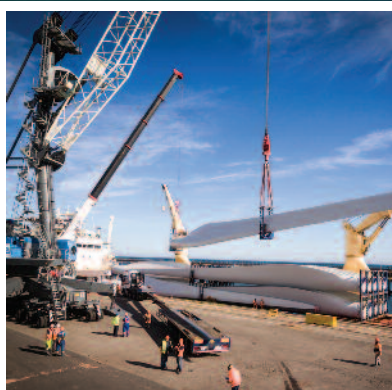




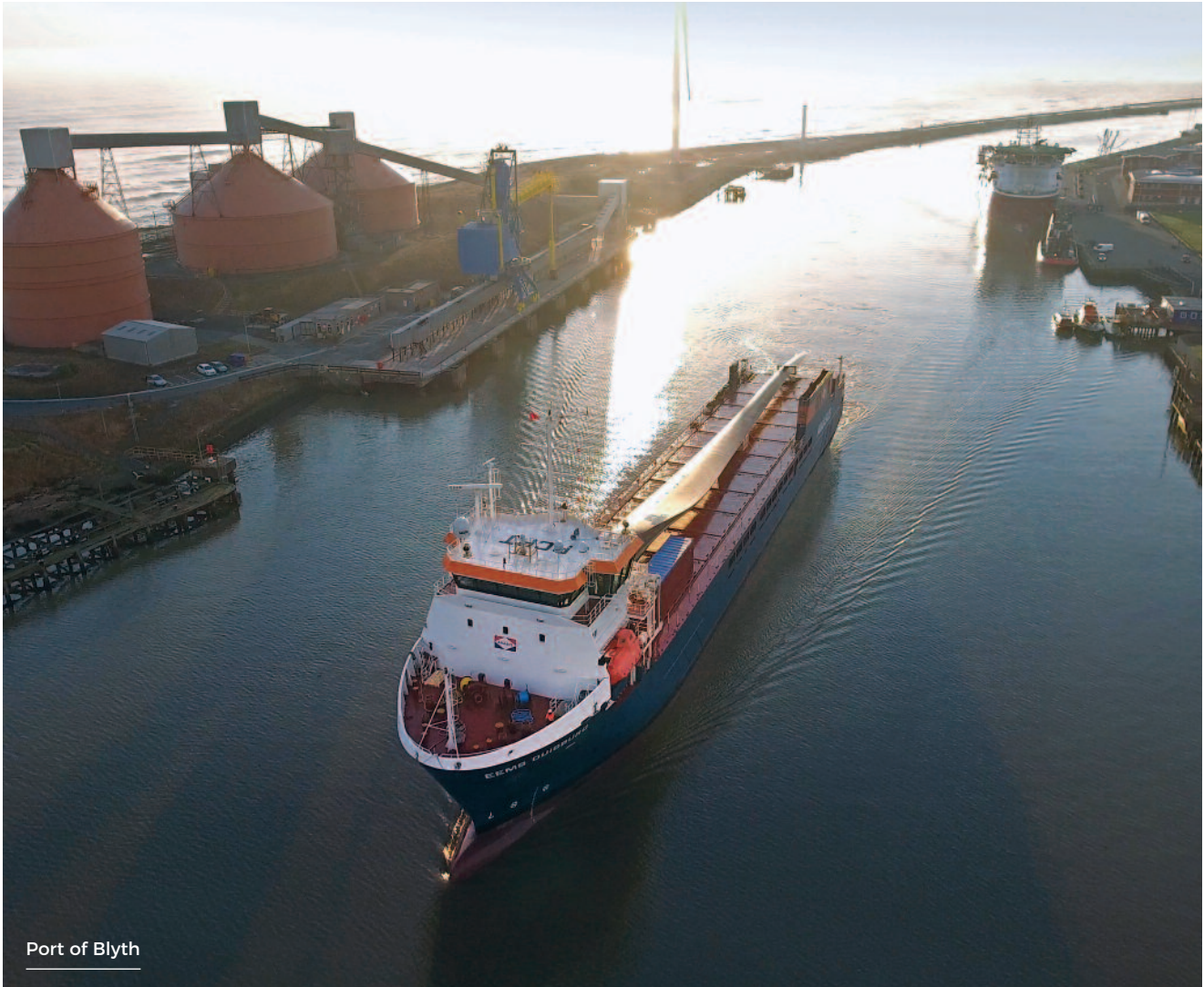
# ENERGY CENTRAL

THE PREMIER OFFSHORE ENERGY  
BASE AT THE PORT OF BLYTH





# WELCOME TO **ENERGY CENTRAL**



**Energy Central - A premier deep-water East Coast UK energy base located in the North East of England - is delivered through a unique partnership between Advance Northumberland, the Port of Blyth, Offshore Renewable Energy (ORE) Catapult and Northumberland County Council which brings together:**

- Nearly 200 HA of strategic, quay linked development sites
- The Port's expertise in managing and supporting time-critical offshore energy projects
- National energy infrastructure including the North Sea Link UK/Norway Interconnector and National Grid assets
- Market access offshore energy developments in the North Sea including offshore wind projects (Dogger Bank, Hornsea and Firth of Forth).

This partnership is underpinned by access to a readymade skills base, a highly connected location and an established offshore energy and fabrication cluster to support your operations at Energy Central.

Advance Northumberland and the Port of Blyth have a selection of strategic land development sites across the Blyth Estuary, identified as prime locations for energy sector businesses looking to relocate and grow in Northumberland. The partnership also offer a series of investment packages and incentives from fully serviced land and infrastructure to complete turnkey solutions.

An extensive specialist supply chain capability has developed within, and adjacent to, Energy Central at the nearby Blyth Riverside Business Park. The park is one of Northumberland's most established business and manufacturing clusters ensuring your supply chain is within easy reach.



## ● South Harbour

- 20 HA modern port terminal.
