OFFSHORE WIND IN SCOTLAND

#SCOTLANDISNOW
WELCOME TO SCOTLAND
FÀILTE GU ALBA

The small country making a big impact on the global energy landscape.

Scotland is where you will find a quarter of Europe’s offshore wind, a renowned engineering heritage, a flair for invention and a passion for research. It’s a place where great minds and industry connect to create a dynamic and powerful offshore wind opportunity.

In Scotland, we are committed to decarbonising our economy for the benefit of our environment, our people and our prosperity. Scotland was the first country in the world to declare a Climate Change Emergency and our government has shown global leadership in setting world-leading targets.

Our Net-Zero 2045 emissions target will halt Scotland’s contribution to global climate change within one generation, setting the pace for the rest of the world and opening up huge opportunities for companies like yours.

You’ll find us progressive and pioneering. Our energy sector is at the forefront of innovative renewable energy technologies, consistently delivering world first projects, including the world’s first deep-water wind project and the first floating wind farm. In fact, Scotland is recognised as a global leader for offshore wind excellence.

By locating in Scotland you’ll find that the expertise we built up over 50 years in the oil and gas industry gives us huge advantages in developing offshore wind projects. That knowledge is helping turn Scotland into a hub of excellence and innovation, driven by a proven supply chain and one of the most highly skilled and experienced energy workforces in the world. You’ll immediately be connected to a culture of research and innovation through our academic institutions and centres of excellence, which have an outstanding record of collaboration with the renewable energy industry.

Scotland is a land of great natural beauty and strong heritage and our warmth and generosity are world-renowned. Our friendly communities offer an exceptional quality of life, while progressive government policies strive to make Scotland an even fairer and better place to live and work for everyone.

Our driving determination is the key to our success. We’d love you to join the many global businesses that choose to locate, operate and grow in Scotland alongside our ambitious local companies.

We’re here for you throughout the journey – you will be supported before, during and after you locate in Scotland.

Now is the time to invest in Scotland. So come on in; be part of Scotland’s continuing success story.
SCOTLAND’S OPPORTUNITY

OFFSHORE WIND LEASING ROUNDS

ScotWind Leasing – the first round of offshore wind leasing in Scottish waters for a decade – is a multi-billion-pound investment opportunity and a major part of powering the transition to a net-zero future. Companies at the cutting edge of offshore renewables are invited to help build Scotland’s new generation of offshore wind farms, with a potential capacity of up to 10GW over 17 new sites.

This new round could lead to £20bn of investment over and above the £18-20bn in the current pipeline of projects, meaning Scotland will be a world top ten offshore wind market with a project pipeline of up to 17GW.

The UK’s 2019 Offshore Wind Sector Deal provides additional long-term certainty and opportunities to businesses like yours. The joint government-industry sector deal will invest up to £250m in building a stronger and more competitive supply chain and aims to deliver 40GW of offshore wind by 2030 by running regular Contracts for Difference auctions (the UK’s mechanism for supporting low carbon generation).

FLOATING WIND

Home to Hywind Scotland, the world’s first floating offshore wind farm, Scotland is already leading the way in floating wind. We’re now gearing up for large-scale commercial projects, creating a huge market for innovative floating wind technologies, supply chain and new infrastructure.

Our second floating wind farm, the 50MW Kincardine project, will begin construction in 2020. Of the ScotWind Leasing sites, five are aimed at floating wind and many of the other sites will see the first hybrid fixed and floating commercial projects.

In Scotland we are committed to retaining our lead in this nascent sector by investing in innovation. Initiatives such as Floating Wind Joint Industry Project (JIP) will address the commercial deployment challenges of floating wind, creating R&D opportunities for electrical systems, mooring systems and logistics for construction and operation.

SUPPLY CHAIN OPPORTUNITIES

Scotland has identified several areas of the supply chain that offer immediate opportunities for companies like yours to tap into our fast-growing market. These include:

- Export cable manufacture
- Array cable manufacture
- Large castings and forgings (wind turbine rotor hubs, bedplates and drive shafts)
- Offshore wind turbine blades (blade lengths greater than 100m)
- Offshore electrical substation topsides
- Large gauge mooring chain for floating wind
- Substructures (floating)
**Offshore Wind: Scotland’s Low Carbon Opportunity**

**UNRIVALLED NATURAL RESOURCES**
Scotland is the windbreak of Europe - with 25% of Europe’s entire offshore wind resources and a practical offshore wind resource of 169GW, Scotland is the natural choice for offshore wind investment.

