

# THE SCOTTISH NET ZERO ECONOMY IN 2025

Scale, industrial strength and  
regional opportunity

May 2026



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# Foreword – Energy and Climate Intelligence Unit

Scottish scientist Prof Jim Skea, chair of the Intergovernmental Panel on Climate Change and so arguably the most senior climate scientist on the planet, recently said: “It’s chemistry and physics that if you want to stop global warming, you have to achieve net zero emissions.”

That scientific fact, that you can’t stop climate change without reaching net zero emissions, has driven countries and many US states, together accounting for 84% of global GDP, to commit to reaching that goal. Likewise more than half of the world’s largest 2,000 companies are also committed. Net zero is the global norm and a global economic megatrend.

Many of the targets were unveiled around the Glasgow COP climate conference five years ago – it was essentially when net zero went mainstream. The UK as a whole is more than halfway to achieving net zero emissions and it is now likely that China’s emissions have peaked.

Reaching net zero emissions requires burning increasingly less coal, oil and gas. With the world facing its second oil and gas crisis in a matter of years, sending energy bills soaring for households and businesses alike, energy security and affordability has become another reason to electrify. Spain is seeing some of the lowest electricity bills in Europe thanks to a quick shift to solar. Wind farms squeezed gas off the UK grid last year such that wholesale electricity prices were cut by around a third. In response to the latest US Iran crisis we’re seeing a surge in interest in sales in solar panels, EVs, batteries and heat pumps – all net zero technologies.

The North Sea is a mature basin with around 90% of its oil and gas used up. Prices are largely set by international events. Unless this switch to electric heat pumps is accelerated, homes will increasingly rely on foreign imports of gas from the likes of the US. But this transition has to be carefully managed, ensuring the high-skilled workers that have sustained Scotland's oil and gas industry find new opportunities as offshore wind and other net zero technologies ramp up. Analysis shows the vast majority of the skills developed for one offshore industry are now needed for another. Oil and gas output and jobs have been in decline for many years so efforts to build new, clean industries will need to accelerate if jobs are to be sustained.

A big part of the engine of this growth will be the thousands of small Scottish businesses and their workers who make up Scotland's vibrant net zero economy. They are the unsung heroes, supporting energy security and the mission to bring the climate back into balance.

With 2027 likely to be hottest year on record, from sea-level rise, to wildfires, flooding and escalating food bills as harvests in the UK and beyond fail, reaching net zero emissions is the only way to stop this. It is also already a major part of the Scottish economy, but also an opportunity to sustain growth in the coming years.

**Pete Chalkley**

Director, Energy and Climate Intelligence Unit



## Foreword – CBI Economics

The domestic and international political landscape has shifted significantly since we last partnered with the Energy & Climate Intelligence Unit to assess the contribution of the net zero economy. But while the politics may have evolved, the economic story in Scotland is clear, and growing in strength.

Net zero is already a major contributor to Scotland's economy. It supports over 105,000 jobs and generates £10.2 billion in economic value, with activity spanning energy, manufacturing, engineering and professional services.

What is particularly striking is the breadth of this activity. Around 3,000 businesses, predominantly small and medium-sized enterprises, are now part of Scotland's net zero economy, operating right across the country. From local installers and specialist engineering firms to globally recognised energy companies, this is a transition being delivered through a wide and diverse business base.

In Scotland, the transition is most visible in the energy sector. Long-standing strengths in oil and gas, offshore engineering and subsea capability represent a significant latent asset for the net zero economy, with skills in areas such as offshore project management, subsea engineering and pipeline infrastructure directly applicable to offshore wind, hydrogen and carbon capture. In Aberdeen and the North East, where the oil and gas sector accounts for a significant proportion of employment, translating this capability into renewable energy employment is both the central opportunity and the central challenge of the transition.

But this is not confined to one region. Across Scotland, net zero activity is embedded in local economies. In Perth and Kinross, it is closely linked to renewable generation and grid infrastructure; in East Lothian, to offshore wind and associated supply chains. These examples illustrate a broader pattern: the transition is building on Scotland's existing industrial strengths while creating new opportunities across communities.

This momentum is underpinned by significant future investment. Scotland accounts for a substantial share of the UK's energy infrastructure pipeline, positioning it at the centre of the country's transition to a low-carbon energy system.

The opportunity is clear, but it is not guaranteed. As North Sea oil and gas output declines over time, the pace at which new industries scale will be critical. Without sustained investment and delivery, there is a risk that workers and communities do not fully benefit from the opportunities the transition can provide.

At the same time, global events are reinforcing the direction of travel. Volatility in fossil fuel markets and increasing international investment in clean technologies are accelerating the shift towards electrification and renewable energy systems. Scotland is well placed to benefit, but only if it maintains momentum.

The politics of net zero may be fragmenting, but the economic case has never been clearer. The transition is already driving investment and economic transformation across the UK. With the right policy framework, it can go further – strengthening competitiveness, supporting high-value jobs, and securing long-term economic resilience.

**Louise Hellem**

Chief Economist, CBI



## Disclaimer

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*This report was commissioned by the Energy and Climate Intelligence Unit (ECIU) and prepared by CBI Economics on an independent basis. The analysis, findings and conclusions presented in this report are those of CBI Economics alone and do not necessarily reflect the views or policy positions of the CBI, its members, or ECIU.*

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## Executive summary

CBI Economics was commissioned by the Energy and Climate Intelligence Unit (ECIU) to assess the scale, structure and geographic distribution of Scotland's net zero economy. Building on previous UK-wide analysis, this is the first standalone report focused exclusively on Scotland, providing a detailed assessment of the sector's economic contribution, regional footprint and strategic significance.

The evidence shows that Scotland's net zero economy is established and economically material. Net zero-related industries support **£10.2 billion in Gross Value Added (GVA)** and support over **105,000 jobs**, representing **4.9% of Scotland's total economic output** and **3.9% of employment**.<sup>1</sup> These contributions are not confined to a narrow segment of the economy. Net zero-related activity spans energy generation and infrastructure, advanced manufacturing, engineering, construction, environmental services and professional, scientific and technical services.

Scotland's net zero economy is predominantly made up of small and medium-sized enterprises. Around **90% of identified firms are classified as SMEs**, including approximately 58% micro-enterprises, 19% small firms and 13% medium-sized businesses. This broad SME base spans supply chains, engineering services, low-carbon technology and environmental services, underpinning the sector's reach across Scotland's regions.

At a local level, the sector's footprint is particularly significant in areas where net zero-related industries account for the highest share of total economic output. In **Perth and Kinross**, net zero-related industries support for **12.0% of total local GVA**, the highest concentration in Scotland. In **Aberdeen City**, the sector supports **9.4% of local GVA and 12.7% of employment**, reflecting the region's established energy engineering capability. Each area's concentration reflects specific structural strengths: hydro and onshore wind proximity in Perth and Kinross and Aberdeen City's deep-rooted energy engineering and professional services capability.<sup>2</sup>

The sector is characterised by high productivity and technical intensity. Average productivity stands at approximately **£130,800 per full-time equivalent job**, significantly above the Scottish average. This reflects concentration in capital-intensive and skilled sectors such as electricity and energy supply, electrical equipment manufacturing and scientific research and development. The sector's composition reinforces Scotland's established capabilities in energy systems, engineering and industrial services.