- Strategic port site including energy and fabrication facilities, offshore energy mobilisation & demobilisation and project related cargo, containers and other breakbulks.
- Two berths of up to 8.5 m LAT with RORO pontoon and served by max 120 tonne capacity craneage and over 40,000 sq m of modern warehousing.



## ● Battleship Wharf

- 19 HA modern port terminal.
- Rail linked terminal with modern interceptor fitted berths and extensive available land.
- Access to four long berths including deepwater berth (9.0 LAT and heavy lift) with port handling equipment including mobile cranes with 100 tonne lift capacity.
- Port related use with energy and marine-related manufacturing and decommissioning project base for North Sea oil and gas assets.



## ● Commissioners Quay

- 2.08 HA Enterprise Zone.
- North East Enterprise Zone (EZ) which helps attract new industry to the area.
- The site boasts the state-of-the-art Blyth Workspace providing 2,787 sq m of high quality office space along with The Commissioners Quay Inn Hotel and Restaurant. Potential energy support base including high quality project offices or R&D related activities.



## ● Offshore Renewable Energy (ORE) Catapult

- The Offshore Renewable Energy (ORE) Catapult at Blyth offers the most comprehensive open access and independent test and research facilities anywhere in the world.
- Wind turbine blade testing facilities which undertake structural testing of blades up to 100m in length (dynamic and static) in accordance with IEC and ISO standards.
- 3 MW and 15 MW power train testing facilities are capable of performing independent performance and reliability appraisals of full systems and components .
- Subsea asset and capability testing.

## ● Blyth Riverside Business Park

- Blyth Riverside Business Park, one of Northumberland's most established business and manufacturing clusters offering a range of industrial space.





