Low Carbon Environmental Goods and Services Sector Study 2024: Local Authority Short Report for Derby City 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 the East Midlands Combined County Authority, 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 EMCCA level relevant to the wider geographical region:

- Sustainable East Midlands is a business support programme provided by East Midlands Chamber that gathers information and resources to help businesses in the region decarbonise, including networks, expert support, funding and grants.
- The Low Carbon Business Network hosted by Derby University offers fully funded support to accelerate business growth in the low carbon sector, as well as connecting SMEs to larger organisations and supply chains to help decarbonise industry.
- The East Midlands Manufacturing Network is a cluster of manufacturing businesses across the region, allowing businesses to share knowledge and best practice, including ways to decarbonise.
- A prototype STEP fusion powerplant is planned for construction in West Burton, Bassetlaw, with the area acting as a hub for fusion-related engineering and commercial progress, generating thousands of jobs in the industry.

- The EMCCA is home to number of key businesses in the automotive, aerospace and advanced manufacturing industries, which bring great opportunities to decarbonise and grow the LCEGS sector.

3. Recommendations

Recommendations for Derby City Council are:

- Take advantage of the automotive sector in Derby by promoting and building upon the opportunities the Low Carbon Business Network brings, which help SMEs in the sector connect with larger organisations to decarbonise the supply chain.
- Work with nearby local authorities to develop a strategy to better collaborate 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 local authorities and the wider public sector to prioritize local LCEGS businesses, encouraging sustainable practices across the supply chain. Shift focus from solely cost-driven decisions to those considering long-term environmental and social 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 three-year growth in Derby City 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
- Photovoltaic
- Wind

These are more varied strengths than the wider EMCCA area, which does not include Nuclear Power, Geothermal, Photovoltaic or Wind, which did not grow stronger than the UK average in the EMCCA. The EMCCA report and dataset includes details of the skills gaps across EMCCA for each sub-sector, providing evidence to feed into local skills plans, ideally formed in collaboration with neighbouring councils.

4. Headline Figures for Derby City

The headline figures for the Derby City Council area are:

- The LCEGS sector in Derby City was worth £941m in 2023/24 and is forecast to grow to £1.4bn over the next 5 years
- The LCEGS sector accounts for 7.2% of GVA, 4.9% of employment, and sales accounts for 8.1% of GDP in Derby City
- Derby City's LCEGS Sales generates 2.9% of the LCEGS Sales in the MNZH region, slightly lower than the 3.0% of total GDP contribution
- Derby City's LCEGS GVA generated 2.9% of the MNZH's LCEGS GVA, slightly lower than the 3.0% total GVA contribution
- Derby City's LCEGs employment accounts for 2.9% of MNZH's LCEGS employment, higher than its 2.5% of economically active people in the MNZH

5. Derby City's LCEGS Sector Key Metrics

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

Derby City	2019/20	% growth	2020/21	% growth	2021/22	% growth	2022/23	% growth	2023/24
Sales	£779.4m	-12.1%	£685.2m	9.9%	£753.2m	9.7%	£826.1m	13.9%	£940.6m
GVA	£626.3m	-10.8%	£558.5m	7.5%	£600.6m	9.8%	£659.4m	13.8%	£750.1m
# FTE Employees	6,165	-8.5%	5,638	8.6%	6,121	14.7%	7,020	16.3%	8,166
# Companies	334	-10.7%	298	8.2%	323	9.8%	355	13.4%	402

