



IECRE OPERATIONAL DOCUMENT

IEC System for Certification to Standards relating to Equipment for use in Renewable Energy applications (IECRE System)

Acceptance of RECB for PV sector related certification



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

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1 Objectives

This Operational Document details the procedure for accepting new entrant RECBs into the IECRE system, and reassessment of RECBs previously approved as part of the PV Sector.

The basic acceptance procedure is given in IECRE 02 and this operational document gives the detailed procedure. The assessment is based on peer assessment guided by and referring to ISO/IEC 17040.

The IECRE PV scheme intends to promote high standards, transparency and fair competition in the industry and as such, the focus of the assessment will therefore be on the quality of work performed.

2 Definitions and acronyms

Please see IECRE Publication “Acronyms, Terms and Definitions”.

3 Certification scheme

This document covers acceptance of RECBs for the following schemes:

- PV Project Certification see OD-401-series, OD-402, in future to be replaced by the 44X-series (under development)
- PV Quality Certification, see OD-405-series, OD-410-1, in future to be replaced by the 45X-series (under development)
- PV Component Certification, in future see the 43X-series (under development)

These schemes are defined in the supplement to IECRE 02 applicable for the PV sector and the related operational documents as outlined above.

4 Requirements

IECRE 02 gives the basic requirements and procedure for acceptance of an RECB. The basic requirements are listed and further detailed in this chapter.

4.1 Basic requirements

The RECBs to be reassessed and the new entrant candidates may preferably be accredited by an IAF/MLA accreditation body per ISO/IEC 17065 with the scope including the IECRE system scheme for Project certification or an equivalent scheme or scope. As a substitute to ISO/IEC 17065 accreditation, the RECB can also provide proof of proficiency by sufficiently and adequately demonstrating proficiency by referencing to the requirements outlined in ISO/IEC 17065 or following best practice guidelines issued by internationally acknowledged institutions or associations (e. g. PVQAT, ARESKA, SolarPower Europe, TEXXECURE).

Equivalent scheme shall be understood as a certification scheme for the wind energy sector having the following features:

- a) Covers project certification
- b) Organized in modules, with intermediate conformity statement for each module
- c) Has design evaluation, independent integrated load analysis, measurements, and manufacturing, installation and commissioning surveillance activities
- d) Has equivalent level of detail for the assessment activities as the applicable IECRE scheme

4.2 Participation requirements

Active participation in the PV SWG which apart from sharing the workload assigned to any of the WG or TF associated with the PV SWG also implies participation and presence in more than half of its face to face or online meetings. The presence may be through web based

participation but physical presence is required for minimum one meeting per year if possible under government imposed or government recommended travel restrictions.

4.3 IECRE System Knowledge Requirements

Knowledge and understanding of IECRE system rules and the PV sector procedures and related technical codes and standards relevant for the scheme. The CB shall have implemented their own procedures and instructions to ensure compliance.

4.4 Proficiency requirements

State of the art knowledge (active participation in IEC TC82, PVQAT, the PV SWG, local or regional technical industry associations, or local mirror groups for standardization or conformity assessment).

4.5 Human Resources:

- a) The CB shall limit subcontracting to cover maximum 90% of the technical certification work, and shall ensure that subcontractors are (1) qualified for to fulfil their tasks and (2) generally abide by the main principles of independency and impartiality.
- b) The CB shall have a minimum of 1 expert available in each technical area covered by a certification activity.
- c) The CB shall have implemented a system for qualification of its technical certification staff. The system shall include training programs (theoretical and practical) relevant to the type of certification work covered by the qualification. The system shall also address the maintenance and updating of qualifications.