FIRTH OF FORTH

NORTH SEA OIL FIELDS



DOGGER BANK  
118 NM

BLYTH OFFSHORE DEMONSTRATOR WIND FARM  
3 NM

HORNSEA

A189

A1M / A19

A189

Northumberland Energy Park  
Phase 3  
95 HA Development Site

Northumberland Energy Park  
Phase 2  
35 HA Development Site

Northumberland Energy Park Phase 1  
36 HA Development Site

6 HA  
Development Site

**ENERGY CENTRAL SITES**

- Northumberland Energy Park
- Bates Terminal / Wimbourne Quay
- Offshore Renewable Energy (ORE) Catapult
- Battleship Wharf
- Dun Cow Quay
- Commissioners Quay
- South Harbour
- Blyth Riverside Business Park
- ⚙️ Port Training Services
- 🏢 Newcastle University
- 🌐 North Sea Link Interconnector Site
- ⚡ National Grid 275kv Substation
- ⚡ Northern Power Grid 66kv Substation
- 💧 Marine fuelling facility





## ● Northumberland Energy Park Phase 1

- 36 HA including 11.13 HA Enterprise Zone.
- North East Enterprise Zone (EZ) which helps attract new industry to the area.
- Attractive to businesses operating in the offshore energy and marine industry.
- Direct quay access with deep-water (9.0 LAT) and jack up barge capability. Plus access to four additional deep-water berths at Battleship Wharf.
- £30m Government investment secured to develop new dock.

## ● Northumberland Energy Park Phase 2

- 35 HA.
- Greenfield site attractive to businesses operating in the offshore energy or logistics sector.
- A service corridor provides quay access with deep-water (9.0 LAT) and jack up barge capability. Plus access to four additional deep-water berths at Battleship Wharf.
- Location of North Sea Link (UK/Norway Interconnector site) will be operational in 2021 and will be the longest subsea interconnector in the world.

## ● Northumberland Energy Park Phase 3

- 95 HA.
- Strategic location vacant industrial site, expansive land offering attractive to businesses operating in the offshore energy, advanced manufacturing or marine sectors.
- A service corridor provides quay access with deep-water (9.0 LAT) and jack up barge capability. Plus access to four additional deep-water berths at Battleship Wharf.



## ● Dun Cow Quay

- 0.38 HA North East Enterprise Zone.
- North East Enterprise Zone (EZ) which helps attract new industry to the area.
- Located next to the Offshore Renewable Energy (ORE) Catapult facility in Blyth - offering the most comprehensive open access and independent test and research facilities in the world.
- Potential use for offshore energy support base including high quality project offices or R&D related activities.



## ● Bates Wimbourne Terminal

- 15 HA in total including 3 HA Enterprise Zone (EZ).
- North East Enterprise Zone (EZ) which helps attract new industry to the area.
- 16,000 sq m of warehousing and overhead craneage, hard standing open storage and roadways.
- Wimbourne Quay provides direct access to RORO pontoon and a deep-water quay (6.7 LAT) accommodating vessels up to 160m LOA. Storage areas with capacity of up to 12 tonnes per sq m.
- Existing marine fuels terminal.
- Bates Quay 160m berth (7.3m LAT) for offshore energy projects and warehousing activities.



# WHY CHOOSE ENERGY CENTRAL?



## Access to markets

Energy Central is ideally located for the Eastern seaboard, sitting midway between Aberdeen and Great Yarmouth, it provides a unique opportunity to access up to nearly 200 HA of development land with quay access. The site is positioned for:

- Offshore wind projects from the Blyth Offshore Demonstrator to Round 3 projects at Dogger Bank, Firth of Forth and Hornsea.
- Decommissioning of oil and gas assets in the Northern, Central and Southern North Sea sectors.
- Fabrication, mobilisation and demobilisation for new and existing oil and gas fields in the United Kingdom Continental Shelf (UKCS).
- Access to national energy assets including the UK Norway interconnector and National Grid.

The North East of England is recognised by the UK Government as having Centre for Offshore Renewable Engineering (CORE) status and is complemented by the Offshore Renewable Energy Catapult's facility in Blyth, which operates the largest concentration of multi-purpose offshore renewable energy technology test and demonstration facilities in the world. Energy Central's offshore energy credentials are also highlighted through EDF Energy Renewables Blyth Offshore Demonstration Windfarm. The project, located 3 NM off the Coast of Blyth is using five 8 MW turbines built on concrete gravity base foundations and the first of its kind to utilise 66Kv cable technology.



