

Low Carbon Environmental Goods and Services Sector Study 2024: Short Report for Worcestershire

Commissioned by the Midlands Net Zero Hub, this report provides 2024 data of the LCEGS sector, updating the 2021 study.

1. Introduction

This document has been prepared to provide an overview summary of the LCEGS sector within Worcestershire. Reports on the wider picture of the MNZH region and Local Authorities (with example companies), including datasets are available [here](#). Additional detailed data is available from kMatrix; and further recommendations and details on areas of focus are available through the Climate Action Benchmarking study.

Local Authorities with separate reports within Worcestershire are:

- Bromsgrove District Council
- Malvern Hills District Council
- Redditch Borough Council
- Worcester City Council
- Wychavon District Council
- Wyre Forest District Council

2. Current Activity Supporting the Growth of the Sector

Activity at the Worcestershire level relevant to the wider geographical region:

- Net Zero Worcestershire offers free advice, energy assessments and grants for energy efficiency and renewable energy measures to SMEs from all sectors in the region. This includes 40% funding grants of up to £100,000 for businesses wanting to install energy efficiency measures.
- [SkillsBoost Worcestershire](#) is a scheme run by the Worcestershire Growth Hub that helps organisations with the costs of upskilling and training their employees with a 50% grant. This can include improving net zero skills in a company or can be as broad as having a consultant come in to talk about sustainability for a day, both of which drive demand in the LCEGS sector.

3. Recommendations

Recommendations for Worcestershire are:

- Further promote the Worcestershire Growth Hub and Net Zero Worcestershire as sources of information for all support and grants available to LCEGS businesses to address concerns around limited awareness.
- Reduce barriers for businesses accessing funding for energy efficiency improvements. For example, Staffordshire County Council offer full grants to cover these costs, or interest free loans for costs which grants do not cover, and therefore it would be worthwhile to engage with them about offering similar options.
- Promote sustainable practices within the region's agricultural sector, focusing on evidence-based solutions like anaerobic digestion (AD), [BioChar](#) and Agri-tech innovation. Recommendations can be taken from projects in surrounding regions, such as the [Shropshire Agri](#) project.
- Facilitate collaboration between local skill providers, educational institutions, local authorities and LCEGS businesses to ensure training courses and apprenticeships are available that address specific skills gaps identified in the sector. For Worcestershire, this should include a particular focus on carbon literacy, net zero knowledge and energy efficiency.
- Target skills courses at those already with transferrable skills, and who only require short, specific training to match the niche requirements of local businesses who want to take advantage of the rapidly growing and changing sector.

4. Headline Figures for Worcestershire

Headline figures for Worcestershire area are:

- The LCEGS sector in Worcestershire was worth £1.8bn in 2023/24 and is forecast to grow to £2.8bn over the next 5 years
- The LCEGS sector accounts for 7.6% of GVA, 4.2% of employment, and sales accounts for 8.3% of GDP in Worcestershire
- Worcestershire's LCEGS Sales generates 5.8% of the LCEGS Sales in the MNZH region, in line with its 5.8% of total GDP contribution

- Worcestershire’s LCEGS GVA generated 5.8% of the MNZH’s LCEGS GVA, slightly higher than its 5.6% total GVA contribution
- Worcestershire’s LCEGS employment accounts for 6.1% of MNZH’s LCEGS employment, in line with its 6.1% of economically active people in the MNZH
- Net Zero 2030 targets are expected to require between 1,427 and 8,244 FTE employees in addition to those employed now in Worcestershire
- Net Zero 2050 targets are expected to require between 17,453 and 42,283 FTE employees in addition to those employed now in Worcestershire
- Worcestershire’s LCEGS sector could generate up to 42,283 jobs between 2023/24 and 2050*
- Between 2019/20 and 2023/24, Investment in R&D for the LCEGS sector has grown from £77m to £143m for Private Equity Investment; £152m to £230m for Venture Capital Investment; and £228m to £317m for Other Investment.
- Exports in the LCEGS sector for Worcestershire have increased from £191m in 2019/20 to £220m in 2023/24.

