



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**Criteria for Issue of a Regulatory Licence to an Electrical
Contracting Licensed Regulatory Body**

CER/03/156

Criteria for Issue of a Regulatory Licence to an Electrical Contracting Licensed Regulatory Body

Background

Role of the CER in relation to regulation of Electrical Contractors

Following a review of the existing regulatory regime and the publication of the Report by the Interdepartmental/Agency Review Groups on Public Safety in July 2000, a number of shortcomings was identified in the existing system for regulating the electrical contracting industry in Ireland. Taking account of this situation, in 2001, the then Minister for Public Enterprise, Mary O' Rourke, requested the CER to advise her on the potential of a role for the Commission in the regulation of the electrical contracting industry.

Proposed New Approach

Further to this, in August 2002, the CER agreed a timetable for the implementation of a proposed new approach to the regulation of the electrical contracting industry with the Distribution System Operator (ESB - DSO), which is currently underway.

In this approach, the CER was keen to build on the strength of the existing bodies, in the current self-regulatory regime, while addressing the issues of statutory authority, clarification of roles and responsibilities and harmonisation of standards/procedures of the self-regulatory bodies.

The DSO will be responsible for the day-to-day regulation of the industry, in view of the ESB's pivotal role and ongoing working relationship with the various bodies, contractors and associations involved in interpreting/meeting the requirements of the Electrical Technical Council of Ireland (ETCI) wiring rules in a nationally consistent manner. The DSO currently works with self-regulatory bodies, to ensure that the requirements for submission of a valid completion certificate are met and to proactively adjust new developments & technology.

Under the proposed new approach, the CER will have overall responsibility for supervising regulatory bodies for the electrical contracting industry. The CER will have responsibility for ensuring that public safety issues arising in the electrical contracting industry will be subject to a co-ordinated regulatory approach.

The DSO, in consultation with the self-regulatory bodies has recently developed revised criteria for licensing regulatory bodies. These criteria attempt to address any current shortcomings and to move towards the convergence of the standards and the procedures operated between self-regulatory bodies. The proposed approach to regulation will be introduced on a phased basis until the end of 2003. Full implementation of the proposed approach is envisaged by the beginning of 2004 when new legislation will provide statutory backing for the proposed regime.

Criteria for Issue of a Regulatory Licence to an Electrical Contracting Licensed Regulatory Body

Foreword

I.S.EN 45011 is a recognised standard for product certification bodies while I.S. EN 45012 is a recognised standard for quality system certification bodies

This document, as approved by the Commission for Energy Regulation, uses the requirements of I.S.EN 45011 and I.S. EN 45012 as a basis for determining the general criteria applicable to applicants seeking a Regulatory Licence as an Electrical Contracting Licensed Regulatory Body from the Commission for Energy Regulation (CER).

These general criteria have been amplified to address the specific electrical contracting industry requirements and particularly to try to ensure that the industry is operated in a manner, which meets the highest possible standards of public safety.

The objectives of these criteria are to ensure that installations on the customer side of the meter are safe, installed, tested, certified and maintained to the correct standards. Such installations should only be completed by competent and qualified contractors

These criteria have been drafted following the public consultation process on the draft criteria published by the CER and subsequent comments received from a number of organisations and individuals including AECl, ECSSA, ECA, ETCI and RECI.

Any queries on interpretation of the general criteria should be referred to the Commission for Energy Regulation.

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1. Scope

- 1.1 When electrical installation work is carried out in any premises responsibility for that installation resides with the contractor who carries out the work. It is of importance, from a public safety viewpoint, that such a contractor is technically competent and that either:
- he or she is a member of a Licensed Regulatory Body which has set Registration requirements to ensure competence, or
 - the Licensed Regulatory Body has itself inspected the installation.
- 1.2 This document sets out the criteria to be met for a body to receive a licence from the CER to regulate registered members in the industry.

2. References

- 2.1. I.S. EN 45011 and I.S. EN 45012
- 2.2. Report to the Minister for Public Enterprise on a Role for the CER in the Regulation of the Electrical Contracting Industry – March 2002
- 2.3. Draft DSO Criteria - January 2002
- 2.4. CER Comments on DSO Draft Criteria June 2002.
- 2.5. Comments received by the CER following publication by the CER of Draft Criteria (for public consultation) on 5th November 2002.

3. Definitions and Abbreviations

- 3.1. For the purposes of this document the following definitions apply:
- 3.1.1. **Competent Person:** - a person possessing the necessary technical knowledge, skills and experience relevant to the nature of the electrical work undertaken and who has the necessary electrical qualifications that are recognised by FAS (See also appendix 3).
- [Note: existing registered members of a self-regulatory body, who have otherwise satisfied the self-regulatory body of their competence, though without a formal qualification, may continue to hold membership of the Licensed Regulatory Body for as long as the body considers appropriate.]
- 3.1.2. **Principle Duty Holder:** - the person appointed by the enterprise to have responsibility for the maintenance of the overall standard and quality of the electrical installation work.

- 3.1.3. **Qualified Supervisor:** - a competent person with specific responsibility on a day-to-day basis for the safety, technical standard and quality of electrical installation work.
- 3.1.4. **Registered Electrical Installation Enterprise / Registered Electrical Contractor:** - an Electro-technical enterprise undertaking electrical installation work (see Appendix 1). An Electrical Installation Enterprise may be a competent:
- a) sole trader,
 - b) partnership,
 - c) limited liability company,
 - d) public limited company,
 - e) public authority,
 - f) or other enterprise carrying out electrical installation, maintenance, testing or inspection work.
- 3.1.5. **Electrical Installation Work:-** the design, construction, verification and/or certification of electrical installations
- 3.1.6. **Licensed Regulatory Body:** - a body licensed by the Commission for Energy Regulation to register electrical contractors and to operate in accordance with the requirements specified in these criteria.