**IMPRESSIVE PROJECT PIPELINE**
Scotland has a strong offshore wind market ready for investment, with government commitment to ensure further growth:

- 2.2GW operational or under construction
- 7GW in the pipeline
- up to 10GW in current ScotWind leasing round

**WORLD-LEADING TARGETS**
Scotland’s commitment to decarbonisation is demonstrated by our world-leading climate change targets, creating a huge market for clean energy:

- 50% of Scotland’s total energy demand (electricity, heat and transport) to be supplied by renewable sources by 2030
- Net-zero greenhouse gas emissions by 2045 and carbon neutral by 2040

**RECORD-BREAKING RESULTS**
2019 was a record year for renewable electricity in Scotland, with an estimated 90% of our gross electricity consumption met by renewables. Our ambitious targets will ensure this output continues to grow, creating plentiful opportunities for energy investment in Scotland.

**A TALENTED WORKFORCE**
Scotland has the energy skills you need, with 46,500 people employed in the renewables and low carbon sector. And with a further 101,400 people employed in oil & gas, you will find a vast and vibrant market with plenty of specialist energy, engineering and offshore talent.

**WORLD-RENOVWED ENGINEERING HERITAGE & SUPPLY CHAINS**
By locating in Scotland, you will become part of a thriving and established energy sector with extensive subsea experience and the largest concentration of offshore engineering expertise in the world outside of Houston, USA.

**EXCELLENT INNOVATION INFRASTRUCTURE**
You can take your R&D to the next level and exploit commercial opportunities at an accelerated pace in Scotland, thanks to cutting edge facilities like the Offshore Renewable Energy Catapult, Floating Offshore Wind Centre of Excellence and the European Offshore Wind Deployment Centre.
THE RIGHT TALENT FOR YOUR BUSINESS

Want to attract and retain the right talent to maintain your competitive edge? Come in – we’ve been waiting for you.

We often say that people are our greatest asset and, indeed, our 2.8m strong workforce is internationally recognised as one of the best trained, most reliable and cost-competitive labour forces in the world. And, with a world-renowned educational system and a high ratio of graduates per capita, Scotland surpasses most countries of comparable size in Europe. In fact Scotland ranks among the top three globally for research productivity and impact, with 19 universities and higher education institutions.

When it comes to energy skills, you’ll find the talent you need in Scotland. Pioneering renewable energy projects coupled with a 50-year history of oil & gas exploration means we have a vast and vibrant talent pool with the highest levels of energy, engineering and offshore expertise. By choosing Scotland you’ll have access to:

- Over 46,500 highly-skilled people working in Scotland’s low carbon sector.
- A large pool of transferable talent from the 101,400 people employed in the oil and gas industry.
- A highly skilled energy workforce trained to the highest safety standards – 74% of industry leaders consider Scotland as one of world’s best training grounds in renewables.
- A steady stream of talent with 21,000 university graduates each year in IT, engineering, maths and the sciences, including specialist renewables degrees.
- Ambitious skills initiatives to meet industry demand – the Energy Skills Partnership and the Climate Emergency Skills Action Plan will ensure we produce appropriately skilled talent.
- An expanding Wind & Marine Training Network across further education colleges, building capacity and capability for offshore wind developments including Global Wind Organisation accreditation.

We will listen to your business, giving you the opportunity to influence skills, education and training provision to maximise your human capital. So while you focus on growing your business, you can rest assured that Scotland has a talent pool with the skills and experience you need, both now and in the future.

SCOTLAND’S APPRENTICESHIPS

Scotland operates a range of apprenticeship models developed by business for business, giving you access to a robust recruitment and talent pipeline to meet your company’s needs. Funding of up to £36k is available and different models include engaging with young people in school, upskilling your staff to achieve industry approved qualifications and developing experienced employees to Masters’ degree level.

You’ll find that Scotland’s apprenticeships:
• Improve your productivity, morale, staff retention and quality of service
• Support your company’s bespoke skills requirements
• Reduce recruitment times and costs
A POWERHOUSE OF INNOVATION AND INVENTION

Scotland is at the forefront of energy innovation and you’ll find that you can quickly take your R&D to the next level with our connected infrastructure and outstanding level of academic and industry collaboration. In fact, Scotland’s innovation system and experienced offshore supply chain have been instrumental in driving down the cost of offshore wind globally, smashing the UK government’s price target.

If you’re thinking business innovation, think Scotland.

WORLD FIRST RENEWABLES PROJECTS

Our pioneering energy sector continues to innovate, evolve and punch above its weight in delivering world first projects.