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<sup>1</sup> These figures represent the sum of contributions across direct, supply chains and induced channels, a breakdown of the associated contribution originating from each channel is provided within the main body of the report.

<sup>2</sup> The percentages shown here are the total contributions of the net zero economy (sum of direct, supply chain and induced contributions) as a percentage of local GVA and employment.

A meaningful proportion of these contributions comes from activity supported across wider UK supply chains, and employee spending. For every £1 of direct economic value generated, **a further £1.75 is supported across the wider Scottish economy**. This reflects demand in sectors like construction, manufacturing, financial services, logistics and professional services, demonstrating that the energy and climate transition functions as a cross-cutting driver of economic activity.

Looking ahead, Scotland holds a central position in the UK's energy infrastructure pipeline. Approximately **£211 billion of planned UK energy infrastructure investment** is located in Scotland, **representing 34% of the UK's total pipeline value and 88 GW of capacity**. Major projects across offshore wind, grid reinforcement and storage infrastructure illustrate how nationally contracted capacity translates into local development activity. Recent procurement outcomes under Allocation Round 7 provide further visibility on future deployment, while workforce projections indicate that clean energy employment in Scotland could expand significantly by 2030.

Taken together, the findings demonstrate that net zero-related industries are structurally embedded, regionally distributed and aligned with areas of industrial capability. The delivery of infrastructure, development of skills and maintenance of stable policy frameworks will shape how this economic footprint evolves.

The energy and climate transition ultimately represents not only a pathway to decarbonise, but a central element of Scotland's industrial resilience and long-term competitiveness.



# Introduction

This report provides an assessment of the scale, structure and geographic distribution of Scotland's net zero economy. It measures the current economic footprint of net zero-related industries and examines how they are embedded across Scotland's industrial base and regional economies.

The analysis focuses on economic contribution, sectoral composition and regional exposure. It does not seek to model wider macroeconomic effects of climate policy or net job creation. Instead, it provides a structured and evidence-based assessment of net zero-related activity as it exists within Scotland's economy today.

This edition reflects a refined classification framework, establishing a baseline for 2025. A full explanation of the methodology and taxonomy revisions is provided in the [Technical Annex](#).

## Overview of this study

CBI Economics first defined the net zero economy in 2022 in partnership with The Data City, using Real-Time Industrial Classifications (RTICs) to identify businesses engaged in net zero-related activity. RTICs complement traditional Standard Industrial Classification (SIC) codes, which do not fully capture emerging or cross-cutting industries.

For this edition, the classification framework has been refined to improve boundary clarity and attribution in specific edge cases, particularly around mixed-portfolio and adjacent activities. The approach remains deliberately conservative: only activity that can clearly be attributed to the transition is included. As a result, estimates presented here may understate the broader low-carbon activity captured by alternative frameworks that include secondary or partial activities.

These refinements establish a 2025 baseline. Figures presented here are therefore not directly comparable with previous editions. A full explanation of the taxonomy revisions and comparability implications is provided in [Technical Annex](#).

## Methodology overview

This report measures the economic footprint of net zero-related activity in Scotland, including its contribution to Gross Value Added (GVA), employment and wider supply chain effects.

The analysis combines:

- The distribution of net zero-related businesses across SIC codes, identified through the RTIC framework,
- Official ONS business population, employment and GVA statistics,
- An Input-Output modelling framework to estimate direct, indirect and induced contributions.

Firms without reported turnover or employees are excluded to ensure that the modelling reflects operational economic activity.

Further detail on the data sources, modelling framework and technical assumptions is provided in [Technical Annex](#).

This analysis is comprised of three chapters:

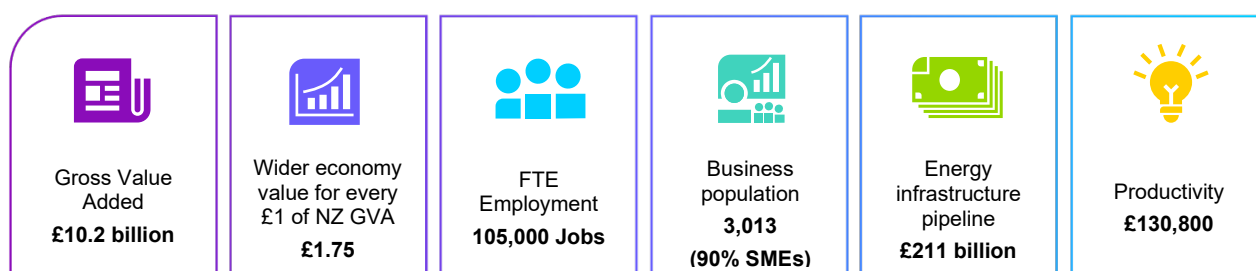
- **Chapter 1: The Scottish net zero economy in 2025.** This chapter sets out the scale and economic significance of net zero-related activity in Scotland. It quantifies the sector's contribution to GVA and employment, examines productivity and wage levels, and outlines its role within Scotland's wider industrial base and supply chains.
- **Chapter 2: Regional and local economic exposure.** This chapter analyses the geographic footprint of Scotland's net zero economy, identifying areas of significant GVA and employment exposure. It also considers the local distribution of energy infrastructure and pipeline investment, linking current economic activity with future development.
- **Chapter 3: Strategic implications.** This chapter draws together the findings of the report to consider their implications for Scotland's economic structure and competitive position. It examines Scotland's areas of specialisation within the net zero economy, its role in future energy infrastructure deployment, and how these intersect with industrial capability, workforce development and long-term economic resilience.

# The Scottish net zero economy in 2025

## A significant contributor to Scotland's economy

Scotland is home to a thriving net zero economy. Net zero-related activity contributes a total **£10.2 billion** to Scotland's economy, representing **4.9% of total Scottish GVA**.<sup>3</sup> This places the sector on a larger scale than some established industries within Scotland – it is worth over double the total value supported by Scotland's agriculture industry.

The sector supports a total **105,000 full-time equivalent (FTE) jobs**, accounting for approximately **3.9% of Scottish employment**.<sup>4</sup> These jobs are distributed across energy generation, manufacturing, construction, engineering and professional services. Net zero activity therefore represents a meaningful and established component of Scotland's economic base.



## A broad and commercially active business base across sectors and local areas

Scotland's net zero economy is underpinned by a broad and commercially active business base. Under the refined RTIC framework, approximately 4,925 registered companies are identified as operating within net zero-related activities, of which **3,013** report employees and turnover. This reflects a substantial operational footprint distributed across Scotland's regions and supply chains.

