

ICES WGMRE REPORT 2017

SCICOM STEERING GROUP ON ECOSYSTEM PRESSURES AND IMPACTS

ICES CM 2017/SSGEPI:02

REF. SCICOM

Interim Report of the Working Group on Marine Renewable Energy (WGMRE)

4–6 April 2017

Lisbon, Portugal



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Recommended format for purposes of citation:

ICES. 2017. Interim Report of the Working Group on Marine Renewable Energy (WGMRE), 4–6 April 2017, Lisbon, Portugal. ICES CM 2017/SSGEPI:02. 8 pp.

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Executive summary

The fourth meeting of the ICES Working Group on Marine Renewable Energy (WGMRE) took place on 4–6 April 2017. It was hosted by Wavec, Lisbon, Portugal and attended by 7 participants representing 4 countries. The main focus of the meeting may be summarised in the following topics:

- All members gave presentations providing summaries of the developments in MRE in their respective countries, including consenting processes, management tools and relevant research programs.
- Discussion on the development of a paper to be published in a peer-reviewed journal. The paper would be about moving towards a question-led approach for managing the marine environment in order to enable sound decision making for renewables. A concept abstract for the paper was established.
- Discussion of the development of an ICES viewpoint on the implementation of adaptive management approaches in MRE, with the participation of WGMBRED, using information collected previously on country report updates.
- Explore possible collaboration links between WGMRE and WGMPCZM. A connection was made via Skype with the WGMPCZM meeting that was being held in Barcelona on 6 April, to know the work that has been done by this group on methodologies for cumulative impacts assessment in the marine space.
- ToRs were revised to replace the organisation of workshops by collaborations among ICES WG.

1 Administrative details

Working Group name
Working Group on Marine Renewable Energy (WGMRE)
Year of Appointment
2017
Reporting year within current cycle (1, 2 or 3)
1
Chair(s)
Finlay Bennet, UK
Meeting venue
Lisbon, Portugal
Meeting dates
4–6 April 2017

2 Terms of Reference

ToR a) Provide summaries of the state of development of the marine renewable energy sector, covering offshore wind energy, in-stream tidal energy, wave energy and tidal barrages, updated on an ongoing basis, and including 'horizon scanning' to identify future issues for marine environmental management

Background:

- **Science Requirements:** the marine renewable energy sector is rapidly emerging as a new user of marine space. There is a need for up-to-date, spatially explicit information on developments and on current research activities to determine potential interactions with ecosystems and other sea users.
- **Advisory Requirements:** Advice to OSPAR and other customers requires access to latest research outcomes and experience of developments in this emerging science area.
- **Requirements from other EGs:** marine renewable energy developments will impact or interact with topics considered by other EGs, for example marine mammals, seabirds, benthos.

Deliverable: Live documents, on marine renewable energy developments and associated research, updated and extended annually.

ToR b) Report on developments in consenting procedures for marine renewable energy

Background: As for ToR a) above.

Deliverable: Live document, updated and extended annually.

ToR c) Report on the development of decision–support and management tools for planning and regulation of marine renewable energy developments, considering the relevance to new technology, cumulative effects and the application of risk–based ecosystem approaches to management

Background: As for ToR a) above.

Deliverable: Live document, updated and extended annually.

ToR d) Identify cross–sectoral issues involving marine renewable energy, for example opportunities for co–location, interactions with fishing, aquaculture, fisheries and Marine Conservations Zones

Background: As for ToR a) above.

Deliverable: Individual fact sheets on expected interactions and issues by sector, for use by other EGs and ICES customers.

ToR e) Foster strong collaborative working relationships with other ICES Expert Groups, integrating recommendations across topic areas and identifying priority issues and science applications

Background: As for ToR a) above.

Deliverable: Establish links with other WG (during year 1, second cycle).

List of Acronyms

EG: Energy Group

MRE: Marine Renewable Energy

ToR: Terms of Reference

WG: Working Group

WGMRED: Working Group on Marine Benthic and Renewable Energy Developments

WGMPCZM: Working Group for Marine Planning and Coastal Zone Management

WGMRE: Working Group on Marine Renewable Energy

3 Summary of Work plan

- Draft summary reports on MRE developments, consenting processes and decision support tools by country (ToRs a, b & c).
- Invite chairs and members of other EGs to participate in the WG meeting and otherwise identify cross-cutting issues; review relevant material in other EG reports.
- Update and extend reports on ToRs a, b & c.

- Review progress against multi-annual ToRs and adjust as appropriate.
- Complete national reports on ToRs a, b & c.
- Further develop integrated and collaborative approaches across expert WGs to efficiently progress scientific and advisory aspects of topic based issues.
- Identify science, advisory and other EG needs for continuation of WGMRE activities and formulate multi-annual ToRs as appropriate.

