

# Advance Marine Renewable Energy

Develop Consensus-Based Standards Trusted by the Marine Energy Industry. Collaborate with Experts.  
Join International Electrotechnical Commission's (IEC's) Technical Committee (TC) 114.

## IEC Standards Access



Global Reach

**99.1%**  
World Population

**99.2%**  
Electricity Generation

**20%**  
World Trade

## Collaborate on TC114



Committees and Working Groups

**200**  
Subject Matter Experts

**30**  
Countries

**19**  
Working Groups

## Certification Development



Conformity Assessment

**4**  
Global Systems

**>1 Million**  
Certificates Issued

**>20**  
Separate Schemes and Programmes



# About IEC

## What is IEC TC 114?

- IEC is an international organization that develops international standards for all electrical, electronic, and related technologies.
- The United States National Committee of the IEC (USNC/IEC) is managed by the American National Standards Institute (ANSI).
- The U.S. Technical Advisory Group (TAG) is organized under and works closely with the USNC/IEC and serves as the convening body for U.S. experts to participate in the creation of international standards through IEC TC 114.
- In the United States alone, nearly 100 experts participate in U.S. TAG as members and/or observers, 40 of which serve as either U.S. subject matter experts or conveners on IEC TC 114 working groups with key assistance provided by the National Renewable Energy Laboratory.
- IEC TC 114, Marine energy - Wave, tidal, and other water current converters, was established in 2007 to develop international, consensus-based standards for the marine energy industry.
- Thirty countries, including over 200 experts participating in 19 working groups, represent the largest marine energy industries globally. Outreach is ongoing to engage additional participation.

## Current Publications

### Technical Specifications (TSs)

- IEC TS 62600-1 (Ed 2.0, 2020): Terminology
- IEC TS 62600-2 (Ed 2.0, 2019): Design
- IEC TS 62600-3 (Ed. 1.0, 2020): Loads Measurement
- IEC TS 62600-4 (Ed. 1.0, 2020): Tech. Qualification
- IEC TS 62600-10 (Ed. 2.0, 2021): Moorings
- IEC TS 62600-20 (Ed. 1.0, 2019): OTEC Design
- IEC TS 62600-30 (Ed. 1.0, 2018): Power Quality
- IEC TS 62600-40 (Ed. 1.0, 2019): Acoustic Characterization
- IEC TS 62600-100 (Ed. 1.0, 2012): Wave Energy Converter (WEC) Power Performance (PP) Assessment
- IEC TS 62600-101 (Ed. 1.0, 2015): WEC Resource Assessment (RA)
- IEC TS 62600-102 (Ed. 1.0, 2016): WEC PP Assessment at a second Location

- IEC TS 62600-103 (Ed. 1.0, 2018): Testing of Scale-WECs
- IEC TS 62600-200 (Ed. 1.0, 2013): Tidal Energy Converter (TEC) PP Assessment
- IEC TS 62600-201 (Ed. 1.0, 2015): TEC RA
- IEC TS 62600-202 (Ed. 1.0, 2022): Testing of Scale-TECs
- IEC TS 62600-300 (Ed. 1.0, 2019): REC Power Performance
- IEC TS 62600-301 (Ed. 1.0, 2019): REC Resource Assessment

## Current Activities

### Project Teams (PTs)

- PT 62600-21: OTEC PPA
- PT 62660-41: Biofouling

### Ad-hoc Groups (AHGs)

- AHG 10: Information Collection on 62600-30 (Power Quality)
- AHG 12: Information Collection on 62600-300 (River PP)
- AHG 13: Information Collection on 62600-301 (River RA)
- AHG 14: Information Collection on 62600-20 (OTEC Design)
- AHG 15: Information Collection on 62600-3 (Loads Measurements)
- AHG 17: Information Collection on 62600-4 (Technology Qualification)
- AHG 18: Information Collection on 62600-202 (Testing of Scale-TECs)

### Maintenance Teams (MTs)

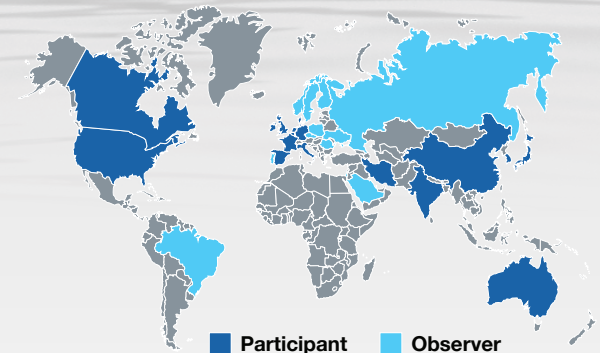
- MT 62600-2: Design
- MT 62600-10: Moorings
- MT 62600-40: Acoustic Characterization
- MT 62600-100: WEC PP
- MT 62600-101: WEC RA
- MT 62600-103: WEC Scale Testing
- MT 62600-200: TEC PP
- MT 62600-201: TEC RA

### Advisory Groups (AGs)

- AG 1: Chair's Advisory Group
- AG 2: Publication Alignment Support

Participation in the work of the U.S. TAG will provide you with personal benefits that include a deep knowledge about all the standards under development by IEC TC 114, not just the standard your team is working on, and new relationships with marine energy professionals in all 30 of the countries that participate.

IEC TC 114 U.S. Technical Advisor



## Learn More

### IEC TC 114 Website

[iec.ch/tc114](http://iec.ch/tc114)

### IEC Website

[iec.ch](http://iec.ch)

### U.S. TAG Website

[openei.org/wiki/PR/IMRE/Telesto/IEC\\_TC-114](http://openei.org/wiki/PR/IMRE/Telesto/IEC_TC-114)

### ANSI Website

[ansi.org](http://ansi.org)

### Contact

[Arielle.Cardinal@nrel.gov](mailto:Arielle.Cardinal@nrel.gov)

Updated May 2024