



OSPREY

CONSULTING SERVICES

a *tpgroup* company

Renewables Support



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OUR SERVICES TO WINDFARM DEVELOPERS

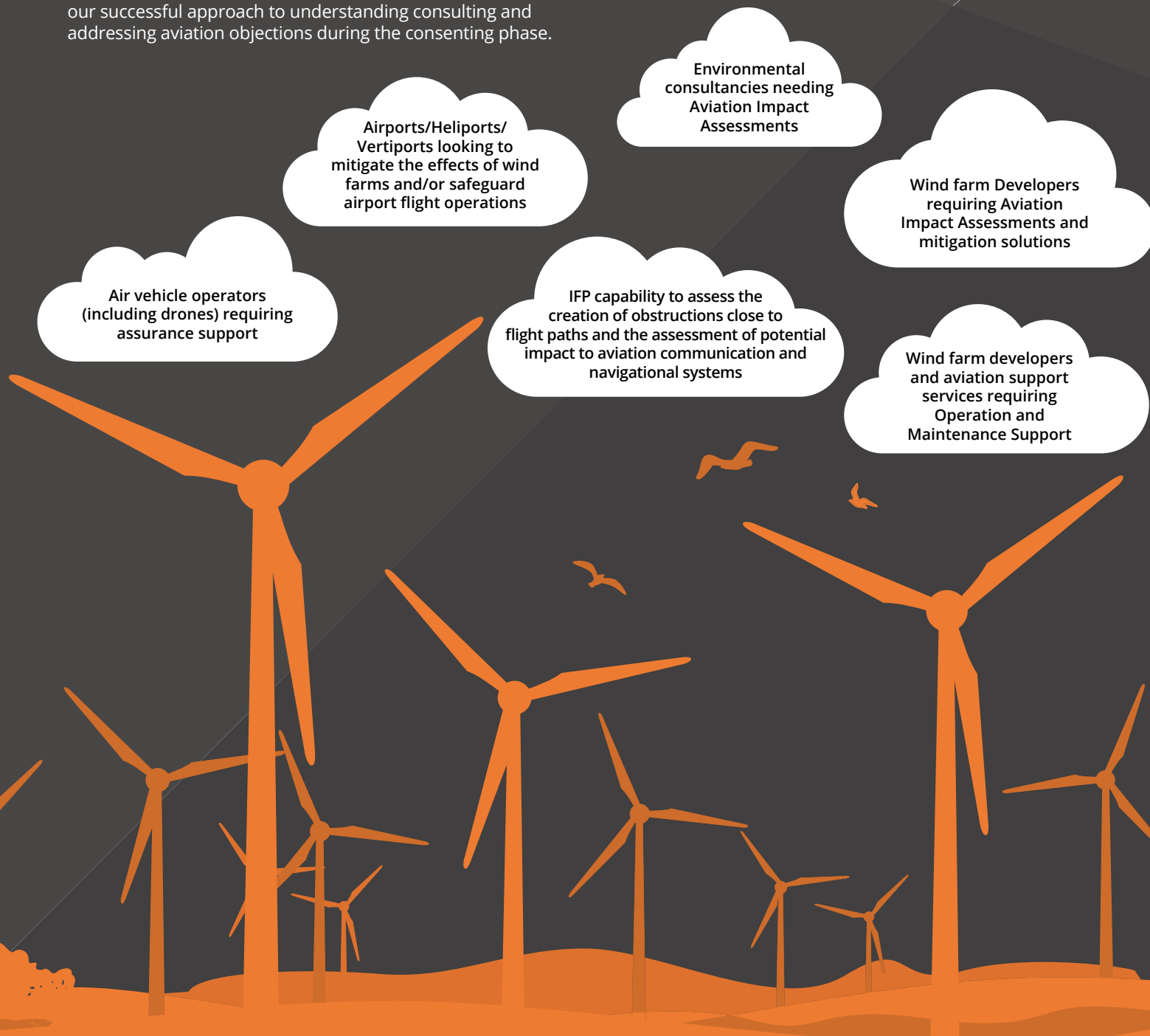


Osprey CSL, a *tpgroup* company, is a technical consultancy specialising in operational and engineering support to both civil and military aviation projects. Over the past fifteen years, Osprey has developed a reputation for excellence in assessing and mitigating the impact of wind turbines on aviation receptors.

