessor will also require you to demonstrate that you have a suitable method to ensure that the accuracy and consistency of all test instruments used for certification and reporting purposes is being maintained.

Your method must include maintaining records of all equipment used, including the method and frequency of checking/calibration, together with evidence to demonstrate that the equipment is capable of the accuracy that is required for the specified measurements. Examples of methods include:

- Maintaining records of the formal calibration/re-calibration of test instruments as recommended by the instrument manufacturers. These records should be supported by calibration certificates with measurements traceable to national standards and issued by an organisation recognised by Certification

or Registration Bodies for the purposes of checking the accuracy of test instruments. Certificates issued by UKAS accredited laboratories are preferable.

- Maintaining records over time of comparative crosschecks with other test instruments used by you.
- Maintaining records over time of measurements of the characteristics of designated reference circuits or devices. For example, the consistency of continuity, insulation resistance and earth electrode test instruments could be checked against a proprietary resistance box, resistance card or a set of suitable resistors. Earth fault loop impedance test instruments could be checked by carrying out tests on a designated socket-outlet (on a non-RCD protected circuit) in your office. RCD test instruments could be checked by carrying out tests on an RCD unit plugged into the designated socket-outlet.

Where test instruments are hired, the Assessor will also ask to see evidence of the hire, including confirmation of the calibration status.

11. Safe working practices

The Assessor will require you to demonstrate that you have defined systems of work and equipment available to enable all operatives to work safely.

These should include procedures for:

- **Isolation lock-off for live testing**
 - You should have effective safe isolation and testing procedures. If your business has more than 5 employees, these procedures should be documented and will be requested by the Assessor.
- **Energising installation**
 - You should have effective safe procedures for energising installations, including information as to who in the business is authorised to energise (make live) circuits. If your business has more than 5 employees, these procedures should be documented and will be requested by the Assessor.

12. Certification and documentation

For all assessments, the Assessor will ask to see and will review a representative sample of certificates and inspection reports and a list of all installation work carried out in the last 3 years, together with the specifications, drawings, certificates and other relevant documents relating to that work.

You are required to keep records for each installation to provide evidence that all necessary tests and checks have been carried out and that the appropriate certificates and reports have been issued to your customers, in accordance with the relevant technical standards.

Model certificates are available in most of the British Standards for the types of work covered by the ECA Membership Certification Scheme. Where a model certificate is not available, the Assessor will check that the certification and documentation you have issued adequately covers the work carried out.

SITE VISITS

As stated in the introduction, the sites to be visited on the day of the assessment will be selected and agreed during the opening meeting. To assist the selection process, please identify a number of possible sites in advance of the assessment, ideally located within 30 minutes drive of your main contracting office.

The Qualified Supervisor must accompany the Assessor on the site visits and should be prepared to demonstrate testing using your business's instruments. The Assessor will also ask to see all the relevant documentation and certification relating to the installation.

If access to completed work is not possible, please make prior arrangements for the Assessor to visit a selection of sites. The Assessor reserves the right to select and visit additional sites (which are chargeable) if necessary. Please note that an assessment cannot be carried out if the Assessor is unable to visit representative samples of your business's work.

At any point during the site visit(s), if dangerous practices are observed or where it is felt that the systems and practices followed may cause defective work, the assessment may be terminated and Assessor will recommend that a further Monitoring Assessment be carried out in either 3 or 6 months time. In extreme circumstances, the Assessor may recommend that the Technical Assessment Certificate is suspended or withdrawn.

CHECKLIST

To help you prepare for your assessment, please use the checklist below to ensure you have all the necessary information, documentation and other materials assembled and ready for the Assessor.

Please ensure that both the Principal Duty Holder and the Qualified Supervisor(s) are able to attend the opening meeting. The Qualified Supervisor(s) for the work(s) to be assessed must be present throughout the assessment, including the site visit(s).