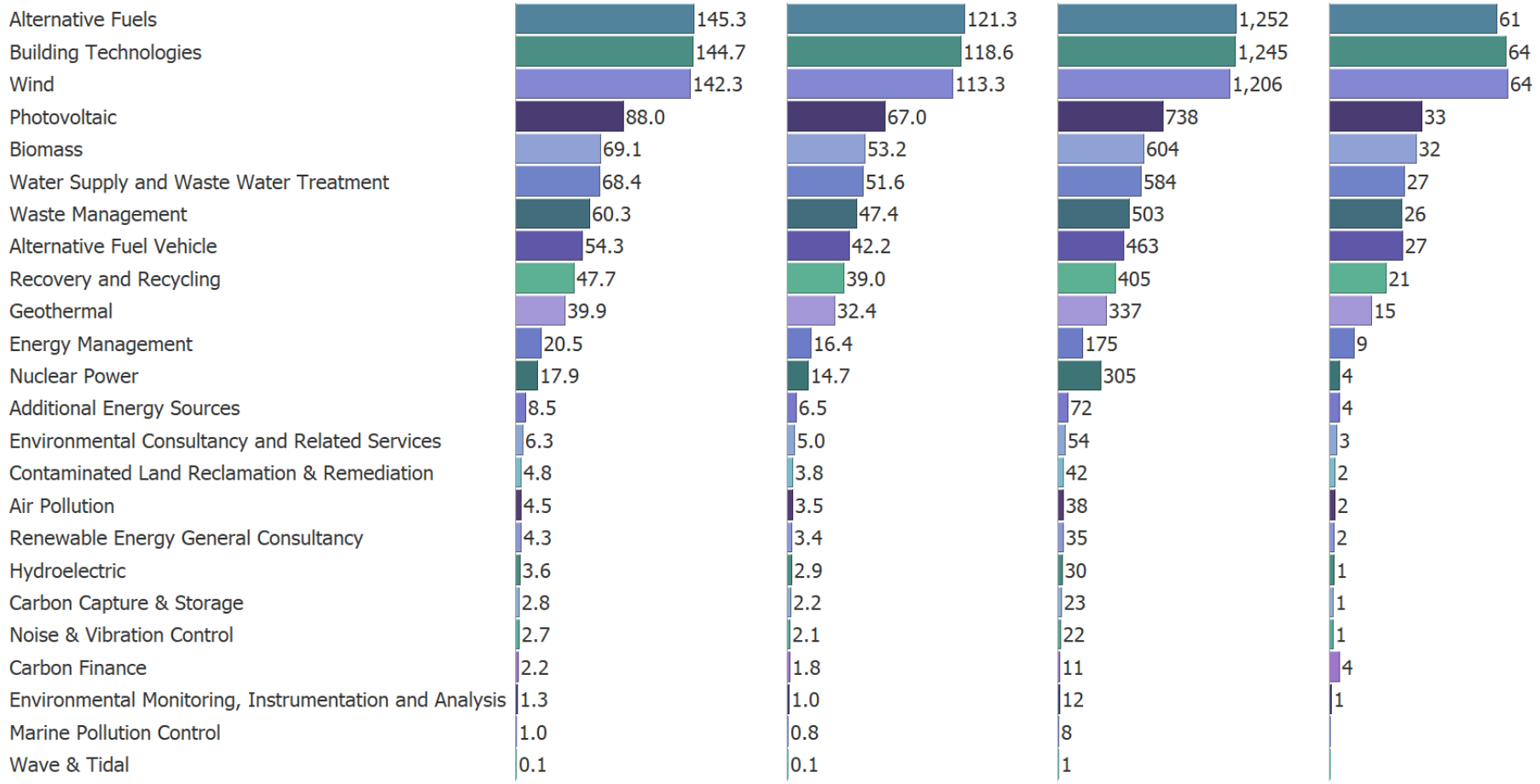
Note: the total numbers for 2019/20 are higher than those reported in 2021 due to an adjustment made in the Nuclear Power sub-sector in the Derby City Council area.

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

6. Derby City's Sub-sectors Key Metrics

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



The largest twelve sub-sectors account for 96% of sales, 96% of GVA, 96% of employment and 95% of companies in the LCEGS sector. These twelve sub-sectors are Alternative Fuels; Building Technologies; Wind; Photovoltaic; Biomass; Water Supply & Waste Water Treatment; Waste Management; Alternative Fuel Vehicle; Recovery & Recycling; Geothermal; Energy Management; and Nuclear Power.

7. Derby City'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 Derby City include:

Sub-sector	Derby City Sales 2023/24	Derby City Growth 2021/22 to 2023/34	UK Growth 2021/22 to 2023/34
Contaminated Land Reclamation & Remediation	£4.8m	22%	9%
Environmental Consultancy and Related Services	£6.3m	24%	11%
Recovery and Recycling	£47.7m	23%	11%
Waste Management	£60.3m	26%	8%
Water Supply and Waste Water Treatment	£68.4m	23%	5%
Additional Energy Sources	£8.5m	20%	10%
Alternative Fuel Vehicle	£54.3m	23%	12%
Alternative Fuels	£145.3m	27%	14%
Building Technologies	£144.7m	25%	16%
Energy Management	£20.5m	23%	10%
Nuclear Power	£17.9m	29%	8%
Geothermal	£39.9m	24%	18%
Hydro	£3.6m	27%	9%
Photovoltaic	£88.0m	27%	21%
Wind	£142.3m	25%	23%

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

Of the sixteen 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; Photovoltaic; and Wind are also large sub-sectors and should be considered a strength of Derby City.