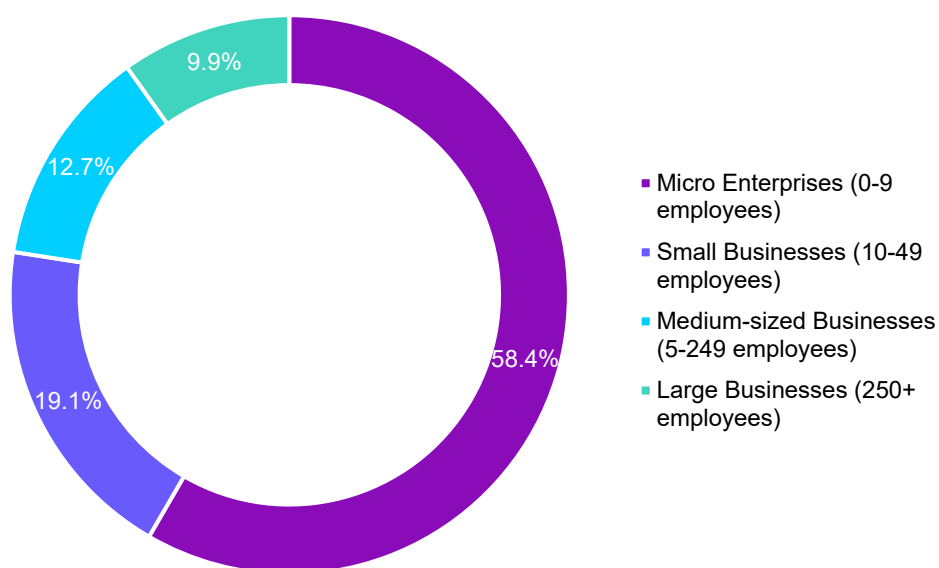
The sector is predominantly SME-led, with around **90%** of identified firms classified as small or medium-sized enterprises. This includes approximately 58% micro-enterprises, 19% small firms and 13% medium-sized businesses. Around 10% of firms are classified as large enterprises (**Figure 1**).

<sup>3</sup> This GVA figure is the sum of the direct, supply chain and induced contributions supported by the net zero industry.

<sup>4</sup> This FTE Jobs figure is the sum of the direct, supply chain and induced contributions supported by the net zero industry.

While SMEs form the backbone of Scotland's net zero economy, the share of large firms investing in the energy and climate transition is notably higher than the Scottish average. This reflects the capital-intensive and infrastructure-led nature of parts of the sector, particularly in energy generation and grid development, where larger corporate operators play a central role. The overall profile therefore combines a broad base of smaller firms across supply chains and services with a core of larger infrastructure and energy companies.

**Figure 1:** Distribution of net zero businesses in Scotland by employment size

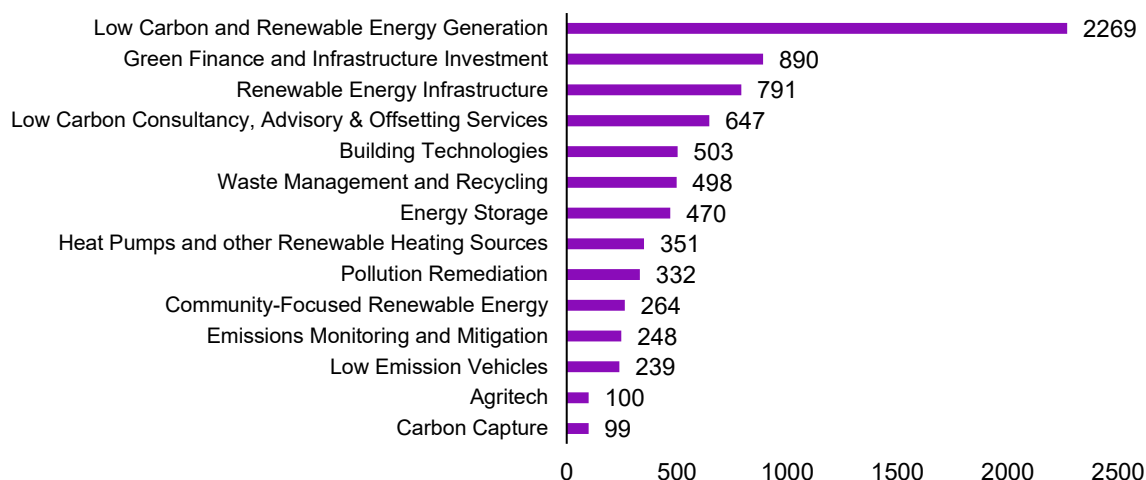


**Source:** The Data City (2026)

The age profile of firms further illustrates sustained market dynamism. Nearly 44% of companies have been established within the past decade, and 15% within the past five years. This suggests continued entrepreneurial entry and business formation aligned with the growth of clean energy markets, environmental services and enabling technologies.

The net zero economy in Scotland spans a diverse set of activities under the RTIC framework. **Figure 2** presents the distribution of all net zero-related registered companies across the principal sub-sectors identified within the RTIC framework. The chart illustrates the breadth of commercial participation across different areas of the net zero economy.

**Figure 2: Net zero business count by sub-sector<sup>5</sup>**



**Source:** The Data City (2026)

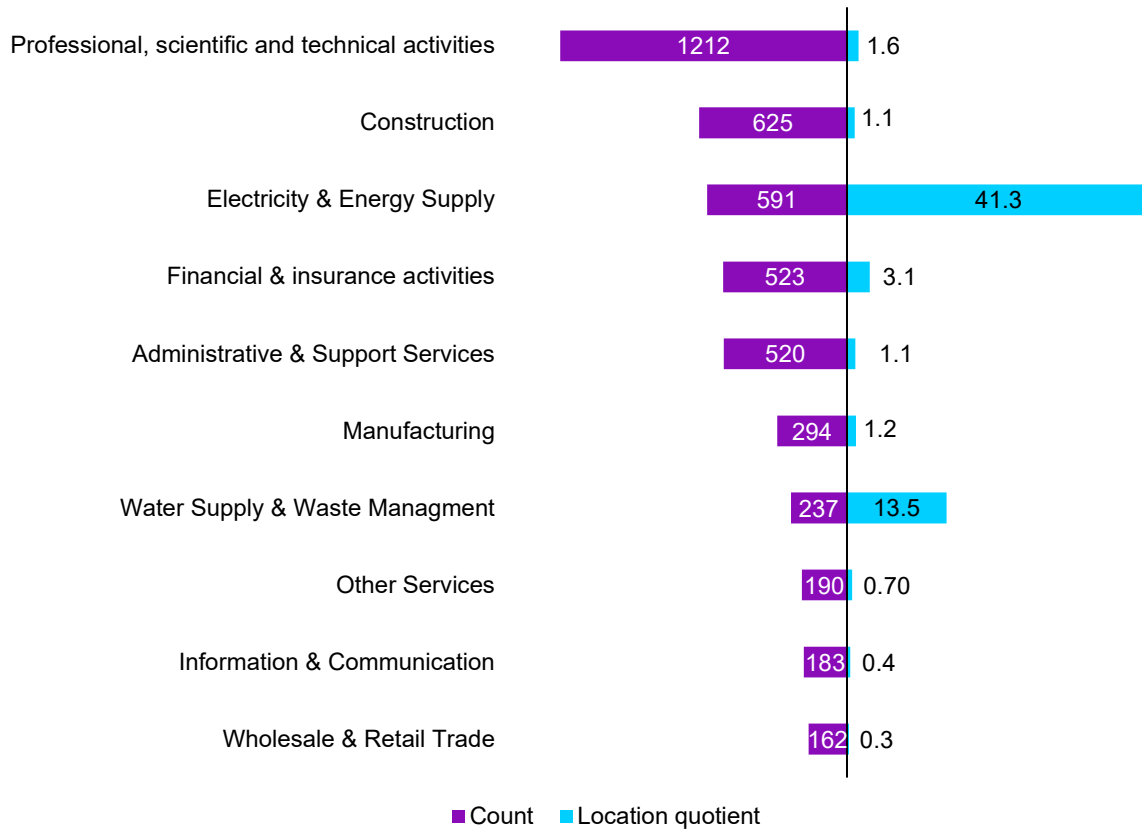
Looking at the distribution of net zero businesses across the UK Standard Industrial Classification (SIC) highlights both the scale and concentration of Scotland’s net zero economy. **Figure 3** shows Professional and Technical Services accounts for the largest number of firms (1,212), followed by Construction (625), Electricity and Energy Supply (591), and Financial and Insurance Activities (523). This confirms that net zero activity is anchored in core areas of Scotland’s industrial base.

