Leicester and Leicestershire LEP

Low Carbon Environmental Goods and Services Market Snapshot

Midlands Energy Hub

December 2020

Disclaimer

kMatrix

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Midlands Energy Hub

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Project Overview

The Low Carbon and Environmental Goods and Services sector study was commissioned by Nottingham City Council on behalf of the Midlands Energy Hub, sponsored by the Department of Business, Energy and Industrial Strategy (BEIS), and its stakeholders across the Midlands including the Local Enterprise Partnerships (LEPs) and Local Authorities.

The study was commissioned in November 2020 and awarded to kMatrix Data Services Ltd and Sustainability West Midlands, with the aim of understanding the current state of the sector, where support is needed to help grow the sector across the Midlands from a Local Authority level to a regional level and the role the sector can play to drive a low-carbon recovery from Covid-19.

The UK has a clear commitment to clean growth, where the economy continues to grow while reducing greenhouse gas emissions. The commitments are set out in the Industrial Strategy and the Clean Growth Strategy. The UK has a strong record of clean growth, cutting carbon emissions by 42% between 1990 and 2015, while experiencing a 67% increase in GDP during the same period, in contrast to the G7 emissions reduction of 3% and GDP increase of 61%[1]. This has been achieved through a variety of strategies including improved energy efficiency, increased recycling of waste products and improved automobile engine technology, with the largest contribution in reduction of emissions from the decarbonisation of power. The UK now has the largest installed offshore wind capacity in the world[2].

Although the UK is arguably a world leader in clean growth, there is an ongoing need for further development across multiple sectors to deliver on the low carbon economy commitments both local and central government are pursuing. LEPs in the Midlands are fully cognizant of the need to support and further develop the green economy, as set out in their Energy Strategies and Local Industrial Strategies.

The study is grounded in evidenced data provided by the kMatrix big data analytical tool, which has been used to inform the nature of the sector across the Midlands region, in a number of sub-sectors. The data has been used alongside desk research, documentation review, stakeholder engagement and collaboration with partners and the awarding authority to produce a series of reports constituting an evidence base of both quantitative and qualitative evidence. This evidence not only informs policy recommendations as an integral part of the study, but also acts as a baseline from which progress can be measured post Covid-19 and into the future.

The study involved the production of a quantitative evidence base led by kMatrix and a qualitative evidence-base led by Sustainability West Midlands with findings from each workstream enriching the evidence of the other. By full collaboration between partners, the project steering group and stakeholders, the evidence base produced by the project delivers a comprehensive overview of the LCEGS market, with detailed information at the LEP and Local Authority levels. The wider relevance to the green recovery and national commitment to net zero by 2050 have been considered throughout the work and are integral to the policy recommendations and growth forecasts made during the study.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf

[2] https://gwec.net/global-figures/global-offshore/

Local Authorities within the Leicester and Leicestershire LEP

This report includes local authority-level data, to allow deep disaggregation within the LEP area. For clarity of data visualization, the names of many local authorities have been shortened. The formal names and shortened labels of the local authorities within the Leicester and Leicestershire LEP are listed below:

Formal name	Shortened label
Blaby DC	Blaby
Charnwood BC	Charnwood
Harborough DC	Harborough
Hinckley & Bosworth BC	Hinckley & Bosworth
Leicester City C	Leicester
Melton BC	Melton
North West Leicestershire DC	North West Leicestershire
Oadby & Wigston DC	Oadby & Wigston

Executive Summary

Leicester and Leicestershire LEP's Low Carbon and Environmental Goods and Services (LCEGS) sector was worth £2.8bn to the Leicester and Leicestershire LEP's economy in 2019/20, as indicated by the value of sales in the sector. These sales were generated by over 1,000 businesses that employed over 21,000 people in the sector in 2019/20.

Sales and growth

The Low Carbon and Environmental Goods and Services sector in the Leicester and Leicestershire LEP grew year on year since 2017/18. In 2017/18 total sales in the sector were worth £2.5bn and have now reached £2.8bn in 2019/20.

The sector in the Leicester and Leicestershire LEP grew by 4.1% during the financial year 2017/18 to 2018/19 and 4.6% during 2018/19 to 2019/20. This rate of growth is slower than both the MEH average (5.2% and 5.0% respectively) and the UK average for the same period (10.0% and 8.1% respectively), however, the fast rate of growth in London raises the UK average.

Employment

Employment in Leicester and Leicestershire LEP's Low Carbon and Environmental Goods and Services sector in 2019/20 was 21,437, up from 20,089 in 2017/18. Annual growth rate in employment was 3.0% between 2017/18 and 2018/19 and 3.6% between 2018/19 and 2019/20. This rate of growth is slower than both the MEH average (5.7% and 5.0% respectively) and the UK average for the same period (9.4% and 7.3% respectively) however, the fast rate of growth in London raises the UK average.

Companies

The number of companies in Leicester and Leicestershire LEP's Low Carbon and Environmental Goods and Services sector in 2019/20 was 1,022, up from 982 in 2017/18. Annual growth rate in the number of companies was 0.5% between 2017/18 and 2018/19 and 3.5% between 2018/19 and 2019/20. This rate of growth is slower than both the MEH average (3.6% and 5.0% respectively) and the UK average for the same period (9.3% and 10.3% respectively) however, the fast rate of growth in London raises the UK average.

