

Low Carbon Environmental Goods and Services Sector Study 2024: Short Report for West Midlands Combined Authority

Commissioned by the Midlands Net Zero Hub, this report provides 2024 data of the LCEGS sector, updating the 2021 study. Our partners at the Midlands Engine have also supported the development of the refresh. The Midlands Engine recognises that the region is at the forefront of the UK's clean energy transformation and the outputs from LCEGS will therefore help to inform their drive to shape a co-ordinated approach to supporting increased growth in this important part of the economy.

1. Introduction

This document has been prepared to provide an overview summary of the LCEGS sector within the West Midlands Combined Authority. 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 the West Midlands Combined Authority are:

- Birmingham City Council
- Coventry City Council
- Dudley Borough Council
- Sandwell Borough Council
- Solihull Borough Council
- Walsall Council
- Wolverhampton City Council



2. Current Activity Supporting the Growth of the Sector

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

- The WMCA offers lots of support for businesses to help decarbonise. Schemes such as the Business Energy Advice Service, the WM Net Zero Pledge and decarbonisation grants will help further drive the LCEGS sector, although more support and funding is needed in the future to maximise effectiveness.
- The WMCA region has a very strong innovation sector including a number of funding projects and support networks, such as the West Midlands Innovation Programme. The Innovation Accelerator programme has offered £33m of funding for five projects, two of which directly support the LCEGS sector - "Clean Futures" and the "Biochar Cleantech Accelerator" - and offers a strong platform to drive innovation throughout the LCEGS supply chain.
- Energy Capital's work developing a Regional Energy Strategy and working to develop a Smart Energy Cluster will provide useful direction of travel and opportunity to collaborate for the region's diverse and otherwise disparate energy sector.
- Birmingham has the highest concentration of low carbon sector employees in the country and is home to over 5,100 low carbon businesses. This activity gives the region the opportunity to act as a national LCEGS hub.

3. Recommendations

Recommendations for WMCA are:

- Increase local LCEGS businesses' awareness of support organisations such as the Green Business Network at Coventry City Council who have a team of environmental and energy consultants that support local businesses with energy and environmental management issues, accessing grants and funding to become more energy efficient and establishing ways to minimise waste. Low carbon networks such as the Business Net Zero Pledge, Innovative Zero Carbon Working Group and Sustainability West Midlands should also be promoted.

- 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.
- Ensure LCEGS businesses are aware of the [Net Zero](#) page on the Business Growth West Midlands website. This page should act as a centralised platform housing all business support initiatives in the WMCA region, including the West Midlands Net Zero Business Pledge, Business Energy Advice Service and other funding opportunities available. This resource should also include signposting of which programmes are available in different regions, and which are most appropriate for certain types of businesses. Increasing awareness and accessibility of this page for LCEGS businesses will increase demand and drive growth of the sector.
- 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. This should involve training in skills that are expected to be needed in the future, in order to jump ahead of other regions and capitalise on the strain on skills.

4. Headline Figures for WMCA

The headline figures for the WMCA area are:

- The LCEGS sector in WMCA was worth £9.2bn in 2023/24 and is forecast to grow to £14.2bn over the next 5 years
- The LCEGS sector accounts for 7.8% of GVA, 4.6% of employment, and sales accounts for 8.8% of GDP in WMCA
- WMCA's LCEGS Sales generates 29.0% of the LCEGS Sales in the MNZH region, higher than the 27.1% of total GDP contribution
- WMCA's LCEGS GVA generated 29.1% of the MNZH's LCEGS GVA, higher than the 27.5% total GVA contribution
- WMCA's LCEGS employment accounts for 28.8% of MNZH's LCEGS employment, higher than its 26.7% of economically active people in the MNZH

- Net Zero 2030 targets are expected to require between 10,116 and 45,735 FTE employees in addition to those employed now in WMCA
- Net Zero 2050 targets are expected to require between 76,728 and 219,141 FTE employees in addition to those employed now in WMCA
- WMCA's LCEGS sector could generate up to 219,141 jobs between 2023/24 and 2050*
- Between 2019/20 and 2023/24, Investment in R&D for the LCEGS sector has grown from £414m to £563m for Private Equity Investment; £820m to £1.0bn for Venture Capital Investment; and £1.2bn to £4.5bn for Other Investment.
- Exports in the LCEGS sector for WMCA have increased from £798m in 2019/20 to £933m in 2023/24.

