



EIANZ 2025 IMPACT ASSESSMENT SYMPOSIUM

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ABSTRACT

Navigating from data collection to impact assessments for offshore wind for key receptors, specifically seabirds, in the Gippsland region

Understanding the distribution, abundance and behaviour of Australia's seabirds within offshore wind sites is a priority knowledge gap. APEM Group, with partners Monash University and Biosis, have been delivering digital aerial surveys (DAS), boat-based surveys and seabird tagging together since 2020, collecting vast data sets that characterise the baseline for multiple proposed project areas in the Bass Strait, off the coast of Victoria. This partnership commenced with the Star of the South project in early 2020 and now includes another five project areas over the last six years, making APEM Group the lead provider of marine seabird surveys in Australian waters. Our survey methods were the first of their kind in Australian waters to collect data on the identification, abundance and distribution of all seabirds within an offshore study areas, which are often the key risk to approvals. Our methods also provide innovative solutions to understand key seabird behaviour, through the use of LiDAR to precisely measure seabird flight heights, a key metric used to determine collision risk mortality rates to estimate impacts from offshore wind to different seabird species. We also collect important tagging data for species connectivity to different colonies and marine areas. We also utilise boat-based data to statistically apportion any species-group level identifications of seabirds, that may occur for more difficult to split species and sub-species. Our team's unprecedented experience has reduced uncertainties in impact assessments for key species and the EIA process as well as providing regulators with confidence to make decisions. This presentation has been pulled together to help developers, consultants, regulators and other interested stakeholders navigate from data collection through project design refinement, embedded mitigation and impact assessments for key receptors, specifically seabirds in the Gippsland region.

SPEAKER BIOGRAPHY

Sean Sweeney is one of the world's leading specialists in data collection, analysis and reporting on birds for understanding the impacts on them from Offshore Wind Farms (OWFs). Based in Melbourne, Sean has been involved in the EIA process for over 60 OWFs globally, presenting the results of studies in scientific papers and conferences for over 20 years. He has worked on multiple Australian OWFs, including SOTS, GEOW and other currently confidential projects. He continually develops new and innovative methods of collecting data to understand and predict bird behaviour and potential impacts from proposed developments on key species and explores new mitigation and offsetting measures to reduce the impacts identified to adapt developments to both address species specific issues and overall impacts.