- **EMEC (European Marine Energy Centre)** – world’s first open sea wave and tidal testing site
  - **Eigg** – world’s first off-grid renewable energy system
  - **Shetland Tidal Array** – world’s first community owned tidal array
  - **MeyGen 1A** – world’s first utility-scale tidal array

- **2003**
  - **2008**
  - **2016**
  - **2017**
  - **2018**

- **2007**
  - **Beatrice Demonstrator**
    - world’s first deep-water wind project commissioned at 45m water depth

- **2010**
  - **Pentland Firth and Orkney Waters**
    - world’s first marine renewables commercial leasing round

- **2017**
  - **Hywind Scotland**
    - world’s first floating wind farm

- **2017**
  - **Surf ‘n’ Turf**
    - world’s first tidal-powered hydrogen electrolyser

- **2018**
  - **EOWDC (European Offshore Wind Development Centre)**
    - world’s most powerful turbines installed on industry-first suction jacket foundations
CENTRES OF EXCELLENCE

Across all energy and low carbon technologies, our centres of excellence exist to help businesses do incredible things. Transformational collaboration between universities and industry could help your company increase the pace of innovation by working on identified technical problems, de-risking new product development and exploiting commercial market opportunities.

Here are just some of the centres that could help you grow your business:

**Offshore Renewable Energy Catapult**
The UK’s leading innovation centre for offshore renewable energy brings together industry and academia, enabling the scale-up of offshore renewable energy technologies.

**Energy Technology Partnership (ETP)**
The largest energy research partnership in Europe, with 250 academics and 600 researchers, ensures easy access to world-class capability, resources and collaboration.

**Industrial Doctoral Centre in Offshore Renewable Energy (IDCORE)**
Multi-disciplinary centre training engineers and scientists to tackle current and future offshore renewable energy challenges.

**European Offshore Wind Deployment Centre (EOWDC)**
Test & demonstration facilities for next generation technology, currently hosting some of the world’s most powerful wind turbines.

**The National HVDC Centre**
The UK’s only simulation and training facility supports all HVDC schemes connecting to the UK grid.

**Power Networks Demonstration Centre (PNDC)**
Enables highly realistic and accelerated technology testing alongside a rich portfolio of research programmes across the full Smart Grid domain.

**Floating Offshore Wind Centre of Excellence**
Accelerates the development of next-generation offshore wind technologies.

SCOTLAND’S INNOVATION CENTRES

As well as our centres of excellence focused on renewable energy, you’ll also find plenty of opportunities and expertise in our network of industry-led innovation centres that recognise the significant role played by renewable and low carbon technologies, in particular:

- Oil & Gas Innovation Centre
- Construction Scotland Innovation Centre
- Scottish Aquaculture Innovation Centre
- The Data Lab
- The Oil & Gas Technology Centre
A SUPPORTIVE BUSINESS ENVIRONMENT

A STRONG & COLLABORATIVE ENERGY INDUSTRY
With a compact geography, engaged and connected industry leaders and active support from the Scottish Government, Scotland is one of the most accessible, well-connected and collaborative energy clusters in the world.

By locating in Scotland, your company can immediately benefit from our established and influential industry networks, enjoying the sharing of knowledge, networks, research and best practice from the moment you set up here.

OFFSHORE WIND CLUSTERS
Scotland’s offshore wind clusters are instrumental in connecting, supporting, promoting and accelerating the sector, by influencing government, driving forward supply chain opportunities and investing in skills and infrastructure.

The Forth & Tay Offshore Cluster
- Drives the growth of offshore energy on the east coast of Scotland, focussed around the Seagreen, Neart na Gaoithe and Inch Cape projects.
- Represents offshore wind developers, public sector organisations, further & higher education institutions and supply chain businesses from across Scotland.
- Supported by SSE, EDF Renewables and SDIC Red Rock Power, with the full database of supply chain members publicly available.

The DeepWind Cluster
- Largest offshore wind cluster in the UK, with over 400 members representing developers, supply chain companies, academia and local government.
- Lead cluster for Floating Offshore Wind in the UK.
- Hub and spoke structure – hub centred on Moray Firth and Aberdeenshire coast projects, with spokes extending to centres of offshore fabrication activity and port infrastructure in other areas of Scotland.
- Core members include Ocean Winds, SSE, Vattenfall, Equinor and Kincardine Offshore Wind Limited (KOWL).

SCOTTISH OFFSHORE WIND ENERGY COUNCIL (SOWEC)
SOWEC is a powerful partnership between the Scottish Government and the offshore wind industry, and a key part of the path to net-zero. Working directly with the DeepWind and Forth & Tay Offshore clusters, it aims to create a competitive, commercially-attractive offshore wind sector in Scotland which can deliver both domestically and globally. SOWEC has a focus on project development, deeper water capability and innovative technology solutions, and aims to develop a sustainable, world-class supply chain in Scotland.
STRATEGICALLY LOCATED & WELL CONNECTED

STRATEGICALLY LOCATED PORTS
Scotland is the ideal base for your company to access offshore wind opportunities in the UK, North Sea and Europe. Our rich coastal heritage means we have an extensive network of ports and harbours ideal for servicing the offshore wind industry with manufacturing, operations and maintenance facilities.

