# Essex ...

## A great location for offshore wind





"Essex has a unique advantage for offshore wind with the proximity of its deep-water ports to the planned offshore wind farms. Complimenting the strengths of the Norfolk, Suffolk and Kent areas, the combination of a well established manufacturing economy, a mature port and logistics industry and access to a wide skills base provide great opportunities for Essex to attract investment from this sector around jobs, business and skills "East of England Energy Group



### The Geographic Advantages of the Eastern Seaboard

The eastern seaboard of England enjoys shallow waters and strong wind resources extending far into the North Sea making it a very suitable location for the development of offshore wind farms, it is appropriately known as the East Anglian Energy Coast. The predominant westerly winds result in a sheltered coast which provides a greater operational window for installation and maintenance of turbines.

Nine of the Round 1, 2 and 3 wind farms, and 14.5 GW's of installed and planned capacity, are within 200 km (108 nautical miles) of the Essex coast.

Essex's deep water ports, its excellent road and rail infrastructure and close proximity to London make it the ideal place to set up. Many energy companies have set up their administrative headquarters in the county giving them the competitive advantages of fast and efficient access to operations, supply chains, expertise and decision makers.



### Home to leading companies and operations

A county which is home to the operations of DONG energy, RWE Npower, Global Marine Systems and BAE Systems plus a long history of energy operations.

DONG Energy has been involved in Essex since development of one of the first Round One arrays on the Gunfleet Sands and is now one of the major partners in the Round Two London Array which will be the first 1GW wind farm in the world. DONG maintains and operates the Gunfleet array out of its new base in the port of Brightlingsea giving it virtually all weather access to the wind farm, the offshore substation is only 8NM from the port.

Global Marine Systems is the largest independent provider of submarine cable installation in the world and is headquartered in Chelmsford, the county town of Essex. The company frequently operates out of Harwich providing installation ships, ROV's and expertise to the Round One, Two and Three arrays off the coast. Global Marine is an international organisation with a well proven involvement in the supply chain along the East Anglian Energy Coast.

Red7Marine is a leading provider of offshore and maritime subsea engineering and marine construction services and has its head office in Wrabness, Essex, allowing direct access to the primary shipping ports of Ipswich, Harwich and Felixstowe, each being used extensively in support of the company's global shipments of jack-up barges, containerised diving spreads, ROV's and subsea survey & tooling systems. Red7Marine operates jack-up barges for the offshore energy sector and has recently added to its fleet the DP Reel a fully-mobilised UK-based DPII offshore support vessel.

C Wind and C Truk Boats are based at the port of Brightlingsea providing specialised services, equipment and vessels to the offshore wind industry. Ctruk has designed, built and recently launched Asherah a vessel designed specifically to meet the varied needs of wind farm support work through a variety of removable pods and Rolls Royce water jet engines giving it extreme shallow water capabilities. The flexible pod system has been trialed for a year whilst on charter to DONG Energy on the Walney Offshore Wind Farm.

#### **AJ Woods Engineering**

based at the port of Harwich and operates a fast response maintenance and refuelling service for the East Anglian Energy Coast. Recent projects have included the design, fabrication and installation of blade racks for the 'Seajacks Leviathan' at Harwich Port and the rapid recovery, repair and recommissioning of a damaged ROV ensuring minimal downtime for the host installation vessel. AJ Woods is launching a new 'sea ambulance'/rescue service for offshore wind farms, starting at the Greater Gabbard array.











### **Deep Port Infrastructure**

Essex is favoured with three deep water ports together with four smaller ports and extensive supporting infrastructure. Harwich International is already the UK's largest windport and London Gateway has designated space for offshore wind operations and manufacture. Both have deep draft access for the largest installation vessels and are ideally located on the main Southern North Sea shipping routes for overseas supply chains. The London Port of Tilbury has direct access to the M25 and the national road and rail network and is the UK's greenest port.

Essex is also home to specialist niche ports which are actively engaged in the operation and maintenance of existing wind farms, supplying support vessels, equipment and expertise to the Round 1 and Round 2 arrays and developing new services to meet the expanding needs of the industry.

An extensive network of support facilities exists to serve the ports, logistics and offshore installation and operations industries and is well represented by some of the foremost companies in the offshore renewables sector. Alongside the private sector is a well informed and supportive public sector ensuring planning, supply chain and infrastructure issues are addressed.







#### **Skills**

Essex has the capability to deliver instant solutions to the skills needs of industry. With companies such as Selex Galileo, Gardner Aerospace, BAE Systems, Ford, Visteon and Harwich International Port, Essex has an experienced and qualified workforce of advanced engineers with transitional skills that can serve the offshore wind energy sector.

The considerable college base and two major universities in the county are engaged in developing and delivering programmes that inject of new skills through apprenticeships and work based training as well as industry led courses for retraining and up skilling an existing workforce. The Academy of Logistics, based at South Essex College, provides essential training in port operations and handling, whilst the National Wind Farm Training Centre provides working at height, sea survival and confined space training from Lowestoft College and marine craft skills delivered in Brightlingsea.



## Support

#### Maximise your competitive advantage

Essex should be the perfect place for your company. We have the best environment to get your business investing, starting or expanding in the offshore energy sector maximising your potential alongside Essex's unique advantage in the sector.

We can provide help to find the right site, the right supply chain and the right networks that will help you establish, grow or diversify in the industry.

## Access to local knowledge and expertise

We have established networks and direct involvement with the key sector companies in the county and are members of the East of England Energy Group working across the East Anglian Energy Coast to support this growth sector. You can draw on our extensive local knowledge of the Essex business environment, markets and supply chains as well as our contacts with all the regional and national bodies who support inward investment.

Our property database and expert team makes it easy to find the ideal offices, research and industrial units based on port or supply chain locations.

We are committed to your success and we look forward to welcoming your business to Essex.

INVEST Essex is Essex County Council's Inward Investment Team, providing confidential advice and practical support to companies wanting to establish a presenceor expand in the UK. We promote Essex as an outstanding business destination and help existing and potential investors make the most of our strategic location, thriving business environment and quality of life.

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