



NSAI

ANNUAL REPORT 2024

**NSAI TECHNICAL COMMITTEES
(NSAI/ETC/TC 18 – MARINE
ENERGY - WAVE, TIDAL AND
OTHER WATER CURRENT
CONVERTERS)**

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1 Introduction

NSAI/ETC/TC 18 is Ireland's National Mirror Committee of the [IEC/TC 114 - Marine energy - Wave, tidal and other water current converters](#). The IEC TC 114 was formed to prepare international standards for marine energy conversion systems. The group has grown from an initial small number to now having 18 Participating members and 12 Observing members spread across the globe.

2 Scope of TC

To support IEC/TC 114 in the preparation of international standards for marine energy conversion systems.

The primary focus is on conversion of wave, tidal and other water current energy into electrical energy, although other conversion methods, systems and products are included.

Tidal barrage and dam installations, as covered by IEC/TC 4, are excluded.

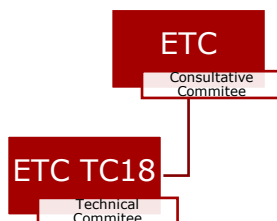
The standards produced by IEC/TC 114 address:

- terminology;
- management plans for technology and project development;
- performance measurements of marine energy converters;
- resource assessments;
- design and safety including reliability and survivability;
- deployment, commissioning, operation, maintenance, retrieval and decommissioning;
- electrical interface, including array integration and / or grid integration;
- testing laboratory, manufacturing and factory acceptance;
- additional measurement methodologies and processes.

3 Structure and Membership

3.1 Structure

The Figure below illustrates the structure of the Committee:



3.2 Members

The table below identifies the organisations represented on the committee:

Organisation	Role
Exceedence	Chairperson
NSAI	National Secretary
DP Energy	Committee Member
BME Consulting	Committee Member
ARR Ltd	Committee Member
Pure Marine	Committee Member
SEAI	Committee Member
Wave Venture	Committee Member
ORPC	Committee Member
Bluewise Marine	Committee Member
Tidal Flyer	Committee Member
Open Ocean Energy	Committee Member
UCC	Committee Member
Techworks	Committee Member
Rockall Solutions	Committee Member
XOCEAN	Committee Member
UCC	Committee Member
CEI	Committee Member
G-Kinetic	Committee Member
UoG	Committee Member
WaveRam	Committee Member
SSE	Committee Member
Techworks	Committee Member
PO Maritime	Committee Member
DCU	Committee Member
Ocean Energy	Committee Member
ESB	National observer

4 Summary of 2024 Activities

4.1 National

4.1.1 Meetings

Committee members attended the following national meetings in NSAI as follows:

Meeting No.	Date	Minutes Reference
1	19 September 2024	N-583

4.1.2 National Work

NSAI/ETC/TC 18 was not involved in any national deliverables in 2024. NSAI/ETC/TC 18 supports all national stakeholders who have an interest in marine energy in benefitting from standards being developed at IEC level.

4.2 International/Regional

4.2.1 Meetings

The IEC/TC 114 plenary meeting for 2024 was held in Jeju, KR from. Due to distance and the unavailability of funding, no Irish expert participated in proceedings.

Members of the national committee continued to partake in technical body meetings throughout the year in a virtual capacity.

The next meeting of IEC TC114 is provisionally scheduled to take place in April 2025 in Dublin, IE.

4.2.2 International/Regional Work

The following technical specification were published in 2024:

- IEC TS 62600-100:2024 - Wave, tidal and other water current converters - Part 100: Electricity producing wave energy converters - Power performance assessment
- IEC TS 62600-101:2024 - Marine energy - Wave, tidal and other water current converters - Part 101: Wave energy resource assessment and characterization
- IEC TS 62600-103:2024 - Marine energy - Wave, tidal and other water current converters - Part 103: Guidelines for the early stage development of wave energy converters - Best practices and recommended procedures for the testing of pre-prototype devices

4.2.3 International/Regional Voting Results

Results for ballots opened in 2024 can be found on the [IEC/TC 114 committee homepage](#). In 2024 there were 5 votes consisting of two new proposals and three new draft technical specifications for approval. Ireland voted in 100% of these ballots.

5 Irish Publications/Reviews

5.1 Publications

The Committee did not publish any national deliverables in 2024.

5.2 Reviews

There are no existing national publications. No reviews of national documents were carried out in 2024.

6 Work programme for 2025 onwards

The number of NSAI/ETC/TC 18 experts engaged with IEC Standards development and active in IEC TC 114, remains the highest within the ETC sector. Ireland is ranked 5th, behind only the U.S., Great Britain, China, and Korea for a number of active members in 2024. The IEC work programme for 2025 will see Irish experts continue to play a pivotal role in the development of International Standards for Marine Energy and the committee will seek to build upon its influence.