# Annexes

## Annex 1: LEP and North Wales Growth Priorities

### Cheshire & Warrington

The low carbon goods sector in Cheshire and Warrington is well established, with over 800 companies, producing an estimated £1,888 million in sales and supporting 18,000 employees. The sector has performed strongly in Cheshire and Warrington even during the recession, maintaining growth rates of 4.6%. Cheshire and Warrington have comparative strengths in energy efficiency: building technologies and energy management; renewable energy: geothermal, photovoltaic and biomass; waste and recycling: recycling and recovery and waste management sub-sectors. Cheshire and Warrington also benefits from the innovation provided by higher education which work on a number of low carbon issues, including sustainability, community carbon reduction and community energy schemes.

The Cheshire and Warrington sub-region has made progress towards emission reduction over the last five years. In terms of emissions, per capita local $CO_2$ emissions in Cheshire (Cheshire East and Cheshire West and Chester) fell from 13.8 tons in 2005 to 11.9 tons in 2011. In Warrington, emissions fell from 9.8 tons to 7.7 over the same period. Nationally, however, emissions per capita were 6.7 tons per person in 2011, indicating that there is still further progress to be made.

Future priorities include measures to support increased production of renewable fuels and energy, in particular wind energy, solar and biomass that could include demonstration and deployment of renewable energy technologies.

Support for the wider deployment of renewable heat, including micro-generation, geothermal, renewable heat networks or district heating, ground source and air source heat pumps, and biomass systems with recycling processing, reprocessing and remanufacturing facilities also represent priorities.

Other priorities include anaerobic digestion plants and other biomass or landfill gas schemes as well as support to build capability and capacity for supply chains in renewable energy. Supporting SMEs to improve their energy efficiency and increase their renewable energy by the implementation of low carbon technologies, products, processes and approaches and best practice in energy efficiency management. This will be done in all areas of the business process in order to reduce energy consumption, make financial savings, increase SME productivity and mitigate the impacts of $CO_2$ emissions.

### Cumbria

With energy as one of the key sectors for the Cumbrian economy, supporting growth within the low carbon sector has the potential to make a significant contribution to both the nation's energy security as well as meeting carbon reduction commitments.

The 2013 report, *The economic potential of low carbon and environmental goods and services (LCEGS) sector in Cumbria*, undertaken by the ERDF-funded ESTA project, shows that Cumbria has around 400 LCEGS companies that employ around 8,100 people and command sales worth around £1 billion per year. Within this, the Low Carbon sector, which includes building technologies, carbon capture & storage, carbon finance, and energy management, accounts for 26% of sales and employment. It is recognised that small companies in Cumbria, developing diverse technologies which encompass new forms of insulation materials, the deployment of microgeneration renewables products, new building materials, low-impact solvents and household products, and energy advice services, can offer significant levels of growth to the Cumbrian economy. In addition, many companies in other sectors have the potential to supply into the growing LCEGS markets; for example, manufacturing companies or those with expertise in sub-sea technologies can supply into the burgeoning offshore renewables industry.

The total onshore potential renewable energy resource in Cumbria identified in the SQW report *The Cumbria Renewable Energy Study 2011*, is assessed to be 4,542MW or 4.5GW.

This includes on and offshore wind, wave, geothermal, biomass, hydropower, micro-generation, large scale solar and combined heat and power. The same study particularly highlights micro-generation as 'providing an exciting opportunity in terms of economic benefits and job creation'.

### Lancashire

Lancashire is one of the largest economies in the north of England, generating £29 billion of GVA and supporting over 623,000 jobs. It has a large and diverse economic base with over 51,000 enterprises, a growing number of world class companies and key strengths in aerospace and advanced engineering and manufacturing.

Although Lancashire has experienced sustained economic growth the area's economic performance consistently lags behind UK with Lancashire's GVA per head only 77% of the UK's average. To significantly raise productivity Lancashire's economy needs to generate more high value economic growth by promoting the growth of SMEs, supporting innovation, including the dissemination and adoption of new technologies, and capitalising on the high value growth sectors where Lancashire has real competitive strengths or potential.

