Low Carbon Environmental Goods and Services Sector Study 2024: Local Authority Short Report for Dudley Borough Council

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 this Local Authority. Reports on the wider picture of the MNZH region and WMCA, including skills forecasts relevant to this Local Authority, and 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.

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 are 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 a Smart Energy Cluster will provide a useful direction of travel and an 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 Dudley Borough Council are:

- Develop and promote a centralized directory of reputable LCEGS suppliers and consultants to simplify the selection process for SMEs when pursuing low carbon technology installations, as well as increasing the awareness of local LCEGS businesses.
- Utilise existing manufacturing clusters such as the Black Country Industrial Cluster to engage with energy-intense manufacturing businesses and promote the benefits of the circular economy and low carbon technologies.
- Build on the opportunities presented by the Innovation Accelerator to grow the LCEGS sector. For Dudley, this could include supporting the Very Light Rail sector following recent work with the BCIMO. Investigate how to retain skills, knowledge and if possible, activity from the Innovation Accelerators post March 2025.
- Work with nearby local authorities to develop a strategy to better work with local skills providers, education institutions and LCEGS businesses to ensure training and apprenticeships are available that address the specific skills gaps in the area. This work could include pooling funding.
- Review procurement processes within the local authority and wider public sector to prioritise sustainable practices across the supply chain, thereby driving growth in the LCEGS sector. Shift focus from short term cost savings to longer term savings and consider savings to other budgets through procurement which brings social and environmental benefits.
- Contact the Midlands Net Zero Hub and request the supplementary booklet of additional data to provide further information and context to the LCEGS sector in your area.
- Large sub-sectors which saw stronger 3-year growth in Dudley than the UK average and are considered strengths are:
    - Recovery & Recycling
    - Waste Management

- Water Supply & Waste Water Treatment
- Alternative Fuel Vehicle
- Alternative Fuels
- Building Technologies
- Energy Management
- Nuclear Power
- Geothermal
- Wind

These are similar strengths to the wider WMCA. Exceptions are Wind, which did not grow stronger than the UK average across the wider WMCA, and Nuclear Power, which is not a strength of the wider WMCA, due to its size. The WMCA report and dataset includes details of the skills gaps across the WMCA for each sub-sector, providing evidence to feed into local skills plans, ideally formed in collaboration with neighbouring councils.

4. Headline Figures for Dudley

The headline figures for the Dudley Borough Council area are:

- The LCEGS sector in Dudley was worth £692m in 2023/24 and is forecast to grow to £1.4bn over the next 5 years
- The LCEGS sector accounts for 7.6% of GVA, 3.3% of employment, and sales accounts for 8.3% of GDP in Dudley
- Dudley's LCEGS Sales generates 2.2% of the LCEGS Sales in the MNZH region, in line with its 2.2% of total GDP contribution
- Dudley's LCEGS GVA generated 2.2% of the MNZH's LCEGS GVA, slightly higher than the 2.1% total GVA contribution
- Dudley's LCEGs employment accounts for 2.5% of MNZH's LCEGS employment, lower than its 3.1% of economically active people in the MNZH

5. Dudley's LCEGS Sector Key Metrics

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

Dudley	2019/20	% growth	2020/21	% growth	2021/22	% growth	2022/23	% growth	2023/24
Sales	£584.4m	-8.4%	£535.2m	6.5%	£570.0m	8.4%	£617.7m	12.0%	£692.0m
GVA	£462.3m	-6.8%	£430.9m	4.7%	£450.9m	8.1%	£487.2m	12.3%	£547.3m
# FTE Employees	5,121	-10.1%	4,603	11.5%	5,133	14.6%	5,884	14.7%	6,751
# Companies	300	-8.8%	274	6.6%	292	8.3%	316	12.2%	355