## River and Port Capabilities

A host of major international customers are located at Energy Central, many with established engineering facilities in the port; regularly using the deep-water assets for a manner of complex vessel mobilisation and demobilisation projects. The Port of Blyth has five main International Ship and Port Facility Security (ISPS) compliant deep-water terminals with over 1.5km of working quayside to accommodate multiple offshore vessels up to a maximum of 200m in length with no air draft restrictions.

Deep-water berths to 9.5m LAT are complemented by permanent heavy lift crane capability up to 400 tonnes and strengthened quayside able to handle large complex lifts. In addition, extensive modern warehousing and workshops with large open storage areas make Energy Central an ideal place to locate large scale energy projects. The port has a distinct advantage, attractive to numerous manufacturers, subsea engineering companies, contractors and installers. It is the port's ability to be flexible and accommodate multiple projects at the same time due to the availability of the berths and areas within which to execute projects, that sets them apart.

### At a glance:

Max Beam	50m
Max LOA	220m
Max draft	9.5 LAT
Airdraft	No restriction
Lock	Lock free
Jack up barge capability	Yes



## Innovation and R&D capabilities

**A globally recognised location for Innovation and R&D, Energy Central can provide access to the right skills and expertise to support product development.**

Energy Central is unique in that it is home to the Offshore Renewable Energy (ORE) Catapult in Blyth, offering the most comprehensive open access and independent test and research facilities anywhere in the world.

- Wind turbine blade testing facilities which undertake structural testing of blades up to 100m in length (dynamic and static) in accordance with IEC and ISO standards.
- 3 MW and 15 MW power train testing facilities are capable of performing independent performance and reliability appraisals of full systems and components.
- The open access offshore anemometry platform is located in representative Round 3 conditions, 3 NM off Blyth, Northumberland.
- High Voltage (HV) electrical systems test and measurement suite (UKAS accredited).
- Open access shallow water testing facilities with an artificial seabed and two still water test tanks (up to 8m in depth). This controlled salt water environment is used in trials and demonstrations of new and innovative technologies.

These facilities are complemented by world class R&D expertise from the North East of England's five regional Universities (Durham, Newcastle, Northumbria, Sunderland and Teesside) and supported by vocational training by Northumberland College, Newcastle College, AIS Training and Port Training Services (PTS).

Newcastle University's Blyth Marine Station based at Energy Central enables the School of Marine Science and Technology to support cutting edge field research through the operation of its research vessel, The Princess Royal. Energy Central is also home to the University's Emerson Cavitation Tunnel, the only one of its kind in the UK, which provides an efficient service to the marine sector, including ship owners, shipyards and propeller manufacturers.

The University is also a key partner in the delivery of Tyne Subsea, which provides open access to National Centre for Hyperbaric Services for the subsea and offshore energy sectors.

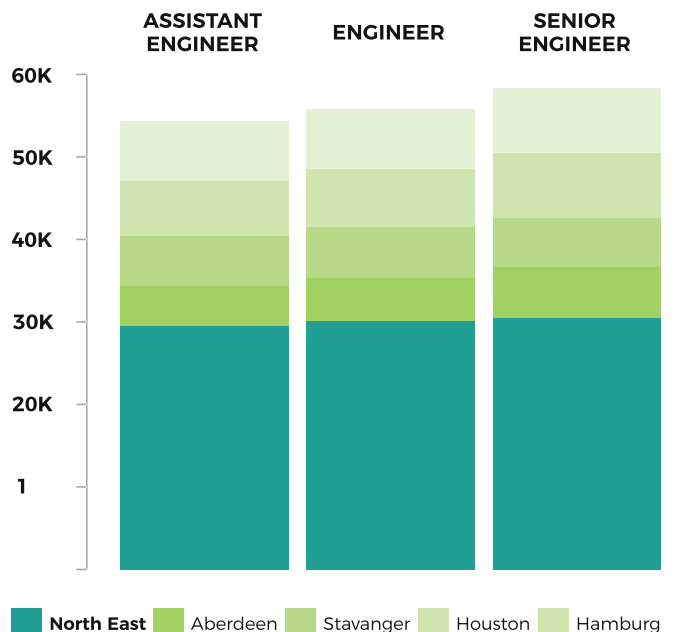
According to the Financial Times Benchmarking Study 2016, a typical 30 person Energy R&D Centre in the North East of England would save nearly £2.5 million per annum in labour and property costs compared to London, while a 75 person wind turbine manufacturing operation would save over £5.5 million per annum.