Relative concentration through location quotients tells a more distinctive story. Location quotients are a measure of relative specialisation: they compare the share of an industry within Scotland’s economy to its share within the UK economy. A value above 1 indicates that the sector is more concentrated in Scotland than in the UK overall. In **Figure 3** Electricity and Energy Supply exhibits an exceptionally high location quotient (41.29), while Water, Waste and Environmental Services (13.54) and Financial and Insurance Activities (3.08) are also significantly more concentrated than the UK average. Professional services (1.57), Manufacturing (1.23) and Construction (1.06) are modestly above the national benchmark.

Together, these patterns show that Scotland’s net zero economy combines broad-based participation with particular depth in energy and environmental services - reinforcing its position as a structurally embedded and specialised component of the wider economy.

<sup>5</sup> Please note the sum of the business counts for each sub-sector will not equal the total number of businesses as some business operate in more than one sub-sector. For the purposes of economic modelling, we treat the net zero business population as a single consolidated cohort and remove duplicate firm entries to ensure that each business is counted only once

**Figure 3:** Business count and location quotient of net zero businesses in Scotland by SIC code



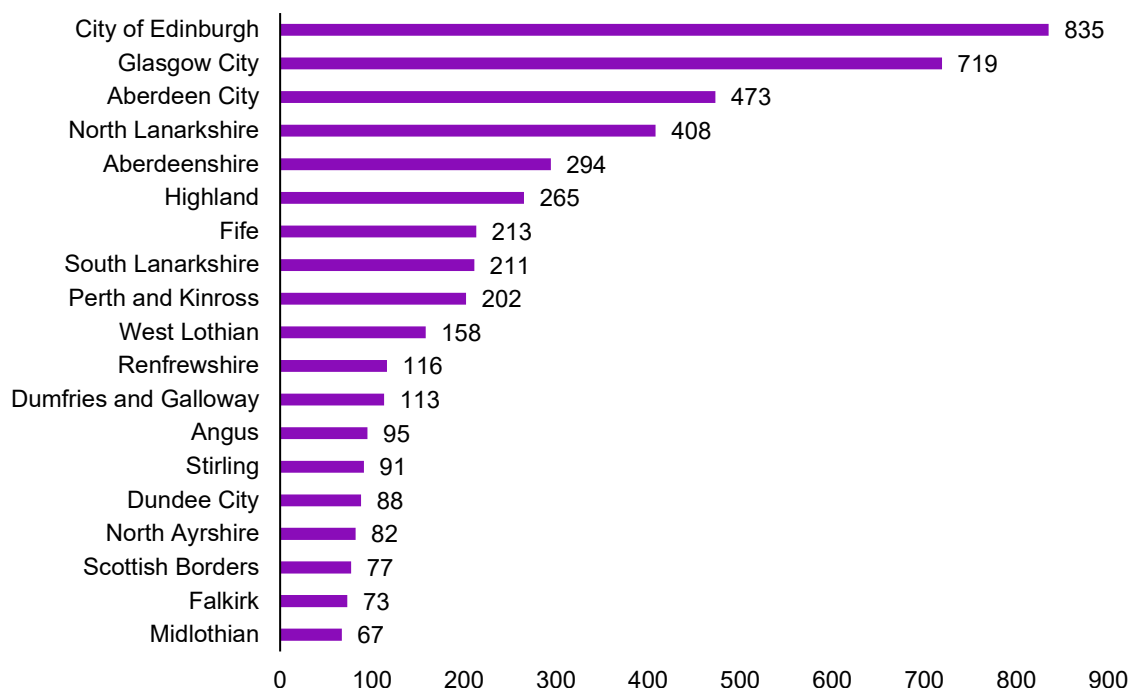
**Source:** The Data City (2026)

Net zero-related companies are distributed across Scotland’s local authority areas, with clear centres of concentration. **Figure 4** shows that the City of Edinburgh hosts the largest number of firms (835), followed by Glasgow City (719). Aberdeen City (473) and North Lanarkshire (408) also represent significant hubs of activity.

Beyond the largest urban centres, a second tier of authorities includes Aberdeenshire (294), Highland (265), Fife (213), South Lanarkshire (211) and Perth and Kinross (202), indicating that net zero capability extends well beyond Scotland’s two principal cities.

While some firms operate across multiple locations - meaning counts are not additive across authorities - the distribution demonstrates that Scotland’s net zero economy is geographically broad-based, combining strong metropolitan concentrations with substantial activity across regional and rural areas.

**Figure 4:** Net zero registered company count by local authority



**Source:** The Data City (2026)

Location quotient analysis further reinforces the strength of local specialisation. A value above 1 indicates that net zero companies are more concentrated locally than nationally, signalling relative specialisation. All of the authorities shown in **Figure 4** record concentrations of net zero-related firms that are more than **three times the UK average** relative to their overall business base (i.e. have a location quotient of over 3, relative to UK = 1).

The highest relative concentrations are observed in North Lanarkshire (8.8 times the UK average), Aberdeen City (8.4 times), and Perth and Kinross (7.3 times). Strong concentrations are also evident in the City of Edinburgh (6.5 times), West Lothian (6.2 times), and Dumfries and Galloway (6.0 times). In these areas, net zero activity forms a particularly prominent component of the local business landscape.

## A significant and embedded economic contributor

Beyond its direct footprint, the economic contribution of net zero-related activity extends through Scotland's wider industrial ecosystem. Net zero firms generate demand for goods and services across domestic supply chains, while employees – both directly and indirectly supported – sustain further activity through household spending. These linkages illustrate how net zero-related industries are interwoven with Scotland's broader economic structure.

The strength of the multiplier effect demonstrates how deeply net zero activity is embedded within Scotland's economy. For every £1 of direct economic value generated, a further £1.75 is supported across the wider economy through supply chain and induced spending effects. Similarly, each FTE job within net zero-related firms sustains an additional 2.64 FTE jobs elsewhere in Scotland.

These impacts are transmitted through established industrial linkages. The development of renewable generation capacity, for example, requires civil engineering works, grid connections, specialised equipment manufacturing and ongoing technical support. Each stage of this process generates demand across multiple sectors, sustaining employment and output beyond the originating firm.