*The majority of increase from 2030 targets due to additional 20 years of wider economic growth

5. Worcestershire’s LCEGS Sector Key Metrics

Key metrics in Worcestershire for each financial year from 2019/20 to 2023/24, with growth between years:

Worcestershire	2019/20	% growth	2020/21	% growth	2021/22	% growth	2022/23	% growth	2023/24
Sales	£1.54bn	-8.5%	£1.40bn	7.0%	£1.50bn	7.9%	£1.62bn	11.4%	£1.81bn
GVA	£1.21bn	-8.4%	£1.11bn	6.9%	£1.19bn	7.8%	£1.28bn	11.3%	£1.42bn
# FTE Employees	12,007	-7.2%	11,141	14.5%	12,758	8.8%	13,876	10.7%	15,364
# Companies	706	-9.2%	641	6.7%	684	8.4%	741	12.1%	831

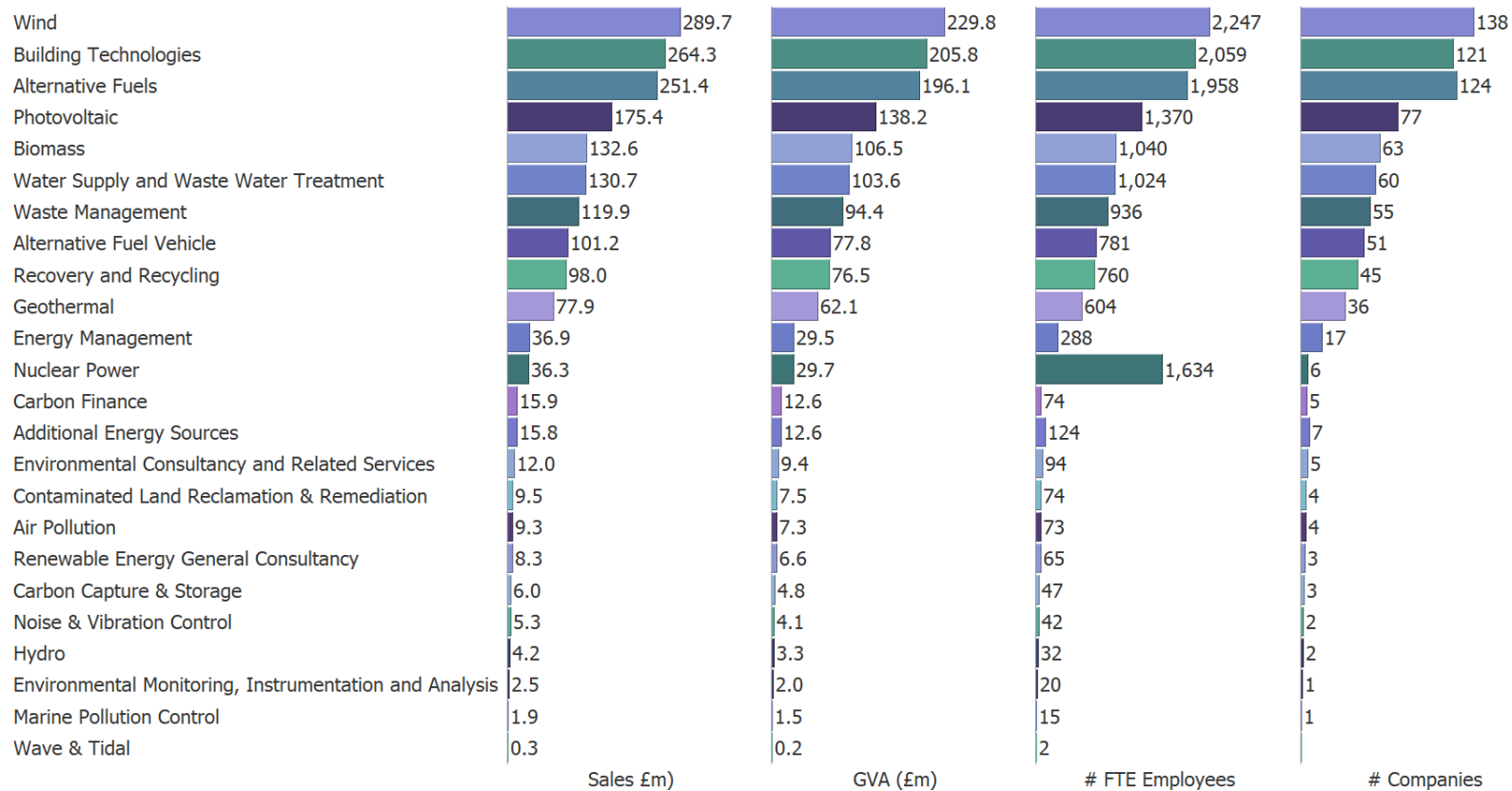
Note: the total numbers for 2019/20 are higher than those reported in 2021 due to an adjustment made in the Nuclear Power sub-sector in the Worcester City Council area.

