

Technical Committee 18 Marine Energy



Annual Report 2012

Scope

The committee follows and contributes to the work of IEC TC 114 Marine energy - Wave, tidal and other water current converters

To prepare international standards for marine energy conversion systems. The primary focus will be 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 TC 4, are excluded.

The standards produced by TC 114 will address:

- system definition
- performance measurement of wave, tidal and water current energy converters
- resource assessment requirements, design and survivability
- safety requirements
- power quality
- manufacturing and factory testing
- evaluation and mitigation of environmental impacts

International TCs Shadowed by this TC

IEC TC114 Marine energy - Wave, tidal and other water current converters

Irish Industry/Sector Served by this TC

All parties who have an interest in Marine Energy

Technical Committee 18 Marine Energy

1. Review of the Year 2012

The Committee meets twice a year and a number of the committee members attend PT/WG meetings throughout the year. The Chairman attended the IEC TC114 plenary meeting in Tokyo in May. We are also represented by nominated experts from our committee at all the current Project Teams/Working Group of TC114. It should be noted that the committee is extensively represented on these PT's resulting in Ireland having a strong influence on the development and content of the standards being produced. PT 62600-103 is now set up and Brian Holmes is the Project Leader.

This continued representation is vital in maintaining Ireland's position as one of the leaders in Wave and Tidal Power development.

Ireland submitted a New Work Item Proposal to IEC TC114 which was approved and Brian Holmes will be the project leader. This again strengthens the Irish participation at the IEC level.

The 4th Annual International Conference on Ocean Energy (ICOE) was held in Dublin in October and members of the Technical Committee made presentations on developments in Ireland and other topics.

The Project Teams/WG and Irish Experts are as follows

Project Number	Description	Irish Expert
PT626-101	Wave Resource Characterisation & Assessment	B Holmes, M O'Cathain
PT626-201	Tidal Resource Characterisation & Assessment	C Boake, C O'Kelly
PT62600-2	Design requirements for marine energy systems	J Fitzgerald, R Alcorn
PT62600-100	Performance Assessment of Wave Energy Converters	J Tedd
PT62600-200	Performance Assessment of Tidal Energy Converters	J MacEnri, P Brewster
PT 62600-102	Wave energy converter power performance assessment at a second location using measured assessment data	J Weber, T Lewis
NWP	Guidelines for the early stage development of wave energy converters: Best practices and recommended procedures for the testing of pre-prototype scale devices	B Holmes
PT62600-10	Assessment of mooring system for marine energy converters	P Brewster W Sheng
PT62600-20	Guideline for design assessment of Ocean Thermal Energy Conversion (OTEC) system	No member
PT62600-30	Electrical power quality requirements for wave, tidal and other water current energy converters	F Sharkey, Sara Armstrong

To facilitate this level of contribution we have set up consultative groups for each of the groups above. One member of the each group has been nominated as convenor and arranges ad hoc meetings as necessary.

2 Membership

As the work of IEC TC114 has expanded significantly we have added to the membership in order that we can contribute in a meaningful way to all PT's and WG's.

Chairman John Fitzgerald ESBi

Secretary Fran Mackey NSAI

Brian Holmes	UCC
Jochem Weber	Wavebob
Cuan Boake	QUB
Tony Lewis	UCC
Ray Alcorn	UCC
Michael O'Cathain	SSE Renewables
James Tedd	ESBi
Paul Brewster	Pure Marine
Garth Bryans	Aquamarine
Sue Barr	Open Hydro
Charlotte O'Kelly	TechWorks Marine Ltd
Fergus Sharkey	ESBi
Sara Armstrong	UCC
Wanan Sheng	UCC

Circulation

Peter Coyle	MRIA
Colm deBurca	ESBi
John Ringwood	NUIM
Eugene Doogan	Wavebob
John Keating	Ocean Energy
Eoin Sweeney	SEAI

3 International Meetings 2012

The IEC TC114 Plenary was held in October. John Fitzgerald and Fran Mackey attended.

PT/WG meetings were held during the year. Some were actual meeting and others were by telephone or webex. These meetings were attended by the Irish experts and we continue to have a major influence on the documents being produced and the work and time commitment required to maintain this influence in IEC TC 114 is of great benefit to Ireland.

Brian Holmes will be the Project Leader of a new PT 62600-103 approved by IEC TC114.

4 Programme for the coming year

It is intended to hold at least two committee meetings and the IEC TC114 plenary meeting is due to take place in Tokyo in May 2013. Nominated experts will continue to

work through the PT's and WG and meet when necessary, including the consultative groups