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

5. WMCA's LCEGS Sector Key Metrics

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

WMCA	2019/20	% growth	2020/21	% growth	2021/22	% growth	2022/23	% growth	2023/24
Sales	£7.9bn	-9.0%	£7.2bn	5.2%	£7.5bn	8.5%	£8.2bn	12.2%	£9.2bn
GVA	£6.3bn	-8.9%	£5.7bn	5.0%	£6.0bn	8.3%	£6.5bn	12.1%	£7.3bn
# FTE Employees	60,422	-6.2%	56,656	6.5%	60,342	9.4%	66,044	12.8%	74,509
# Companies	3,414	-9.0%	3,107	4.5%	3,248	8.2%	3,516	12.1%	3,940

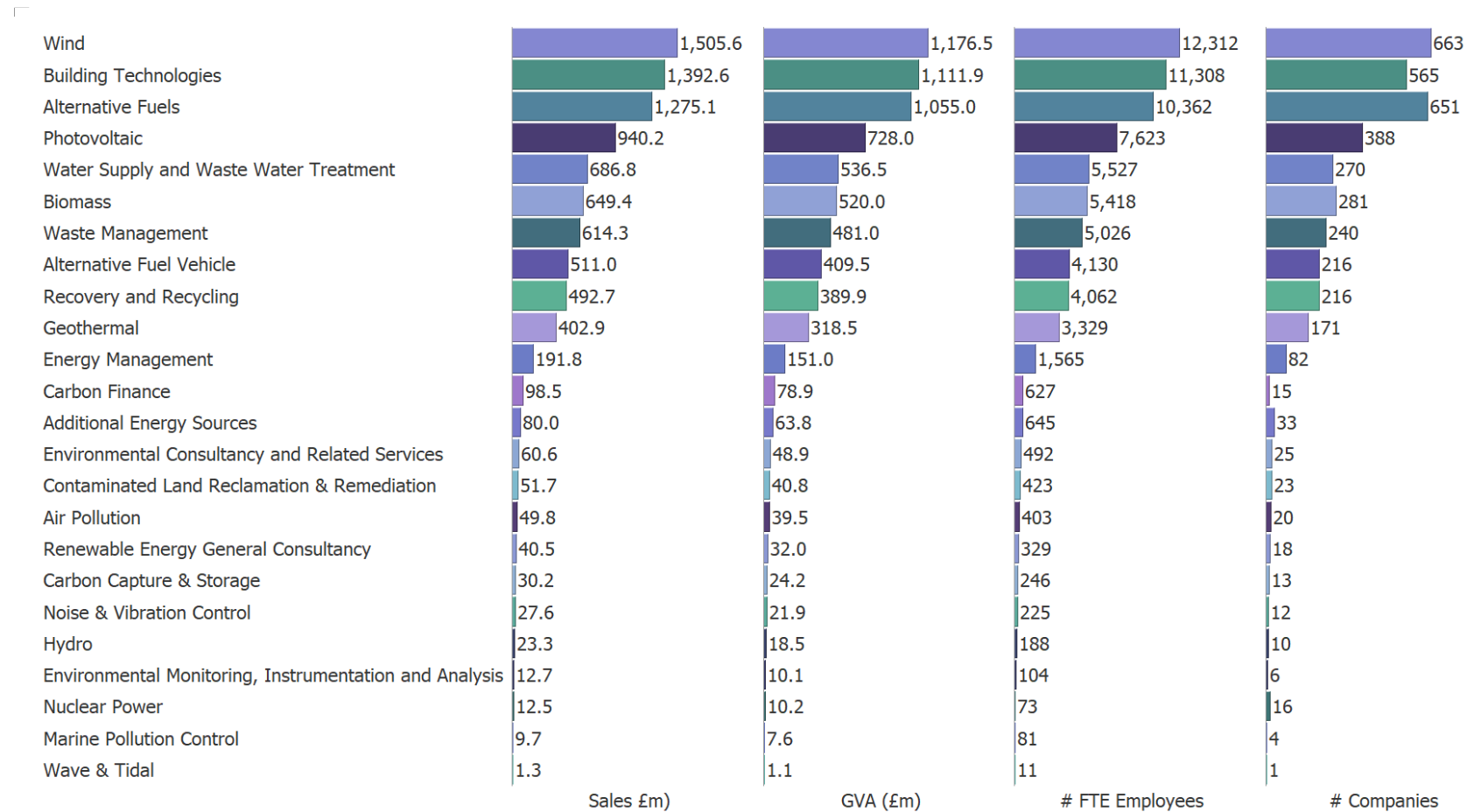
Note: the total numbers for 2019/20 are higher than those reported in 2021 due to an adjustment made in the Nuclear Power sub-sector in two Local Authorities: Dudley Borough Council and Wolverhampton City Council.

