HM Government

Ministerial Foreword

At the heart of the Coalition Government's programme for the UK's sustainable future is a clear commitment to increasing the contribution of renewable sources to meeting our future energy needs. The actions we are taking to drive forward a dramatic increase in renewables this decade are clearly set out in the *UK Renewable Energy Roadmap*, which highlights the UK's lead on offshore wind. We are well placed to maintain this lead and remain the world's most attractive market for many years to come.

But we want to match that with industrial ambition – to be the world leaders in the offshore wind industry and ensure the UK captures the economic, as well as energy security benefits of this low carbon industry. Through our Centres for Offshore Renewable Engineering (COREs) we will help to put the country at the forefront of the offshore industry.

Given our long history of offshore engineering, we have the technical skills needed to build new offshore wind capacity and to operate in challenging natural conditions. We have universities and research centres helping businesses to innovate and meet the reliability standards needed for this market. We are working with industry to drive down the costs of offshore wind. And we have ports willing to make the necessary upgrades to their infrastructure to support development. This Government is backing this new industrial revolution through Enterprise Zones to provide the space for the industry to grow, underpinned by financial incentives and simplified planning.

COREs will build on this offer to ensure that every business looking to invest in offshore wind is supported to do so. We are initially focussing on five strategic locations where, together with the local assets necessary to attract investment, local enterprise partnerships are prioritising development of this sector. We will consider expanding this approach to other areas where a similar strong local offer to the offshore sector is developed.

This integrated and cooperative approach between the Government and local partners in these key areas will drive forward our ambitious agenda for offshore wind energy in the UK, making this the best place for the industry to invest, creating jobs and contributing to our commitment to sustainable development for the long-term future of our economy.

Mark Prisk

Minister of State for

Business and Enterprise

Charles Hendry

Minister of State for Energy

Contents

Centres for Offshore Renewable Engineering

A partnership between central government and local partners

Centres for Offshore Renewable Engineering are partnerships between Central and Local Government and Local Economic Partnerships (LEPs) that ensure businesses looking to invest in manufacturing for the offshore renewables industry receive the most comprehensive support possible.

We have initially concentrated on five locations which we know are the focus of the investment enquiries from renewable manufacturing businesses:

- Hull and adjacent parts of the East Riding, and South Humber Bank
- Great Yarmouth and Lowestoft
- Tyneside
- Teesside
- Sheerness

These areas offer the right infrastructure for offshore wind manufacturing, access to a skilled workforce, an experienced local supply chain and committed local leadership. They also offer access to excellent R&D facilities and collaborative opportunities across the UK. We will consider expanding our approach to others who are able to set out a clear and strong local offer for manufacturing in the sector, and who are making progress in attracting private investment.

CORE status will result in ongoing joint work between central and local partners to continue to develop these local offers, and unblock barriers to investment. It is a commitment to high-level Government support for local investment prioritisation that supports delivery – including, for example, Enhanced Capital Allowances for Humber, Tees Valley and North East Enterprise Zones.

More information on the local offers at each of these locations is available in detailed local prospectuses, which can be found at: http://www.bis.gov.uk/policies/business-sectors/low-carbon-business-opportunities/wind-manufacturing-funding

This document sets out the national offer for investment in offshore renewables.

Incentivising large-scale renewables investment for the long term

The UK is the leader in offshore wind and intends to maintain its position to 2020. We believe that up to 18GW of offshore wind could be installed and generating by 2020, with a high potential for deployment of over 40GW by 2030. To realise this potential will require a substantial reduction in the levelised costs of energy.

The Renewable Energy Roadmap – published in July 2011 – has outlined how the UK can meet its legally binding renewables target for 2020, and sets out a comprehensive plan to further accelerate renewables deployment in the UK. Offshore wind will be a key part of the mix to 2020 and beyond.

The Roadmap highlights a series of measures we are now putting in place to tackle any barriers to the development of these technologies and ensure we meet the 2020 target.

A major part of this will be action to drive down the cost of offshore wind - by approximately a third to £100 per MWh by 2020– and help it to become competitive with other forms of energy generation. We think that this cost reduction is possible through the work of the industry-led Cost Reduction Taskforce which is identifying an action plan to reduce the costs of offshore wind by 2020, reporting to Government and Devolved Administration ministers by Spring 2012.

