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The Pentland Firth and Orkney Waters and Scotland – Planning Europe's Atlantic gateway

Kate R. Johnson*, Sandy A. Kerr, Jonathan C. Side

International Centre for Island Technology, Heriot-Watt University, Old Academy, Stromness, Orkney KW16 3AW, Scotland

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ABSTRACT

The non-statutory pilot regional marine spatial plan for the Pentland Firth and Orkney Waters (PFOW) is a test to establish a precedent for the whole of Scotland. It is a pilot because it precedes and tests implementation of the statutory process for marine planning set out in the Marine (Scotland) Act 2010. It was selected by the government for the pilot because of the high level of existing and proposed marine renewable energy (MRE) development in a relatively pristine area of coastal waters where traditional activities and habitats protection are already important. The PFOW is the first designated 'Marine Energy Park' in Scotland. It is under immediate pressure of development and the PFOW plan is already in use in support of the development consenting regime. This case study of the emerging plan identifies issues of generic importance to the planning of marine areas under development pressure in near shore locations. In particular, it highlights issues affecting the relationship between marine and terrestrial planning and the interests of adjacent island and coastal communities. The study concludes that a strong central marine governance regime is developing but that engagement of the local community and accommodation of terrestrial planning interests require further consideration. Full integration between marine and land planning may be unattainable but an equitable working relationship between them is essential. A notable feature of the PFOW plan is rejection of zoning in favour of a more pragmatic approach based on consenting criteria and locational guidance.

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1. Introduction

Scotland has the fourth largest marine area in the European Union, with an area of nearly 600,000 km². It stretches from Rockall in the far west to its boundaries with Faeroe and Norway in the north and east. The non-statutory pilot regional marine spatial plan for the Pentland Firth and Orkney Waters (PFOW)¹ is a test to establish a precedent for the whole of Scotland and is the subject of this paper. This research followed the governance analysis approach developed as part of the MESMA project [1]. The PFOW Plan is a pilot because it precedes and tests implementation of the statutory process set out in the Marine (Scotland) Act 2010. It was selected for the pilot because of the high level of existing and proposed marine renewable energy (MRE) development in a relatively pristine area of coastal waters where traditional activities and habitats protection are already important [2]. A priority issue for The Plan are the areas of seabed defined and agreed for

lease between The Crown Estate² (TCE) and marine energy developers. Development of the areas is subject to government licence but is supported by Scottish government targets to generate electricity from wave and tidal energy. The PFOW is the first designated 'Marine Energy Park' in Scotland. It is under immediate pressure of development. The draft PFOW plan is already in use in support of the development consent regime.

The PFOW lies to the far north of Scotland, at the boundary between the Atlantic Ocean and the North Sea (Fig. 1). It is the main route for the flow of Atlantic water into the North Sea. It is a marine area of about 12,000 km² and extends to the limit of the UK territorial sea around the Orkney Islands. The Plan boundary is at the limit of the territorial sea which is also the jurisdictional boundary between Scotland and the United Kingdom. In general, the Territorial Sea around Scotland falls under the jurisdiction of the Scottish government. The offshore area beyond the 12 nm territorial sea limit, but within the Exclusive Economic Zone, falls

* Corresponding author.

E-mail address: k.r.johnson@hw.ac.uk (K.R. Johnson).

¹ The Pentland Firth and Orkney Waters Plan will be referred to as 'The Plan' or 'The PFOW Plan'.

² The Crown Estate (TCE) administers 'Crown Lands' under statute (Crown Estate Act 1961) in the UK. Crown lands are a form of public land and include the seabed in the territorial sea. TCE have a duty to optimise the financial returns which go to the Treasury.

