

**Low Carbon**  
West of England Local Sector  
Skills Statement 2017



Working together to develop the current  
and future skills of the sector.

# Low Carbon Local Sector Overview

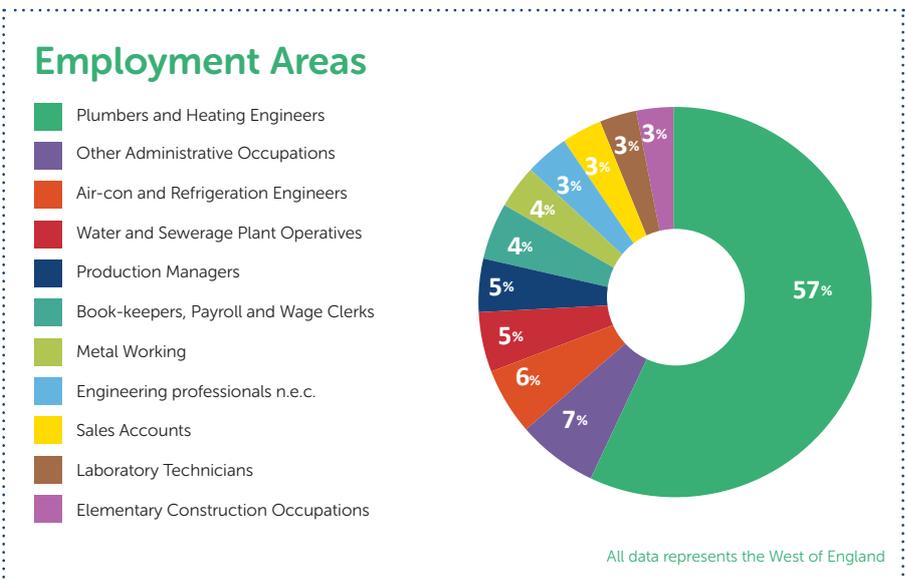
The West of England continues to play a key and leading role in the UK's sustainable growth agenda. The region boasts continued investment and world leading examples of bringing innovation, research, renewable energy products and processes to the market.

**As far back as 2013, The Department of Business, Innovation and Skills (BIS) recognised that defining low carbon as a sector was not wholly accurate.**

Rather than be considered a "sector", the low carbon environmental goods and services sector refers to an umbrella term used to capture a range of activities spread across many existing sectors. This includes transport, construction and energy sectors that have the common purpose of reducing environmental impact. This low carbon economy transcends industry classifications and sector definitions. Car producers are as likely to be part of the economy as a recycling plant or local facilities management company. The low carbon economy can be defined as economic activities that deliver goods and services that generate significantly lower emissions of greenhouse gases; predominantly carbon dioxide.

As such, to define and analyse low carbon in a skills context creates challenges, not only for those businesses operating in the low carbon economy, but also those tasked with delivering training provision and those wishing to enter or re-enter roles which would now fall into this area.

The breadth of roles and employment within the low carbon economy makes quantifying the actual number of people employed challenging. Historically, those involved



directly in carbon activities such as Retrofit could have been categorised as being employed directly within the sector; e.g. solar fitters, property surveyors, loft insulators. However, as finance for specific programs has been removed, such activity has fallen away in comparison to historical levels.

Latest statistics indicate that over 5,600 people are employed in the sector in the West of England<sup>(1)</sup>. There is a clear link for low carbon and sustainable activity to specific sectors; most notably construction.

STEM subjects feature heavily in the types of roles which will be required within the labour market if future growth and productivity levels are to be achieved.

Development of new construction and construction planning techniques link heavily to legislation, in place to reduce carbon emissions by 80% by 2050 and to ensure greater sustainability on build projects in the future.

Across the region, there are strong and active networks and initiatives which work cross industry to promote and encourage sustainability and active engagement within the low carbon economy. Low Carbon South West, Bristol Green Capital, Regen and others have created partnerships with the two main universities, key employers and trade boards such as the Construction Industry Training Board (CITB.)

Annual Local Sector Skills Statements report on local sector knowledge and expertise, plus wider regional and national intelligence. Gain insight about skills challenges in your sector, notable achievements and skills priorities and objectives for 2017. The themes have been defined by the West of England Local Enterprise Partnership (LEP). This report has been designed for education providers and businesses to inform decisions and identify objectives for investment in training and development of curriculums.