We are one of the UK's leading consultancies in supporting the consenting process, but we are also known for providing elegant airspace, procedural, technical and safety engineering solutions to the aviation issues that typically form the basis of planning conditions.

Our longstanding working relationships with key aviation stakeholders such as the Ministry of Defence (MOD) and NATS, as well as the UK Civil Aviation Authority (CAA) enable our successful approach to understanding consulting and addressing aviation objections during the consenting phase.

Our access to multi-disciplinary in-house expertise means that we can support the Construction, Operational and Maintenance (O&M) phases with safety assurance, helicopter operations offshore, changes to airspace arrangements, and delivery of technical mitigation solutions at military and civil aerodromes. We can therefore offer your programme a unique level of end-to-end support.





We provide a thorough service tailored for your needs, aimed at assessing and treating the aviation effects at all stages of the feasibility, planning and consenting process.

We build long term relationships with projects and developers even when options and ownership change; it is not unknown for us to remain with a project all the way from initial zonal feasibility assessment for Crown Estates offshore wind leasing opportunities and feasibility for onshore windfarm siting, and still be there to support you with the relevant planning authority in discharging aviation planning conditions.

Our Consenting Services at a Glance:

- Zonal Feasibility Assessment (Aviation Impact)
- Preliminary Environmental Information Report (PEIR)
 - Aviation Impact Assessment
 - Radar Line of Sight Assessment
- Skilled and informed stakeholder consultation
 - In support of Scoping, PEIR and ongoing assistance
 - Continued throughout relevant planning authority assessment
 - Deploy our multidisciplinary team to drive consultation through to mitigation agreements (Air Traffic Management and Radar Engineering Subject Matter Experts (SMEs)
- Mitigation scheme identification and support
 - Stakeholder agreement on scheme (statement of common ground / memorandum of understanding)
 - Safety case support for reduced lighting scheme for onshore turbines
 - A fully managed Airspace Change Proposal which will consider all options including establishment of a Transponder Mandatory Zone (TMZ) that enables identification of aircraft above a windfarm
 - Independent support and project management services for technical radar mitigation solutions; pursuing a solution of mutual benefit to the developer and the aviation stakeholder
- Upgrade the PEIR to develop the Aviation Environmental Statement (ES) Chapter
 - Address scoping opinion results
 - Progress stakeholder consultation through to statement or identification of mitigation
- Support during relevant planning authority and due diligence services to site acquisition.

OFFSHORE OPERATION & MAINTENANCE



We provide services to offshore projects well beyond the consent phase. The use of helicopters during the Construction, O&M phases is increasingly prevalent, due to the opportunities to increase operational efficiency e.g., delivering personnel, supplies and equipment more expediently, or during sea state conditions that limit vessel access to the turbines.

We can help develop your Concept of Operations (CONOPS) for the use of rotary wing and drones for transport of personnel and resources from shore or vessel as well as maintenance and inspection tasks. As the distance offshore increases, operational efficiencies are required, and we can investigate these for you. For example, we have experience in providing regulatory

and safety engineering support to the establishment and approval of offshore helicopter fuelling facilities. We can also assist you in the establishment of fixed base operations and airfield services onshore, providing regulatory guidance on the development, design and safeguarding of and/or new heliports.

