



Wave and Tidal Energy in the Pentland Firth Area - stakeholders, who needs them?

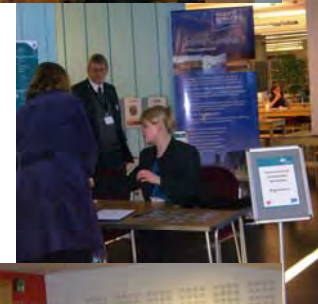
Report of the SRDG/MESMA Stakeholder Workshop 9th February 2011

Kate Johnson¹, Sandy Kerr¹, Jonathan Side¹, Angus Jackson²

CONTENTS

i. Key Findings

1. Introduction and background
2. Workshop questions
3. Attendance profile
4. Programme
5. Presentations
6. Breakout group discussion and feedback
7. Discussion
8. Conclusion



1 ICIT, Heriot-Watt University, Old Academy, Stromness, Orkney KW16 3AW

2 ERI, University of the Highlands and Islands, Castle Street, Thurso, Caithness, KW14 7JD



KEY FINDINGS

- Principal findings are the uncertainties about the technology, timing, and impacts of commercial deployment of wave and tidal energy. An understandable desire to create confidence in the future of a new industry conflicts with a large number of unknowns and reluctance to make commitments until the viability of the sector is more certain. Stakeholders look for information and answers which are not yet available.
- An active and successful Research and Development (R&D) programme is confused with promotion of a much later commercial phase. Stakeholders are left with an impression of imminent deployment. The emerging Marine Spatial Planning (MSP) process has an important role to play but is untested and is running behind events in the area such as the allocation of marine space to marine energy developers.
- The future commercial phase lacks strategic direction with no clear lead. The Crown Estate (TCE) has initiated debate with their seabed leasing round but emphasise their role as facilitators and not promoters. Individual developers are expected to eventually take the lead including negotiation with stakeholders and funding of common infrastructure such as the grid. This leaves many stakeholder issues unresolved until some undefined point in time in the future and a possible proliferation of consultations between developers and stakeholders for each project.
- Stakeholders emphasised their wish for '*active, early and continuous*' dialogue from inception to decommissioning of marine energy projects. Concern was expressed at the allocation of sites by TCE in advance of impact assessment and detailed consultation with existing users. Principal stakeholder worries raised include marine safety, impacts on livelihoods and the balance between national and local issues.
- Stakeholders believe that the planning and deployment decisions will inevitably be 'top down' and that effort should be made to make them more 'bottom up' employing the principle of subsidiarity. Doubts were expressed about the role of the new advisory 'Marine Planning Partnerships' with suggestions of an alternative 'independent panel' with decision making powers.
- It was agreed that all stakeholders could not be equal but that the planning and deployment process should treat everyone equitably and be responsive to weaker stakeholders. Particular concerns were expressed about weaker and non-affiliated stakeholders without access to resources and venues to present their case.
- Stakeholder participation is held to be a priority for the development of a balanced and sustainable marine energy industry - stakeholders are needed. Stakeholders require information about what the developments mean to them in practice, the risks and the benefits. The meeting concluded that a more strategic and cohesive approach to marine renewables, and associated stakeholders, is needed which helps to manage the difficulties created by prolonged uncertainty.

1. Introduction

The MREDS programme is a collaborative administration of five research establishments in Scotland seeking ways to strengthen the marine renewables sector nationally. Six work packages have so far secured over £6million in funding to encompass research into power export and grid issues; petroleum industry collaboration; risk management; hydrodynamics; ecological impacts and socio-economic values. A Strategic Research Development Grant (SRDG) supported by the Scottish Funding Council (SFC) has funded research under several themes including two Pentland Firth case study workshops focused, respectively, on environmental monitoring and stakeholder participation. The MESMA programme is a pan European project funded under the EU FP7 programme designed to develop a generic framework and tools for the evaluation and adaptation of Marine Spatial Plans (MSP) as experience is gained and new information obtained. The framework and tools are tested in nine case studies across Europe including the Pentland Firth. The workshop was also supported by the Scottish and Northern Ireland Forum for Environmental Research (SNIFFER).