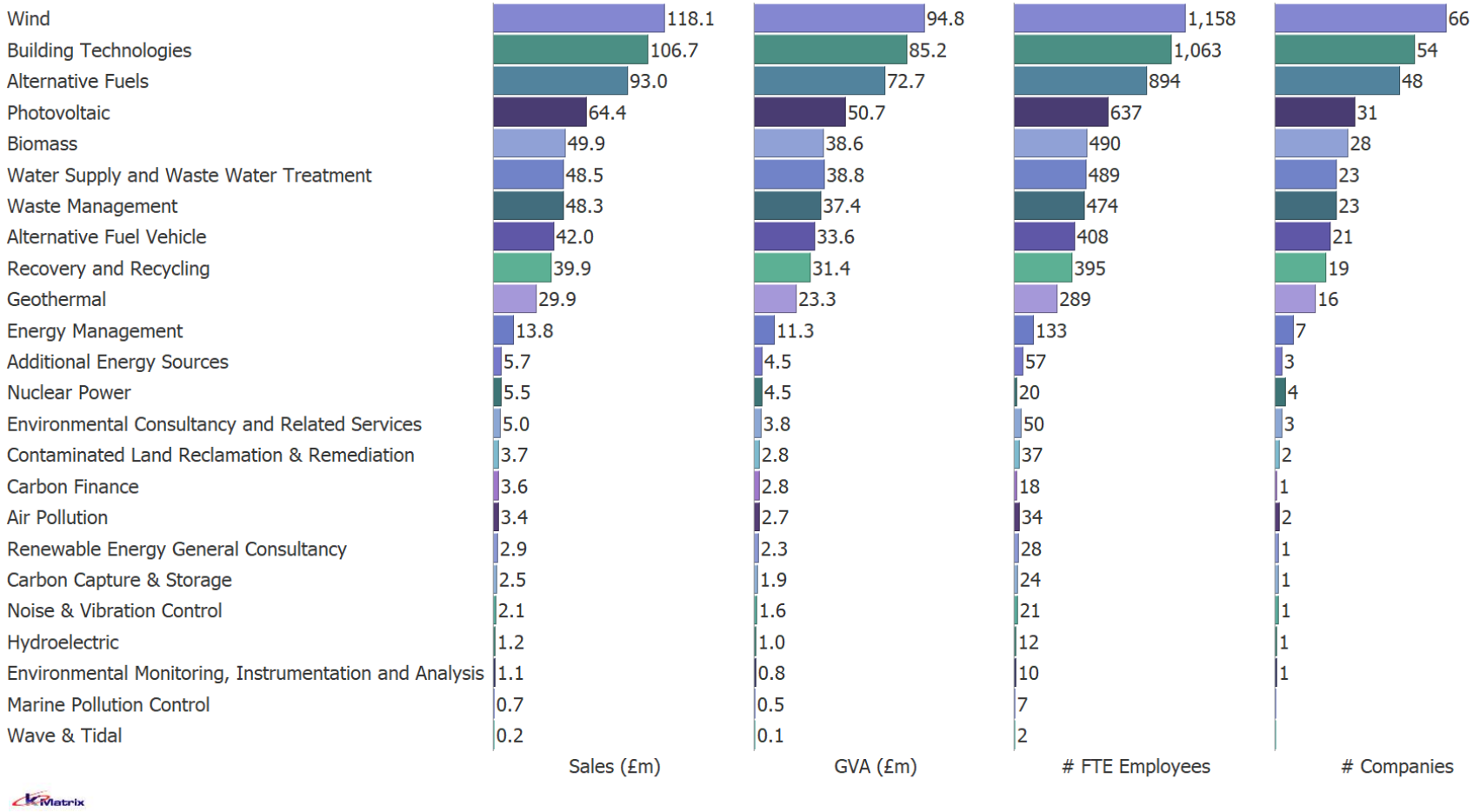
Note: the total numbers for 2019/20 are higher than those reported in 2021 due to an adjustment made in the Nuclear Power sub-sector in the Dudley Borough Council area.

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

6. Dudley's Sub-sectors Key Metrics

All twenty-four sub-sectors of the LCEGS sector have activity in Dudley, 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 Dudley 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; Biomass; Water Supply & Waste Water Treatment; Waste Management; Alternative Fuel Vehicle; Recovery & Recycling; Geothermal and Energy Management.