Leicester and Leicestershire LEP's sub-sectors

In 2019/20 Leicester and Leicestershire LEP's Low Carbon and Environmental Goods and Services sector was made up by the following proportions: Renewable Energy 41%, Low Carbon 37% and Environmental 22%.

Leicester and Leicestershire LEP's sub-sector strengths

The four largest sub-sectors in the Low Carbon and Environmental Goods and Services sector by sales account for 56% of the Leicester and Leicestershire LEP's total sales and are made up of:

- Wind (£474m) – this includes control systems development and manufacture, drive train development, manufacture and systems integration, consulting houses and companies providing power firming systems and services, maintenance services and grid integration services
- Building Technologies (£394m) - this includes head office functions, building systems design and consultancy and building systems providers and installers
- Alternative Fuels (£384m) – this includes R&D functions, alternative fuel providers, designers and consultancy, process implementation, sales and accounting and application development specialists

- Photovoltaic (£296m) - this includes head office functions, systems developers, providers and installers

The next seven largest sub-sectors by sales account for a further 40% of Leicester and Leicestershire LEP's total sales and are made up of:

- Water & Waste Water Treatment (£212m) - development and implementation by utilities along with supply, consultancy and implementation by independent consulting engineers
- Biomass (£211m) - this includes systems development, supply, implementation and R&D
- Waste Management (£188m) - this includes process development and new process implementation and consulting, public and private operations management and supply and installation of operational equipment
- Recovery and Recycling (£155m) – this includes waste collection, glass stock processing and paper feedstock processing
- Alternative Fuel Vehicle (£154m) - include selling agencies, alternative fuel development companies and consulting and applications development for vehicle conversion specialists
- Geothermal (£122m) - this includes branch office functions, design, international consultancy, lateral geothermal systems providers and installers at the domestic and small commercial level and vertical control systems developers and suppliers
- Energy Management (£61m) – this includes registered gas engineers, measurement and control systems and fitting and maintenance

Sub-sector growth

Leicester and Leicestershire LEP's four largest sub-sectors by sales have all enjoyed high levels of growth in sales, number of employees and number of companies between 2017/18 and 2019/20:

- Wind – sales have grown from £437m to £474m (8.6%), number of employees by 6.4% and number of companies by 3.6%
- Building Technologies – sales have grown from £362m to £394m (9.0%), number of employees by 6.8% and number of companies by 4.3%
- Alternative Fuels – sales have grown from £353m to £384m (8.9% increase), number of employees by 6.9% and number of companies by 4.5%
- Photovoltaic – sales have grown from £272m to £296m (8.8% increase), number of employees by 6.7% and number of companies by 4.7%

Sub-sectors which saw stronger growth than the UK average between 2017/18 and 2019/20 include:

- Hydro with 9.5% (MEH 11.0%, UK 1.8%)
- Contaminated Land Reclamation and Remediation with 9.0% (MEH 11.4%, UK 1.0%)
- Energy Management with 8.9% (MEH 11.4%, UK 5.7%)
- Air Pollution with 8.9% (MEH 11.4%, UK 5.8%)
- Alternative Fuel Vehicle with 8.9% (MEH 11.4%, UK 5.7%)

Investment in R&D

Investment in R&D within Leicester and Leicestershire LEP grew in all three categories of investment between 2017/18 and 2019/20:

- Private Equity Investment in R&D grew 10.2% from £126m in 2017/18 to £139m in 2019/20
- Venture capital Investment in R&D grew 4.1% from £258m in 2017/18 to £269m in 2019/20
- Other Investment in R&D grew 9.3% from £382m in 2017/18 to £417m in 2019/20

Scalability of sub-sectors

Scalability of the sub-sectors within the Leicester and Leicestershire LEP is variable and when combined with GVA, strengths include:

- Building Technologies with very high Scalability and very high GVA (stronger position than the MEH average)
- Wind with high GVA and High Scalability (stronger position than the MEH average)
- Alternative Fuels with high GVA and High Scalability
- Photovoltaic with high GVA and high Scalability (stronger position than the MEH average)
- Renewable Energy General Consultancy with high Scalability but small GVA
- Environmental Monitoring, Instrumentation and Analysis high Scalability but small GVA (stronger position than the MEH average)
- Biomass with good GVA and good Scalability (stronger position than the MEH average)
- Geothermal with good GVA and good Scalability (stronger position than the MEH average)

Leicester and Leicestershire LEP's Exports

The value of exports in Leicester and Leicestershire LEP's Low Carbon and Environmental Goods and Services sector in 2019/20 was £292m, an increase from £268m in 2017/18. This accounted for 10% of the MEH's LCEGS exports in 2019/20 and is in line with Leicester and Leicestershire LEP's 10% share of the overall MEH LCEGS market.

Leicester and Leicestershire LEP's LCEGS exports grew by 3.0% and 5.6% over the last three years which compared with MEH growth of 4.5% and 6.2% and UK growth of approximately 8.7% and 9.5% respectively.

Leicester and Leicestershire LEP's top Export sub-sectors which saw large export market and strong growth include:

- Building Technologies - £41m
- Wind - £52m
- Waste Management - £19m
- Energy Management - £6m
- Photovoltaic - £32m
- Alternative Fuels - £40m
- Biomass - £22m
- Geothermal - £13m
- Recovery and Recycling – £16m
- Alternative Fuel Vehicle - £16m