All metrics have recovered from the pandemic in 2020 and saw growth across the reporting period from 2021/22 to 2023/24.

6. Worcestershire’s Sub-sectors Key Metrics

All twenty-four sub-sectors of the LCEGS sector have activity in Worcestershire, with the 2023/24 values for Sales, GVA, FTE Employees and number of companies in figure 1.

Figure 1: Sales, GVA, FTE Employees and number of companies in Worcestershire in 2023/24 by sub-sector



The largest twelve sub-sectors account for 95% of sales, 95% of GVA, 95% of employment and 95% of companies in the LCEGS sector. These twelve sub-sectors are Wind; Building Technologies; Alternative Fuels; Photovoltaic; Biomass; Water Supply & Waste Water Treatment; Waste Management; Alternative Fuel Vehicle; Recovery & Recycling; Geothermal; Energy Management; and Nuclear Power.

7. Worcestershire’s Sub-sector Growth Compared with the UK

Sub-sectors that saw stronger growth in sales than the UK average between 2021/22 and 2023/24 for Worcestershire include:

Sub-sector	Worcestershire Sales 2023/24	Worcestershire Growth 2021/22 to 2023/34	UK Growth 2021/22 to 2023/34
Air Pollution	£9.3m	20%	7%
Contaminated Land Reclamation & Remediation	£9.5m	20%	9%
Environmental Consultancy and Related Services	£12.0m	21%	11%
Recovery and Recycling	£98.0m	20%	11%
Waste Management	£119.9m	21%	8%
Water Supply and Waste Water Treatment	£130.7m	19%	5%
Additional Energy Sources	£15.8m	20%	10%
Alternative Fuel Vehicle	£101.2m	20%	12%
Alternative Fuels	£251.4m	19%	14%
Building Technologies	£264.3m	21%	16%
Energy Management	£36.9m	21%	10%
Nuclear Power	£36.9m	15%	8%
Geothermal	£77.9m	21%	18%

Only sub-sectors contributing more than 1% of the total Sales in Worcestershire have been included in this table.

Of the thirteen sub-sectors that grew stronger than the UK, Recovery & Recycling; Waste Management; Water Supply & Waste Water Treatment; Alternative Fuel Vehicle; Alternative Fuels; Building Technologies; Energy Management; Nuclear Power; and Geothermal are also large sub-sectors and should be considered a strength of Worcestershire.

8. Worcestershire Skills Forecast to Net Zero 2030 and 2050

This section provides highlights of the skills analysis. Skills forecast tables are available from the Midlands Net Zero Hub.

The LCEGS sector is expected to generate up to 42,283 jobs in Worcestershire between 2023/24 and 2050. The majority of growth is determined by usual growth in the sector as the LCEGS sector services the wider economy, forecasts are therefore provided as a range, determined by the potential growth of the sector before the requirement to reach net zero targets is overlaid. Regional net zero targets place an additional skills requirement for the sector above usual growth. They are influenced by changes in practice, new technologies and technology compression.