# Key Facts



**5,601 PEOPLE EMPLOYED**  
IN THE SECTOR<sup>(1)</sup>.



**32,882 JOB POSTINGS**  
IN THE LOCAL AREA. (2016)



**13.9% OF THE WORKFORCE**  
IS AGED 16 -24.



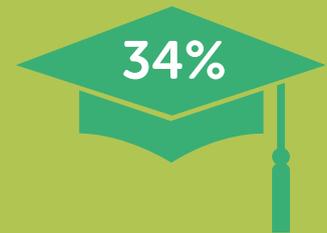
EMPLOYERS REPORT THAT THE FOLLOWING SKILLS ARE BOTH CRUCIAL AND HARD TO FIND, IN ASCENDING ORDER;  
**WRITING, PLANNING AND DETAIL-ORIENTED, ORGANISATION, AND COMMUNICATION.**<sup>(1)</sup>



**RENEWABLE POWER NOW PROVIDES 19% OF ENGLAND'S ELECTRICITY** – BUT TAKE UP VARIES HUGELY ACROSS THE COUNTRY.

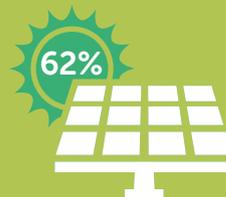


**LOW CARBON AND GREEN ECONOMY IS NOT BREXIT-PROOF.**  
UK ENVIRONMENTAL LAW ASSOCIATION (UKELA) ADDS TO THE CHORUS OF CRITICISM OVER THE LACK OF ENFORCEMENT SAFEGUARDS FOR EU GREEN LAWS AFTER BREXIT.



**34% OF ADVERTISED JOBS**  
IN 2016 **REQUIRED A BA DEGREE**  
OR **DIPLOMA.**

GOVERNMENT POLICY SUPPORT, TOGETHER WITH FALLING TECHNOLOGY AND INSTALLATION COSTS HAS DRIVEN **A REMARKABLE SURGE IN RENEWABLES INVESTMENT** SINCE 2010. THIS HAS SLOWED IN THE LAST TWO YEARS AS CUTS TO SUPPORT TOOK EFFECT.



**ENGLAND GENERATES 54,962 GIGAWATT HOURS OF ELECTRICITY USING RENEWABLES**, ENOUGH TO POWER 14.5 MILLION HOMES; **62% OF ALL HOUSEHOLDS ACROSS ENGLAND.**

# Notable Local Sector Achievements



**Santander Graduate Internship Scheme** offers Low-Carbon SMEs a salary subsidy of £1,500 to employ a UWE Bristol graduate on a fixed-term basis. This provides a cost-effective and low-risk opportunity for recruiters.

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**Emersons Green Enterprise Area** (already home to the National Composites Centre) showcases science, innovation, composites, technologies and over 200 square metres of solar panels.

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## Bath & North East Somerset Council

Set up in 2010 and supported by **Bath & North East Somerset Council**, Bath & West Community Energy have installed over 20MW of solar PV projects, two hydro schemes on the river Avon and have identified a number of potentials sites for wind turbines. Winning an awards in 2014 recognising BWCE as UK Community Energy Organisation of the Year, they continue to raise funds through community finance and reinvest in local community energy projects.



**Bristol Green Capital Partnership (BGCP)** marks its 10th anniversary in 2017. Founded in 2007, BGCP has grown to a partnership of over 800 member organisations who have committed to working towards Bristol becoming a sustainable and low carbon city with a high-quality of life for all. This unique network enables collaboration across public, private, and third sectors in and beyond Bristol, to realise the change needed to address the environmental sustainability challenges we face.

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**Avonmouth Severnside Enterprise Area** continues to grow, this is an area supporting world leading energy and waste schemes and the development of cutting edge environmental technologies (incl. bio mass power plants).

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According to **Regen**, the south west leads the way for onshore renewable capacity in England. The region continues to thrive in the solar PV market due to good resources, as well as excellent local installers, social landlord programmes and a strong community energy sector.

# Skills Priorities 2017

## 1. Improve Careers Education, Information, Advice and Guidance (CEIAG)



### Issue:

Difficulty in defining the sector which in turn leads to difficulty in identifying the exact skills required and the types of career paths available.

### Objectives:

- Provide clear and accessible definition of what low carbon means, and how low carbon features across the whole labour market.
- The West of England benefits from strong low carbon networks; work closely with these to identify current and future skills issues.
- Closer links with the construction sector to be pursued; potential for sustainable construction practices to become flagship pathways for new entrants to the labour market.
- CEIAG made available through 24/7 online and social media platforms, rather than just traditional approaches such as careers fairs. Adopt a more digitally comprehensive approach through webinars, YouTube channels and Twitter for example.