The Renewables Obligation is the main financial mechanism used to incentivise investment in large-scale renewable electricity generation. A consultation looking at the level of support each technology will receive from 2013 to 2017 (2014 for offshore wind) was published on 20 October. A Government response confirming banding levels will be issued in Spring 2012. In the future, the Electricity Market Reform package will guarantee predictable and stable revenue streams through Feed in Tariffs with Contracts for Difference (CfD) – giving investors the confidence and certainty they need to invest in offshore renewables.

More information on these areas can be found using the weblinks below:
http://www.decc.gov.uk/en/content/cms/meeting_energy/renewable_ener/re_roadmap/re_roadmap.aspx

http://www.decc.gov.uk/en/content/cms/consultations/cons_ro_review/cons_ro_review.aspx
http://www.decc.gov.uk/en/content/cms/legislation/white_papers/emr_wp_2011/emr_wp_2011.aspx

Support for new investments

Offshore Wind Manufacturing at Port Sites

We need a rapid expansion of offshore wind manufacturing capacity to serve our 2020 renewables targets. That's why the government has set aside up to £60m to support the development of major offshore wind manufacturing at port sites in English Assisted Areas. We want to see economic benefit for the UK, both from major manufacturing activities and in the deeper supply chain.

Offshore wind manufacturers will be able to apply for support for major investments under the Grants for Business Investment (GBI) scheme in assisted areas of England. This can include joint applications by manufacturers together with ports/landowners where there this forms a single project and is compatible with state aids.

The Government is working with inward investors – but we also have many excellent established UK manufacturers who can find new markets by diversifying or expanding into the offshore renewables sector.

More information on the funding available can be found at:
http://www.decc.gov.uk/en/content/cms/meeting_energy/wind/offshore/business_dev/business_dev.aspx

Enterprise Zones

Government have awarded Enterprise Zone status to sites in the New Anglia, Humber, Tees Valley and North East Local Enterprise Partnerships. The local brochures have more information on which sites exactly these apply to.

Enterprise Zone status is recognition of the potential of a site to drive forward growth and innovation in an area. It will provide a range of incentives, including:

- Enhanced Capital Allowances (ECAs) for plants and machinery - worth up to a maximum of £100m per company and awarded to new companies locating in an area.[1] (please note that ECAs are not available for companies receiving a full grant from the offshore wind manufacturing at port sites fund).

- For businesses not receiving ECAs, Business rate discounts for 5 years of up to £55,000 per annum.

[1] The enhanced capital allowances support in enterprise zones in assisted areas will be regional aid, covered by the General Block Exemption Regulations. Some sectors may not be eligible. For more information please speak to the contact at the Enterprise Zone you are considering investing in.

- Simplified planning regimes, for example through Local Development Orders (LDOs). These are flexible planning tools that provide upfront permissions for particular types of development – providing certainty for developers and reducing waiting times and costs.

- Government support to ensure that super fast broadband is rolled out throughout the Zones.

Additionally, all business rate growth generated by the Zone for a period of at least 25 years will be kept by that area - this should ensure that there are continuing funds available to support local growth.

Enhanced Capital Allowances

Following applications from Local Enterprise Partnerships the Government is today announcing that Enhanced Capital Allowances will be available in Humber, Tees Valley and North East Enterprise Zones.

Businesses claiming ECAs will be able to deduct enhanced capital allowance entitlements for an accounting period in calculating its taxable profits for that accounting period. Where the company makes a trading loss for tax purposes, and the loss is not offset against other group profits or carried back, it can be carried forward indefinitely to be set against taxable profits from the same trade in future accounting periods. So the company will gain the cash flow benefit of the ECAs when it starts to make taxable profits

Example of how enhanced capital allowances can affect levels of profits subject to tax

A company spends £850k on qualifying plant and machinery in five years from setting up in a designated enterprise zone. It makes losses in years 1 and 2, breaks even in year 3 and becomes profitable in years 4 and 5.