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. East Midlands Combined County Authority summary

Headline figures for the EMCCA area are:

- The LCEGS sector in EMCCA was worth £6.0bn in 2023/24 and is forecast to grow to £8.7bn over the next 5 years
- The LCEGS sector accounts for 7.3% of GVA, 3.3% of employment, and sales accounts for 8.0% of GDP in EMCCA
- EMCCA's LCEGS Sales generates 19.8% of the LCEGS Sales in the MNZH region, slightly lower than the 20.5% of total GDP contribution
- EMCCA's LCEGS GVA generated 19.8% of the MNZH's LCEGS GVA, slightly lower than the 20.3% total GVA contribution
- EMCCA's LCEGs employment accounts for 16.8% of MNZH's LCEGS employment, lower than its 21.5% of economically active people in the MNZH
- Net Zero 2030 targets are expected to require between 3,099 and 23,125 FTE employees in addition to those employed now in EMCCA
- Net Zero 2050 targets are expected to require between 52,760 and 125,327 FTE employees in addition to those employed now in EMCCA
- EMCCA's LCEGS sector could generate up to 125,327 jobs between 2023/24 and 2050 *
- Investment in R&D for the LCEGS sector in 2019/20 was very high due to unusual investment in the Nuclear Power sub-sector with over £1.1bn in Private Equity; £1.4bn in Venture Capital Investment; and £1.7bn in Other Investment in that year. Nuclear Power is still the largest sub-sector in terms of investment in the EMCCA, but for this comparison we have used the 2020/21 data, which represents more 'usual' investment. Between 2020/21 and 2023/24, Investment in R&D for the LCEGS sector has grown from £296m to £438m for Private Equity Investment; £534m to £712m for Venture Capital Investment; and £771m to £1,016m for Other Investment.
- Exports in the LCEGS sector for EMCCA have increased from £572m in 2019/20 to £656m in 2023/24.

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

10. Example Companies in Derby City

Examples companies in Derby City.

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:	**Atlantic Projects Company (UK) Limited**
Web:	https://atlanticprojects.com/
Turnover:	£47.7m
Employees:	81
SIC Codes:	Construction of utility projects for electricity and telecommunications
Additional Products and Services:	Biomass
	Solar
	Battery Storage
	Hydroelectric
	Hydrogen
About the company:	"Servicing the electricity, oil, gas, process and renewable sectors for half a century, APC has become one of the most experienced power industry contractors in the world. Installing and maintaining advanced-technology gas turbines, steam turbines, hydro turbines, boilers, HRSGs, compressors and other rotating equipment as well as power grid stabilisation, our complex engineering solutions have helped fuel the power generation industry on a global scale.
	We recognise that the world can no longer sustain previous levels of fossil fuel-based electricity generation, and as such, a switch to more renewable sources of energy is essential. Some forms of

fossil fuel technologies will continue to have a role as either transitional or backup sources of electricity generation, but there now must be a more concerted effort to develop our renewable services.

APC plays a key role in what has been termed the “Transition Period” between fossil fuel-based technologies to more renewable sources of fuel to generate electricity.

We provide bespoke engineering, construction and maintenance services for the generation of electricity through renewable and thermal technologies.”

Company Name:	**Pektron Group Limited**
Web:	https://www.pektron.com/electric-vehicle-electronics/
Turnover:	£71.3m
Employees:	392
SIC Codes:	Manufacture of electronic components
Additional Products and Services:	Manufacture and development of components for EV's
About the company:	“Pektron design, develop and manufacture electronics, delivering innovative solutions across a range of sectors that include: automotive, electric vehicles, agriculture, construction, safety, consumer and HVAC.” Global company, UK and USA.

Company Name:	**Assystem**
Web:	https://www.assystem.com/en/country/united-kingdom/
Employees:	over 200
SIC Codes:	Engineering Services
Additional Products and Services:	Nuclear

	Hydrogen
	Renewables
About the company:	“Assystem is supporting the United Kingdom’s switch to low-carbon energy, transport, and infrastructure. Assystem has been present in the UK since 1996 and is supporting the country’s energy transition by providing engineering services and digital solutions and services. We are part of the Sizewell C Consortium, a group of more than 200 companies committed to making this project a success. We are also a leading provider of engineering services for the Hinkley Point C project, and a strategic partner in the design of the Rolls-Royce Small Modular Reactor.”
Company Name:	**Rolls-Royce SMR Limited**
Web:	https://www.rolls-royce-smr.com/
SIC Codes:	Production of electricity
Additional Products and Services:	Small Modular Nuclear Reactors
About the company:	“Rolls-Royce Small Modular Reactors: clean affordable energy for all. We are faced with an unprecedented demand for clean energy as global markets seek solutions on their journey to Net Zero. The demand is for energy that is always on, and which generates no emissions. Nuclear energy is the most powerful source of always on clean energy, however, it must be deliverable, scalable and cost competitive for it to be widely embraced. At Rolls-Royce SMR Ltd we have designed a factory built nuclear power plant that will offer clean affordable energy for all. Rolls-Royce SMR has been established with a clear vision – to deliver clean, affordable energy for all to achieve this goal, speed and certainty are critical.

Because Rolls-Royce SMR is able to produce a repeatable factory-built power station, that relies on tried and tested nuclear technology, it can be constructed and made operational far more quickly than conventional bespoke nuclear design and build technology.

The Rolls-Royce SMR approach lowers cost, reduces uncertainty and risk for developers and crucially, allows countries around the world to address their urgent need for low carbon energy."