3.2. For the purposes of this document the following abbreviations apply:

CER:	Commission for Energy Regulation
DSO:	Distribution System Operator
ETCI:	Electro-Technical Council of Ireland
IEC:	International Electro-Technical Commission
ISO:	International Standards Organisation
MPRN:	Meter Point Reference Number
NSAI:	National Standards Authority of Ireland
Wiring Rules:	ETCI's National Rules for Electrical Installations (ET 101)

4. Licensed Regulatory Body

4.1. General provisions

- 4.1.1. The policies and procedures under which the Licensed Regulatory Body operates and their administration shall be non-discriminatory and shall be administered in a non-discriminatory manner. Procedures shall not be used to impede or inhibit access by applicants for Registration or for certification of installations, other than as provided for in the criteria for registration or in ETCI Wiring Rules or other such Rules as approved by ETCI.
- 4.1.2. The Licensed Regulatory Body shall make its services accessible to all registered members and applicants whose activities fall within its declared field of operation. There shall not be undue financial or other conditions other than as provided for in the criteria for registration. Access shall not be conditional upon the size of the contractor.
- 4.1.3. The criteria against which Registration is evaluated shall be those outlined in the Rules for Registration. These shall be formulated by relevant and impartial committees or persons possessing the necessary technical competence, and published by the Licensed Regulatory Body.
- 4.1.4. The criteria against which installations are evaluated for certification shall be those outlined in ETCI Wiring Rules or other such Rules as approved by ETCI. If explanation is required as to the application of these Rules for a specific certification system, it shall be formulated by relevant ETCI committees and published by the Licensed Regulatory Body.
- 4.1.5. The Licensed Regulatory Body shall confine its requirements, evaluation and decision on Registration or certification to those matters specifically related to the scope of the Registration or certification being considered.
- 4.1.6. Registered members of a Licensed Regulatory Body who fail to comply with or breach the rules for membership shall be subject to disciplinary procedure as laid down by the Licensed Regulatory Body.

[Note: DSO will chair meetings of existing Regulatory Bodies during the 'phase in' period to agree disciplinary procedures, with the CER adjudicating on unresolved issues]

4.2. Organisation

- 4.2.1. The constitution or memorandum of association of the Licensed Regulatory Body must include a commitment *'to promote and ensure an acceptable standard of workmanship and technical competence within the electrical contracting industry'*

4.2.2. The structure of the Licensed Regulatory Body shall be such as to foster confidence in certifications issued by its members. In particular, the Licensed Regulatory Body shall:

- i) be impartial;
- ii) be responsible for decisions relating to granting, maintaining, extending, suspending and withdrawing of Registration,
- iii) be responsible for decisions relating to its granting of right of self-certification,
- iv) identify the management (committee, group or person) which shall have overall responsibility for all of the following:
 - a) performance of testing, inspection, evaluation and certification as defined in these criteria,
 - b) formulation of policy matters relating to the operation of the Licensed Regulatory Body,
 - c) decisions on registration,
 - d) decisions on certification,
 - e) supervision of the implementation of its policies,
 - f) supervision of the finances of the body,
 - g) delegation of authority to committees or individuals as required to undertake defined activities on its behalf,
 - h) technical basis for granting right of self-certification.
- v) have documents which demonstrate it is a properly constituted legal entity, i.e. documents to show it is a company established under the relevant Company's Act [or a body established under the relevant Friendly Societies Act];
- vi) have a documented structure which safeguards impartiality including provisions to ensure the impartiality of the operations of the Licensed Regulatory Body; this structure shall enable the participation of all parties significantly concerned in the development of policies and principles regarding the content and functioning of the Registration and certification systems; In particular the DSO and the Electro-Technical Council of Ireland shall each be entitled to nominate a director to the board of the Licensed Regulatory Body. However serving Board members shall not be involved in any auditing activities by bodies associated with the electrical contracting industry.

- vii) have rights and responsibilities relevant to its registration and certification activities;
- viii) have adequate arrangements to cover liabilities arising from its operations and/or activities;
- ix) have the financial stability and resources required for the operation of a Registration and certification system
- x) employ a sufficient number of personnel having the necessary education, training, technical knowledge and experience for performing registration and certification functions relating to the type, range and volume of work performed, under a responsible senior executive. There must be at least one technically competent person employed. This person must be conversant with the ETCI Wiring Rules or other such Rules as approved by ETCI and must be able to demonstrate competence in their interpretation and application.
- xi) have a quality system giving confidence in its ability to operate a registration and certification system
- xii) have formal rules and structures for the appointment and operation of any committees, which are involved in the registration and certification process; such committees shall be free from any commercial, financial and other pressures that might influence decisions. A structure where members are chosen to provide a balance of interests where no single interest predominates will be deemed to satisfy this provision.
- xiii) ensure that activities of related bodies do not affect the confidentiality, objectivity and impartiality of its registrations and certifications, and it shall not:
 - a) engage in electrical contracting work,
 - b) operate as a trade association and must be solely involved in the regulation of electrical contracting,
 - c) provide any other products or services, which could compromise the confidentiality, objectivity or impartiality of its registration or certification process and decisions.
- xiv) have policies and procedures for the resolution of complaints, appeals and disputes received from registered members or other parties about the handling of registration, certification or any other related matters.

4.3. **Operations.**

- 4.3.1. The Licensed Regulatory Body shall take all steps necessary to ensure its members or itself (where applicable) evaluate conformance of installations with ETCI Wiring Rules or other such Rules as approved by ETCI according to the requirements of the certification process (see section 15). The Licensed Regulatory Body shall specify the relevant documents or parts thereof and any other requirements such as sampling, testing and inspection requirements, which form the basis for the Registration and certification process.

4.4. **Subcontracting**

- 4.4.1. The Licensed Regulatory Body shall not subcontract work related to Registration or certification (e.g. testing or inspection) to an external body or person.

[Note: This does not preclude the Licensed Regulatory Body from employing its inspectors on a contract basis]

4.5. **Quality system**

- 4.5.1. The management of the Licensed Regulatory Body having executive responsibility for quality shall define and document its policy for quality and its objectives for, and commitment to, quality.
- 4.5.2. The management shall ensure that this policy is understood, implemented and maintained at all levels of the organisation.
- 4.5.3. The Licensed Regulatory Body shall operate an effective quality system in accordance with the relevant elements of this document and appropriate for the type, range and volume of work performed. This quality system shall be documented and the documentation shall be available for use by the Licensed Regulatory Body. The Licensed Regulatory Body shall ensure effective implementation of the documented quality system, procedures and instructions.
- 4.5.4. The Licensed Regulatory Body shall designate a person having direct access to its highest executive level who, irrespective of other responsibilities, shall have defined authority for:
- a) ensuring that a quality system is established, implemented and maintained in accordance with this document, and
 - b) reporting on the performance of the quality system to the body's management for review and as a basis for improvement of the quality system.