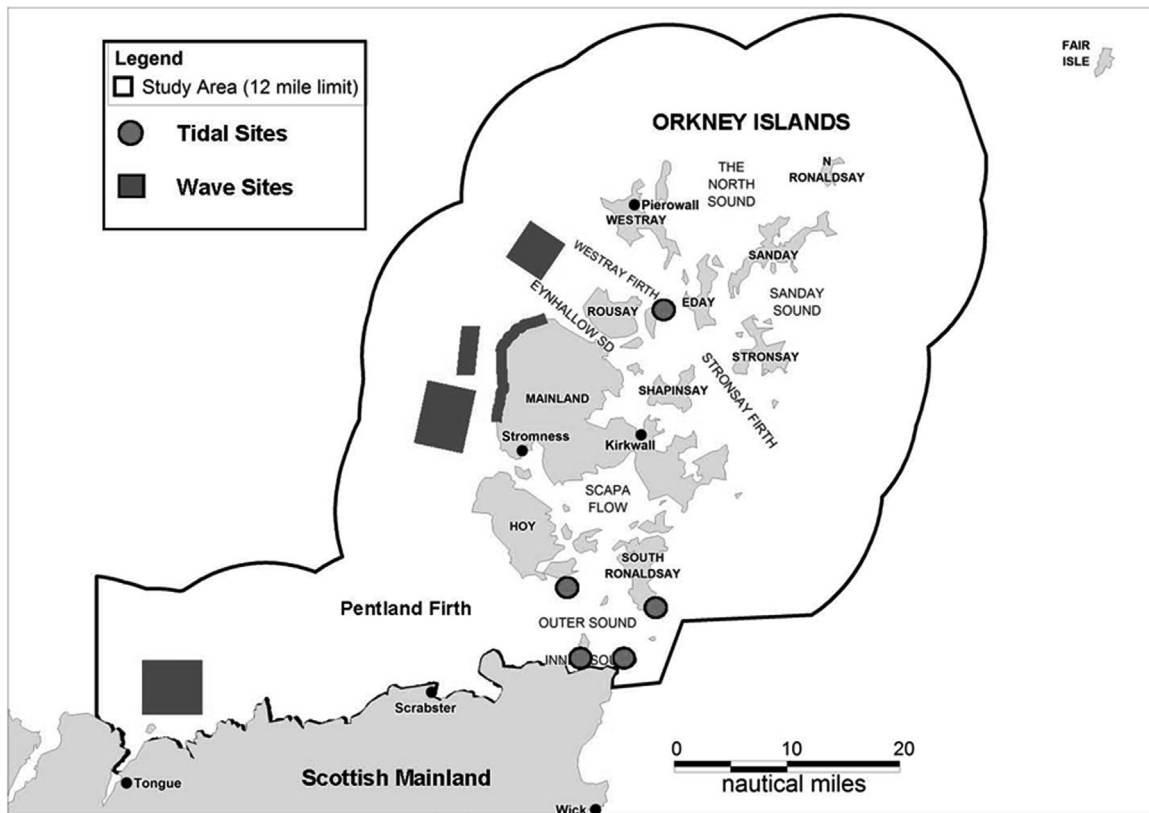


Fig. 1. The PFOW Marine Plan Area.

under the jurisdiction of the UK and different legislation. It is administered by Scotland under a cooperative agreement. There are exceptions for some activities. For example all oil and gas activities fall to the jurisdiction of the UK. By European standards the marine environment is relatively pristine, and the subject of several protective designations such as marine SACs/SPAs, coastal SSSIs and National Scenic Areas. The main traditional activities are community based fisheries, shipping, and eco-tourism. The Orkney island community links with the sea are very strong. The high energy wave and tidal regimes around the islands are exceptional, and have become an international focus for marine energy development. The European Marine Energy Centre (EMEC) [www.emec.org.uk] is located in Orkney, adjacent to a growing network of government and academic support and developer/supply chain companies – a triple helix of business, government and academia. Researchers and developers come from all over the world to test devices and examine their interaction with the natural and human environments.

The PFOW case has many special features which makes it significant for the rest of Europe. It represents the first in the world to deal with the issues raised by the development of emerging marine energy technology (wave and tidal power). The Scottish government places a high priority on the deployment of renewables, with a target to generate all of Scotland's electricity from renewables by 2020 [3]. The ambition for the PFOW is to install 1.6 GW of wave and tidal generating capacity (approximately 1000 devices) by the same date. Features of wave and tidal developments which makes them distinct are plans for dense arrays of devices in near shore coastal waters with connected terrestrial infrastructure. Some prototype wave technologies harvest marine energy with a near shore device then pump water ashore under pressure to generate the electricity on land (www.aquaret.com). Community and terrestrial issues should therefore be important features of any planning process, even if it is ostensibly a *marine*

plan driven by marine development. The Scottish government list two main aims for The PFOW Plan [4]: (a) to facilitate sustainable development with strategic vision, policies and information; and (b) to develop a framework for integrating marine planning with terrestrial planning.

Work on the PFOW marine plan was started in 2009, soon after TCE advertised tenders to lease areas of seabed to marine energy developers. The Plan preparation was divided into three stages, first, a review of known data, second, a research programme to identify the most critical missing data, third, a preparation of the Plan itself. The process is approaching a conclusion with the publication of the draft plan in March 2015. The TCE lease areas were awarded through competitive tender [5]. The spatial definition of development areas therefore preceded the Plan, but the areas are still subject to government licence and could yet be rejected. The emerging relationship between planning and licensing is discussed later. The Marine (Scotland) Act 2010 makes provision for statutory marine spatial planning, with streamlined licensing procedures for development and marine protected areas. The MESMA case study of the PFOW by researchers at Heriot-Watt University (HWU) has tracked the development of the emerging process for marine planning in Scotland [6]. HWU researchers have been involved in the PFOW plan development in three ways: (i) as observers of the emerging process on the area and the community; (ii) as marine science researchers undertaking specific research tasks (including hydrodynamics, fisheries, noise, ecological/environmental and socio-economic/cultural interactions); and (iii) as partners in stakeholder consultation with Marine Scotland, which is the Scottish Government department responsible for preparing the Plan.

A particular focus of this paper is community and stakeholder interaction with the development of the pilot PFOW Plan, including community costs and benefits. A special study has been made of emerging social science questions and the relationship

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