

The people who want to facilitate new marine industries; Agents for Change and the development of wave energy in Scotland.

Suzannah-Lynn Billing¹ and Kenny Black²,

¹Department of Ecology, SAMS suzi.billing@sams.ac.uk

²Department of Ecology, SAMS

Area being submitted to: 1) General science session

Are you a student? No

The Highlands and Islands Region of Scotland has the potential to add to Scotland's renewables portfolio due to its high energy marine environment which led to the expansion of the wave and tidal industries in recent years. Nevertheless, to date, there has been limited research conducted on the social systems around marine renewable energy development, excluding offshore wind. In answer to this deficit, this study explores the well-established concept of agents for change (AFCs), within the context of the wave energy sector in Scotland. AFCs are people who can co-ordinate and facilitate change through their skills, power, and leadership (Lunenburg, 2010).

This project looks at the role of AFCs by examining their behavior, motivation and the consequences of their actions in relation to the development of wave energy to over a 3 year time period. Two case studies, Lewis in the Outer Hebrides, and Orkney, were chosen based on their localities and the interest that they have garnered from wave energy developers due to their high energy marine environments. A grounded approach was taken data collection and a social power analysis conducted in order to find AFCs working within or closely with the wave energy industry that were not part of structured or hierarchical organisations. Emergent themes revealed the barriers that the AFCs faced, and the reasons behind their drive to establish wave energy in the case study sites.

The most noteworthy barrier to wave energy development at the case study sites and to the work that the agents for change were doing was in the form of a complex dynamic between private financial investments in the sector, the national grid, national energy policy, and the technology itself. Financial investment in the wave energy sector was found to be limited by the national grid infrastructure and the slow rate of technology advancement. In turn, technology developments and public investments in national grid infrastructure were restricted by the lack of private investment. These complexities were found to be exacerbated by the changeable nature of UK energy policy and the

political climate around the Scottish Independence Referendum in 2014.

On the other hand, the AFCs were found to act as catalysts for the wave energy industry through their skills, perseverance and visionary approach to facilitating wave energy development, despite significant barriers. Their roles included progressing initial ideas into actual projects, developing local supply-chain, and promoting positive community involvement through open dialogue and effective communication. The motivations of the AFCs are explored by examining their core beliefs and values. These were found to relate to their psychological dispositions of self-efficacy, self-determination, and optimism as well as their relationship with place.

The role of the AFCs in the projects that they were working on transformed as the projects progressed – shifting from visionary leaders and facilitators to advisors. These steps are described and compared to organisational change process models, namely Lewin (1958) and Kotter (1995) showing that these models can be applied outside of organisational change management. The results of this study contribute to understanding how individual AFCs operating outside of the formality of hierarchical organisations can play a role in the development of novel, marine energy technologies.

Acknowledgements

Funded by the European Social Fund. Many thanks to the participants in this research and to Lews Castle College, UHI; Charlie Greenwood, Arne Vögler, and James Morrison.

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