The purpose of the one day workshop was to explore the role of stakeholders in the progression of wave and tidal energy development in the Pentland Firth and Orkney Waters (PFOW) area. Realising the potential of wave and tidal energy is a national priority if Scotland is to meet its carbon reduction commitments and exploit the possible economic benefits of the new technologies. However, the interaction and overlap of all the marine activities in these areas is not well understood and the socio-economic impacts of marine energy devices are unclear. Building a picture of the baseline socio-economic conditions in marine areas is a priority for the development of a balanced and sustainable marine energy industry. Recognising that conflicts will exist, the EU and national governments have given priority to the development of Marine Spatial Planning (MSP) and to programmes such as MESMA (Monitoring and Evaluation of Spatially Managed Areas) to inform legislative and good practice development. The Pentland Firth and Orkney Waters area is one of several case studies selected to guide MSP development in Europe.

2. Workshop Questions

The workshop brought together marine energy developers, other business interests, government agencies, local authorities, and relevant NGOs (non-governmental organisations), CSOs (civil society organisations), and others with an interest in marine energy development in the PFOW.

The three questions at the centre of the discussion were:

1. What steps in the planning and development process require the engagement of stakeholders and why?
2. Who should assess respective stakeholder interests and decide between them?
3. How equal are stakeholders—is the process accessible and fair?

The event was funded by the Scottish Funding Council (through an SRDG award to Heriot-Watt University and the Environmental Research Unit of UHI); and the European Union through an FP7 award to Heriot-Watt University and partner institutions for the MESMA (Monitoring and Evaluation of Spatially Managed Areas) programme.

3. Attendance Profile

Forty people attended the workshop [Table 1]. A full list of attendees and their contact details is attached as Appendix X

Table 1. Workshop attendees by sector

Sector	Attendees
Developers and commercial	8
NGOs and CSOs	6
Fishermen's Organisations	4
Government and local government	4
Statutory bodies	2
Academic	16
TOTAL	40

4. Programme

- 09.30 Introduction
- 10.00 Presentations by Professor Angela Hull (HWU) and Dr Kari Hege Mørk (Statoil plc)
- 10.40 Breakout session addressing Question 1
- 11.30 Feedback and questions from Session 1
- 12.15 Break
- 13.00 Presentation by Dr Pippa Goldschmidt (Marine Scotland)
- 13.30 Breakout session addressing Question 2
- 14.15 Feedback and questions from Session 2
- 14.45 Breakout session addressing Question 3
- 15.30 Feedback and questions from Session 3
- 15.45 Summary and wrap up
- 16.15 Close

5. Presentations

Three presentations were made, one each from the academic, commercial and government. The presentation slides may be viewed at <http://www.mreds.co.uk/> and follow the links to Events/Past meetings and workshops.

1. Professor Angela Hull, Heriot-Watt University

Planning the marine environment - reconciling the interests of all users

Angela Hull described the key issues for Marine Spatial Planning and discussed some of the uncertainties surrounding its implementation. After pointing to the organisational similarities with the land planning system she identified reasons for the failure of terrestrial participation structures which might be exacerbated in the more centralised marine proposals. She questioned the clarity of purpose for Marine Spatial Planning in Scotland drawing on the example of Germany where five principles (protect navigation; maximise economic opportunities; promote offshore wind; sustainable sea use; protect ecosystems) and four uses (shipping; pipelines/cables; research; wind energy) were identified. In closing she summarised barriers to engagement and challenges for MSP governance.

2. Dr Kari Hege Mørk, Statoil plc

Stakeholder Analysis - a key tool for successful implementation

Kari Mørk works with Statoil as Stakeholder Manager on their Sheringham Shoal wind farm development off the coast of Norfolk, 20km out into the North Sea. In her talk she explained the work undertaken by her company to analyse stakeholder interest and identify key flash points which could delay or have adverse impact on progress of the project. The analysis enables them to work with the stakeholders concerned and address potential conflicts. For each significant issue they carry out a stakeholder risk analysis identifying the quality of their relationship with the stakeholder concerned, the attitude of the stakeholder to the project, the influence which the stakeholder could have and finally an assessment of the importance of the stakeholder related to specific issues - the stakeholder criticality.