4.5.5. The quality system shall be documented in a quality manual and associated quality procedures, and the manual shall contain or refer to at least the following:

- a) a quality policy statement,
- b) a brief description of the legal status of the Licensed Regulatory Body, including the names of its owners and, if different, names of the persons who control it,
- c) the names, qualifications, experience and terms of reference of the senior executive and other Registration and certification personnel, both internal and external,
- d) an organisation chart showing lines of authority, responsibility and allocation of functions stemming from the senior executive,
- e) a description of the organisation of the Licensed Regulatory Body, including details of the management (committee, group or person) identified in 4.2.2.d, its constitution, terms of reference and rules of procedure,
- f) the policy and procedures for conducting management reviews,
- g) administrative procedures including document control,
- h) the operational and functional duties and services pertaining to quality, so that the extent and limits of each person's responsibility are known to all concerned,
- i) the procedure for the recruitment, selection and training of Licensed Regulatory Body personnel and monitoring of their performance,
- j) the procedure for the training of registered members and monitoring of their performance,
- k) its procedures for handling non-conformities and for assuring the effectiveness of any corrective and preventive actions taken,
- l) the procedures for evaluating Registration and certification and implementing the Registration and certification processes, including:
 - 1) the conditions for issue, retention and withdrawal of Registration and certification documents,
 - 2) controls over the use and application of documents employed in the registration of members and certification of

installations.

- m) the policy and procedure for dealing with appeals, complaints and disputes.

(Note: I.S. ISO 10011-1 provides guidelines on appropriate procedures for conducting internal audits.)

4.6. **Conditions and procedures for granting, maintaining, extending, suspending and withdrawing of Registration and granting of right of self-certification**

4.6.1. The Licensed Regulatory Body shall:

- a) specify the conditions for granting, maintaining and extending registration, and
- b) the conditions under which Registration may be suspended or withdrawn, and
- c) granting of right of self-certification.

4.6.2. The Licensed Regulatory Body shall have procedures to:

- a) grant, maintain, withdraw and, if applicable, suspend registration and grant right of self-certification,
- b) extend registration,
- c) re-evaluate registration, in the event of changes significantly affecting the requirements for Registration, or changes in the ownership, structure or management of the contractor, if relevant, or in the case of any other information indicating that the contractor may no longer comply with the requirements of the Registration.
- d) Disciplinary procedures shall be agreed between the Licensed Regulatory Bodies. The Licensed Regulatory Body shall immediately inform the other Licensed Regulatory Bodies at the commencement of its disciplinary procedures against any registered contractor. (see also 4.1.6, 9.1.6, 15.9.1.c and 16.2)

4.7. **Internal audits and management reviews**

4.7.1. The Licensed Regulatory Body shall conduct periodic internal audits covering all procedures in a planned and systematic manner, to verify that the quality system is implemented and is effective.

The Licensed Regulatory Body shall ensure that:

- a) personnel responsible for the area audited are informed of the outcome of the audit,
- b) corrective action is taken in a timely and appropriate manner, and
- c) the results of the audit are documented.

4.7.2. The Licensed Regulatory Body's management with executive responsibility shall review its quality system at defined intervals, which are sufficiently short to ensure its continuing suitability and effectiveness in satisfying the requirements of this document and the stated quality policy and objectives. Records of such reviews shall be maintained.

4.8. **Documentation**

4.8.1. The Licensed Regulatory Body shall provide (through publications, electronic media or other means), update at regular intervals, and make available on request, the following:

- a) information about the authority under which the Licensed Regulatory Body operates,
- b) a documented statement of its Registration system, including its rules and procedures for granting and extending Registration,
- c) a documented statement of its certification system, including its rules and procedures for granting certification,
- d) information about the evaluation procedures and registration process related to the Registration system,
- e) information about the evaluation procedures and certification process related to the certification system,
- f) a description of the means by which the organisation obtains financial support and general information on the fees charged to registered members for Registration or certification services,
- g) a description of the rights and duties of registered members including requirements, restrictions or limitations on the use of the Licensed Regulatory Body's logo and on the ways of referring to the Registration granted,
- h) information about procedures for handling complaints, appeals and disputes,

i) a directory of registered members.

4.8.2. The Licensed Regulatory Body shall establish and maintain procedures to control all documents and data that relate to its Registration and certification functions. These documents shall be reviewed and approved for adequacy by the CER or the CER's duly appointed agent prior to issuing any documents following initial development or any subsequent amendment or change being made. A listing of all appropriate documents with the respective issue and/or amendment status identified shall be maintained. The distribution of all such documents shall be controlled to ensure that the appropriate documentation is made available to personnel of the Licensed Regulatory Body or registered members when they are required to perform any function relating to the Licensed Regulatory Body's activities.

4.8.3. The Licensed Regulatory Body shall publish a list of its members annually and shall publish a newsletter at least quarterly.

4.9. **Records**

4.9.1. The Licensed Regulatory Body shall maintain a record system to suit its particular circumstances and to comply with existing regulations. The records shall demonstrate that the registration and certification procedures have been effectively fulfilled, particularly with respect to application forms, evaluation reports, auditing and inspection activities and other documents relating to granting, maintaining, extending, suspending or withdrawing registration or withdrawing right of self-certification. The records shall be identified, managed and disposed of in such a way as to ensure the integrity of the process and the confidentiality of the information. The records shall be kept for a minimum of 6 years or more as required by law.

4.9.2. The Licensed Regulatory Body shall have a policy and procedures for retaining records for a period consistent with its contractual, legal or other obligations. The Licensed Regulatory Body shall have a policy and procedures concerning access to these records consistent with 4.10.1.

(Note: The question of the length of time for retention of records requires specific attention in the light of legal circumstances and recognition arrangements. Electronic storage of documents is acceptable where statutory law allows.)

4.10. **Confidentiality**

4.10.1. The Licensed Regulatory Body shall have adequate arrangements consistent with applicable laws to safeguard confidentiality of the information obtained in the course of its Registration and certification

activities at all levels of its organisation, including committees and external bodies or individuals acting on its behalf.

- 4.10.2. Except as required in this document (see 15.9.1.c) or by law, information gained in the course of Registration and certification activities about a particular contractor shall not be disclosed to a third-party without the written consent of the contractor. Where the law requires information to be disclosed to a third-party, the contractor shall be informed of the information provided as permitted by the law.

5. Licensed Regulatory Body personnel

5.1. General

- 5.1.1. The personnel of the Licensed Regulatory Body shall be competent for the functions they perform, including making required technical judgements, framing policies and implementing them.
- 5.1.2. Clearly documented instructions shall be available to the personnel describing their duties and responsibilities. These instructions shall be maintained up to date.