4 List of Outcomes and Achievements of the WG in this delivery period

- Compilation of country reports including renewable installations, legislation and targets and challenges;
- Proposed and worked on a paper to be published in a peer-reviewed journal;
- Development of an ICES viewpoint abstract to discuss with WGMBRED as a possible collaboration among the two WGs.

5 Progress report on ToRs

Changes/ Edits/ Additions to ToRs

ToRs were revised to replace the organisation of workshops by collaborations among ICES WG. Progress report on ToRs and workplan

Progress and fulfilment by ToR

Each ToR was reviewed and progress against delivery is reported below. The utility and practicality of each ToR was also considered with a view to agreeing changes regarding the ICES approval for a further 3-year work plan period.

ToR a) Provide summaries of the state of development of the marine renewable energy sector, covering offshore wind energy, in-stream tidal energy, wave energy and tidal barrages, updated on an ongoing basis, and including 'horizon scanning' to identify future issues for marine environmental management. The expected deliverables identified: live documents, database system and GIS outputs on marine renewable energy developments and associated research, updated and extended annually.

- Progress: In the previous cycle, the Working Group developed a new template based on the previous work of SGWTE. It is being used to provide annual updates of: the scale and type of marine renewable energy developments that are operational and planned, environmental research into the effects of marine renewables, and best available techniques for assessment – particularly in the context of regulatory requirements.

ToR b) Report on developments in consenting procedures for marine renewable energy. Live document, updated and extended annually.

- Progress: The template agreed for annual updates includes a section that delivers against this ToR.

ToR c) Report on the development of decision-support and management tools for planning and regulation of marine renewable energy developments, considering the relevance to new technology, cumulative effects and the application of risk-based ecosystem approaches to management. Live document, updated and extended annually.

- Progress: As with the previous ToRs the country updates provide information on the development of decision-support and management tools within the planning and regulatory systems.

ToR d) Identify cross-sectoral issues involving marine renewable energy, for example opportunities for co-location, interactions with fishing, aquaculture, fisheries and Marine Conservation Zones. Individual fact sheets on expected interactions and issues by sector, for use by other EGs and ICES customers.

- Progress: the WG did not fully address this ToR. However, a connection was made via Skype with the WGMPCZM meeting that was being held in Barcelona on 6 April, to know the work that has been done by this group on methodologies for cumulative impacts assessment in the marine space; further collaborations with this group have been discussed afterwards among the WG members.

ToR e) Foster strong collaborative working relationships with other ICES Expert Groups, integrating recommendations across topic areas and identifying priority issues and science applications.

- Progress: As mentioned in the previous ToR a link with WGMPCZM has been established during the meeting. WGMRE members will continue to seek to establish and retain an overview of ICES advice on impacts of marine renewable energy and seek to ensure coordination and consistency across working groups. The focus will be on the preparation of a paper to be developed with WGMPCZM. In this paper the progress across European countries on the implementation of the adaptive management approach to environmental monitoring activities of MRE is going to be addressed.

Cooperation with other WG

- We have identified a number of other ICES working groups covering various aspects of the need to understand and manage the effects of marine renewable energy. The current focus of WGMRE is to prioritise topic based issues for collaborative working.
- WG on Marine Mammal Ecology; WG on Seabird Ecology; the Working Group on Marine Benthos and Renewable Energy, WG on Marine Planning and Coastal Zone Management have all given further consideration to the effects of marine renewable energy projects.
- Link with WGMPCZM (see progress on ToR d) above)
- Collaboration on ICES viewpoint with WGM BRED.

Cooperation with Advisory structures & IO

Nothing noted.

Science Highlights

- Strong links between the international group called WREN (working to resolve environmental conflicts of wind energy) has been established and its funding is provided by U.S. Department of Energy for Secretariat function of WREN.
- Strong links with PNNL who host Tethys website which acts as a hub for new evidence of environmental impacts of marine renewable energy. More information on WREN and Tethys here: <http://tethys.pnnl.gov/>
- Worked on publication of paper in peer-reviewed journal.
- ICES viewpoint.

6 Revisions to the work plan and justification

Changes in work plan regarding ToR e) on organising workshops; other types of collaboration with other WGs seems more feasible. Like connecting to other WG meetings and other ways of connecting to maintain close working relations to achieve cross-sectoral interactions.

7 Next meetings

The next meeting will be held in Norway and will possibly be combined with a conference on seabirds that is going to be organised in Runde. The exact date is not known but is expected to be in April 2018.

Annex 1: List of participants

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