3. Dr Pippa Goldschmidt, Marine Scotland

Pentland Firth and Orkney Waters - MSP and Regional Locational Guidance (RLG)

Pippa Goldschmidt leads the Marine Scotland planning team for the Pentland Firth and Orkney Waters (PFOW) pilot MSP. Pippa was unable to travel to the workshop and her presentation was read by Kate Johnson (HWU). She explained the background to the Marine (Scotland) Act 2010 and the reasons why the PFOW area was chosen for the pilot MSP. The Crown Estate development leases were described together with the timing for the plans and the three stage process. Key questions and next steps were highlighted including: an update to the Strategic Environmental Analysis (SEA); a Human Resource Analysis (HRA); and studies for stage 2 of the plan including fisheries and socio-economic study. A key outstanding question is how to convert the non-statutory pilot plan into the statutory plan. It was reported that the consultation on Scottish Marine Areas was about to close. After deciding on the areas and publication of the National Marine Plan later in 2011, the Marine Planning Partnerships (MPPs) and Area MSPs could be progressed.

6. Breakout Group Discussion and Feedback

Breakout groups were organised across the disciplines and were shuffled and re-shuffled for each session. The discussions within each group and the subsequent plenary feedback were recorded for later analysis and publication. Each group (A, B, C, and D) was tasked to approach each question from a slightly different perspective.

- A. Groups followed the steps in the framework established under the MESMA programme for the monitoring, evaluation and adaptation of Marine Spatial Plans [www.mesma.org]. These groups were facilitated by Sandy Kerr of ICIT.
- B. Groups worked to the context of the Intergovernmental Oceanic Commission (IOC) guidelines on MSP [www.unesco-ioc-marinesp.be]. These groups were facilitated by Kate Johnson of ICIT.
- C. Groups were asked to consider the criteria needed to assess the answers to each question and were facilitated by Jonathan Side of ICIT.
- D. Groups took a freestyle approach to the discussion appointing a facilitator from within the group.

The following notes are an account of the discussions that took place in the breakout sessions. They are a distillation of the main themes and topics discussed and are not intended to be a detailed minute. The authors make no comment about the validity of opinions and no attempt has been made to correct erroneous comments.

Q1 “What steps in the planning and development process require the engagement of stakeholders and why?”

Theme	Stakeholder issues
National and local objectives	National objectives do not give adequate account to local and social well-being issues - problems of matching and balance. MSP in Scotland is development oriented.
Reasons for inclusion of stakeholders	Stakeholders Include those affected or have an influence on a project; named organisations or persons; those whose livelihoods depend on the sea (direct or indirect financial interests).
Public good (where everyone has a stake)	Interest criteria such as attractive scenery; biodiversity; general quality of life; recreational users; and safety. The safety and well-being of those affected by a project or activity was highlighted as a key criterion. RYA in particular pointed to large number of small and recreational craft in the PFOW area.
Stakeholder selection	It was said that a shortage of data and a lack of scientific understanding about effects on other users influenced the application of selection criteria for stakeholders and stakeholder engagement. Identify as many stakeholders as possible, as early as possible. Risk analysis and possible division of stakeholders into primary, secondary and tertiary interests.
Engagement criteria	It was questioned how the development lease areas had been decided and complaints were made that the Pentland Firth lease round had not been subject to stakeholder engagement in advance. Fishers noted that they had to initiate the consultation themselves. It was suggested by some that those who shout the loudest and

	were the most persistent might be considered stakeholders.
Active, early and continuous dialogue	There were several contributions emphasising the need for active and early dialogue continuing throughout the process from inception to decommissioning. It was recognised that consultation would be different at different stages of the project but that it should continue post installation backed up by monitoring and evaluation of impacts. Regular monitoring and review was something which needed funding.

Q2 “Who should assess respective stakeholder interests and decide between them?”