5.2. Qualification criteria

- 5.2.1. In order to ensure that evaluation and certification are carried out effectively and uniformly, the minimum relevant criteria for the competence of personnel shall be defined by the Licensed Regulatory Body.
- 5.2.2. The Licensed Regulatory Body shall require its personnel involved in the Registration and certification process to sign a contract or other document by which they commit themselves:
 - a) to comply with the rules defined by the Licensed Regulatory Body, including those relating to confidentiality and independence from commercial and other interests, and
 - b) to declare any prior and/or present association on their own part with a contractor to the evaluation, registration or certification of which they are to be assigned.

The Licensed Regulatory Body shall ensure that, and document how, any contracted personnel for their own part, and on the part of their employer if any, satisfy all the requirements for personnel outlined in this document.

- 5.2.3. Information on the relevant qualifications, training and experience of each member of the personnel involved in the Registration and certification process shall be maintained by the Licensed Regulatory Body. Records of training and experience shall be kept up to date, in

particular the following:

- a) name and address,
- b) organisation affiliation and position held,
- c) educational qualification and professional status,
- d) experience and training in each field of the Licensed Regulatory Body's competence,
- e) date of most recent updating of records,
- f) performance appraisal.

6. Changes in Registration and Certification requirements

- 6.1. The Licensed Regulatory Body shall give due notice of any changes intended to be made in its requirements for registration or certification. It shall take account of views expressed by interested parties before deciding on the precise form and effective date of the changes. Following decision on, and publication of, the changed requirements, it shall verify that each registered contractor makes any necessary adjustments within such time as, in the opinion of the Licensed Regulatory Body, is reasonable.
- 6.2. Wiring Rules or other such Rules as approved by ETCI and statutory regulations may change. The Licensed Regulatory Body shall have in place a system for training its members to ensure that they are kept up to date with installation and testing procedures and with changes in the Wiring Rules or other such Rules as approved by ETCI and statutory regulations (that relate to electrical installations and electrical installation work activities). Training shall be provided whenever changes are made to requirements affecting electrical installation work. Details of such training systems and a record of attendance of members shall be retained and shall be made available to the CER or its agents on request.

7. Appeals, complaints and disputes

- 7.1. Appeals, complaints and disputes brought before the Licensed Regulatory Body by registered members or other parties shall be subject to the procedures of the Licensed Regulatory Body.
- 7.2. Each Licensed Regulatory Body shall:
 - a) keep a record of all appeals, complaints and disputes and remedial

- actions relative to registration or certification,
- b) take appropriate subsequent action,
- c) document the action taken and its effectiveness.

8. Application for Registration

8.1. Information on the procedure

8.1.1. The Licensed Regulatory Body shall provide to applicants an up-to-date detailed description of the evaluation and registration procedures and the documents containing the requirements for registration, the applicants' rights and duties (including fees to be paid by applicants).

8.1.2. The Licensed Regulatory Body shall require that an applicant:

- a) always complies with the relevant provisions of the registration programme,
- b) makes all necessary arrangements for the conduct of the technical evaluation, including provision for examining documentation and access to electrical work, records and personnel for the purposes of evaluation (e.g. testing, inspection, assessment, reassessment) and resolution of complaints,
- c) shall be competent in electrical installation work (see appendix 1) for which registration has been granted,
- d) does not use registration in such a manner as to bring the Licensed Regulatory Body into disrepute and does not make any statement regarding registration that the Licensed Regulatory Body may consider misleading or unauthorised,
- e) upon suspension or withdrawal of registration, discontinues the use of all advertising matter that contains any reference thereto and returns any registration documents as required by the Licensed Regulatory Body (see section 15.9),
- f) uses registration only to indicate that installations are certified as being in conformity with ETCI Wiring Rules and other such rules as approved by ETCI,

[Note: The completion certificate shall only be issued for installations conforming to ETCI Wiring Rules and other such rules as approved by ETCI. Any exceptions (i.e. installations not to ETCI Wiring Rules) to this shall have formal prior approval before installation from ETCI acting on behalf of the CER].

g) endeavours to ensure that no certificate or report nor any part thereof is used in a misleading manner,

h) in making reference to registration in communication media such as documents, brochures or advertising, complies with the requirements of the Licensed Regulatory Body.

8.1.3. The Licensed Regulatory Body shall provide any explanation needed to the applicant regarding scope of registration and class of membership (see appendix 3).

8.1.4. If requested, additional application information shall be provided to the applicant.

8.2. **The application**

8.2.1. The Licensed Regulatory Body shall require completion of an official application form, signed by the applicant or a duly authorised representative of the applicant, in which or attached to which are the following:

a) the scope of the desired registration,

b) a statement that the applicant agrees to comply with the requirements for registration and to supply any information needed for evaluation.

8.2.2. The applicant, as a minimum, shall provide the following information:

a) corporate entity, name, address and legal status

b) required registration

9. **Rules for Registered Membership of a Licensed Electrical Contracting Regulatory Body**

9.1. **Requirements relating to Competency**

9.1.1. **Electrical Installation Work:** The Registered Electrical Contractor shall himself/herself be a Competent Person as defined in clause 3.1.1 or has Competent Persons to carry out electrical installation work. (see Appendix 1.)

9.1.2. **Technical Reference Documents:** The Registered Electrical Contractor shall have current editions of Rules [e.g. ETCI's National Rules for Electrical Installations ET 101], Regulations [e.g. SI No. 44 of 1993, Part VIII Electricity] and technical reference documents appropriate to the

range, scale and scope of work undertaken.