4.6 Experience:

4.6.1 PV Project certification:

Both RECBs subject to reassessment RECBs shall demonstrate that they have sufficient experience or that they have maintained the experience by issuing 3 project certificates according to IECRE or equivalent scheme during the last five years or since the last peer assessment (for RECB). Candidate RECBs applying to become a RECB for the first time shall demonstrate that they have sufficient experience or that they have maintained the experience by issuing 3 project certificates according to standards comparable to the IECRE scheme, in any case referencing relevant IEC standards. An equivalent scheme shall at least include design evaluation, independent power output analysis, measurements, and manufacturing, installation and commissioning surveillance. A project certificate may be replaced by multiple conformity statements such that the sum of conformity statements cover the essential scope of a project certificate.

If this requirement is not fulfilled, additional peer assessment will be required as outlined in chapter 5.5.

4.6.2 Project design certification:

Both RECBs subject to reassessment and new entrant candidate RECBs shall demonstrate that they have sufficient experience or that they have maintained the experience by issuing 3 project design certificates according to the IECRE scheme or 3 design evaluation conformity statements according to an equivalent scheme during the last five years (for new entrant candidate RECB) or since the last peer assessment (for RECB). An equivalent scheme shall at least include independent integrated load analysis, sub structure design evaluation, and electric safety and - if so required by the code - grid code compliance assessment. A project design certificate may be replaced by multiple conformity statements such that the conformity statements make out the full scope of a project design certificate.

If this requirement is not fulfilled, additional peer assessment will be required as outlined in chapter 5.5.

4.6.3 PV quality certification:

Both RECBs subject to reassessment and new entrant candidate RECBs shall demonstrate that they have sufficient experience or that they have maintained the experience

If this requirement is not fulfilled, additional peer assessment will be required as outlined in chapter 5.5.

5 RECB Acceptance process

5.1 RECB Application Form

Each CB subject to assessment shall submit the completed form AD-001 to the IECRE Executive Secretary. New entrant candidate RECBs shall submit AD-001 through the national Member Body for their endorsement.

The IECRE Executive Secretary will review the received AD-001 for completeness before proceeding with the assessment planning.

5.2 Applicant

Each applicant shall provide relevant documents together with the application form according to the requirements listed above in chapter 4, such as:

- a) Accreditation documents
- b) Process/Work instructions
- c) QM manual

5.3 Peer assessors

Each peer assessor shall be approved according to the supplement to IECRE 02 applicable for the PV sector and shall as a minimum meet the following criteria:

- a) A electrical engineer (min. bachelor degree) or lead electrician certified by an internationally accepted, competent authority
- b) 2 years of experience in conformity assessment within the PV industry.
- c) 5 years of experience in the PV industry including at least 2 years of experience from one relevant technical area.
- d) fluent in the English language oral and written.

Each RECB shall at least provide two peer assessors to the pool of approved peer assessors. The application form AD-002 shall be used for new peer assessors. The peer assessment planning should be such that all peer assessors are utilised at least once every three years.

As long as less than 10 RECBs are accepted participants in the IECRE scheme, the PV SWG Convenor or the IECRE Executive Secretary – preferably by way of joint alignment – can appoint peer assessors that qualify essentially according to the above requirements; such peer assessors are referred to as “Interim Peer Assessor”.

The IECRE Executive Secretary shall maintain the list of peer assessors meeting the qualification requirements and approved according to IECRE 02 applicable for the PV sector. This list shall be made available to the PV SWG.

All qualified peer assessors shall receive training on the IECRE peer assessment rules and best practices once every three years. Details and further requirements related to training are given in a separate document.

5.4 Assessment team

The IECRE Executive Secretary shall select the peer assessors from the above list of qualified peer assessors. The assessment team shall consist of two assessors from two different RECBs and they should have expertise in at least two different technical areas. In lieu of assessors from RECBs the IECRE Executive Secretary can select Interim Peer Assessors as long as less than 10 RECBs are accepted participants in the IECRE scheme. The selection shall be based on the mandatory expertise and by maximizing other expertise areas for the whole assessment team by having as many expertise areas as possible covered, see Annex D. The IECRE Executive Secretary may consult with the PV SWG convenor on the composition of the peer assessment team.