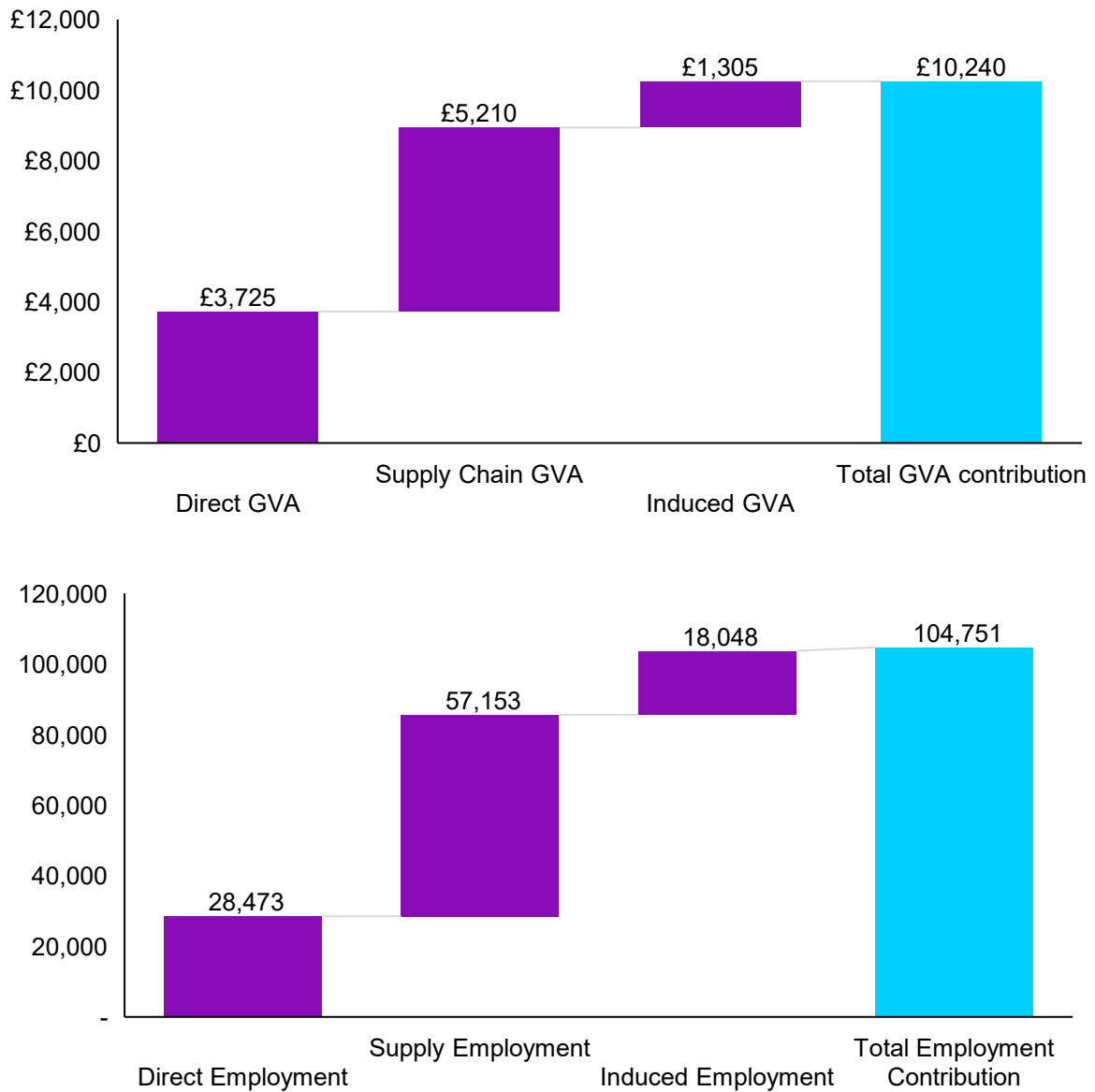
**Figure 5** presents the direct, supply chain and induced impacts of net zero activity on Scotland's economy. In total, net zero-related industries generate £10.2 billion in GVA, equivalent to 4.9% of Scotland's total economic output. Of this, £3.7 billion arises from direct activity within net zero firms, £5.2 billion is supported through supply chain linkages, and a further £1.3 billion is generated through induced employee spending effects.

A similar pattern is evident in employment. Net zero activity supports 105,700 full-time equivalent (FTE) jobs across Scotland. This includes 28,500 roles directly within net zero-related firms, 57,200 jobs sustained through supply chains, and 18,000 supported through induced employee spending.



The scale and distribution of these impacts demonstrate that net zero-related industries are neither emerging nor peripheral. They constitute a material and deeply embedded component of Scotland’s economic structure.

**Figure 5:** Economic value (GVA - £m, 2025 prices) and employment (FTE jobs) supported by the net zero economy in Scotland



Source: CBI Economics (2026)

## A high-value and productive sector

Net zero-related industries in Scotland are characterised by high productivity and strong value creation. Output per worker stands at approximately **£130,800 per FTE** - around **1.7 times the Scottish average**. This reflects the concentration of activity in capital-intensive and technically specialised sectors, including electricity generation, engineering, advanced manufacturing and scientific research.

This productivity premium is mirrored in earnings – median full-time earnings across net zero industries stood at **£41,800, 5.2% above the Scottish average** (£39,719). Net zero roles are typically concentrated in skilled occupations requiring technical, engineering and professional expertise, supporting above-average wages. As a result, the sector contributes disproportionately to income generation and high-value employment within the Scottish economy.

The combination of elevated productivity and skilled employment underscores the structural importance of net zero activity. It represents not simply an expansion in labour demand, but growth rooted in knowledge-intensive and infrastructure-based industries that strengthen long-term economic capability.

## Net zero as a cross-sector demand driver

Net zero-related industries contribute materially to output and employment and are concentrated in a small number of core delivery sectors when mapped to standard UK industrial classifications (SIC codes). The largest direct (initial) GVA impacts fall within the Electricity, Gas, Steam and Air Conditioning Supply SIC section, reflecting Scotland's strength in renewable generation, grid infrastructure and system integration.<sup>6</sup> Other infrastructure-linked sectors – including Water, Waste & Sewerage Supply and Professional, Scientific & Technical activities – also show significant direct contributions.

This concentration is consistent with the capital-intensive and infrastructure-led nature of Scotland's net zero economy. However, direct activity tells only part of the story. While direct output is concentrated in energy-related sectors, the supply chain and induced effects of net zero activity are significantly more dispersed.

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<sup>6</sup> It is important to note that this classification refers to the standard SIC sections, which combines electricity and gas activities. The RTIC framework does not include all firms within this SIC category; rather, it captures only those businesses whose activities can be clearly attributed to net zero-related generation or infrastructure.

