

TeraWatt Steering Group

Notes and Actions Arising

Title: TeraWatt – EPSRC Marine Challenge Fund - Wave and Tidal Energy Project

Date: 23-5-12

Time: 10:00 – 11:00

Location: All Energy – Room 2

Purpose: To convene the first TeraWatt Steering Group (SG); outline the projects objectives, structure and management; confirm the Terms of Reference for the Steering Group; working arrangements and set the scene for the following workshop.

Attendees

Mark James – MASTS – Chair

Jon Side – Heriot Watt – TeraWatt PI

Jim McKie – Marine Scotland

Charlie Grimston – CNCAsset

Bill Ritchie – University of Aberdeen, Independent Scientist

Scott Couch – MCT

Calum Miller – Scotrenewables

Ian Bryden – Representing UKCMER

Agenda

1. Welcome and Introductions
2. Brief Project Outline
3. Project structure and Management
4. Steering Group Terms of Reference
5. Steering Group – membership and working arrangements
6. General discussion
7. Summary of actions
8. Close

Papers

There are no papers for this meeting. All necessary information will be provided on the day.

Notes and Actions Arising

The presentation provided to accompany the meeting is attached in Annex.

1. Ian Bryden was unable to join the meeting by VC due to technical problems.
2. **Action:** Jim McKie agreed to liaise with the Marine Management Organisation with a view to representing them on the TeraWatt SG.
3. Joanna Yates of Scottish Renewables had been invited to join the SG but to date there had been no response.

4. Toby Gethin (TG) had also been invited to become a member of the SG and MJ was hopeful that the response would be positive. [TG confirm by email - 24/5/12]
5. It was agreed that Garth Bryans of Aquamarine Power should also be invited to join the SG.
6. It was agreed that the SG would convene every six months and at least once a year these meeting should be face to face.
7. The SG will be provided with copies of Project Management Committee (PMC) meeting minutes by Jon Side (JS).
8. Between SG meetings, JS would remain the main point of contact.
9. Date of Next Meeting - 13/9/12 – Heriot Watt University, Conference Centre tbc
10. [*Post meeting note:* A date for a second stakeholder workshop in October is under consideration.]
11. Details of agenda items 3-5 were presented to the SG and appear in Annex to these notes.
12. Further details of the project were presented members of the SG who attended the first TeraWatt Workshop which follow immediately after the SG meetings.

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Steering Group Meeting 23/5/12 Aberdeen – All Energy



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- Calum Miller – Scotrenewables
- Ian Bryden – Representing UKCMER - VC




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- Welcome and Introductions
- Brief Project Outline – JS
- Project structure and Management – MJ
- Steering Group Terms of Reference - MJ
- Steering Group – membership and working arrangements - MJ
- General discussion
- Summary of actions
- Close




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Project Outline

Jon Side




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Project Structure and Management PMC

Jon	Side	Heriot Watt University
Vengatesan	Venugopal	Edinburgh University
Mike	Bell	Heriot Watt University
Susana	Baston	Heriot Watt University
Arne	Vogler	Lews Castle UHI
Rory	O'Hara Murray	Marine Scotland Science
Ian	Davies	Marine Scotland Science
Alejandro	Gallego	Marine Scotland Science
Mark	James	MASTS
Michael	Burrows	SAMS UHI
Mike	Heath	University of Strathclyde
Chris	McCaig	University of Strathclyde
Harshine	Karunaratna	University of Swansea



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Project Structure and Management

- **WORKSTREAM 1: The Research Questions, and Monitoring Progress towards Project Aims/Deliverables and the Methods Toolbox (lead Marine Scotland)**
- **WORKSTREAM 2: Wave and tidal stream modelling (Lead Edinburgh University)**
- **WORKSTREAM 3 Sediment Dynamics (Lead Glasgow and Strathclyde)**
- **WORKSTREAM 4 Ecological Consequences of wave and tidal energy extraction (lead HWU)**