Theme	Stakeholder issues
Status of local engagement	Things not regarded as important nationally are overlooked and without local engagement will be overlooked completely. Fishers stressed the sheer diversity of local fishing activities which could not be represented from a national standpoint. Local assessment and decision making where possible - the subsidiarity principle (make decisions at the lowest possible level which could make them) should apply. Traditional and local knowledge is a valuable resource.
Top down and bottom up approaches	Many expressed the view that a top down approach was inevitable and the question should always be asked as to how it might be made more bottom up. Top down can lead to uniform planning without adequate account of regional differences.
Non-affiliated interests	Several references were made to weaker and non-affiliated stakeholders with poor access to information, resources and venues to express their interests. It was said the developers will only do what they have to do and the overarching process had to account for weaker stakeholders.
Local Planning	The advisory Marine Planning Partnerships (MPPs) required under the Marine (Scotland) Act had not yet been formed and it was said to be unclear how they would work in practice. An independent panel was suggested as an alternative means to assess and decide between competing interests. The relationship between marine and terrestrial planning is not clear. Community benefits from marine developments have not been defined.
Marine Scotland	It was noted that Marine Scotland has the legal duty to publish and review plans as a means to promote sustainable development and mitigate the effects of climate change. Marine Scotland would assess and decide - they are the consenting authority. MSP is a political process of competing priorities.
Statutory requirements	A number of existing statutory requirements (givens) shape the nature of marine development in space and time - the Habitats and Marine Strategy Framework Directives for example

Q3 “How equal are stakeholders - is the process accessible and fair?”

Theme	Stakeholder issues
Equality	Stakeholders are not equal but not sure it is a matter of equality; some are decision makers with authority and will decide; real question is about fair and equitable treatment in dealings with all stakeholders. Stakeholders are not equal - the main stakeholders are informed but the general public has to search for information.
Fair and Equitable	The process is inherently unfair but everyone cannot be treated the same. In many cases there is no opportunity to say “no”. The process should treat everyone equitably and be responsive to weaker stakeholders. Metrics of success in stakeholder participation - open; measured; responsive.
Transparency	The government has a responsibility to look beyond the main stakeholders (lobbyists) and be pro-active in overcoming apparent public indifference and consultation fatigue.
Marine Planning Partnerships	Marine Planning Partnerships (MPPs) are not democratic and will not be active for some time. MPPs are advisory and more local decision making powers should be considered. Suggestions of an independent body to speak for non-affiliated and disenfranchised stakeholders were raised again. Reference was made to the work of the former Infrastructure Planning Commission (IPC) ¹ .
Remote impacts	Examples of remote impacts related directly to PFOW developments were given - overhead power lines on mainland Scotland; fisheries consequences elsewhere; trans-border environmental effects. How are stakeholders in these areas to be involved?

7. Discussion

The recent report of Scottish Environment Link “*Avoiding conflicts in the marine environment*” [2010] highlights the deep uncertainties surrounding the development of marine renewables which it describes as a dangerous mix of ‘urgency and unknowns’. Urgency because there is a powerful political imperative towards the development of marine renewables in Scotland for the purposes of economic development and long term environmental objectives for the mitigation of the effects of climate change. These latter objectives are embraced in legally binding targets to reduce carbon emissions. Marine renewables do, however, entail significant disturbance to marine space and the surrounding coastal communities. The impacts may be beneficial, neutral or harmful but gaps in data and analysis make it difficult to see which is which. This SRDG/MESMA Stakeholder Workshop (and the preceding workshop “*How much environmental monitoring is enough*” [Kerr *et al.* 2010]) reflected many of these unknowns and the uncertainties generated which do not make for easy relationships between stakeholders. The unknowns and uncertainties exist over a wide spectrum including financing with a severe drop in UK renewables investment in

¹ The Infrastructure Planning Commission (IPC) was the independent body set up to examine applications for nationally significant infrastructure projects in England and Wales. It was abolished by the new Coalition Government in 2010.

2010/2011 against a buoyant global trend. Clean energy investment in the UK dropped by 70 percent in 2010, and the nation's position among G-20 leaders fell from 5th in 2009 to 13th [Pew 2011]. Other uncertainties include

Technology - The wave and tidal technologies are under development and test and there is no clear idea of which, if any, will progress to commercial deployment. There are public financial and other incentives to assist research and development but few firm details about what will be commercial. Some stakeholders, such as the fishers, have expressed doubt that it will ever happen². Environmental stakeholders such as the John Muir Trust have highlighted the limits of renewables as a key energy source [John Muir Trust 2011]. The developing success of the offshore wind power sector in moving to a mainstream source of energy answers some questions but raises the threshold of commercial viability for wave and tide.