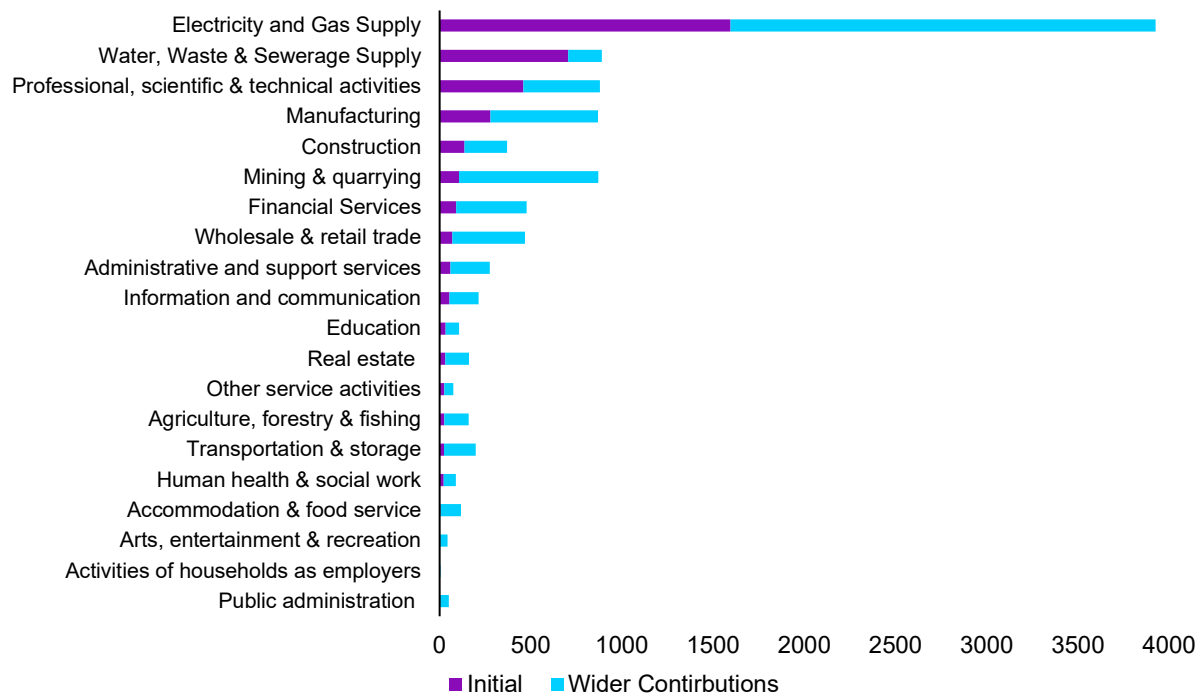
**Figure 6** illustrates the breakdown of direct versus wider GVA impacts by SIC section. Several service and trade sectors receive substantially greater value through supply chain demand than through direct net zero activity.

For example:

- **Mining & Quarrying:** £763 million supported through supply chains and induced contributions compared with £107 million direct.
- **Financial Services:** £386 million supported through wider contributions compared with £91 million direct.
- **Wholesale & Retail Trade:** £400 million supported through supply chain and induced contributions compared with £69 million direct.
- **Manufacturing:** £590 million support through wider contributions compared with £278 million direct.

This demonstrates that net zero-related activity acts as a demand catalyst beyond its core delivery sectors. Energy infrastructure projects require project finance, legal structuring, insurance services, engineering consultancy, procurement and logistics, all of which stimulate activity across Scotland’s wider economy.

**Figure 6:** Top SIC sections supported by the net zero economy – directly and through wider demand (GVA - £m, 2025 Prices)



Source: CBI Economics (2026)

## Scotland holds a strategic share of the UK’s energy infrastructure pipeline

In addition to its current economic footprint, Scotland occupies a central position in the UK’s planned energy infrastructure development. **Table 1** summarises the scale and composition of Scotland’s renewable energy investment pipeline summarised using data from the Renewable Energy Planning Database and CBI Economics investment estimates.

Scotland’s pipeline comprises an estimated **£211.2 billion of planned investment** and **88.4 GW of capacity**, representing approximately 34% of total UK pipeline capacity. More than half of this capacity is in active development, with £11.6 billion currently under construction.

Battery storage accounts for the largest share of planned capacity (33.4 GW), followed by onshore wind (20.3 GW), offshore wind (17.7 GW) and pumped storage hydroelectricity (9.6 GW). This technology mix reflects both Scotland’s established renewable strengths and the growing role of storage in enabling system flexibility.

These figures relate specifically to energy generation, storage and grid infrastructure. While they do not capture the full breadth of the net zero economy, they provide a forward-looking indicator of Scotland’s role in the UK’s energy system transformation.

**Table 1:** Pipeline summary of renewable energy generation projects in Scotland

Pipeline stage <sup>7</sup>	Capacity (GW)	Estimated investment (£bn)	% of pipeline
Early pipeline	35.1	85.5	40%
Active pipeline	47.2	114.0	53%
Under construction	6.1	11.6	7%
<b>Total</b>	<b>88.4</b>	<b>211.2</b>	<b>100%</b>

**Source:** CBI Economics modelling based on the Renewable Energy Planning Database (2026)

<sup>7</sup> Early pipeline includes projects with a planning application submitted, under appeal, or revised and awaiting determination. Active pipeline includes projects with planning consent granted and awaiting construction, or where no planning application is required (based on REPD status).

## Policy-backed procurement and delivery momentum

The UK Government's Contracts for Difference (CfD) Allocation Round 7 (AR7), published in early 2026, further reinforces Scotland's forward position within the UK's renewable energy pipeline. In AR7, projects located in Scotland secured funding for nearly 1.5 GW of offshore wind capacity - representing 17.5% of the UK offshore wind capacity awarded – alongside funding for 1.4 GW of onshore wind, solar and tidal capacity, equivalent to 22.9% of UK awards for these technologies. In total, almost 3 GW of new low-carbon electricity capacity was contracted in Scotland through AR7, underscoring its continued role as a major recipient of government-backed renewable investment.

While CfD awards do not represent immediate capital expenditure, they provide revenue certainty and are widely regarded as a key enabler of project financing and construction. Industry estimates associate AR7 awards with tens of billions of pounds in private sector investment over the coming development cycle.<sup>8</sup>

Scotland's substantial share of the UK's energy pipeline positions it to play a significant role in converting contracted capacity into operational infrastructure. The scale of planned development highlights Scotland's importance within the UK's evolving energy system.

The realisation of this pipeline will depend on sustained investor confidence, regulatory clarity and effective project delivery. Nonetheless, the combination of existing capacity under construction and contracted future capacity provides a strong signal of Scotland's forward industrial position in energy transition.

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<sup>8</sup> [Contracts for Difference Allocation Round 7 results](#)

## Pipeline projects are leading to increases in Scotland's operating capacity

The scale of Scotland's energy infrastructure pipeline is increasingly being reflected in the commissioning of new generation assets. In 2025, a number of projects moved from development and construction into full commercial operation.

The most significant onshore addition was the Limekiln Wind Farm in Caithness, which became operational in April 2025. With an installed capacity of 106 MW across 24 turbines, the project is capable of supplying electricity equivalent to the annual needs of approximately 100,000 homes. Its commissioning adds materially to the country's renewable generation base.

In offshore wind, Neart na Gaoithe in the Firth of Forth reached full operational status in 2025 following phased turbine installation and grid connection. With a capacity of approximately 450 MW, the project constitutes one of the most significant recent additions to Scotland's offshore wind portfolio and makes a substantial contribution to UK-wide renewable electricity output.