The challenge for Lancashire is to promote high value economic growth, develop low carbon technologies and improve the competitiveness of the local business base, whilst at the same time reducing the levels of Green House Gas (GHG) emissions, increasing the share of renewable energy and enhancing the energy efficiency of businesses.

Lancashire has a number of key strengths in low carbon, with energy generation, renewables and low carbon industries representing a key growth sector for both the UK and Lancashire. The sector, valued at over £100 billion for the UK, is highly diverse, encompassing sub-sectors such as nuclear and renewables, environmental services and emerging low carbon activities. The opportunity for Lancashire is to ensure that the right interventions are in place to support the expansion of the low carbon sector and exploit the associated supply chain opportunities and technological developments.

Low Carbon Goods and Services is a key growth market for Lancashire with opportunities in carbon capture and storage market and natural economy activities. It comprises approximately 650 businesses, nearly all SMEs, and employs 8,000 people. Lancashire has growing strengths across these sub-sectors with a strong, predominantly SME, business base and supply chain.

### Liverpool City Region

Liverpool City Region covers the Local Authority Districts of Liverpool, Halton, Knowsley, Sefton, St. Helens and Wirral, with a population of 1.5 million people. It is home to over 48,000 Small and Medium Enterprises (SMEs), with an economy worth £28 billion annually.

Liverpool City Region's unique Atlantic coastal city location, including the River Mersey, iconic waterfront and the Port of Liverpool, presents significant opportunities for future energy generation, low carbon sector development and strengthening the City Region's position as a low carbon logistics hub and an attractive and resilient place for future investment. In particular, the Mersey estuary and tidal waters of Liverpool Bay offer a unique resource with the potential to generate a significant proportion of the region's future energy needs.

The low carbon environmental goods and services sector in Liverpool City Region is made up of some 1,200+ companies that employ around 22,000 people and command sales worth more than £2.7 billion per year. Demand for low carbon environmental goods and services is growing. In 2012/13 the sector grew at 4.9%.

A key sector strength is offshore wind. Environmental conditions mean that the areas off the coast of the City Region offer some of the best wind resources in Europe. The scale and size of the UK offshore wind market offers a range of supply chain opportunities in design, build, maintenance and operation. More supply chain capacity is needed to meet future demand from this sector. Other strongly performing industries include installers of micro-generation technologies, businesses which retrofit energy efficiency measures and the biomass sector.

The low carbon economy also links strongly to Liverpool City Region's Innovation Plan with overlap in areas of smart specialisation, offshore and marine technologies and sensors. The Innovation Plan has within it an innovation ecosystem, which will support the growth in four priority areas, including 'Solutions for Sustainable Growth'.

Liverpool City Region has an aspiration to be energy self-sufficient within 20 years. It is an aspiration which the City Region has many of the natural, built and business assets to achieve, whether it is through the ways that energy is generated, the way it is distributed through smart grids, heat and energy networks, or the way it is consumed and preserved through energy efficiency actions and building retrofitting schemes. Activities to deliver this aspiration are the cornerstone of the investment priorities for Liverpool City Region under Priority Axis 4 (PA4).

ERDF Low carbon priorities for Liverpool City Region sit within the blue green economy portfolio of the Liverpool City Region European Structural Investment Funds Strategy. Whilst this portfolio covers investment priority axis PA4 and PA6 of the ERDF Operational Programme, the scope of this call is solely for PA4 (supporting the shift to a low carbon economy).