Grid - Uncertainty about the technology and timing of commercial deployment spills over into decisions about the grid extension and enforcement to accommodate power export from the PFOW area. To meet a requirement date from 2016 grid work should be starting now in 2011. Without a commitment from developers to pay for the work it cannot proceed unless strategic guarantees are given which would probably have to come from the government. Numerous out of area stakeholders also become involved such as those in the vicinity of the proposed new overhead lines around Beaully.

Institutions and Governance - Marine Spatial Planning and a new marine regulatory framework are making significant progress with the introduction of the Marine (Scotland) Act 2010 and the Marine Strategy Framework Directive (MSFD) but the institutions and processes which will administer them are not yet completely formed and tested. The publication of Crown Estate and developer aspirations for marine renewables in the PFOW is running well ahead of the governance process which will control them and the details required for permitting.

Promoters - There are a number of actors who might be considered to be promoters anxious to imbue the wave and tide sector with confidence but at the same time not really knowing what is possible and reluctant to commit financial and other resources until the risks and benefits are clearer. The Crown Estate with their Round 1 invitation for seabed lease applications have acted as *de facto* promoters so far but describe their role as "... *facilitators...*"². The Scottish government promotes the wave and tide sector as being in the national interest but it is individual developers who are asked to carry the strategic and project risk. For other stakeholders there is confusion about "... *who is in charge...*"² and limited information about potential impacts.

Impacts, Networks and Links - The generation of power, using wave and tidal devices, intercepts hydrokinetic energy which would otherwise be expended elsewhere in the marine environment. This interruption of the natural dynamics of marine energy has consequences

² Reference stakeholder meeting between The Crown Estate, developers and fishermen, Kirkwall Hotel, Orkney, 9th March 2011

for physical and ecological processes and associated human activities. More data is needed about these impacts locally to the PFOW and across boundaries as required under the Marine Strategy Framework Directive (MSFD).

8 Conclusions

8.1 What steps in the planning and development process require the engagement of stakeholders and why?

Active, early and continuous dialogue from inception to decommissioning among as many stakeholders as possible was the overarching conclusion. Principal concerns are the safety of users of the sea, the effects on livelihoods and the balancing of national objectives with local concerns. Risk analysis and a division of stakeholders into primary, secondary and tertiary interests was suggested. However, complaints about the lack of consultation about the Crown Estate PFOW leasing round highlighted the problems of consulting over such a tentative process as the development of wave and tidal power. Other stakeholders, such as the commercial fishing sector, spoke of increasing frustration at a lack of detail about what was to happen, the impact on their livelihoods and what they believed was their exclusion from the planning and development process so far.

8.2 Who should assess respective stakeholder interests and decide between them?

Marine Scotland have legal duties for planning and licensing and a general view was that a top down approach is inevitable but it should always be reassessed to see if it can be made more bottom up adopting the subsidiarity principle (make decisions at the lowest possible level which can make them). The devolved powers for statutory MSP and formal consultation provisions for planning and permitting set out in the Marine (Scotland) Act have yet to be introduced and it is unclear how the proposed Marine Planning Partnerships (MPPs) will be composed and how effective they will be in meeting local needs. The MSPs are relatively high level and Dr Mørk explained in her presentation how much work was left to individual developers to identify and resolve problems between stakeholders - far from ideal in her view. In the Statoil case, their Sheringham Shoal wind farm (under construction) is a relatively isolated single development. Similar stakeholder provisions in the PFOW, with many developers in close proximity, could lead to several separate consultations going on with the same stakeholders at the same time. An 'independent panel' was suggested on the grounds that it could take a more overarching and strategic view.

8.3 How equal are stakeholders—is the process accessible and fair?

There was acceptance that stakeholders are not equal and not everyone can be treated the same. The main conclusion was that the process should treat everyone equitably and be responsive to weaker stakeholders. The theme of responsiveness to weaker and non-affiliated stakeholders with poor access to information, resources and venues was repeated many times across the breakout groups. A proliferation of consultations with individual developers leading to 'consultation fatigue' is a key concern. Questions were raised about the democratic credentials of the proposed Marine Planning Partnerships and the links between the marine and terrestrial planning/permitting systems. Section 36 approval under the Electricity Act 1989 is required for all marine energy developments over 1MW in

Scotland which allows developers to ask the minister for 'deemed planning consent' thereby bypassing the local authority procedures except as a statutory consultee.