## 2. Improve the quality and local responsiveness of education and training



### Issue:

Relevant training and education for the sector has often been a 'bolt on' to existing curriculum content, with little specific delivery available because of economies of scale issues.

### Objectives:

- Low carbon and sustainability themes to become compulsory within broader training provision - from business administration to financial planning to construction.
- Closer partnership between employers who must adhere to low carbon legislation and the training providers who will train future talent to meet these industry requirements (new construction techniques, project management).

## 3. Increase apprenticeship starts and availability of higher apprenticeships



### Issue:

Whilst the Government fully backs apprenticeship training, the message to employers is still not being heard. Employers need to be made aware of the full range of apprenticeship areas and levels available, as do new entrants to industry.

### Objectives:

- Local apprenticeship providers to focus on making Apprenticeship Levy and reforms information accessible and clearly understood so as not to discourage local employers from engaging.
- Further and higher education to develop employer engagement strategies; develop understanding of business needs for STEM related disciplines, feeding into procurement, project planning and management.
- Further partnership and standard development between levels 2 and 3 and then higher and degree level providers. Ensure greater ease of progression through levels.

# Skills Priorities 2017

## 4. Engage SMEs to boost productivity and build capacity for growth



### Issue:

SMEs within the low carbon economy play a crucial role in overall economic growth for the region. Many would benefit from support in up-skilling and training amongst their workforce, in particular management and leadership levels.

### Objectives:

- SMEs to be encouraged to up-skill existing staff in areas such as management and projects. Potential for primary contractors to offer support to SMEs in their supply chain in terms of training and development and potential mentor scheme.
- Explicit business and productivity benefits of aforementioned training should be made clear via targeted industry campaigns; online and traditional marketing.
- Training providers to consider added value offer alongside apprenticeship provision for SMEs – short leadership courses offered to both apprentice learners and their employer managers – levels set accordingly.

## 5. Enhance equality and diversity through multiple career pathways



### Issue:

A diverse workforce leads to improved productivity, greater reflection of customer base and in turn employee satisfaction. Large parts of the low carbon economy, such as the construction industry struggle with lack of diversity across all areas of its workforce.

### Objectives:

- Increase links between existing programs for diversity in STEM with low carbon economy.
- Create industry ambassadors amongst local employers that reflect under-represented groups.
- Link with targeted campaigns such as Women into Construction to address diversity issues.

## Regional Centres of Excellence and Research

- The Advanced Composites Centre for Innovation and Science
- Composites Research Unit
- Centre for Energy and the Design of Environments
- National Composites Centre, South Gloucestershire
- University of Bath - I-SEE
- University of Bristol - BRITE Futures Institute
- University of Bristol - CABOT Institute
- University of the West of England
- University of the West of England (UWE Bristol) - Institute of Environmental Sciences (IES)
- University of the West of England (UWE Bristol) - Institute of Air Quality Management (IAQM)

## Key Providers

- Weston College
- City of Bristol College
- Bath College
- South Gloucestershire and Stroud College

## Professional Networks and Organisations

- Low Carbon South West
- Regen
- Centre of Sustainable Energy
- Institute of Environmental Management and Assessment

## Reference Documents

- 1) Labour Insight Jobs (Burning Glass Technologies) and Future employment data source: EMSI economic modelling, 2017
- 2) Department for Business Innovation & Skills – Low Carbon Environmental Goods and Services (LCEGS) 2011/12 report, July 2013
- 3) The West of England LEP Employer Skills Survey, 2016
- 4) The State of Engineering, 2015
- 5) Regen – South west renewable energy progress report, 2016
- 6) IEMA – Preparing for the Perfect Storm Skills for a sustainable economy
- 7) Apprenticeship Hub West Strategy, 2013 - 2020
- 8) SFA data cube, West of England LEP, 2015
- 9) UKCES Engineering Justification, 2013
- 10) Office of National Statistics, November 2016

Employment Areas Chart – NGaged Training / LMI Statement 2017 based on Labour Insights, May 2016 - May 2017 & EMSI

Advise, connect, support

Get in touch today



[businesswest.co.uk/skills](https://businesswest.co.uk/skills)



[skillswest@businesswest.co.uk](mailto:skillswest@businesswest.co.uk)



0330 124 4446



#skillswest



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business & training.

**WEST OF  
ENGLAND**  
Combined Authority

The West of England Combined Authority (WECA) covers Bath & North East Somerset, Bristol and South Gloucestershire. WECA also supports the Local Enterprise Partnership, which includes North Somerset.