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

6. WMCA's Sub-sectors Key Metrics

All twenty-four sub-sectors of the LCEGS sector have activity in WMCA, 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 WMCA in 2023/24 by sub-sector



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

7. WMCA'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 WMCA include:

Sub-sector	WMCA Sales 2023/24	WMCA Growth 2021/22 to 2023/34	UK Growth 2021/22 to 2023/34
Air Pollution	£49.8m	21%	7%
Contaminated Land Reclamation & Remediation	£51.7m	22%	9%
Environmental Consultancy and Related Services	£60.6m	21%	11%
Recovery and Recycling	£492.7m	22%	11%
Waste Management	£614.3m	23%	8%
Water Supply and Waste Water Treatment	£686.8m	21%	5%
Additional Energy Sources	£80.0m	21%	10%
Alternative Fuel Vehicle	£511.0m	22%	12%
Alternative Fuels	£1,275.1m	22%	14%
Building Technologies	£1,392.6m	21%	16%
Energy Management	£191.8m	22%	10%
Geothermal	£402.9m	22%	18%

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

Of the twelve 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; and Geothermal are also large sub-sectors and should be considered a strength of WMCA.

8. WMCA 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 219,141 jobs in WMCA 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.

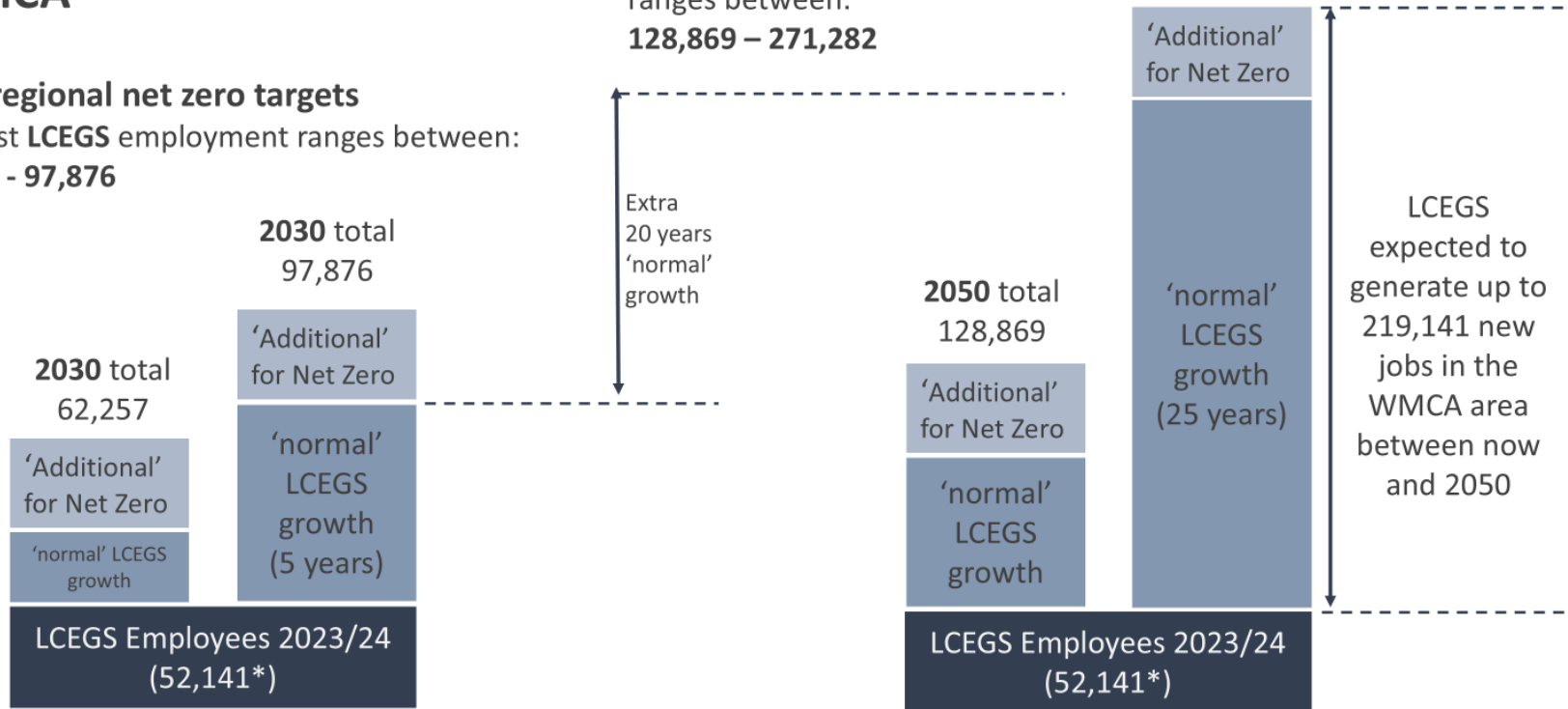
Key points from the skills analysis:

- WMCA has increased the number of people working in the sector; however, the overall skills gap remains 7.5% since 2019/20.
- 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 14% increase in 2019/20 employment numbers in LCEGS to reach net zero 2030 targets, this is now reduced to 11% increase in 2023/24 employment numbers, although strong economic growth could increase this need to 75% to reach net zero targets.
- To reach net zero targets by 2030, WMCA is expected to require between 62,257 and 97,876 employees, i.e., between 10,116 and 45,735 employees in addition to those employed now, representing an increase of between 11% and 75% in employment compared with 2023/24.
- To reach net zero targets by 2050, WMCA is expected to require between 128,869 and 271,282 employees, i.e., between 76,728 and 219,141 employees in addition to those employed now, representing an increase of between 130% and 384% in employment compared with 2023/24.

Skills Forecasts for the WMCA

2030 regional net zero targets
Forecast LCEGS employment ranges between:
62,257 - 97,876

2050 regional net zero targets
Forecast LCEGS employment ranges between:
128,869 – 271,282



*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. WMCA Sector Strengths

Strengths of WMCA include:

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	£1.4bn	£2.1bn	Medium	High	Medium	Medium	Low: 4.5% (MNZH: 4.4%)
Alternative Fuels	£1.3bn	£2.0bn	High	Medium	Medium	Medium	High: 12.8% (MNZH: 13.2%)
Water Supply & Waste Water Treatment	£686.8m	£1.1bn	Medium	High	Medium	Medium	Low: 3.7% (MNZH: 3.6%)
Waste Management	£614.3m	£980.4m	Medium	Low	Medium	Medium	Low: 5.1% (MNZH: 5.1%)
Alternative Fuel Vehicle	£511.0m	£800.9m	Medium	Low	Medium	Medium	High: 14.1% (MNZH: 14.2%)
Recovery & Recycling	£492.7m	£771.4m	Medium	Medium	Medium	Medium	High: 14.5% (MNZH: 14.2%)
Geothermal	£191.8m	£633.6m	Medium	Medium	Medium	Medium	High: 14.5% (MNZH: 14.4%)
Energy Management	£191.8m	£300.0m	Medium	Medium	Medium	Medium	High: 16.0% (MNZH: 15.5%)

10. 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