8.4 Summary

There are clear strains in the relationships between developers of marine renewables and other stakeholders exacerbated by the prolonged uncertainties about what is practically involved and whether the developments will actually take place at all. If the whole network of 1.6GW capacity is constructed as described there will be benefits to some but significant disturbance to the region - positive and negative in effect. There is very little detail so far about how the benefits will be distributed and the practical implications of the impacts such as where and how communities may continue to fish and how marine energy devices co-exist with the environment and protected areas. Marine Scotland are working to fill some of the data gaps with stage 2 of their three stage pilot MSP for the PFOW including surveys of commercial fishing and socio-economic conditions. However, marine renewables are still at the R&D phase and commercial deployment is not planned until after 2016.

Stakeholder participation is held to be a priority for the development of a balanced and sustainable marine energy industry - stakeholders are needed. Uncertainty and unknowns about the working and impacts of commercial deployment of marine energy devices in the Pentland Firth and Orkney Waters will compete with the need to build confidence in the future of the industry for several years. Before commitments, such as the allocation of space, are made stakeholders require information about what the developments mean to them in practice and the means to influence the outcome. A principal wish of stakeholders is for a clear strategic lead to the new industry to help answer questions held in common between all stakeholders and developers.

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Acknowledgements

We are grateful for the support we have received from the Scottish Funding Council, the European Union FP7 MESMA programme and the Scottish and Northern Ireland Forum for Environmental Research. We also wish to thank all those who attended the workshop and gave freely of their views and experience.

APPENDIX 1 - Workshop Flyer



Wave and Tidal Energy in the Pentland Firth Area:
“stakeholders” - who needs them?

SRDG/MESMA Workshop
Centre for Health Science, Old Perth Road, Inverness IV2 3JH
6th December 2010, 9:30am-4:00pm

The purpose of this one day workshop is to explore the role of stakeholders in making or breaking wave and tidal energy development in the Pentland Firth area. Realising the tidal and wave energy potential of the Pentland Firth area is a priority if Scotland is to meet its carbon reduction commitments, while it also offers important potential for economic development. However the interaction and overlap of all the activities in these areas is still not well understood. In addition the socio-economic impacts of marine energy devices are largely unclear. Building a better picture of baseline socio-economic conditions in the Pentland Firth area is now recognised as a priority for the development of a balanced and sustainable marine energy industry.

Recognising that conflicts will exist, Europe and member country governments have given priority to the development of Marine Spatial Planning (MSP) and to programmes such as MESMA (Monitoring and Evaluation of Spatially Managed Areas) to inform legislative and good practice development. The Pentland Firth area is one of several European case studies selected to guide MSP development.

The aim of this seminar is to bring together commercial developers, regulators and other stakeholders who have a direct interest in the Pentland Firth and consider:

- *What steps in the planning and development process require the engagement of stakeholders and why?*
- *Who should assess respective stakeholder interests and decide between them?*
- *How equal are stakeholders—is the process accessible and fair?*

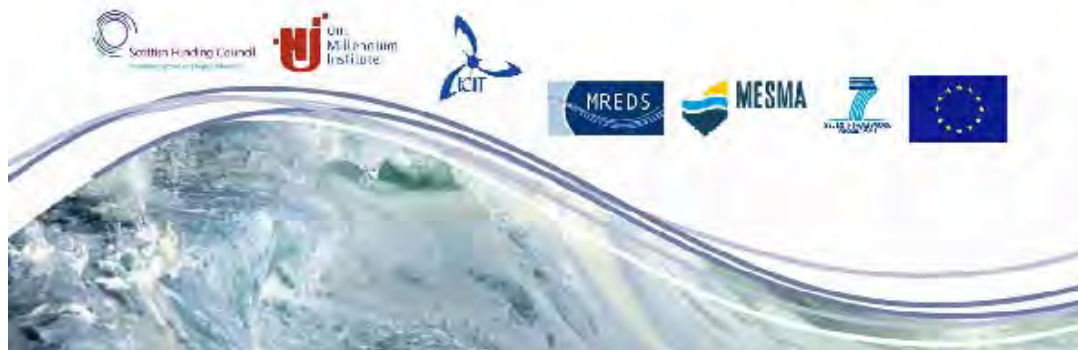
The seminar is targeted at marine energy stakeholders with a direct interest in the Pentland Firth. In particular we have invited key developers, other business interests, government agencies, local authorities, and relevant NGOs and CSOs. This is a unique opportunity for developers and stakeholders to identify key information requirements.