## Skills and talent

**Energy Central offers an experienced and readymade skills base. Staff attrition rates are some of the lowest in the UK, making it possible for you to recruit the right skills and keep them within the business.**

- **Population of 930,961** within a 30 minute drive time with approximately **1.6m** within a catchment area of around 45 minutes.
- **693,537 people of working age** within a 30 minute drive time with approximately 1m within a catchment area of 45 minutes.
- **8.9%** of the population works in **manufacturing**.
- **11.3%** of the population works in **associate professional and technical occupations**.
- **10.8%** of the population work in **skilled trade occupations**.
- Access to 5 Universities (Newcastle, Northumbria, Sunderland, Durham and Teesside). Total of **11,000 post graduates** per year studying Engineering and Technology related degrees and **50,000 graduates studying STEM related courses**.
- The North East has **8,750 students studying Engineering and Technology subjects**. In terms of total students, the North East has one of highest proportions of students studying Engineering and Technology subjects.
- **Salary costs** can be up to **14% lower** than other European energy bases.
- The North East **has a higher concentration of its workforce involved in Energy-related activities** than many other regions in the UK.



Selection of Engineering Professionals annual labour cost £ (GBP), European regions, 2014\*

# INCENTIVES AND INVESTMENT



## Investment and Infrastructure

Over £30m of government funding has been secured to provide the right conditions for economic growth within Energy Central. A £25m programme of remediation and reclamation is underway to prepare Northumberland Energy Park. This work will unlock a significant opportunity for businesses needing direct quay access.



## North East Enterprise Zone status

Energy Central provides access to over 16HA of designated North East Enterprise Zone development space. This status recognises the strategic importance of the site as an area to deliver significant investment and employment for the North East economy.



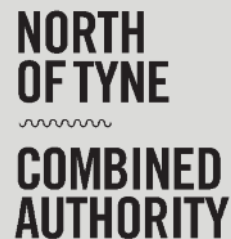
## Established Engineering Cluster and Supply Chain

Beyond marine infrastructure and port services, Energy Central has a well-established engineering supply chain with extensive expertise located in close proximity to the area. Major customers from the offshore energy sector are able to take advantage of a 'single point of contact' approach to project support with fabrication, mechanical, electrical, hydraulic and welding capability available 365 days a year.



## The North of Tyne Combined Authority

Covering the areas of Newcastle, North Tyneside and Northumberland, the NTCA has been established to deliver devolution and provide a strong and powerful voice to our area. The combined authorities agreement with UK Government includes £600 million of extra money over 30 years to invest in inclusive growth along with powers to develop land for economic growth and regeneration. Working better with Government, NTCA also aims to boost trade and investment and support projects to grow our digital sector and low-carbon economy with a commitment to explore new opportunities for the North of Tyne in the future.



## Centre for Offshore Renewable Engineering (CORE)

This recognises our strong proposition in the offshore renewable energy sectors. In particular the availability of specialist skills and the existing cluster of businesses that are based here, meaning your business is in the best location for growth.





# EXCITING OPPORTUNITIES AT **ENERGY CENTRAL**

Energy Central offers excellent opportunities for time critical oil and gas, offshore renewables, subsea and decommissioning projects.

## **Subsea Technology**

The North East of England is recognised as a global centre of excellence for the subsea offshore energy sector. The cluster of pioneering businesses and the innovative supply chain in areas such as ROVs (Remotely Operated Vehicles), subsea pipe technologies and fabrication are just some of the reasons why the subsea sector has been able to grow and innovate at Energy Central.