### Stoke-on-Trent & Staffordshire

The Stoke on Trent and Staffordshire area has a strong set of businesses with growth potential in key sectors which sit centre-stage in plans for the future. The business growth agenda is based on recognised strengths in five key aspects of advanced manufacturing:

+ Energy Generation: building on the long-standing presence of Alstom in Stafford, ABB, Siemens Wind Power, GE Power Conversion and the sustainable energy programme centred around Stoke-on-Trent and beyond, to meet growing local and international demand by diversifying into geothermal, anaerobic digestion, biomass and energy-from-waste.
+ Auto-Aero: capitalising on the supply-chain opportunities emerging from global businesses such as JCB, Michelin, Jaguar Land Rover, Moog, and Zytek in our area.
+ Medical Technologies: in which Keele University and its Science Park are internationally recognised leaders.
+ Agri-Tech: drawing on our agricultural back-drop and Harper Adams University on our border to capitalise on an increased global focus on food security and the agri-plant capacity of JCB, Muller and Adams Foods.
+ Applied Materials: building upon our recognised heritage in metals and ceramics in both Stoke-on-Trent and Staffordshire to exploit opportunities in applied uses for polymers, ceramics, glasses and composites. The area is home to leading companies in this sector (e.g. polymers – Bostik, Fuchs Lubricants, Michelin; engineering companies such as JCB, Perkins, MG Sanders, and Goodwin use novel and new applied materials (metallic and non-metallic) in their products and to remain globally competitive need to invest heavily in the development of new materials; and ceramics – Steelite International, Wedgwood Waterford, Royal Doulton).

Stoke-on Trent and Staffordshire Strategic Economic Plan builds on a detailed understanding of the socio-economic context and characteristics of the LEP area, and the implications of this for economic growth.

Strengths and opportunities include the fact that Stoke-on-Trent and Staffordshire is home to numerous international businesses including Alstom, Coors, JCB, Jaguar Land Rover, Michelin, Moog, Steelite, and Zytek. Similarly, the area is home to a buoyant SME sector making a significant contribution to economic growth. The area benefits from location at the heart of the UK, with strong connectivity via road (including the M6, A50, A500, A38, A5) and rail (including the West Coast Mainline). Inward investment performance has been strong in recent years, with notable recent projects including Jaguar Land Rover and Amazon. There is a genuine opportunity to develop strengths in sectors such as Advanced Materials, Advanced Manufacturing and Energy, driving higher levels of gross value added and productivity. There is also an opportunity in the region to create a unique local energy offer based upon existing and new assets and investment in emerging technologies and energy supply chain development.


University of Cumbria
Lancaster University
UCLAN
Edge Hill University
Liverpool John
Moores University
Liverpool University
Wrexham Glyndŵr
University
Bangor University
University of Chester


## North Wales

The Welsh Government Report, *"Prosperity for All: the national strategy"*[1] maps a focused ambition to build a Wales that is prosperous and secure, healthy and active, ambitious and learning, and united and connected.

The strategy recognises the need to build prosperity in a way that supports and sustains Wales' stunning natural environment, ensuring that current and future generations will continue to benefit, and make a tangible contribution to the fight against climate change. Economic resilience underpins the ambitions for Wales. The strategy has a strong focus on Low Carbon Growth including:

+ Setting out a low carbon pathway providing clarity and certainty for action and investment around the low carbon economy through setting targets for 2020, 2030 and 2040.
+ Accelerating the decarbonisation of our public services, creating new opportunities for businesses in Wales in the transition to a low carbon economy.
+ Setting out a route map for a more resource efficient economy, building on our success in recycling and reducing the environmental impacts of production and consumption.
+ Delivering a post-EU agricultural and fisheries policy for Wales, designed with stakeholders to reflect the needs of the modern Welsh agricultural and fisheries sectors and to manage the impact on the environment.

*The Economic Action Plan*'[2] aligned to the strategy sets out how the resources, expertise and knowledge in Wales can be pooled to strengthen economic foundations and future-proof the Welsh economy. The Action Plan recognises the core need to improve competitiveness, the productivity gap, economic inactivity and unsustainable spatial variations. As carbon intensive products see their market shares significantly decline, it recognises that the shift towards a low-carbon future offers huge opportunities for the economy to new models and methods to decarbonise the traditional models of business, public services and infrastructure. Growth needs to be sustainable and inclusive.

The North Wales Economic Ambition Board (NWEAB) Growth Deal bid is committed to lead innovation in low carbon and nuclear energy, advanced 'smart' manufacturing and the digital and creative sectors. The bid for £383m could generate investment of £1.3bn into the economy of North Wales.