



Marine Renewable Energy and Associated Interests

Frequently Asked Questions

The following questions and answers on Renewable Energy, Marine Renewable Energy in particular, and Dounreay issues were posed and answered by members of the NSIG Caithness & Orkney Focus Group for the benefit of the wider public and interested parties.

If you have any further questions or would like clarification on any issue, please contact the NSIG and we will endeavour to be of assistance.

1. **How do parties and bodies associated with the Renewable Energy market interact?** Interaction is via numerous routes and forums including the SRF, BWEA, REA, AREG, OREF etc + NSIG
2. **Who do I talk to about Marine Renewable Energy?** Elaine Cameron at HIE or Audrey MacIver at HIE
3. **What does EMEC stand for?** European Marine Energy Centre
4. **What does EMEC do?** It operates test sites for wave and tidal devices, and specification development for the industry
5. **Who owns the liabilities at Dounreay?** Nuclear Decommissioning Authority
6. **Who manages the decommissioning at Dounreay?** At present there is an alliance of UKAEA Ltd., CH2MHill, AMEC—the site licence company is Dounreay Site Restoration Ltd (DSRL)

7. **What is NDA?** Nuclear Decommissioning Authority, responsible to government for decommissioning of civil nuclear sites, including Dounreay
8. **Who is leading the Marine Renewable organisation and progress in the Pentland Firth?** Louise Smith at HIE is the contact for the Pentland Firth Tidal Energy Project
9. **What is the role of the Crown Estate?** The Crown Estate is responsible for leasing of the seabed. Duncan Mackay is the contact
10. **Which interests and businesses make up the Pentland Alliance?** UKAEA, CH2MHill, AMEC
11. **Which interests comprise the Pentland Firth Tidal Energy Project?** Project partners are The Crown Estate, Highlands and Islands Enterprise (HIE), The Highland Council, The Nuclear Decommissioning Authority, Scottish Government, Orkney Islands Council (tbc)
12. **What does the Pentland Firth Tidal Energy Project do?** It supports the development of a globally important marine energy industry in the Pentland Firth to the significant benefit of the local and national economies in a sustainable and environmentally-aware process. It is the single point of contact for enquiries about marine energy developments in the Pentland Firth
13. **What is the role of the NSIG in Marine Renewable Energy?** It hosts 2 relevant focus groups to discuss issues and to action these, if possible. These are the Caithness & Orkney Focus Group, and Renewable Energy Focus Group. The NSIG is also represented on the relevant Cross Party Renewable Energy committee at Holyrood
14. **Which form of Marine Renewable Energy is the Caithness / Orkney area best suited for, wave or tidal?** Both—tidal between Dunnet Head and Duncansby Head and through Orkney Islands, wave to the west

15. **Can the Dounreay grid connections be used?** Upgrade to the line is required for transmission—planned for approx 2013
16. **What skills are available?** Many trades and an extensive supply chain (please see Supply Chain link)
17. **Does anyone make devices in Caithness/Orkney? Or the North of Scotland in general?** There are several device developers based in the region including AWS Ocean Energy in Alness, MTDS in Caithness, Pentland Power in Orkney, Scotrenewables in Orkney, Tocardo in Caithness, Wavegen in Inverness. Typically devices only exist in prototype form.
18. **Who undertakes research?** EMEC, Environmental Research Institute, ICIT
19. **How much energy can be obtained from the Pentland Firth?** Expert opinions vary, recent opinion from the Renewables Advisory Board (RAB) is 1GW UK wide in wave and tidal by 2020
20. **Why is the Pentland Firth so attractive to developers?** Biggest tidal resource in the UK
21. **When will tidal devices be deployed in the Pentland Firth?** Leases to be available in 2009
22. **Is there going to be a new reactor at Dounreay?** No
23. **How many jobs are going from Dounreay and when?** Approx 2500 jobs in Caithness and North Sutherland (and 3000 Scotland wide) are dependent on Dounreay. About 2000 are directly linked to Dounreay work through DSRL or its contractors. Most are set to go in the next 10-15 years
24. **Does EMEC produce electricity?** Devices tested at EMEC can put power onto the grid. Typically this is for short spells.

25. **How do devices affect the environment?** Environmental effects of devices need to be monitored. The knowledge on this subject is being built up at EMEC and other sites. Work is also being carried out by the ERI and ICIT on this subject through the SRDG programme
26. **How do devices affect fishing?** Typically tidal devices are seabed mounted or they have a structure that penetrates the surface. Wave devices are on the surface. Different types of fishing will have different interactions with the different types. Again, ERI and ICIT are studying this aspect through the SRDG programme
27. **Will the surfing be impacted upon?** Surfing happens close to shore, typically in areas that would not have developments
28. **How many jobs will marine energy create?** For the 2020 UK target of 38GW from all renewable energy sources, RAB estimate approx 130, 000 jobs. A specific study on Pentland Firth scenarios has not been done
29. **What is the status of the grid connection?** There is currently minimal capacity within the grid on either side of the firth. Long term solutions for grid development may include major land based or subsea cable routes. Short term solutions include local energy usage or storage as well as a change in access requirements to the grid are being looked at
30. **Is the output from tidal and wave energy sources predictable?** Tidal energy is predictable where as wave is not.
31. **What is the situation with regard to offshore wind?** Offshore wind projects can be accessed through the recent announcement of Round 3 by the Crown Estate. An area in the Moray Firth has been identified. Grid enhancements to pick up offshore wind developments could benefit the PF area.