	Year 1 £'000	Year 2 £'000	Year 3 £'000	Year 4 £'000	Year 5 £'000
Taxable profit/(loss) before ECAs	(100)	(50)	-	500	600
ECAs	(100)	(300)	(250)	(150)	(50)
Taxable profit/(loss) for period	(200)	(350)	(250)	350	550
Carried forward losses utilised	-	-	-	(350)	(450)
Resulting taxable profit for year	-	-	-	-	100
Losses carried forward	(200)	(550)	(800)	(450)	-

The expenditure must be on new investment assets and must be maintained in the assisted area for 5 years.

More information about Enterprise Zones can be found at:
http://www.communities.gov.uk/regeneration/economicgrowth/enterprisezones

Growing Places Fund

The Government is supporting the delivery of LEP growth plans through the Growing Places Fund. Each LEP has been given an allocation to be used to unlock stalled and priority capital schemes through investment in enabling infrastructure. The allocations for the five COREs LEPs are set out below. Government has set out a clear ambition that LEPs use these allocations to develop recycling funds, so that future investments can be made to unlock growth.

Table 1. Growing Places Fund allocations to CORE LEPs

Local enterprise partnership	GPF allocation (£)
North Eastern LEP	16,712,905
Tees Valley LEP	5,694,058
Humber LEP	5,816,714
New Anglia LEP	12,046,767
South East LEP	32,553,542

More information about the Growing Places Fund can be found at:
http://www.communities.gov.uk/publications/regeneration/growingplacesfund

Supply chain

The UK is well positioned to take advantage of the potential market opportunities offered by the large-scale development of offshore wind.

The UK already has numerous companies with significant business in offshore renewables. The shift to deeper waters and larger turbines is attracting more turbine manufacturers into the market, creating new opportunities for UK companies to demonstrate what they can offer.

The UK has well established strengths in some of the areas that the new technologies demand, including advanced engineering and manufacturing, composites, and metalwork. Additionally, the considerable expertise of the UK's oil and gas industry, particularly with respect to the installation, O&M and general servicing of large offshore infrastructure (including connections to the shoreline), presents strong competitive advantages and an extensive support capability for offshore renewables.

The Offshore Wind Developers Forum (OWDF - which is co-chaired by the Energy Minster Charles Hendry) is a forum which brings together Government and industry to work on solutions to remove barriers that have the potential to impede the viability and deliverability of offshore wind in the UK.

A dedicated OWDF Supply Chain subgroup has been established, which is looking at how best we can support and develop the UK supply chain. The supply chain sub-group is looking at a number of areas of focus including developing a Vision statement for the industry and learning the lessons of the Oil and gas sector that could be transferred to the development of the offshore wind supply chain.

Case Study – Energi Coast

Energi Coast is the representative group of the North East of England's offshore renewables sector.

Energi Coast members have invested over £400m to meet the demands of the renewables market. Its members employ 6000 people in the region, which is forecast to increase by 30% as Round 3 gathers pace. Together, the group can meet a large proportion of supply chain requirements – including development and surveying, balance of plant manufacturing, tower blade and gearbox manufacturing, installation and commissioning.

More information can be found at www.energicoast.co.uk.

Case Study - New Anglia Supply Chain

Great Yarmouth and Lowestoft are home to an impressive energy sector supply chain of some 500 businesses, employing more than 10,000 staff directly within the two port areas and many times more in the wider supply chain spread across East Anglia.

The supply chain has 45+ years as the main supply, service and logistics base for UK southern North Sea offshore industries. This experience has resulted in a concentrated network of highly experienced businesses that have successfully diversified into the Offshore Wind industry supporting the development, construction and operations of Round 1 , 2 and 3 wind farm developments in the Southern North Sea.

Great Yarmouth and Lowestoft are home to Offshore Wind industry leaders including Scottish Power Renewable, Vattenfall, SSE, Seajacks, ODE, Gardline, 3Sun/Dawson, SLP Smulders, CLS, Petrofac and AMEC.