- 9.1.3. **Test Instruments:** The Registered Electrical Contractor shall have an adequate number of serviceable test instruments and test leads appropriate to the range, scale, geographical spread and category of electrical work undertaken. All test instruments held shall be calibrated in accordance with the manufacturer's recommendations. In the absence of such recommendations, the instruments shall be checked for accuracy annually. Records of all calibrations/annual checks of test instruments shall be maintained. Appendix 2 details the minimum requirements with regard to the holding of test instruments.
- 9.1.4. **Certification of Electrical Installation Work:** The Registered Electrical Contractor shall issue appropriate valid certificates in accordance with the relevant Rules/Regulations, for all electrical installation work carried out. For record and assessment purposes the Registered Electrical Contractor shall, at any time, have available certification issued for a minimum of six years, or as otherwise statutorily required, whichever is the greater. Each Registered Electrical Contractor shall have a formal list of competent qualified persons who are authorised to sign completion certificates. (See also 15.4.1)
- 9.1.5. Registered electrical contractors to whom completion certificates have been issued by a Licensed Regulatory Body shall not certify electrical work that has not been constructed by themselves. However they may issue completion certificates for previously connected installations (e.g. for report purposes or re-connection of electrical installation by the DSO after a disconnection period of more than six months).
- 9.1.6. The Registered Electrical Contractor shall not be a member of more than one Licensed Regulatory Body at any point in time, except where the Licensed Regulatory Bodies formally agree. A Licensed Regulatory Body shall not accept for membership any contractor who is subject to disciplinary procedures by another Licensed Regulatory Body. A registered electrical contractor who wishes to transfer to another Licensed Regulatory Body shall get clearance from his/her present Licensed Regulatory Body. Such clearance shall not be unreasonably withheld. [See also 4.6.2.d, 15.9.1.c and 16.2]
- 9.1.7. **Personnel**
- 9.1.7.1. The Registered Electrical Contractor, who is not a sole trader, shall appoint a Principle Duty Holder and nominate at least one Qualified Supervisor for each work location as appropriate to the range, scale, geographical spread and category of electrical work undertaken. A Principle Duty Holder may also be a Qualified Supervisor. A formal list of these appointments shall be held by the Registered Electrical Contractor.

- 9.1.7.2. A Registered Electrical Contractor who is a sole trader, and who has the necessary competencies, shall be regarded as fulfilling the role of the Qualified Supervisor for him/herself.
- 9.1.7.3. The Registered Electrical Contractor shall employ only competent persons to carry out electrical installation work (See appendix 3).
- 9.1.7.4. The Principle Duty Holder shall ensure that appropriate information for certification is issued
- 9.1.7.5. The Principle Duty Holder shall have an understanding of, and be responsible for, the safety and other statutory requirements relating to the electrical installation work being undertaken by the enterprise.
- 9.1.7.6. The Principle Duty Holder shall ensure that competent qualified persons are assigned to cover all electrical installation works.
- 9.1.7.7. The Registered Electrical Contractor shall be, or directly employ, a Qualified Supervisor on a full time basis. The Qualified Supervisor shall have responsibility, on a day-to-day basis, for the safety, quality and technical standard of the electrical work. The Qualified Supervisor (or authorised certification person, see 9.1.4) shall ensure that the results of the verification process are accurately recorded on the forms of certification.
- 9.1.7.8. A Qualified Supervisor shall satisfy the following knowledge, training and experience requirements for the range of electrical installation work for which supervisory responsibility has been allocated:
- a) Has the technical qualifications as would be necessary for a registered full member and has at least two years post qualification experience.
 - b) To be conversant with the statutory regulations [e.g. S.I. No 44 of 1993, Part VIII Electricity],
 - c) To understand the relevant Rules [e.g. ETCI's National Rules for Electrical Installations ET 101] for the range of electrical installation work undertaken,
 - d) To be well versed in the inspection, testing, certification and reporting procedures for the range of electrical installation work undertaken, and have successfully completed a recognised verification and certification course.
- 9.1.8. Insurance: The Registered Electrical Contractor shall hold employers (if applicable) and public/products liability insurance. The Licensed Regulatory Body shall specify the amount of cover that shall be provided.

10. Preparation for evaluation

- 10.1 Before proceeding with the evaluation, the Licensed Regulatory Body shall conduct, and maintain records of, a review of the application for registration to ensure that:
- a) the requirements for registration are clearly defined, documented and understood,
 - c) any difference in understanding between the Licensed Regulatory Body and the applicant is resolved, and
 - c) the Licensed Regulatory Body has the capability to perform the registration service with respect to the scope of the registration sought and, if applicable, the location of the applicant's operations.
- 10.2 The Licensed Regulatory Body shall prepare a plan for its evaluation activities to allow for the necessary arrangements to be managed.
- 10.3 The Licensed Regulatory Body shall assign appropriately qualified personnel to perform the tasks for the specific evaluation. Personnel shall not be assigned if they have been involved in, or been employed by a body involved in, the electrical contracting business within a time period (minimum 6 months) which could conflict with impartiality.
- 10.4 To ensure that a comprehensive and correct evaluation is carried out, the personnel involved shall be provided with the appropriate working documents

11. Evaluation

- 11.1. The Licensed Regulatory Body shall evaluate at least two examples of electrical installation work performed by the applicant.

12. Evaluation report

- 12.1. The Licensed Regulatory Body shall adopt reporting procedures that suit its needs but, as a minimum, these procedures shall ensure that:
- a) Personnel appointed to evaluate the conformance of the electrical installations shall provide the Licensed Regulatory Body with a report of findings as to the conformity with all the registration requirements,
 - b) a full report on the outcome of the evaluation is promptly brought to the applicant's notice by the Licensed Regulatory

Body, identifying any non-conformity that have to be discharged in order to comply with all of the registration requirements and the extent of further evaluation or testing required. If the applicant can show that remedial action has been taken to meet all the requirements within a specified time limit, the Licensed Regulatory Body shall repeat only the relevant parts of the initial procedure.

13. Decision on registration

- 13.1. The decision as to whether or not to grant registration to an applicant shall be taken by the Licensed Regulatory Body on the basis of the information gathered during the evaluation process and any other relevant information.
- 13.2. The Licensed Regulatory Body shall not delegate authority for granting, maintaining, extending, suspending or withdrawing registration to an outside person or body.
- 13.3. The Licensed Regulatory Body shall provide to each applicant granted registration, formal registration documents such as a letter or a certificate signed by an officer who has been assigned such responsibility. These formal registration documents shall permit identification of the following:
 - a) the name and address of the applicant, who is the subject of registration,
 - b) the membership class granted, (e.g. provisional, full, associate),
 - c) the effective date of registration, and the term of the registration if applicable.
- 13.4. In response to an application for amendment to the registration already granted, the Licensed Regulatory Body shall decide what, if any, evaluation procedure is appropriate in order to determine whether or not the amendment should be made and shall act accordingly.

14. Inspection and Auditing of Registered Members

14.1. General

- 14.1.1. The Licensed Regulatory Body shall have documented procedures to enable inspection and auditing of Registered members to be carried out in accordance with the criteria applicable.
- 14.1.2. The Licensed Regulatory Body shall require the registered member to inform it about any of the changes cited in 4.6.2 c. The Licensed

Regulatory Body shall determine whether the announced changes require further investigations. If such is the case, the Registered member shall not be allowed to certify electrical installations until the Licensed Regulatory Body has notified him/her accordingly.