CHECKLIST	TICK
An appropriate Principle Duty Holder has been appointed	
An appropriate Qualified Supervisor(s) has been nominated	
Evidence of the nominated Qualified Supervisor(s) qualifications, their competence and understanding of the role	
Evidence of management control methods and policies	
Sample of company documentation	
Certificates and schedules of insurance	
Health & Safety Policy Statement and where applicable, risk assessment procedures	
A sample of written estimates and/or contracts	
Complaint log or register	
Current editions of relevant National and Industry Standards, Statutory Legislation and guidance	
An adequate number of test instruments and test leads	
Evidence of method to maintain accuracy of test instruments	
If applicable, evidence of hired test instruments with calibration	
Procedures for isolation lock-off for live testing and for energising installations	
A representative sample of certificates, inspection reports and a list of all installation work carried out in the last 3 years	
A range of possible sites to assist the site visit selection process	
All the relevant documentation and certification relating to the selected sites	

APPENDIX

TECHNICAL REFERENCE DOCUMENTS

The technical reference documents listed in this appendix are the **minimum** documents required for the respective types of installation work undertaken by your business. The reference documents must be the most recent edition.

If these reference documents are not held for the type(s) of installation work undertaken by your business, you will receive a non-conformance on the assessment report and will be required to obtain these documents within 30 days of your assessment.

1. **Mandatory for all types of electrical and electronic work, and for all firms:**

- **BS 7671** Requirements for Electrical Installations. IEE Wiring Regulations. Seventeenth Edition as amended
- **HS (R) 25** Memorandum of Guidance on the Electricity at Work Regulations 1989

2. **Emergency Lighting**

- Technical reference documents as in (1) above, plus:
- **BS 5266-1** Emergency Lighting. Code of Practice for the Emergency Lighting in Premises
- **BS 5266-7** Lighting Applications – Emergency Lighting
- **BS 5266-8** Emergency Escape Lighting Systems

3. **Fire Alarm Systems in Dwellings**

- Technical reference documents as in (1) above, plus:
- **BS 5839-6** Fire Detection and Fire Alarm Systems for Buildings. Code of Practice for the Design, Installation and Maintenance of Fire Detection and Fire Alarm Systems in Dwellings

4. **Fire Alarm Systems in Buildings other than Dwellings**

- Technical reference documents as in (1) above, plus:
- **BS 5839-1** Fire Detection and Fire Alarm Systems for Buildings. Code of Practice for System Design, Installation, Commissioning and Maintenance
- **BS 5839-8** Fire Detection and Fire Alarm Systems for Buildings. Code of Practice for the Design, Installation, Commissioning and Maintenance of Voice Alarm Systems

5. **Security Systems**

- Technical reference documents as in (1) above, plus:
- **BS EN 50131-1** Alarm Systems. Intrusion and Hold up Systems
- **BS EN 50132-7** Alarm Systems. CCTV Surveillance Systems for use in Security Applications. Application Guidelines

6. **Process Control Systems**

- Technical reference documents as in (1) above, plus:
- **BS 6739** Code of Practice for Instrumentation in Process Control Systems: Installation Design and Practice
- **BS EN ISO 12100-1** Safety of Machinery – Basic Concepts, General Principles for Design Part 1: Basic Terminology, Methodology.
- **BS EN ISO 12100-2** Safety of Machinery – Basic Concepts, General Principles for Design Part 2: Technical Principles

7. **Telecommunication and Data Systems**

- Technical reference documents as in (1) above, plus:
- **BS 6701** Telecommunications Equipment and Telecommunications Cabling. Specification for Installation, Operation and Maintenance
- **BS EN 50173-1** Information Technology. Generic Cabling Systems. General Requirements
- **BS EN 50174-1** Information Technology. Cabling Installation. Installation Specification and Quality Assurance

8. **Hazardous Areas**

- Technical reference documents as in (1) above, plus:
- **BS EN 60079-14** Explosive Atmospheres. Electrical Installations Design, Selection and Erection



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