



## IECRE PUBLICATION

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

**Supplement for the Marine Energy Sector to the IECRE Rules of Procedure (IECRE 02)**





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**IEC System for Certification to Standards Relating to Equipment  
for Use in Renewable Energy Applications (IECRE System) –  
Supplement for the Marine Energy Sector to the IECRE Rules of  
Procedure (IECRE 02)**

FOREWORD

This publication has been prepared by the IECRE for approval by the IEC Conformity Assessment Board (CAB). This publication supersedes IECRE 03, Edition 2, published 2018-08-14.

The Marine Renewable Energy industry includes wave, tidal and other water current converters, among others. There is a need for a single, internationally-recognized 3rd party Conformity Assessment (CA) system for the verification of compliance to consensus-based International Standards and Technical Specifications to reduce risk and improve stakeholder confidence. The implementation of the Marine Energy Sector Working Group (ME-SWG) and a Marine Energy Certification Scheme will help to accelerate commercialization of the industry, thus reducing risk and increasing confidence in the market.

This publication has been prepared by REMC WG 001 for approval by the REMC.

The annexes to this publication are normative.

The text of this publication is based on the following document(s):

Document	Report on Voting
REMC/574/DV	REMC/598/RV

## INTRODUCTION

This publication contains the Supplement to the IECRE Rules of Procedure (RoP) for the Marine Energy (ME) Sector under the IECRE Conformity Assessment System. The term “Marine Energy Converter” is used to describe Renewable Energy Equipment in the ME Sector. This Supplement to the IECRE RoP complies with IEC CA 01, Basic Rules and IECRE 02, Rules of Procedure. IECRE rules and documents, and a list of standards approved for use in the ME Certification Scheme, can be found at [www.iecre.org](http://www.iecre.org).

This Supplement defines the ME specific revisions required to IECRE 02 and outlines the structure and governance of the ME Sector, the principles of the ME CA Schemes and procedures for acceptance of Renewable Energy Certification Bodies (RECB) and Renewable Energy Testing Laboratories (RETL) applying to work within the ME Certification Scheme. Additional operational documents (ODs) specify ME Certification Scheme deliverables, such as certificates, conformity statements and test reports, in order to operate the system. This Supplement, and the associated ODs, establishes a framework for the mutual recognition of ME Certification Scheme deliverables among and between testing laboratories and certification bodies.

## **IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications (IECRE System) –**

### **ME-SWG Supplement to the IECRE 02 (Rules of Procedure)**

#### **1 Scope**

The scope of the ME-SWG is to operate an international ME Certification Scheme for marine energy conversion systems. Participation in the ME-SWG shall include certification bodies, test laboratories and other stakeholders that are members in good standing of a Member Body.

#### **2 Normative References**

Additional relevant normative references can be found in the following documents:

*International Association of Classification Societies (IACS), Quality Management System Certification Scheme (QSCS)*

#### **3 Definitions and Abbreviations**

IECRE 02 Clause 3 applies.

#### **4 Organizational Structure**

IECRE 02 Clause 4 applies.

#### **5 Requirements for Participation in the IECRE System**

IECRE 02 Clause 5 applies.

#### **6 Deliverables of the IECRE System**

IECRE 02 Clause 6 applies with the following additions:

##### **6.1 IECRE Test Reports (RETRs)**

Additional requirements for the issuance of a Test Report in the ME Sector against the technical standards covered by this scheme are detailed in OD 300.

##### **6.2 Product Certificates**

Additional requirements for the issuance of a Product Certificate in the ME Sector against the technical standards covered by this scheme are detailed in the ODs below:

- a) Conformity Statements (OD 310) will be issued upon successful completion of evaluation of a Certification Module as part of the Product Certification process.
- b) Prototype Certificates (OD 320 – under development)
- c) Component Certificates (OD 330 – under development)
- d) Type Certificates (OD 340 – to be developed)
- e) Project Certificates (OD 350 – to be developed)

##### **6.5 Exchange of ME Certification Scheme Deliverables**

The Product Certification processes may depend upon other ME Certification Scheme deliverables issued by the RETLs or RECBs approved to operate within the ME Sector.

NOTE: a Project Certificate can include a Type Certificate

Consequently, RECBs and/or RETLs participating in the ME Certification Scheme shall accept ME Certification Scheme deliverables issued by other RECBs and/or RETLs participating in the ME Sector.

This is enabled by ensuring that ME Certification Scheme deliverables are issued according to detailed descriptions and requirements given in the associated Operating Documents. The ME

Certification Scheme deliverables shall be supplemented by a final evaluation report that will enable the receiver of the deliverable to understand the extent of the certification.