- 14.1.3. The Licensed Regulatory Body shall document its inspection and auditing activities.
- 14.1.4. The Licensed Regulatory Body shall formally confirm whether registration is being maintained, suspended, withdrawn or otherwise altered following inspections or audits.
- 14.1.5. All members (e.g. provisional, affiliate, associate, full) of a Licensed Regulatory Body will be subject to audit and inspection by inspectors working for the Licensed Regulatory Body.
- 14.1.6. Licensed Regulatory Bodies will be subject to audit (and their members may be) and inspection by external auditors working on behalf of the CER.

14.2. **Inspection Regime [Licensed Regulatory Body]**

- 14.2.1. The Licensed Regulatory Body shall have its own auditing and inspection regime. It shall employ a sufficient number of inspectors to cover the requirements of the inspection regime for the registered contractors. In any event it must employ at least one full time inspector.
- 14.2.2. The Licensed Regulatory Body must provide a nationwide inspection and certification service for non-registered contractors:
 - a) who are properly qualified (see also 3.1.1, i.e. hold a National Craft Certificate or equivalent, as recognised by FÁS), and
 - b) who shall hold employers (if applicable) and public/products liability insurance that includes indemnity for the Licensed Regulatory Body. The amount of cover provided shall be specified by the Licensed Regulatory Body. The cost to the contractor must appropriately reflect the cost of providing such a service.
- 14.2.3. The Licensed Regulatory Body shall carry out a minimum of one inspection per annum of the contractor's work. A minimum of two inspections in the first six months shall be carried out for new members. Additional unannounced inspections shall be carried out as appropriate.
- 14.2.4. The Licensed Regulatory Body shall, as a minimum, carry out inspections of the first three electrical installations completed by

provisional members (see Appendix 3), and such other inspections as are necessary for assessment and transfer to full membership.

- 14.2.5. Inspectors working for the Licensed Regulatory Body cannot themselves be currently engaged in any installation activity as, or for, an electrical contractor.
- 14.2.6. The Licensed Regulatory Body shall have a system in place for vetting returned completion certificates. Records of problems highlighted and action taken shall be kept.
- 14.2.7. The Licensed Regulatory Body shall verify that post connection tests have been carried out by both registered and non-registered contractors.

[Note: A copy of the completion certificate that contains the results of post connection tests should have been sent to the licensed regulatory body by the registered contractor. The non-registered contractor and the licensed regulatory body's inspector shall both sign the completion certificate that contains post connection tests and the inspector shall forward a copy to the licensed regulatory body]

- 14.2.8. The Licensed Regulatory Body shall produce an annual “ audits and inspections” report. This shall include the number of inspections, the frequency and an analysis of the problems found and follow up actions taken.

14.3. **Inspection of Registered Electrical Contractors.**

- 14.3.1. Every electrical contractor shall permit audit and inspection at any reasonable time. Continuity of registration is dependent on successful audit and inspection. As a minimum the following shall be audited/inspected:

- a) All Records [Records for building / construction activities must be kept for six years.],
- b) Qualifications and Training Records of electricians and managers,
- c) Tools and equipment including test equipment, [see Appendix 2],
- d) Certification records of test equipment,
- e) Insurance certificates,
- f) Copies of issued certificates,

- g) Test record sheets,
- h) At least one installation that has been completed in the previous twelve months or electrical work in progress or carried out. The inspection shall be sufficient to establish that the installation complies with the Wiring Rules,

14.4. Inspection Regime CER

14.4.1. Licensed Regulatory Bodies.

- a) Licensed Regulatory Bodies and their members must be open to audit and inspection by external auditors working on behalf of the CER.
- b) The Licensed Regulatory Body must make all records of audits / inspections carried out by its inspectors available for audit.
- c) The Licensed Regulatory Body must allow access to all records of audits on returned completion certificates; records of problems found and follow up actions taken.
- d) The Licensed Regulatory Body must allow access to all records of audits on the carrying out of post connection tests by both registered and non-registered contractors; records of problems found and follow up actions taken.
- e) The Licensed Regulatory Body must allow access to all disciplinary records.

14.4.2. Registered Electrical Contractors.

- a) Registered Electrical Contractors are subject to the same audit requirements by the CER as those carried out by the Licensed Regulatory Body's own inspectors (See 14.3).
- b) Inspectors working on behalf of CER may carry out inspections on work in progress.

15. The Certification Process for Electrical Installations

15.1. Introduction

15.1.1. Certification of an electrical installation is a means of providing assurance to the customer that the certified installation complies with specified standards and other normative documents (e.g. The relevant rules of, or recognised by, the Electro-technical Council of Ireland, and

the statutory laws (e.g. SI 44 of 1993 Part VIII)).

15.2. **Mandatory Certification**

15.2.1. It is a requirement of the DSO that a test certificate recognised by ETCI is provided prior to the connection of electrical installations in the following circumstances:

- a) All new installations/re-wires requiring connection/reconnection to the DSO network,
- b) All alterations to existing installations involving changes to the wiring between the DSO connection point/meter and the customer's main distribution board,
- c) All electrical installations where the DSO has disconnected supply with the customer's consent for a period greater than six months,
- d) As otherwise required by the General Conditions of Connection as amended and approved by the CER from time to time.

15.2.2. All new electrical installations and alterations/extensions to existing installations shall be verified and certified as complying with the relevant ETCI Wiring Rules or other such Rules as approved by ETCI. This declaration shall be in the form of a completion certificate recognised by the ETCI and issued by the registered electrical contractor who constructed and/or tested the electrical installation (or alterations or extensions to an existing installation) in question.

15.2.3. Where an electrical installation contains a sub-system provided by another installer/contractor, a sub-system completion certificate shall be issued by an installer/contractor in accordance with the relevant ETCI Wiring Rules or other such Rules as approved by ETCI. All such sub-systems shall be covered by sub-system completion certificates

15.2.4. Electrical sub-systems that are not specifically covered by the ETCI Wiring Rules (e.g. refrigeration and air-conditioning systems) shall have a sub-system completion certificate issued by a registered specialist contractor (see Appendix 3) so that such systems can be connected to electrical installations covered by the ETCI Wiring Rules or such other Rules recognised by ETCI.