## **Offshore Renewables**

Energy Central is well placed to service the ongoing major expansion of the offshore wind sector with Round 3 zones such as Dogger Bank, Firth of Forth and Hornsea within easy reach.

With a strategic location for offshore energy opportunities in the North Sea and for onshore developments across Northern UK, Blyth has established itself as a premier east coast energy base.

Energy Central boasts a long association with the wind energy sector, being the home of The Offshore Renewable Energy (ORE) Catapult research facility.

## **Oil and Gas**

Energy Central has emerged as a rapidly expanding base for oil and gas related mobilisation and demobilisation operations. With a choice of terminals and berths offered by the Port of Blyth, together with a range of on-site oil and gas related companies, the focus is on providing a comprehensive, high quality and flexible service on demand to ensure the quickest possible turnaround of vessels.

## **Decommissioning**

Energy Central is ideally placed as a location for decommissioning of North Sea oil and gas assets. The Port of Blyth has the expertise and facilities to provide a controlled and managed environment for the safe decommissioning of these assets through an onshore base. These assets include sub-sea equipment fixed to the ocean floor as well as smaller structures in the Southern North Sea, ensuring direct market access to the estimated £40bn decommissioning sector.

Whether handling offshore wind energy components or oil and gas projects, the Port of Blyth has the experience and expertise to deliver a professional and efficient service. Backed up with heavy lift crange, large areas of covered and open storage space, significant development sites and ISO 9002 accreditation, the Port can offer a comprehensive package to the energy sector as a whole.

Join the businesses that already call Energy Central home.

Newcastle University  
**EDF Energy**  
**Renewables**  
North Sea Link **TEXO**  
**Transped Ltd**  
**Royal IHC**  
**Port Training Services**  
**National Grid**  
**Geos Marine Fuels**  
Northumberland College  
**OSBIT Lift Rite**  
Oil Spill Response  
**Task Force**  
**Northern Power Grid**  
**DeepOcean**  
**TSG Marine**  
**GE Oil & Gas**  
**Global Marine Group**



**Energy Central benefits from a connected location to ensure your business can operate smoothly in today's global economy.**

 **Air**

Newcastle International Airport is a short drive from Energy Central offering daily BA, Emirates, Air France and KLM flights to Europe and global hubs as well as airfreight services to and from international markets.

 **Road**

The A1(M) connects Northumberland to the entire UK motorway network. The A19 and A69 trunk road provides connections to the South and West of the UK. The North East of England boasts an excellent choice of hauliers and logistics companies.

The region also has some of the least congested roads: our workforce spends thirteen hours per year less time commuting than the national average. We also have one of the lowest commuting times of 23.6 minutes.

 **Sea**

The Port of Blyth provides deep-water, lock-free access to the North Sea basin from Energy Central's quayside and near estuary large scale development sites. There are no air draft restrictions with jack-up barge capability for offshore installation vessels available with access to open sea within 0.5 NM.

 **Rail**

Excellent links to the UK high speed rail network including half-hourly rail services linking the nearby Newcastle Central to London Kings Cross in less than three hours and to Edinburgh in 90 minutes. There are also established freight rail access links to Energy Central sites including Battleship Warf and Northumberland Energy Park.



**LOCATION IN EUROPE**



**LOCATION IN UK**





**Air**

55 mins	BELFAST
1 hr	ABERDEEN
1 hr 20min	LONDON
1 hr 20min	AMSTERDAM
1 hr 20min	STAVANGER
1 hr 50min	PARIS

**Road**

2hr 19min	EDINBURGH
2hr 47min	MANCHESTER
3hr 20min	BIRMINGHAM
4hr 40min	ABERDEEN
5hr 22min	LONDON

**Sea**

10hrs	DOGGER BANK WIND FARM PROJECT
11hrs	FIRTH OF FORTH WIND FARM PROJECT
21hrs	ROTTERDAM
25hrs	AMSTERDAM
25hrs	ESJBERG
27hrs	BREMERHAVEN

