



**NSAI**

# ANNUAL REPORT 2019

**NSAI TECHNICAL COMMITTEES  
(NSAI ETC TC18 – MARINE  
ENERGY - WAVE, TIDAL AND  
OTHER WATER CURRENT  
CONVERTERS)**

## Contents

1	Chairman's Statement .....	3
2	Introduction .....	3
3	Scope of TC.....	3
4	Structure and Membership .....	3
4.1	Structure.....	3
4.2	Members .....	4
5	Summary of 2018 Activities .....	4
5.1	National .....	4
5.1.1	Meetings .....	4
5.1.2	National Work.....	4
5.2	International/Regional .....	5
5.2.1	Meetings .....	5
5.2.2	International/Regional Work .....	5
5.2.3	International/Regional Standards Development.....	<b>Error! Bookmark not defined.</b>
5.2.4	International/Regional Voting Results .....	5
5.3	Regulatory Development/Update .....	5
6	Irish Publications/Reviews .....	5
6.1	Publications .....	5
6.2	Reviews .....	5
7	Work programme for 2019 onwards .....	6
8	Additional Information .....	6

## 1 Chairman's Statement

2019 saw the withdrawal of financial support for NSAI ETC TC18 under the SEAI's Prototype Development Fund. Nevertheless engagement with IEC TC114 in the development of International Marine Energy Standards was significant. Securing alternative means of funding will be necessary to sustain Ireland's position as one of the largest contributors to this sector internationally.

## 2 Introduction

NSAI ETC TC18 is Ireland's National Mirror Committee of the IEC/TC 114 - Marine energy - Wave, tidal and other water current converters.

## 3 Scope of TC

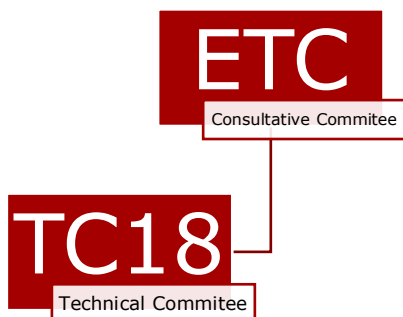
To support the preparation of international Technical Specifications for marine energy conversion systems. The primary focus is on the conversion of wave, tidal and other water current energy into electrical energy, although other conversion methods, systems and products are included. Tidal barrage, dam installations and Off-shore wind energy, as covered by IEC TC 4 and TC 88, respectively are excluded. The committee mirrors the following international committees:

Committee Name	Committee Title
<b>IEC/TC 114</b>	Marine energy - Wave, tidal and other water current converters

## 4 Structure and Membership

### 4.1 Structure

The Figure below illustrates the structure of the Committee:



## 4.2 Members

The list below are the members for the year:

Organisation	Name	Role
<b>Exceedence</b>	Ray Alcorn	Chairperson
<b>Impact9</b>	John Fitzgerald	Committee Member
<b>DP Energy</b>	Sara Armstrong	Committee Member
<b>BME Consulting</b>	Sean Barrett	Committee Member
<b>ARR Ltd</b>	Cuan Boake	Committee Member
<b>Pure Marine</b>	Paul Brewster	Committee Member
<b>Smart Bay</b>	Rogério Chumbinho	Committee Member
<b>SEAI</b>	Joyce Acheson	Committee Member
<b>Wave Venture</b>	Ronan Costello	Committee Member
<b>Open Ocean Energy</b>	Theo Devaney	Committee Member
<b>UCC</b>	Fiona McAuliffe	Committee Member
<b>Techworks</b>	Jenny Hanafin	Committee Member
<b>Rockall Research</b>	Alan Henry	Committee Member
<b>UCC</b>	James Kelly	Committee Member
<b>UCC</b>	Tony Lewis	Committee Member
<b>UCC</b>	Matthew Shanley	Committee Member
	Brian Holmes	Committee Member
	Kevin Harnett	Committee Member
<b>UCC</b>	Gregorio Iglesias	Committee Member
<b>CEI</b>	Jonathan Dunne	Committee Member
<b>G-Kinetic</b>	Vincent McCormack	Committee Member
<b>NUI Galway</b>	Stephen Nash	Committee Member
<b>WaveRam</b>	Sean O'Callaghan	Committee Member
<b>UCC</b>	Michael O'Shea	Committee Member
<b>UCC</b>	Florent Thiebaut	Committee Member
<b>PO Maritime</b>	Mark Wemyss	Committee Member
<b>TUD</b>	Emma Robinson	Committee Member

## 5 Summary of 2018 Activities

### 5.1 National

#### 5.1.1 Meetings

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

Meeting No.	Date	Minutes Reference
1	28 March 2019	N0523
2	21 November 2019	N0525

#### 5.1.2 National Work

NSAI ETC TC18 were not involved in any National deliverables in 2019. TC18 supports all National parties who have an interest in Marine Energy in benefitting from Standards being developed at IEC level.

## 5.2 International/Regional

### 5.2.1 Meetings

Committee members attended IEC meetings as follows:

Committee Name	Location	Date	No. of Attendees
IEC/TC 114	Delft, NL	11-12 April	2

### 5.2.2 International/Regional Work

In previous years a number of the committee members attended IEC/TC 114 PT/WG meetings throughout the year. The IEC TC114 Plenary Meeting was held in Delft, NL. 2019 saw a significant decline in Irish representation during this week, which also include other PT/WG meetings.

It should be noted that the support of the Sustainable Energy Authority of Ireland (SEAI), before 2019 had been instrumental in maintaining Ireland's position as a global leader in Marine Energy Standards development. The withdrawal of funding has weakened this position and this has the potential to weaken Ireland's ability to become a global leader in this area.

### 5.2.3 International/Regional Voting Results

IEC/TC 114: Ireland voted on a total no. of 5 documents open in 2019 with a 100% overall voting record

## 5.3 Regulatory Development/Update

IEC TC114 is a relatively young TC and currently develops Technical Specifications to reflect an industry that is still under development. Nevertheless, long-term consideration require members to remain aware of the following European Regulations and Directives;

- Directive 2014/30/EU - Electromagnetic Compatibility (EMC)
- Directive 2014/35/EU - The Low Voltage Directive (LVD)
- Directive 2014/53/EU - Radio Equipment Directive (RED)

## 6 Irish Publications/Reviews

### 6.1 Publications

The Committee did not publish any national deliverables in 2019.

### 6.2 Reviews

The committee did not review and national publications in 2019.

## 7 Work programme for 2020 onwards

When measured on number of Irish experts engaged with IEC Standards development overall the NSAI ETC TC18 is the most successful committee within the ETC. There are a very high number of experts who are active on PT/MT within IEC TC114. Ireland is ranked 3, behind only the U.S. and U.K., for number of active members.

Building on this success will require a new model being agreed between the NSAI-SEAI on a means to fund experts.

With this support the work programme for 2020 will see Irish experts continue to play a pivotal role in the development of International Standards for Marine Energy.

## 8 Additional Information