15.3. **Who can issue a certificate?**

15.3.1. Only those contractors, who are registered members of a Licensed Regulatory Body, can issue a certificate. These certificates may only be used by the contractor to whom they are issued for work or tests carried out by that contractor, except in exceptional circumstances where explicit written approval is given by the Licensed Regulatory Body.

[Note: In the case of a non-registered competent person wiring his/her own house, the Licensed Regulatory Body may, subject to its own specified requirements, provide a blank certificate to enable such a person to issue a completion certificate]

15.3.2. In the event that the contractor does not have self-certification rights, the certificate is counter-signed by an inspector from a Licensed Regulatory Body.

15.3.3. The Licensed Regulatory Body shall provide a nation-wide inspection and certification service to non-registered contractors who are properly qualified and insured to indemnify the licensed regulatory body, at a fee, which appropriately reflects the cost of providing the service. (See also 14.2.2.)

15.3.4. This service shall ensure that both the pre-connection and post connection tests required by ETCI are completed as a part of this service.

15.4. **Competency to certify**

15.4.1. All persons approved for certification of electrical installations must:

a) be registered members of a Licensed Regulatory Body (see also Appendix 3),

[Note: Competent qualified persons, who also satisfy requirements (c) and (d), who are working for a Registered Electrical Contractor and who are on his/her formal list of authorised persons may sign completion certificates (see also 9.1.4)]

b) be competent, as defined in clause 3.1.1 (See also Appendix 3),

c) be conversant with current wiring rules and statutory regulations,

d) have completed a recognised verification and certification course,

15.5. **Certificate Types**

15.5.1. There are a variety of ETCI certificates (including sub-system completion certificates) available to be used for different purposes by the registered electrical contractor. These are to be used only for the purposes for which they were designed. The various ETCI publications make it clear which certificates apply and where. In addition to the paper based certificates there is also an electronic version, which is available under the same controls, as the paper based version.

15.5.2. These certificates shall only be made available to Licensed Regulatory Bodies by ETCI.

15.6. The Valid Test / Completion Certificate Details

15.6.1. The registered contractor who constructs and/or tests the installation, and who subsequently signs the completion certificate, is making a formal declaration that the installation as installed/tested by him/her complies with the relevant ETCI Wiring Rules or other such Rules as approved by ETCI and that the installation is ready for connection to the electricity supply network.

15.6.2. All sections must be filled in either with a tick or a value as instructed on the certificate. The certificate should indicate whether it is in respect of construction and test or test only. Test only is acceptable only where the installation is existing (i.e. previously connected).

15.6.3. In a new installation constructing contractors must tick construction and test.

15.6.4. The MPRN (meter point reference number) should be inserted in the box provided where appropriate.

15.6.5. All sections of the certificate shall be completed otherwise the certificate will be considered invalid.

15.6.6. Where a comment box is included on the certificate it shall be used only as defined in ETCI's Wiring Rules or ETCI guidelines to these rules.

15.6.7. The distribution of paper certificates and copies is shown at the bottom of each certificate and copy. These certificates shall be completed and distributed in accordance with ETCI guidelines.

15.6.8. The yellow certificate is deemed to be the "completion certificate"; the green and white images are copies. The yellow certificate should be given to the customer after the post-connection tests have been completed and entered on the certificate and the certificate signed to that effect. A copy of the completion certificate that contains the results of post connection tests shall be sent to the Licensed Regulatory Body by the contractor (registered and non-registered)

15.6.9. Electronic completion certificates, where used, shall be completed and distributed in accordance with ETCI guidelines

15.7. Certification Process for connection of new installations to the DSO network

15.7.1. The valid green copy is submitted to the DSO in order that the DSO makes supply available to an isolator, which is the boundary point

between the customer's installation and the DSO network.

- 15.7.2. The DSO shall not accept certificates that are invalid. Any certificate considered invalid should be returned to the Contractor immediately for appropriate follow up.
- 15.7.3. After supply has been made available by DSO all green copies will be dealt with as specified by ETCI.
- 15.7.4. The Contractor responsible for the construction and testing of the electrical installation shall energise the customers installation and at this point in time conduct, verify and certify the post connection tests required by ETCI.
- 15.7.5. The Contractor shall supply the customer with the duly completed yellow certificate, which will contain a record of the pre and post connection tests required by ETCI. A copy of the completion certificate that contains the results of post connection tests shall be sent to the Licensed Regulatory Body by the contractor (registered and non-registered)
- 15.7.6. The white copy of the certificate containing the same results will be held by the contractor and will be made available at any reasonable time to the Licensed Regulatory Body's inspector.
- 15.7.7. Likewise, the registered electrical contractor shall make available all documentation to officers or agents of the CER who will audit a certain percentage of all registered electrical contractors on a select or random basis.
- 15.7.8. The white certificate copies and test record sheets must be kept in an orderly fashion by the registered electrical contractor and be available for inspection for at least six years or as otherwise statutorily required, whichever is the greater.
- 15.7.9. The Licensed Regulatory Body shall keep in an orderly fashion the green certificate copy or a facsimile of it for a period of not less than six years or as otherwise statutorily required, whichever is the greater.
- 15.7.10. All green certificates shall be capable of being easily accessed using the certificate number and/or the customers name and address.
- 15.7.11. All copies marked "temporary" supply must also be set aside for the appropriate follow up.
- 15.7.12. An appropriate follow up for temporary supplies is a site visit if the permanent certificate is not issued within six months in the case of new installations.

15.8. **Misuse of Certificates**

- 15.8.1. Contractors to whom certificates have been issued by a Licensed Regulatory Body shall not certify electrical work that has not been constructed by themselves, except in the case of previously connected installations. However they may issue completion certificates for previously connected installations (e.g. for report purposes or re-connection of electrical installation by the DSO after a disconnection period of more than six months). (see also 9.1.5).
- 15.8.2. Contractors shall not under any circumstances sell or give certificates to anyone including registered or non-registered contractors.
- 15.8.3. Any breaches of the above will entail an appropriate penalty as defined in the Licensed Regulatory Body's rules.

15.9. **Withdrawal of self-certification privileges**

- 15.9.1. In circumstances where the Licensed Regulatory Body withdraws the privilege of self certification from a contractor, or when a contractor's registration ceases, it is the responsibility of the Licensed Regulatory Body to:
 - a) So far as is practicable, ensure that all outstanding unused certificates are recovered from the contractor.
 - b) To ensure that the contractor is fully aware of the fact that he/she cannot self certify an electrical installation. Confirming this instruction by registered letter or equivalent e-mail (with a read receipt). These communications to be filed by the Licensed Regulatory Body and be subject to periodic audit by the officers or agents of the CER.
 - c) To notify without delay the other Licensed Regulatory Bodies and the DSO of the de-registered contractor's name /address /registration number. Where the privilege of self-certification has been restored, the DSO and other Licensed Regulatory Bodies shall be advised without delay.