**Rail**

(from Newcastle Central Rail station)

1hr 23min	EDINBURGH
2hr 22min	MANCHESTER
2hr 36min	LONDON
2hr 52min	BIRMINGHAM
3hr 57min	ABERDEEN

**LOCAL TRANSPORT INFRASTRUCTURE**



# CASE STUDIES



## Royal IHC World's most advanced J-Lay Pipe System

Having assisted Royal IHC Ltd. to relocate its entire manufacturing and project base into Blyth, the port has supported the assembly of the world's most advanced J-Lay pipe system. This astonishing piece of equipment weighing in excess of 2000 tonnes has been loaded out on to the quay. Experience of projects on this scale mean the Port of Blyth is well positioned to support the offshore wind industry, notably in the assembly of large substation structures, volume fabricated foundation systems or balance of plant storage.

## Interconnector Projects

### North Sea Link



**Statnett and National Grid:** Statnett and National Grid are working together to construct the North Sea Link – an electricity link between Norway and the UK and the world's longest subsea interconnector.

Connecting the electricity systems of the two countries via high voltage subsea cables from Kviteseid in Norway to Northumberland Energy Park in Blyth, the project sees Energy Central involved in another major offshore construction project with international significance. The North Sea Link will be operational by 2021.

**DeepOcean:** The Port of Blyth is also playing an important role in the mobilisation of the subsea interconnector between Belgium and the UK, known as the Nemo Link, where 130km of cable is being laid between Zeebrugge and Kent. One of the main port users, DeepOcean, is undertaking the cable laying contract with the Port of Blyth being used for key cable transfer activity. The cable was shipped deep sea to Blyth from Japan and spooled to one of DeepOcean's cable laying vessels in the Port before undertaking this nationally significant project in the North Sea.



## EDF Energy Renewables: Blyth Offshore Demonstration Wind Farm

EDF Energy Renewables is building a new offshore wind farm off the coast of Blyth. Located less than 7 km offshore, the project will see five turbines with a total capacity of 41.5 MW installed.

Already EDF ER has built an onshore substation at Northumberland Energy Park, set up a project office at the Blyth Workspace and will have a permanent Operation and Maintenance office and maintenance facilities within the port.

The latest generation of 8.3 MW MHI Vestas turbines are placed on gravity based foundations using a new installation method called 'float and submerge.'

The wind farm will also be the first to use 66kV cable technology.

## GLOBAL MARINE | GROUP

### Global Marine Group Subsea Expertise

A market leader in offshore engineering. GMG consists of two business units, CWind delivering the Company's power capabilities, and Global Marine, providing fibre optic cable solutions to multiple sectors including telecoms and oil & gas.

The port provides project mobilisation support to the Group's experienced fleet of vessels. This decision by GMG, which has a 165 year legacy of deep and shallow water operations worldwide, demonstrates the port's increasingly important role in supporting major companies in the offshore and power generation industries.

# The Energy Central partnership provides a high quality inward investment and relocation service to businesses looking to explore and invest in Northumberland.

We are committed to working with businesses, partners and international agencies to help you understand the benefits of Energy Central, Northumberland.

Northumberland has a strong track record in attracting inward investment into the County and is home to innovative and successful companies from across the globe and here in the UK, including Global Marine Group, The North Sea Link Project, Vattenfall, Royal IHC, OSBIT and EDF Energy Renewables.

Our unique location in the North East of England provides the perfect mix of valuable economic assets, a wide range of property and development sites, easy access to markets, a skilled and adaptable workforce, excellence in research and development, and an outstanding environment and quality of life.

The team provides a single point of contact for investment and location enquiries and will design bespoke and tailored support packages that include;

- Access to finance/education.
- Training and recruitment advice.
- Relocation packages.
- Property information/solutions.
- Supply chain connections.
- Site tours.
- Development management.
- Marketing and PR.
- Logistics Planning.
- Technical Support.





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