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Setting an agenda for biofouling research for the marine renewable energy industry

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Setting an agenda for biofouling research for the marine renewable energy industry

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Abstract:

Extensive marine growth on man-made structures in the ocean is commonplace, yet there has been limited discussion about the potential implications of marine growth for the wave and tidal energy industry. In response, the Environmental Interactions of Marine Renewables (EIMR) Biofouling Expert Workshop was convened. Discussions involved participants from the marine renewable energy (MRE) industry, anti-fouling industry, academic institutions and regulatory bodies. The workshop aimed to consider both the benefits and negative effects of biofouling from engineering and ecological perspectives. In order to form an agenda for future research in the area of biofouling and the marine renewable energy industry, 119 topics were generated, categorised and prioritised. Identified areas for future focus fell within four overarching categories: operation and maintenance; structured design and engineering; ecology; and knowledge exchange. It is clear that understanding and minimising biofouling impacts on MRE infrastructure will be vital to the successful development of a reliable and cost effective MRE industry.

Keywords: wave, tidal, renewable energy, biofouling, marine growth

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