Innovation

Innovation in offshore renewables has a significant role to play in improving the technology and reducing the cost of energy, which will in turn support increased deployment and help boost the UK supply chain. The UK has world-leading expertise in offshore engineering and in the marine and seabed environment. Government is supporting a coordinated programme of innovation support for offshore wind technology, from early stage research to pre-commercial deployment and provision of testing facilities.

Offshore Renewables Technology and Innovation Centre

The Technology Strategy Board will be opening the Offshore Renewable Technology and Innovation Centre (TIC) in summer 2012. This centre will focus on technologies for offshore wind, wave and tidal power. The TIC will be part of an elite network of centres that will bring business and universities together to make it easy for new businesses to flourish. The centre will also work closely with the High Value Manufacturing TIC to support the transfer of technologies from existing areas of expertise in the UK, such as automotive and aerospace technologies and composite materials, into the offshore renewable sector.

DECC innovation funding for offshore renewable technology

Over the summer, DECC announced funding of up to £30m for offshore wind innovation, subject to value for money assessments. The Department expects to fund two schemes, one of which is the £15m Offshore Wind Component Technologies Development and Demonstration scheme, which saw the launch of its first £5m Call on 22 November:

http://www.decc.gov.uk/en/content/cms/funding/funding_ops/innovation/innov_fund/owctdd_scheme/owctdd_scheme.aspx

DECC is working with the Technology Strategy Board to deliver this scheme, which will help companies progress novel component technologies to further improve offshore wind systems.

Case study - NaREC

NaREC is a testing and development centre for the renewables and wider energy sector, situated in Blyth, Northumberland. The multidisciplinary team of scientists and engineers support the research, development, testing and commercialisation of next generation technology.

NaREC and partners have invested over £150m in the development of a package of significant testing infrastructure, including:

- A 100MW offshore wind test site, to enable full scale system tests at an open access prototype demonstration site for up to 20 turbines.
- A new blade test facility, allow blades of up to 100m to be tested – opening Spring 2012. This is in addition to an existing facility testing up to 50m blades.
- A wind drive train facility which will be capable of testing whole drive trains, including gearbox, generator, electrical and control systems of up to 15 MW rating. Operational 2013.
- A marine drive train facility, to test whole tidal energy drive trains, but capable of being adapted for wind energy devices between marine energy tests. Operational Spring 2012

NaREC successfully bid for 11m under the Regional Growth Fund and will manage the Wind Innovation Programme, which co-funded by industry. The programme brings together offshore market leaders with world class technology providers and academia in the UK.

Skills

Education and skills are central to the government's growth agenda, and the growth of offshore renewable sector

With a heritage in maritime and offshore energy, the UK has a large skills base ready to take up the challenge of offshore renewables. Additionally, according to the OECD, the UK produces almost 50,000 graduates in engineering, manufacturing and construction a year, and take up of apprenticeships in these areas is also rising

We have a responsive, unified skills system which employers can harness for their own purposes in localities, sectors or supply chains. Government is freeing up colleges and skills providers to be more responsive to business, and to encourage employer ownership of and investment in skills. The HE sector also plays a vital role in working with employers to ensure relevant, high level skill needs, are addressed.

Additionally, Government are investing in strong employer-led projects that get behind employer activity, with support from the centre to ensure sectors have the skills they need for growth. This includes:

- the **Employer Investment Fund,** which enables Government to invest in projects that Sector Skills Councils have themselves developed, and the **Growth and Innovation Fund** (more information below).

- Advocating and funding a network of 18 **National Skills Academies**, which are employer-led sector based centres of excellence.

- New action on apprenticeships, to make it easier for companies to take on apprentices, and ensure that the quality of apprenticeships is continually improved. The Government has committed to expand the Apprenticeships programme but as a demand led programme, the growth is dependent on employers coming forward to make places available.

Offshore Renewables Skills

Government recognises that there are likely to be pinch points when the offshore renewables sector starts to scale up activity and is responding to this challenge.

Energy and Utilities Skills, has secured £3.5million worth of skills investment from the Employer Investment Fund.This funding will focus on raising the attractiveness of the sector to new entrants, generating skills investment through supply chain collaboration, stimulating new entrant training in renewable energy, and market intelligence to raise employer investment.