Our Services in Construction and O&M Phases:

- Aviation CONOPS development and safety assurance of aviation operations baseline (e.g., fuelling, helihoist, shore and offshore based helicopter landing areas)
- Identification of policies and procedures required for CONOPS implementation
- Regulatory approval for offshore helicopter fuelling facilities at non-permanently attended installations
- Fully managed delivery of radar mitigation scheme
- Guidance on the regulatory requirements for the lighting of offshore elements
- Fully managed airspace change proposal (CAP1616 where appropriate)
 - For the establishment of TMZ or other restricted airspace, either standalone or as part of a combined technical radar mitigation scheme
 - For the support of helicopter operations offshore and all other airspace options
- Emergency Response Plan and Search and Rescue regulatory support.



WINDFARM SAFEGUARDING

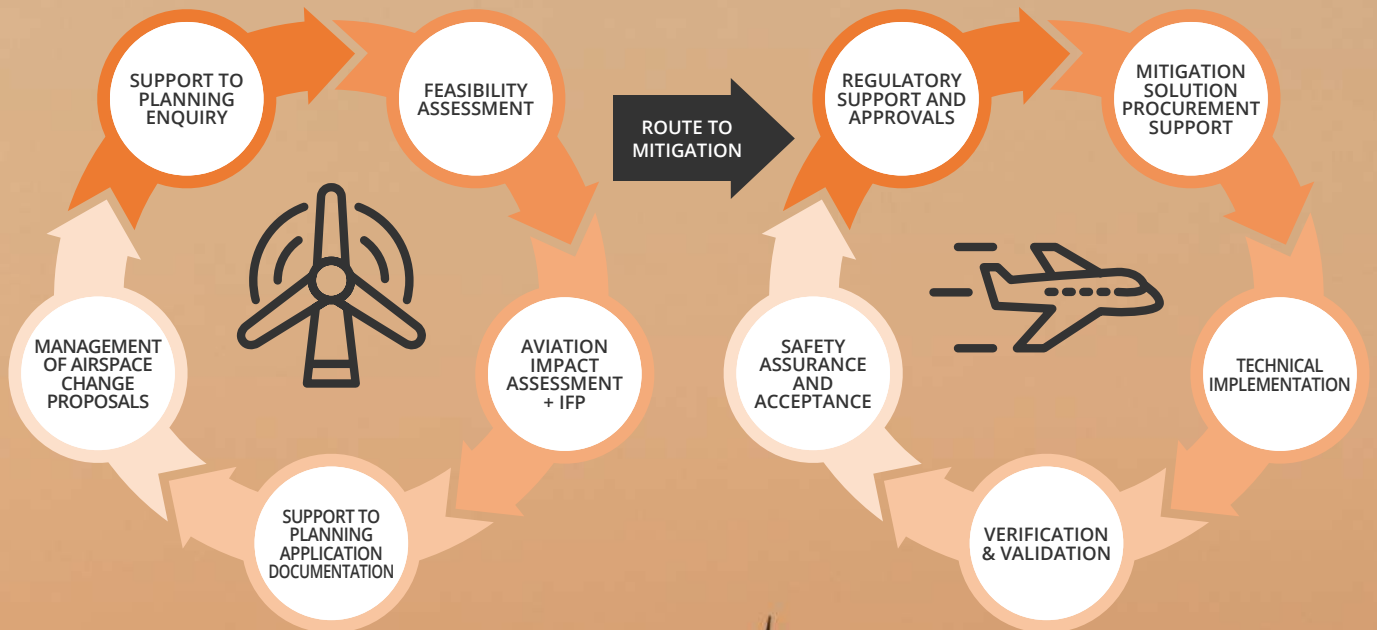


Airports and aerodromes are required to assess the impact of a windfarm development against a range of subjects including Obstacle Limitation Surfaces (OLS), Instrument Flight Procedures (IFP), aviation lighting requirements, technical site safeguarding and interference to critical surveillance and navigation systems. We can provide subject matter expertise to both windfarm developers and airports from cradle to grave.