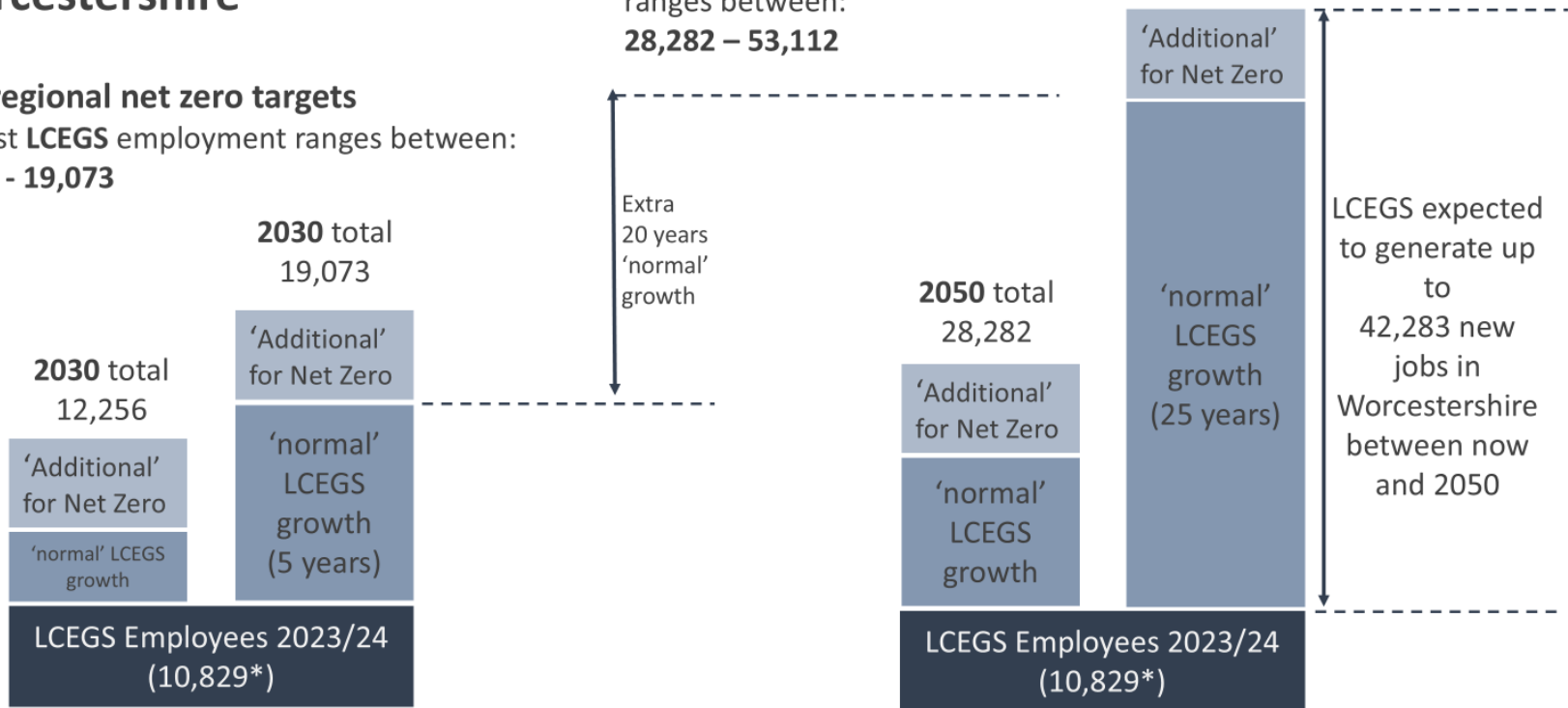
Key points from the skills analysis:

- Worcestershire has increased the number of people working in the sector however the overall skills gap remains at 6.8%.
- The economic challenges of the last four years have resulted in less time to achieve targets, and despite the increase in total employment in the sector, the forecast number of employees required to reach net zero targets are higher than forecasts made in 2020.
- The 2021 report forecast a need for a 10% increase in 2019/20 employment numbers in LCEGS to reach net zero 2030 targets, this is now reduced to 6% increase in 2023/24 employment numbers, although strong economic growth could increase this need to 65% to reach net zero targets.
- To reach net zero targets by 2030, Worcestershire is expected to require between 12,256 and 19,073 employees, i.e., between 1,427 and 8,244 employees in addition to those employed now, representing an increase of between 6% and 65% in employment compared with 2023/24.
- To reach net zero targets by 2050, Worcestershire is expected to require between 28,282 and 53,112 employees, i.e., between 17,453 and 42,283 employees in addition to those employed now, representing an increase of between 145% and 360% in employment compared with 2023/24.