[Note: A Licensed Regulatory Body shall not accept for membership any contractor who is subject to disciplinary procedures by another Licensed Regulatory Body. See also 4.6.2.d, 9.1.6 and 16.2]

16. Use of ETCI Completion Certificates and registration logo

- 16.1. The Licensed Regulatory Body shall exercise proper control over ownership, use of certificates and display of the Body's Registration logo.
- 16.2. The Licensed Regulatory Body must immediately notify other licensed Regulatory Bodies of any of its registered members who are no longer permitted to issue certificates. All unused certificates currently held by such members must be withdrawn by the Licensed Regulatory Body (see also 4.6.2.d, 9.1.6 and 15.9.1.).
- 16.3. Blank ETCI Completion Certificates shall only be issued to members. These certificates may only be used by the contractor to whom they are issued for work (or tests, see 15.3.1) carried out by that contractor except in exceptional circumstances where explicit written approval is given by the Licensed Regulatory Body. Quality office procedures shall be in place to ensure that copies of all certificates issued by members are kept on file for later retrieval if necessary. Details of such procedures shall be made available to the CER or its agents on request.

[Note exception as detailed in 15.3.1 re competent non-registered person wiring his/her own house]

- 16.4. Incorrect references to the registration or misleading use of certificates or logo, found in advertisements, catalogues, etc., shall be dealt with by suitable action. Such actions can include corrective action, withdrawal of certificate, publication of the transgression and, if necessary, other legal action.

(Note: Guidance on the use of logos permitted by the Licensed Regulatory Body may be obtained from ISO IEC Guide 23.)

(Note: Guidance on corrective action may be obtained from ISO/IEC Guide 27.)

17. Complaints to Registered members

- 17.1. The Licensed Regulatory Body shall require registered members to:
 - 17.1.1. keep a record of all complaints made known to the registered member relating to the electrical installation compliance with requirements of ETCI Wiring Rules or other such Rules as approved by ETCI and to make these records available to the Licensed Regulatory Body when requested;
 - 17.1.2. take appropriate action with respect to such complaints and any

deficiencies found in electrical installation or services that affect compliance with the ETCI Wiring Rules or other such Rules as approved by ETCI;

17.1.3. document the actions taken.

18. Indemnity

18.1. The Licensed Regulatory Body itself shall arrange public liability insurance up to a limit of five million euro and ensure that the policy shall indemnify the CER, or any body acting on its behalf.

18.2. The Registered Electrical Contractors shall arrange public liability insurance, to an amount specified by the Licensed Regulatory Body, to indemnify the CER, or any body acting on its behalf.

19. Acceptance of terms before granting of licence

19.1. The Licensed Regulatory Body must accept and implement all of the conditions of this document, or any other conditions deemed appropriate by the CER, before being granted a licence.

20. Non Compliance

20.1. A Licensed Regulatory Body, which is found to be in breach of the criteria outlined in this document, shall be served with an enforcement notice by the CER and shall be liable, ultimately, to withdrawal of its licence.

Appendix 1

Work Categories:

A Electrical Installations up to 1kV

All electrical installation work covered by ETCI's Wiring Rules, or other such Rules as approved by ETCI

NOTE: Additional work categories will be added to this Appendix as ETCI develops or adopts rules covering such work (e.g. installations above 1kV)

Appendix 2

Test Instruments

A Electrical Installations up to 1kV

For all categories of work under section A, the Registered Electrical Contractor shall hold the following test instruments as a minimum:

- Insulation resistance test instrument
- Continuity test instrument
- Voltage indicating instrument
- Phase/earth loop impedance test instrument
- Residual current device test instrument
- Suitable split test leads for both the phase/earth loop impedance test instrument and the residual current device test instrument

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

In addition the Registered Electrical Contractor shall hold, hire or have access to such additional, suitably certified test instruments as are necessary for the electrical installation work undertaken.

Note: - appendix 2 presently only covers Work Category A [Electrical Installations up to 1kV] but it may be expanded to cover other work categories in the future

Note: The following EN Standards detail the requirements for the instruments used to carry out tests:

EN 61557-1	General for tests	} Corresponding I.S. EN standards, where in place, are also valid
EN 61557-2	Insulation tester	
EN 61557-3	Loop impedance	
EN 61557-4	Continuity	
EN 61557-5	Earth resistance	
EN 61557-6	Residual Current Devices	
EN 61557-7	Phase sequence	

Appendix 3

Qualification, Training and Experience requirements for Registered Electrical Contractors:

- 1 Basic Technical Qualifications:** Every applicant must possess a technical qualification (e.g. National Craft Certificate (NCC) that is recognised by FÁS as appropriate to qualify as an electrician (such a person would have served a recognised apprenticeship. See note with 3.1.1 re existing registered members). The applicant may then be considered for:
 - 1.1 Registered Provisional Membership:** For a person with the appropriate qualification, but with no post qualification experience, the first 3 electrical installations completed by such a person shall be inspected by one of the Licensed Regulatory Body's inspectors. Provisional membership shall be for a maximum length of two years. A provisional member shall be eligible for full membership following successful assessment by the Licensed Regulatory Body's inspector.
 - 1.2 Registered Electrical Contractor (Full member):** A person who has the appropriate qualification and a minimum of two years post qualification experience shall be eligible for full membership, subject to successful assessment by the Licensed Regulatory Body's inspector.
- 2 Registered Electrical Contractor (Full member):** A person who has a 3rd level degree in Electrical Engineering shall be eligible for full membership.

(Note: All registered members shall be well versed in the inspection, testing, certification and reporting procedures for the range of electrical installation work undertaken, and have successfully completed a recognised verification and certification course.)

- 3 Associate and/or Affiliate Membership:** This membership may be appropriate to large organisations (e.g. Semi-State Bodies, Local Authorities etc.) Such membership may be granted only to those organisations that have competent and qualified persons who satisfy the requirements [a formal list of competent and qualified persons shall be held by such bodies]
- 4 Registered Specialist Contractor:** A contractor who may not have the basic technical qualifications detailed in 1 or 2 above but who nevertheless is competent to construct, test and certify the sub-system installation for connection to the main electrical installation.