The IECRE Executive Secretary or an appointed qualified assessor will participate as lead assessor.

The IECRE Secretary shall inform the applicant RECB of the names of the assessors at least two months before the planned date of the peer assessment.

5.5 Assessment preparation

The preparation for the assessment consists of:

- For the lead assessor:
 - to define, in agreement with the applicant RECB and the two peer assessors, the dates for the peer assessment
 - to prepare, in coordination with the two selected peer assessors, the assessment plan (describing the content of the assessment and the sharing of works between the assessors); and to send it to the applicant RECB, at least two weeks before the beginning of the assessment
- For the applicant RECB: to prepare the assessment report OD-004 to the extent possible, and submit this to the lead assessor, at least two weeks in advance or as agreed with the lead assessor.

5.6 Assessment

5.6.1 Duration and process

The duration of the assessment shall be determined by the peer assessment team based on the experience of the entrant RECB and may be shortened or extended beyond the durations stated below based on the observations and findings made during the assessment. See Annex C for guidance on the duration of the assessment, as described below.

For an experienced CB a duration of minimum 2 full consecutive working days will initially be planned to allow for around 8 hours of interviews and document review per peer assessor and provided the requested information is readily available in English language. The lead assessor will be planned to attend corresponding to two working days.

In case the requirement in chapter 4 related to experience is not fulfilled (new entrant candidate RECB or RECB with limited experience since the last peer assessment), the assessment will be extended by one working day, allowing for additional vertical assessment, i.e. a complementary technical assessment on at least two technical areas (one for each selected peer assessor).

To extend the scope for an RECB qualified for type and component certification to also include project certification, the following applies:

a) Project Design Certification (including site suitability evaluation): No additional peer assessment required. Demonstration through correspondence of additional required competency in site assessments and structural engineering.

b) Project Certification:

The scope for project certification also covers project design certification (including site suitability evaluation).

An additional assessment is required, and the assessment will initially be planned to last for two full consecutive working days allowing for around 8 hours of interviews and document review provided the requested information is readily available in English language. The lead assessor will attend corresponding to one working day as the review of the management system is already done for the RECB assessment for type and component certification.

In case the requirements above related to experience are not fulfilled, the assessment will initially be planned to last for three full consecutive working days, allowing one extra day

for additional vertical assessment, i.e. a complementary technical assessment on at least two technical areas (one for each selected peer assessor).

c) **Quality Certification:**

An additional assessment is required, and the assessment will initially be planned to last for two full consecutive working days allowing for around 8 hours of interviews and document review provided the requested information is readily available in English language. The lead assessor will attend corresponding to one working day in the event that the assessment of the management system has already been done for the RECB assessment for type and component certification.

In case the requirements above related to experience are not fulfilled, the assessment will initially be planned to last for three full consecutive working days, allowing one extra day for additional vertical assessment, i.e. a complementary technical assessment on at least two technical areas (one for each selected peer assessor).

5.6.2 **Assessment scope**

The assessment shall take place at the CB site where its most important certification activities are carried out.

The assessment starts with an initial meeting:

- gathering all 3 assessors, and the CB representatives
- where the assessment objectives, organisation, timing, participants are confirmed. The applicant RECB shall be evaluated against all requirements in chapter 4 of the present document.