Our history of oil & gas exploration has left a legacy of large deep-water platforms and rig construction sites, including Nigg, Invergordon, Kishorn, Ardersier, Montrose, Rosyth and Dundee. These ports have extensive laydown areas, portside facilities and supply chain to support renewables, with easy access to Europe’s offshore wind generation sites.

CONNECTED SUPPLY CHAIN
Our abundant natural resources and renowned engineering heritage give us unrivalled expertise in the safe, sustainable and profitable harnessing of energy. As such, you’ll find that our ambitious companies are natural supply chain partners for renewable energy projects worldwide.

- Over 10,500 supply chain companies in Scotland’s renewables and low carbon industry
- Over 2000 energy and engineering companies who already supply offshore oil and gas
- 370 subsea companies

SCOTTISH RENEWABLES

Scottish Renewables is the voice of Scotland’s renewable energy industry, with a vision for Scotland to lead the world in renewable energy. Representing all renewable energy technologies, Scottish Renewables drives and informs the debate on how the growth of renewable energy can help sustainably heat and power Scotland’s homes and businesses. It also organises frequent networking events, seminars and annual conferences and exhibitions, including the Offshore Wind Conference, Floating Offshore Wind Conference, Scottish Green Energy Awards and Young Professionals Green Energy Awards.

https://www.scottishrenewables.com/

SIMPLE GOVERNANCE OF OUR OFFSHORE RESOURCES
Scotland has created a simple structure to manage its marine resources. This supports the sustainable development of offshore renewable energy in our seas and makes accessing marine opportunities as easy as possible:

Scottland’s Exclusive Economic Zone (EEZ) is one of the largest in Europe, with 462,263 square kilometres of seas.

Integrated policies and projects, including:
- Sectoral marine planning for renewables, including adoption into Scotland’s National Marine Plan
- Streamlined and efficient licensing system
- Co-ordinated and collaborative research programme.
THRIVE IN SCOTLAND WITH ONGOING BUSINESS SUPPORT

Connected business support from Scotland’s enterprise agencies will ensure that you are supported before, during and after you locate in Scotland.

Locating to a new area can be a daunting task, but we can make it quick and easy for your business to settle in Scotland. We’ll be with you every step of the way and can assist you with:

PROPERTY SEARCHES AND ADVICE – we can help you find the right sites and facilities fast, and get help with feasibility studies

FINANCIAL SUPPORT – we can offer a range of attractive incentives, to help you upskill your staff, develop new products and services and access growth capital

CONNECTIONS – we can introduce you to our university and supply-chain contacts, enabling you to access cutting-edge research and exceptional talent

TALENT – we will listen to your business, giving you the opportunity to influence skills, education and training provision to maximise your human capital

PROFESSIONAL ADVICE – we can connect you to expert advice on pressing issues like visas and contracts, to help you get up and running in Scotland

And the support doesn’t end when you make the move. We are committed to your growth in Scotland, by taking the time to understand your needs now and in the future. We have the tools to take your business to the next level, whether it’s identifying investment, developing your business strategy, upskilling your staff or improving your business processes.
Invest in Scotland and you’ll be close to some huge markets. Whether you’re heading to London, Europe or the rest of the world, Scotland is well-connected for business travel.

**Connected to the World**

- **6 Airports** connecting Europe, Middle East and North America
- **Fast and Frequent** rail links to all parts of the UK
- **Connected Maritime Infrastructure** featuring ferry ports, harbours, 18 deep water ports and 2 container ports
- **95.5 Per Cent Fibre Broadband Coverage**, including all major cities in Scotland.
- **100 Per Cent** of Scottish premises will have access to superfast broadband by 2021.

Beyond our robust and efficient transport network, our advanced and reliable **Digital Connectivity Infrastructure** makes Scotland the strategic location for your business.

- **95.5 Per Cent Fibre Broadband Coverage**, including all major cities in Scotland.
- **100 Per Cent** of Scottish premises will have access to superfast broadband by 2021.

Our future-proofed fibre network makes Scotland one of the **Best-Connected Places** anywhere in Europe.
We will make it quick and easy for your business to settle in Scotland so we will help you to identify premises, academic partners and investment opportunities, recruit staff and access funding for employment creation, R&D and training programmes.

Working together, everyone from national government and local authorities to universities and advisors will make the connections which ensure your investment goes smoothly, so that you can focus on growing your business.

To find out why #SCOTLANDISNOW for your company or to find out more about how you can experience Scotland for yourself, get in touch and we will be happy to help.

NOW IS THE TIME TO INVEST IN SCOTLAND. WE’D LOVE TO WELCOME YOU.