Where an RECB or RETL identifies a problem or question related to a deliverable issued by another RECB or RETL, the RECB or RETL shall raise the matter first with the Applicant, then the RECB or RETL shall raise the matter with the organization that initially issued the deliverable. If the RECBs or RETLs involved arrive at different conclusions, the case shall be referred to the IECRE Executive Secretary.

## **7 Description of IECRE Operational Procedures**

IECRE 02 Clause 7 applies.

## **8 Peer Assessment Program**

IECRE 02 Clause 8 applies with the following additions:

### **8.1 Acceptance of RETLs with a Scope in Marine Energy**

Acceptance of RETLs shall follow the requirements of IECRE 02 Clause 8.1 with the inclusion of the following:

- 1) A review of a random sample of historic reports issues for the competence area (to assess compliance with the referenced standard).

OR

- 1) A prepared representative report for the competence area which may contain fictitious data as a substitute.

Authority for the acceptance of RETLs lies with the REMC. This shall also apply to new entrants.

#### **8.1.8 Re-Assessment**

The re-assessment period for Marine Energy will be every 3 years.

#### **8.1.11 Review of reports issued**

A review of a random sample of historic reports issues for the competence area (to assess compliance with the referenced standard) will be required.

The Applicant shall submit an overview of reports submitted the last three years issued that state compliance with the standard.

The Lead Assessor, together with the Technical Assessors and/or experts, shall select from the list. These selected reports shall be submitted to the IECRE Secretariat by the Applicant.

OR

A prepared representative report for the competence area which may contain fictitious data as a substitute.

When applying via this route, the first commercial test report will be reviewed by Peer Assessors; this may require document review or site visit. While a period allowing self-assessment remains in place, this will require document review only.

The reports shall be reviewed for compliance with the relevant standard.

#### **8.1.12 Proficiency Testing**

A system of proficiency testing is not yet available within the marine sector applicable to power performance testing and so is not required at this time.

NOTE: As a system is developed, it will be included here.

### **8.1.13 Internal Procedures**

A review of the candidate RETL's own processes and procedures related to the specific competence area is required.

While the period allowing self-assessment remains in place, this will be through document review only.

### **8.1.14 Inspection of Field Test**

There will be a requirement for an inspection of an ongoing test (or the installation of a new test) and the related documentation by peer assessment.

While the self-assessment transition period is in place there will be no requirement for on-site inspection.

### **8.1.15 Inspection against ISO/IEC 17025 or Equivalent**

RETL may be accredited against ISO/IEC 17025. In the case where the test laboratory does not already hold an accreditation for ISO/IEC 17025 for the specific competence area, a Peer Assessment of the candidate RETL against ISO/IEC 17025 (or similar) shall be carried out by the peer assessors.

## **8.2 Acceptance of RECBs**

A certification body shall be accepted as an RECB under the two following conditions:

- 1) The competence of the RECB shall be demonstrated by Peer Assessment in conformity with ISO/IEC 17040 and detailed in the ME specific ODs;
- 2) The RECB is a recognized Classification Society with current membership in the International Association of Classification Societies (IACS), inducing mandatory compliance with the IACS Quality System Certification Scheme (QSCS). Audits and assessment of compliance with the QSCS are carried out by independent external Accredited Certification Bodies. If the RECB loses its IACS membership they must notify the IECRE Secretary.

The Peer Assessment of the applicant RECB utilizing this option will include assessment against a selection of clauses to meet equivalence with ISO/IEC 17065. These clauses are contained in an OD to be developed.

OR

- 2) The RECB is accredited to ISO/IEC 17065 for the specific ME competence area by a recognized national accreditation body. If the RECB loses its accreditation it must promptly notify the IECRE Executive Secretary.

Authority for the acceptance of RECBs lies with the REMC. This shall also apply to new entrants.

### **8.2.11 Inspection against ISO/IEC 17065 or IACS or Equivalent**

RECB may be accredited against ISO/IEC 17065 or be a recognized Classification Society. In the case where the certification body does not already hold an accreditation for ISO/IEC 17065 for the specific competence area, or is not a recognized Classification Society, a Peer Assessment of the candidate RECB against ISO/IEC 17065 (or similar) will be carried out by the peer assessors.

## **9 Complaints**

If there are complaints concerning the actions of an RECB or RETL that cannot be resolved, the RECB, RETL or the complainant shall have the right to request the matter be raised with the ME-SWG and the IECRE Executive Secretary.

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