- Project Management Committee – PI+CI and key staff
- Meets every three months
- Represented at UKCMER quarterly meetings - coincident where possible in Scotland




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PMC Responsibilities


- Day-to-day management of the project will be by the PI with support from the Project Management Committee (PMC) - CIs from each University and MSS, and Dr Mark James who will provide the necessary linkages to the Project Steering Group and MASTS
- PMC convenes on a quarterly basis, with its meetings scheduled to coincide with the quarterly meetings of UKCMER. Review the quarterly progress reports for each workstream, review progress on deliverables, and the integration and synthesis of these within the overall goals of the project.
- Attendance at the quarterly meetings by PDRAs will be required, notwithstanding any reserved agenda items set for discussion by the PMC, but the regular reporting of work by PDRAs at the PMC, and from time to time to the Steering Group is considered essential, and presentations to the wider audience at the UKCMER meetings will be encouraged.

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PMC Responsibilities

- Allowance has been made for additional *ad hoc* meetings as required, and for travel should PMC meetings on occasion not be able to synchronise with UKCMER meetings.
- At the end of each year an annual report will be produced by the PMC to summarise work undertaken and the progress made on deliverables. This will be timed to coincide with the UKCMER Annual Assembly and presented to UKCMER as well as the Steering Group.
- From year 2 the PMC will review material suitable for conference/journal publication and dissemination to academic beneficiaries, such as the ICES research community.




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Steering Group Terms of Reference

- Independent scrutiny, review of the progress and deliverables of TeraWatt will be through a Steering Group, chaired by the MASTS Operations Director, Dr Mark James. This will include:-
- the Principal Investigator for TeraWatt;
- representatives from the wave and tidal developers (representing both device and field developers);
- a senior representative from Marine Scotland, as regulator for this sector in Scottish waters;
- an equivalent regulatory representative from the Marine Management Organisation;
- a representative from The Crown Estate;
- Professor Ian Bryden as a senior representative of UKCMER
- an independent representative of the finance and actuarial sector with interests in marine renewables development
- A senior independent scientist




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Steering Group Terms of Reference

- Group includes representatives of all parties with an interest in accelerating the deployment of marine renewables, including the organisations responsible for licensing developments in Scottish and other UK mainland waters, + representatives of the UKCMER and MASTS communities.
- Steering Group will receive all workstream quarterly reports from the PMC, + all other appropriate reports, publications, conference presentations or outputs generated during the course of the work. It will review these on a quarterly basis, and it will meet every 6 months to review progress, inviting presentations on the work undertaken from the PMC, and provide advice and guidance as appropriate.
- A significant role to be played by the Steering Group will be to ensure that TeraWatt researchers are aware of other networking activities, research opportunities and initiatives within the wider UKCMER and MASTS communities so as to ensure there is no duplication of effort within developing projects linked under the UKCMER umbrella or under MASTS. This role also ensures that the KE workshops and wider stakeholder engagement are targeted to optimise the needs of the project and wider UKCERM activity.



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Steering Group

Terms of Reference


The SG will meet every six months to:

- provide independent scrutiny of the project
- review progress and deliverables
- inform the project team of any policy, regulatory or other relevant issues that may influence the direction or conduct of the project
- help to disseminate appropriate information about the project within their respective networks/peer groups
- make recommendations to the PMC and if appropriate the UKCMER with regard to the above
- Meetings will, as far as possible, take place alongside alternate PMC meetings and be coincident with other industry relevant events. At least one meeting per year will need to be face-to-face

The meeting schedule will be set a year in advance.




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Membership and Working Arrangements

- Need to confirm TCE and MMO
- Other industry representatives?
- Meetings will be scheduled at least six months in advance
- Papers minimised and focused
- Some advice and recommendations sought by email – deadlines set and no response to proposals will be taken as ascent
- Online meetings can be arranged, but at least one meeting per year must be face to face.
- Principal point of contact remains the PI.



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General Discussion

TeraWatt Website
<http://terawatt.weebly.com>