Taken together, these projects added more than 550 MW of new operational wind capacity in 2025. While this represents only a portion of Scotland's wider £160.6 billion energy infrastructure pipeline, it demonstrates continued progress in translating contracted and consented capacity into functioning infrastructure.



# Local economic exposure to the net zero economy

## Net zero activity is distributed across Scotland

Net zero-related activity is geographically embedded across Scotland's regions. While major urban centres such as **Glasgow, Edinburgh and Aberdeen** account for significant absolute contributions to GVA and employment, the relative importance of net zero activity is particularly pronounced in several local authority areas.

This distribution highlights two distinct features of Scotland's net zero economy:

- **Scale in metropolitan and industrial centres**, reflecting head office functions, engineering services and financial activity.
- **High relative exposure in energy and infrastructure-intensive areas**, where net zero activity represents a significant share of local economic activity.

Net zero-related firms operate in every region of Scotland, reinforcing the conclusion that the sector's commercial footprint is broad rather than geographically concentrated.

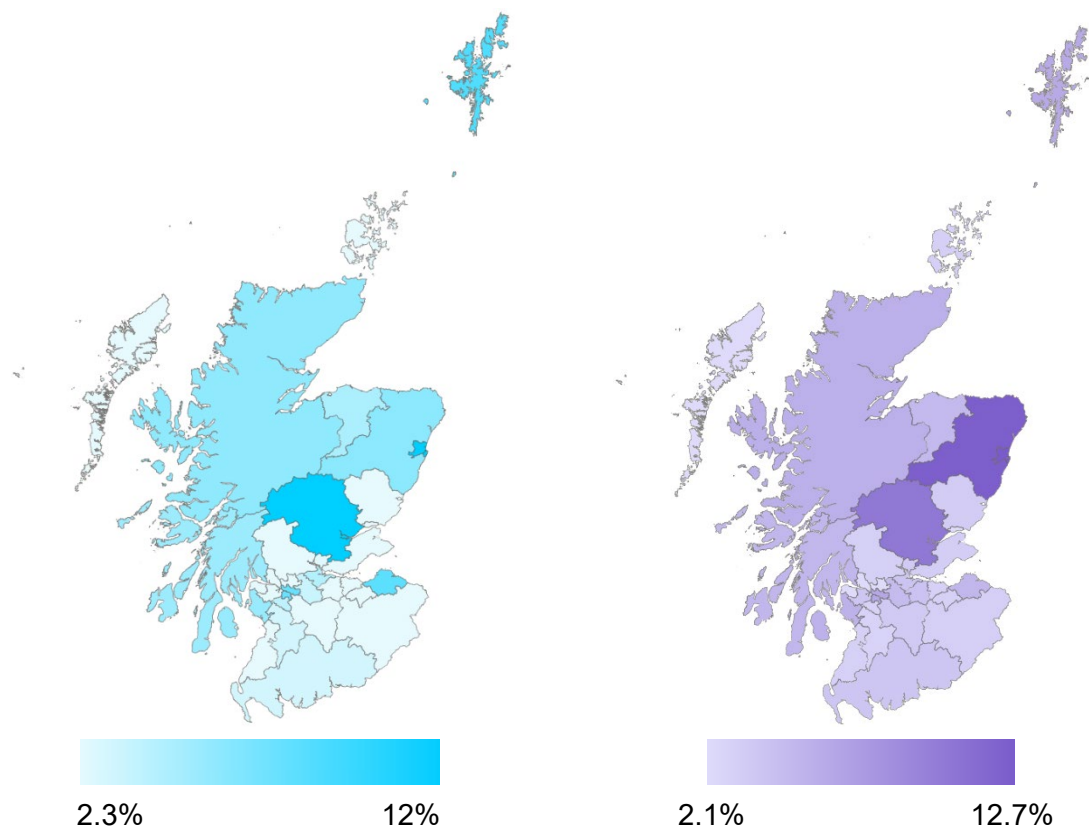


## Net zero activity is embedded across Scotland's local economies

Local authority-level analysis demonstrates that net zero-related industries contribute to employment and value creation across the country, particularly in areas with established strengths in energy generation and infrastructure, advanced manufacturing and engineering, industrial supply chains, as well as professional and technical services.

The distribution of activity reflects Scotland's industrial geography, reinforcing the connection between the net zero transition and existing economic capabilities. **Figure 7** presents the share of total local GVA and employment supported by net zero-related industries across Scotland's local authority districts.

**Figure 7:** % of local authority district (LAD) GVA and employment supported by net zero industries



Source: CBI Economics (2026)

In several areas, net zero activity represents a significant share of total local economic output. In **Perth and Kinross**, net zero-related industries account for **12.0% of total local GVA**. The share is also substantial in **Aberdeen City (9.4%)** and **East Lothian (6.8%)**. In absolute terms, net zero contributes £1.1 billion in Aberdeen City, £675 million in Perth and Kinross, and £181 million in East Lothian.

The areas in Scotland with the largest net zero industrial footprints, in absolute terms, include **Glasgow City**, where net zero activity directly supports **£1.1 billion in GVA** (£2.6 billion when including the wider supply chain and spillover effects), and the **City of Edinburgh**, where net zero activity directly support **£448 million** (£1.2 billion when including the wider contributions). This demonstrates that the economic opportunity associated with net zero is significant across multiple parts of the country.

A similar pattern is evident in employment. Aberdeen City records the highest concentration, with 12.7% of local employment supported by net zero activity, followed by Aberdeenshire (5.8%) and Perth and Kinross (5.1%). The geographic distribution of net zero activity in Scotland is not random. It aligns closely with Scotland's established industrial capabilities and infrastructure networks.

Several structural factors help explain local clustering:

- **Energy asset proximity:** Areas near offshore wind zones, hydro assets and grid infrastructure exhibit higher direct exposure.
- **Engineering capability:** Regions with established industrial and engineering bases are well positioned to participate in energy transition supply chains.
- **Port and logistics infrastructure:** Coastal and port-adjacent authorities benefit from assembly, transport and offshore deployment activity.
- **Professional services hubs:** Major cities host legal, financial and consulting services that support energy and infrastructure development.

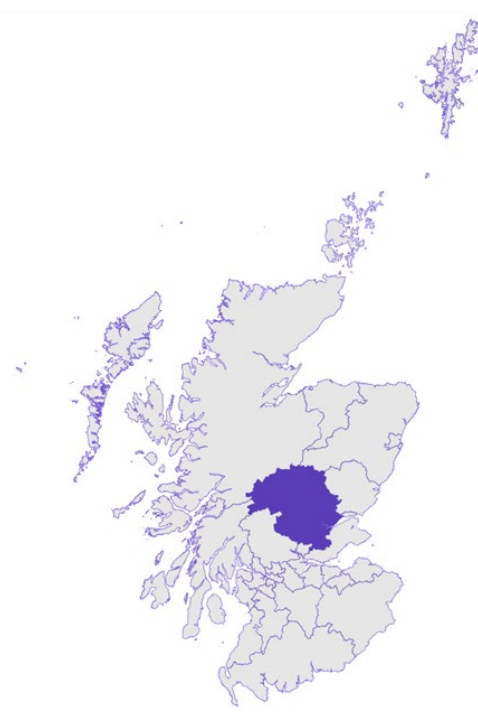
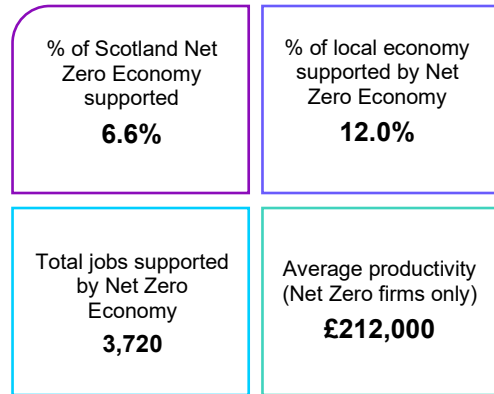
This pattern suggests that the transition to net zero is reinforcing Scotland's existing industrial geography rather than generating entirely new economic centres. The following sections examine the local authorities with the highest proportional exposure to net zero activity, exploring the scale of economic contribution and the structural factors underpinning that concentration.