Our technical consultants are experts in the field of surveillance mitigation having vast experience across both Defence and Civilian domains. We have supported numerous developments, airports, and Defence authorities in achieving successful mitigation of windfarms using a wide range of technical solutions including next generation radar systems, and as such we have unparalleled experience of all the mitigation technologies in use.

As a trusted and independent technical consultancy, Osprey has forged fantastic working relationships with numerous windfarm mitigation suppliers, as well as giving us insight into the new technologies being developed, we are very well placed to understand what solution space may be best placed to solve your windfarm mitigation issue.



OUR EXPERIENCE



We have managed the aviation issues for in excess of 1000 windfarms, both onshore and offshore and have an unrivalled success rate for addressing aviation objections, discharging conditions and delivering radar mitigation. Through our thorough understanding of the issues from both the developers' and stakeholders' perspectives, we are able to identify, and resolve, potential issues through negotiation or the development of operational and technical solutions.

We were the first company to persuade the MOD to accept planning conditions and to work collaboratively with developers towards discharging them. We have successfully resolved aviation issues that contributed to over 7 GW of onshore and offshore wind consented, including Hornsea Projects 1, 2, 3 & 4, Norfolk Vanguard and Boreas, Inch Cape and Neart na Gaoithe, Burbo Bank and Walney Extensions. We have successfully provided support to developments in Europe and Asia in both onshore and offshore renewable markets.

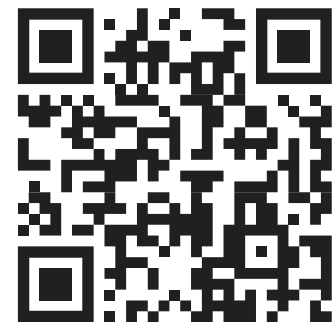
We have authored both Round 2.5 and Round 3 environmental statements on aviation and radar, including Burbo Bank Extension, Walney Extension, and Moray Firth Eastern Development Area. We delivered approval for an Airspace Change Proposal for both the Neart na Gaoithe and Inch Cape Wind Farms which provided mitigation of MOD radar systems we are also managing a developing on-shore wind farm Airspace Change Proposal. Furthermore, we are continuing to support a number of offshore windfarm developers within the Planning Inspectorate (PINS) Examination Development Consent Order (DCO) process for offshore developments.

OUR CLIENTS



The table below summaries the offshore developments in which Osprey has provided aviation expertise.

PLANNING AND CONSENT		CONSTRUCTION, O&M
MORL - EDA Offshore Wind Farm (OWF): Aviation Technical Analysis, consultation support and ES provision.	Ørsted - Burbo Bank 2 OWF Aviation Technical Analysis, Offshore and Onshore consultation support and ES provision.	Ørsted Hornsea 1 Regulatory roadmap, safety assurance for offshore heli-fuelling at Normally Unattended Installation (NUI).
Repsol/Red Rock Power Inch Cape Aviation Technical Analysis, consultation support, ES provision and ACP relating to implementation to TMZ.	Ørsted - Walney 2 Aviation Technical Analysis, consultation support and ES provision.	
Ørsted Hornsea 1 Aviation Technical Analysis, Offshore and Onshore consultation support and ES provision.	Vattenfall - Norfolk Vanguard Aviation Technical Analysis, consultation support and ES provision.	
Ørsted Hornsea 2 Aviation Technical Analysis, Offshore consultation support and ES provision.	Vattenfall - Norfolk Boreas Aviation Technical Analysis, consultation support and ES provision.	
Ørsted Hornsea 3 Aviation Technical Analysis, Offshore consultation support and ES provision.	Vattenfall - Thanet Extension Aviation Technical Analysis, consultation support and ES provision.	
Ørsted Hornsea 4 Aviation Technical Analysis, Offshore consultation support and ES provision.	Other OWF projects not yet in the public domain	



Please contact us to discuss how we can help support your Renewables Support project.