We hope that you can attend this important event. However if you are unable to attend please nominate someone else from your organisation who can take your place.

The workshop will take the form of themed sessions. An end of workshop report will be produced and disseminated to participants and other key decision makers.

The workshop has been part funded by: the Scottish Funding Council through an SRDG award to Heriot-Watt University and the Environmental Research Unit of UHI; The European Union through an FP7 award to Heriot-Watt University and partner institutions for the MESMA programme and associated case studies.

Please REGISTER by 30th October 2010 at <http://www.icit.hw.ac.uk/srdg.htm>



APPENDIX 2 - Workshop Attendees

Bainbridge John	SAMS	one@rednemesisdog.com
Banks Jane	SMRU Ltd	ejb@smru.co.uk
Baston Susana	HWU	s.baston@hw.ac.uk
Black Stuart	Highland Council	elaine.ball@highland.gov.uk
Bullen Kate	HWU	k.l.bullen@hw.ac.uk
Cameron Morven	HIE	morven.cameron@hient.co.uk
Coghill Alan	SFF	a.coghill@sff.co.uk
Commin Andrew	ERI	andrew.commin@thurso.uhi.ac.uk
Davies Ian	MS	ian.davies@scotland.gsi.gov.uk
Douse Andrew	SNH	andy.douse@snh.gov.uk
Fullerton Iain	Kongsberg Maritime Ltd	iain.fullerton@kongsberg.com
Gibb Stuart	ERI	stuart.gibb@thurso.uhi.ac.uk
Gillon Margaret	OIC	margaret.gillon@orkney.gov.uk
Glover-Evans Joanna	ERZ	joanna.glover-evans@thurso.uhi.ac.uk
Gordon Peter	RSPB	peter.gordon@rspb.org.uk
Gormley Kate	HWU	ksg5@hw.ac.uk
Grainger Michael	RYA	admin@ryascotland.org.uk
Guerin Andrew	ERI	andrew.guerin@thurso.uhi.ac.uk
Haslam Susan	SEPA	susan.haslam@sepa.org.uk
Hull Angela	HWU	a.d.hull@hw.ac.uk
Hull Mark	CES	mark.hull@communityenergyscotland.org.uk
Jackson Angus	ERI	angus.jackson@thurso.uhi.ac.uk
Johnson Kate	HWU	k.r.johnson@hw.ac.uk
Johnstone Archie	NLB	archie@nlb.org.uk
Kerr Sandy	HWU	s.kerr@hw.ac.uk
Mackay Duncan	Crown Estate	duncan.mackay@thecrownestate.co.uk
Matheson Fiona	SFF	orkneyfisheries@btconnect.com
McClatchey John	ERI	john.mcclatchey@thurso.uhi.ac.uk
Mørk Kari Hege	Statoil	kahm@statoil.com
Morrison Malcolm	SFF	m.morrison@sff.co.uk
Nicol Ken	DSRC	ken.nicol@dounreay.com
Pollard Edward	OC/UHI	edward.pollard@orkney.uhi.ac.uk
Porter Joanne	HWU	j.s.porter@hw.ac.uk
Redgate Neil	NDR (Env Svcs) Ltd	office@ndres.co.uk
Scott John	SSE	john.scott@sse.com
Side Jonathan	HWU	j.c.side@hw.ac.uk
Sinclair Eann	CNSRP	eann.sinclair@hient.co.uk
Watt John	SFF	a.gammack@sff.co.uk
Weston Mike	UHI	mike.weston@uhi.ac.uk
Yeats Ben	AWS Ocean Energy	ben.yeats@awsocean.com