The assessment activities consist of:

- Organisation documents (Organogram, Quality Manual) review with focus on impartiality.
- Accreditation documents (accreditation certificate, accreditation audit report) review
- Certification process documentation (procedures, templates) review with focus on the specifics for the IECRE system.
- Qualification files (internal resources and sub-contractors) review
- Project files review including below topics in order to confirm that relevant requirements in OD-43X-series, OD-44X-series, and OD-45X-series are appropriately managed and evaluated in the project. See Annex A of this document or the referenced OD, for overview of specific requirements depending on the scope, and Annex B of this document for a more detailed listing of the scope for review:
 - Records (contract review, evaluation review, certification decision, annual reporting ...)
 - Identification of the certified PV project
 - Standards considered (all relevant standards for project certification shall be mentioned)
 - Technical certification documents (evaluation plan, evaluation reports, independent calculation results, integration of type certificates into project certification and other relevant reports)
 - Final evaluation (review by someone not taking part of the review/evaluation work)
 - Deliverables (conformity statement, certificates)
 - Outstanding issues, conditions, limitations (project certificate must not have any outstanding issues)
 - Certification decision (background for decision documented)
 - Annual reporting for maintenance of certificate (at least demonstrate capability for implementation)
 - Operation and maintenance surveillance (demonstrate that this is implemented)

- It shall be assessed that the RECB has experience to evaluate all possible elements of the scope (see overview in Annex A of this document or OD-4xx), e.g. it shall be assured that the RECB has experience on evaluation of grid code compliance when applying for the scope of project design certification.

The applicant RECB shall ensure all necessary information and/or documentation is made available to the peer assessors. This will also include all documents referred in the technical certification documents.

5.6.3 Assessment report

The reporting template OD-004 shall be used for the reporting from the peer assessment. Any non-resolved deviations shall be highlighted in the conclusion of this report. For further requirements to reporting and handling of non-conformities, see the Rules of Procedures applicable for the wind sector.

For new RECB assessment non-conformities shall be closed within 3 months. If non-conformities cannot be closed within the 3 months period, an exceptional extension for 1 month can only be granted at the discretion of the IECRE Secretariat based on progress evidence to resolve the outstanding non-conformities. If the deadline cannot be met a new application (incl. fees) will be required.

For RECB re-assessment non-conformities shall be closed within 3 months. If non-conformities cannot be closed within the 3 months period, an exceptional extension for 1 month can only be granted at the discretion of the IECRE Secretariat based on progress evidence to resolve the outstanding non-conformities. If the deadline cannot be met, the acceptance will be suspended for 12 months, after which it will be withdrawn and then a new application (incl. fees) will be required.

The conclusions of the assessment report shall be agreed upon by the assessment team (lead assessors, and the two peer assessors), and by the CB representative.

The summary assessment report is established by the IECRE Executive Secretary within 10 days from the assessment, and excludes all confidential information, such as the name of the staff interviewed and the sensitive identifying information (name of customer, project or wind turbine names ...). The summary report will be sent to REMC for final approval per the IECRE system rules.

6 Re-assessment

The IECRE Secretariat will notify RECBs early in the year as to when their reassessment is required for that year according to the RoP. Within one month of the notification the RECB shall formally request the IECRE Secretariat for being re-assessed within the time limit required by the RoP. In case of unsuccessful re-assessment or refusal, the RECB will be suspended.

7 Confidentiality

Confidentiality in the RECB acceptance process is considered as essential, as peer assessors are originating from competitor RECBs, and certification information and documentation should be confidential within the RECBs. The protection of confidential information is managed as follow:

- Each person, when submitting their request to become a peer assessor to the IECRE Secretary, commits (to the IECRE and to the concerned applicant RECB) to keep confidential all information they will review and assess from the applicant RECB (and from its customers) during the complete acceptance process, for a duration not shorter than 10 years.

Each (applicant and accepted) RECB will add in its contracts with its own customer a clause allowing the participation of third party observers (in line with §4.1.2.2.c.3 of ISO/IEC 17065 if applicable)

**INTERNATIONAL
ELECTROTECHNICAL
COMMISSION**

3, rue de Varembé
PO Box 131
CH-1211 Geneva 20
Switzerland

Tel: + 41 22 919 02 11
info@iec.ch
www.iec.ch

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PO Box 131
CH-1211 Geneva 20
Switzerland

Tel: + 41 22 919 02 11
secretariat@iecre.org
www.iecre.org