Skills Forecasts for Worcestershire

2030 regional net zero targets
Forecast LCEGS employment ranges between: **12,256 - 19,073**

2050 regional net zero targets
Forecast LCEGS employment ranges between: **28,282 – 53,112**



*Lower value than sector total due to some employees in Micro and SMEs being difficult to allocate to SOC codes. LCEGS sector = high proportion of Micro and SMEs.



9. Worcestershire Sector Strengths

Sub-sectors with strong historic growth which are strengths of Worcestershire are:

Sub-sector	Sales 2023/24	Forecast Sales 2028/29	CO ₂ Reduction Potential	Sector Scalability	Current Training Provision	Potential Upskilling of Workforce	Skills Shortage
Building Technologies	£264.3m	£412.2m	Medium	Medium	Medium	Medium	Low: 4.4% (MNZH: 4.4%)
Alternative Fuels	£251.4m	£374.5m	High	Medium	Medium	Low	High: 12.9% (MNZH: 13.2%)
Water Supply & Waste Water Treatment	£130.7m	£201.0m	Medium	High	Medium	Medium	Low: 3.7% (MNZH: 3.6%)
Waste Management	£119.9m	£185.9m	Medium	High	Medium	Medium	Low: 4.9% (MNZH: 5.1%)
Alternative Fuel Vehicles	£101.2m	£155.3m	Medium	Low	Medium	Medium	High: 14.6% (MNZH: 14.2%)
Recovery & Recycling	£98.0m	£151.4m	Low	Medium	Medium	Medium	High: 13.9% (MNZH: 14.2%)
Geothermal	£77.9m	£119.7m	Medium	Low	Medium	Medium	High: 13.8% (MNZH: 14.4%)
Nuclear Power	£36.9m	£56.7m	Medium	High	Medium	Low	Low: 1.1% (MNZH: 1.6%)
Energy Management	£36.9m	£56.9m	Low	Medium	Medium	Low	High: 14.8% (MNZH: 15.5%)

10. MNZH Regional summary

Headline figures for the MNZH area are:

- The LCEGS sector in MNZH Region was worth £31.0bn in 2023/24 and is forecast to grow to £46.6bn over the next 5 years
- The LCEGS sector accounts for 7.4% of GVA, 4.2% of employment, and sales accounts for 8.3% of GDP in MNZH Region
- MNZH Region's LCEGS Sales generates 11.9% of the LCEGS Sales in the UK, slightly lower than the 12.4% of total GDP contribution
- MNZH Region's LCEGs employment accounts for 15.5% of the UK's LCEGS employment, lower than its 16.8% of economically active people in the UK
- Net Zero 2030 targets are expected to require between 30,192 and 146,162 FTE employees in addition to those employed now in the MNZH region
- Net Zero 2050 targets are expected to require between 263,907 and 727,184 FTE employees in addition to those employed now in the MNZH region
- The MNZH region's LCEGS sector could generate up to 727,184 jobs between 2023/24 and 2050*
- Between 2019/20 and 2023/24, Investment in R&D for the LCEGS sector has varied, but is now similar, shrinking slightly from £2.2bn to £2.1bn for Private Equity Investment; being £3.6bn for Venture Capital Investment for both years; and increasing slightly from £4.9bn to £5.2bn for Other Investment.
- Exports in the LCEGS sector for MNZH Region have increased from £2.8bn in 2019/20 to £3.2bn in 2023/24.

*The majority of increase from 2030 targets due to additional 20 years of wider economic growth