In the document 'Skills for a Green Economy' the Government commits to supporting businesses investing in the green economy by:

- Bringing together a new 'skills for a green economy' grouping of Sector Skills Councils (SSCs) in order to understand changing requirements more thoroughly and to communicate this to businesses, skills providers and individuals thinking through their long term career choices.

- Improving the quality of information, advice and guidance available on careers in a green economy, through the new National Careers Service

- Improving the quality of skills provision in the Further Education (FE) system.

- Raising awareness and understanding of the green economy through the work of Unionlearn to support lifelong learning among the workforce

- Continuing to support science, technology, engineering and mathematics (STEM) skills as a priority for the green economy at least as much as for the economy as a whole

Additionally, The Energy Technology Institute and the Engineering and Physical Science Research Councils have funded training for up to 50 of the UK's best new engineers at Industrial Doctorate Centres in Offshore Renewable Energy at leading universities.

Case Study: Skills on the Humber

Regional Growth Fund support in the Humber is being used for Offshore Wind Sector skills and training programmes including delivery of 600 apprenticeship places in engineering and 1000 up-skilling qualifications (through specialist skills training, including grant assistance) to be achieved on the North Bank.

Case study: Subsea North East and Newcastle College

Subsea North East is an employer group which represents the interests of subsea companies operating in the North East. They identified a requirement for specific subsea qualifications to meet the needs of their industry to provide suitable development paths for new recruits and existing employees with in the industry. Newcastle College worked closely with the members of Subsea North East to clearly establish their requirements and then develop a Foundation degree programme to meet these needs.

From the outset close collaboration between the companies and the college was paramount to the success of the programme. From the development stages of the curriculum to the final delivery of the programme this relationship was developed to full effect. These meetings continue to provide a very productive forum and have continued even though the programme has now commenced

The structure of the Foundation Degree programme provided the flexibility required by the industry. Because the curriculum was established with full industry involvement and consultation it provided the breadth of knowledge required delivered at the appropriate level. However due to the group collaboration it focused on the subsea sector as a whole rather than the needs of any specific organisation or operator.

Growth and Innovation Fund

The Growth and Innovation Fund (GIF) is a co-investment fund which makes relatively short-term public investment (2-3 year projects) alongside employers to help them realise their growth potential, by bringing about a long-term, sustainable increase in business investment to meet future skill needs. It supports employers who have come together to put in place “soft” infrastructure to help them better meet their skills needs, such as employer networks of various types and professional standards frameworks.

After a first round of applications 15 GIF projects are now under way, with £11m public funding matched by business investment.

The GIF is currently accepting applications. More information is available at: http://www.ukces.org.uk/ourwork/investment/growthinnovationfund

Renewable Training Network

RenewableUK, the wind, wave and tidal energy trade association, is establishing a Renewables Training Network (RTN) to tackle the critical shortage of skilled workers in green energy industries.

The RTN will create 2,000 places on training courses specifically tailored to those wanting to make the transition into the renewable energy sector, focusing particularly on mature skilled workers wishing to retrain.

Working with employers, universities and colleges, the RTN aims to bridge the skills gap to help build a new low carbon economy, making the most of the UK's abundant sources of renewable energy.

Businesses in the renewables sector have pledged the equivalent of £600,000 of support for the £1.2 million project. The UK Commission for Employment and Skills (funded by the Department for Business, Innovation and Skills) has matched this by awarding £580,000 from the Growth and Innovation Fund to establish the new body.

Steve Burgin, UK Country President for Alstom said: 'The development of the UK renewables sector, and in particular the offshore market, is fundamental in driving carbon reduction, security of supply and economic growth. Timely investment in renewables skills development ahead of the anticipated demand surge in the coming years is therefore essential to ensure that the sector can deliver efficiently, affordably and safely".

This publication is also available on our website at www.bis.gov.uk

Any enquiries regarding this publication should be sent to:

Department for Business, Innovation and Skills
1 Victoria Street
London SW1H 0ET
Tel: 020 7215 5000

If you require this publication in an alternative format, email enquiries@bis.gsi.gov.uk, or call 020 7215 5000.

URN 11/1393