7. Dudley'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 Dudley include:

Sub-sector	Dudley Sales 2023/24	Dudley Growth 2021/22 to 2023/34	UK Growth 2021/22 to 2023/34
Contaminated Land Reclamation & Remediation	£3.7m	22%	9%
Environmental Consultancy and Related Services	£5.0m	19%	11%
Recovery & Recycling	£39.9m	21%	11%
Waste Management	£48.3m	22%	8%
Water Supply & Waste Water Treatment	£48.5m	21%	5%
Additional Energy Sources	£5.7m	20%	10%
Alternative Fuel Vehicle	£42.0m	20%	12%
Alternative Fuels	£93.0m	20%	14%
Building Technologies	£106.7m	20%	16%
Energy Management	£13.8m	22%	10%
Nuclear Power	£5.5m	23%	8%
Geothermal	£29.9m	23%	18%
Wind	£118.1	24%	23%

Only sub-sectors contributing more than 1% of the total Sales in Dudley 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; Geothermal; and Wind are also large sub-sectors and should be considered a strength of Dudley.

8. 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

9. West Midlands Combined Authority summary

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

10. Example Companies in Dudley

Examples companies in Dudley.

Note: Some or all of the company's activity and employment are either currently in the LCEGS sector or have the potential to be. In some cases, turnover and/or employment may include activity in other locations.

Company Name:	**Kuka Systems UK**
Web:	https://www.kuka.com/en-gb
Turnover:	£11.6m
SIC Codes:	Manufacture of other machine tools
Additional Products and Services:	Automation in the Energy sector
About the company:	"Automated robotic systems can build cars – or decommission nuclear sites. In hazardous environments, KUKA robots could be deployed to ensure human workers' safety along the complete nuclear fuel cycle, from mining and enrichment to conversion. At a nuclear decommissioning facility in the UK, they currently support its decommissioning by sorting and size-reducing waste as well as swabbing and housekeeping. A second system to be installed subsequently will replace the lids on waste boxes and bolt them."

Company Name:	**Nuclear Defence Project (trading name of Comsafe Technical Services Ltd)**
Web:	https://nucleardefenceprojects.co.uk/
Turnover:	Micro company
SIC Codes:	Installation of industrial machinery and equipment
About the company:	"Our aim is to clean up the nuclear legacy and create a world where nuclear plays a key contribution in protecting our nation, ensuring security of energy supply and meeting technical compliance.

From decommissioning redundant nuclear facilities, through supporting the Continuous at Sea Deterrent, to supporting the operation and build of nuclear power plants, our role is to ensure our clients technically comply to Nuclear site license conditions”

Company Name:	**Dartmouth Global Trading Co. Limited**
Web:	https://www.qr-metals.com/
Turnover:	£43.9m
Employees:	65
SIC Codes:	Recovery of sorted materials
About the company:	“As the demand of primary resources continues to rise, collectively we must work together to divert waste from landfills and advance the circular economy. The exploration, construction, and operation of primary mining around the world puts substantial pressure on the environment, whilst huge quantities of metals are lost in waste and end up in landfill. Advances across the waste management industry, combined with technological innovations, have led us to today, where we can more efficiently transform so-called waste into valuable resources. The challenge in the metal separation and recycling industry is twofold: achieving a high degree of accuracy in separating ferrous and non-ferrous metals from incinerator bottom ash and doing so in a way that is both sustainable and limits environmental impact. QR Metals rises to this challenge by combining innovative technology with traditional methods”

Company Name:	**Nortek Global Hvac (UK) Limited**
Web:	https://www.reznor.co.uk/
Turnover:	£16m
Employees:	122
SIC Codes:	Plumbing, heat and air-conditioning installation

About the company:

"Along with electric motors, ABB variable-speed drives, pumps, HVAC equipment, agricultural fans and transmission systems available ex-stock, we deliver essential on and off-site services from design and installation to retrofit and repair. Decades of experience working in the food and beverage, wastewater, industrial, marine, agricultural and commercial sectors – combined with our position as an ABB authorised value provider – means we're the smart choice for improving productivity, energy efficiency and reliability."