

Title: Seabird surveys in high energy marine sites; marrying best practise and guidance

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**Abstract:**

Marine renewable energy development require environmental impact studies on seabirds to be undertaken before consent is given and additional monitoring studies are also usually required post-consent. By their very nature, offshore marine renewable energy developments are located in areas where potential energy yields from waves, tides or winds are high, and therefore inevitably such areas frequently experience unsuitable conditions for surveying seabirds.

This study reports the practical experience of undertaking boat-based European Seabirds At Sea survey work at eight offshore developments sites (three wind, four tide and one wave) around the UK between 2009 and 2014. The planned for survey effort at each site which was based on current guidance is compared against what was actually achieved and the reasons for the differences examined, including sea state, swell and logistical considerations. The results show that unsuitable conditions are a significant constraint to undertaking seabird surveys at offshore marine renewable sites and that as a result the current guidance is unlikely to be achievable at many sites. The ways in which the constraints imposed by a high likelihood of unsuitable conditions can be managed are discussed with respect to survey design and execution, information requirements and improving guidance.