## Perth and Kinross

Perth and Kinross benefits from proximity to major renewable generation assets, including hydroelectric schemes and large-scale onshore wind developments, supported by established grid infrastructure. This concentration of operational capacity has enabled the growth of a local ecosystem of businesses spanning generation, engineering, specialist maintenance and wider low-carbon supply chain services. For example, Realise Energy Services, based in Perth, provides specialist maintenance and servicing for renewable energy infrastructure, particularly wind turbines.

The region is also home to businesses supporting building decarbonisation and project delivery. IMS Heat Pumps and Easy Heat Systems specialise in low-carbon heating solutions, particularly the installation of heat pump technologies central to decarbonising domestic and commercial buildings.

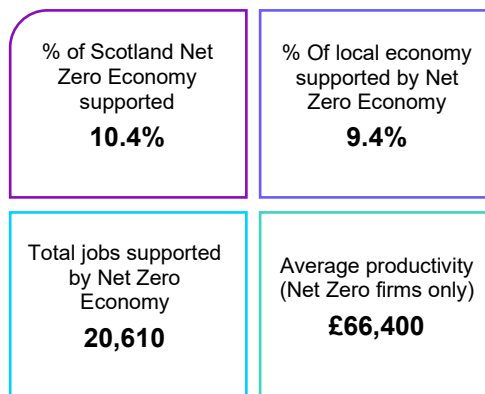
The presence of established assets such as Griffin Wind Farm - a 156MW onshore wind development in Perthshire - further demonstrates the area's role in clean power generation. Additional capacity is progressing through the development pipeline, including Craighead Wind Farm (49.6MW, consented in 2023) and North Logiealmond Wind Farm (93.6MW, currently in planning), indicating continued expansion of onshore wind within the region.



## Aberdeen City

Aberdeen City plays a nationally significant role in Scotland’s net zero transition, building on its established strengths in offshore energy, engineering and subsea infrastructure. The city’s transition is closely linked to the repurposing of North Sea oil and gas capabilities towards offshore wind, hydrogen production and carbon capture and storage (CCS). The £420 million expansion of the Port of Aberdeen’s South Harbour reinforces the North East’s role in supporting offshore wind deployment and the decarbonisation of heavy industry.

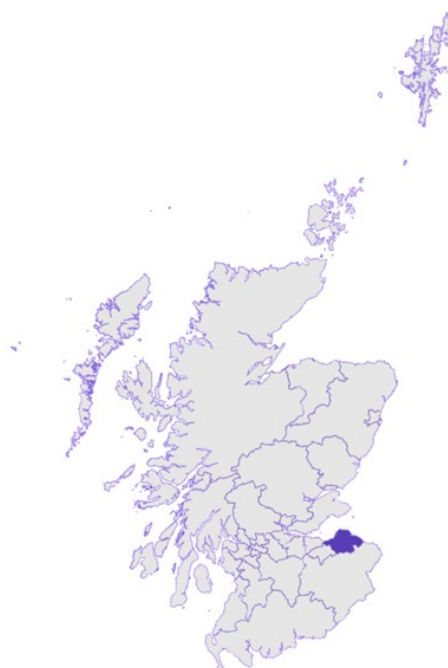
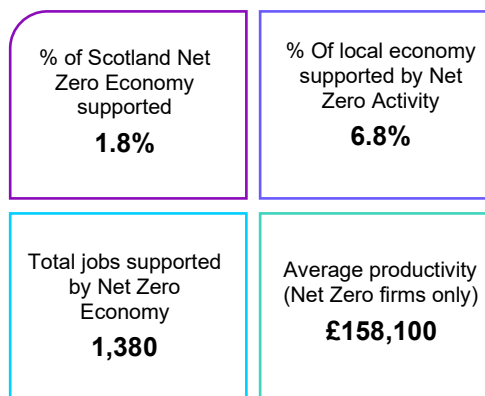
Aberdeen also benefits from strong research and innovation assets, including the James Hutton Institute, which provides internationally recognised expertise in climate science, land use and sustainable systems critical to net zero delivery. The city’s strategic importance has been further strengthened by its designation as the headquarters of Great British Energy (GBE), the publicly owned energy investment company established to accelerate clean energy deployment, backed by an initial £8.3 billion funding commitment.



## East Lothian

East Lothian has a relatively small economy in national terms, contributing 1.8% of Scotland’s total net zero GVA. However, net zero activity plays a disproportionately significant role locally, accounting for 6.8% of total economic value within the area. This indicates a degree of sectoral specialisation relative to the size of the wider economy.

The region is closely linked to renewable energy development along Scotland’s east coast, particularly offshore wind projects in the Firth of Forth and associated transmission infrastructure. In addition to hosting enabling infrastructure, East Lothian is home to firms directly contributing to low-carbon technology manufacturing and deployment. Examples of firms include Sunamp, based in East Lothian, develops and manufactures compact thermal energy storage systems designed to improve building efficiency and optimise the use of renewable electricity. LEMAC Power, located in Haddington, supplies electric vehicle charging solutions supporting transport electrification. Meanwhile, Had-Fab, a structural engineering and metal fabrication specialist, delivers infrastructure solutions across power transmission, distribution and renewable energy projects, linking the local industrial base to national grid and generation expansion.

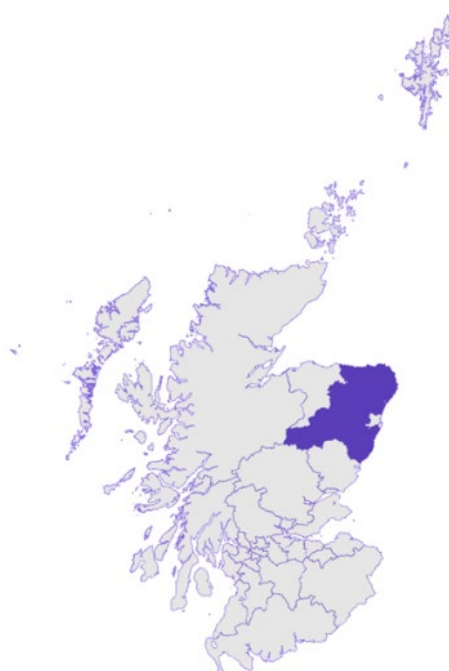
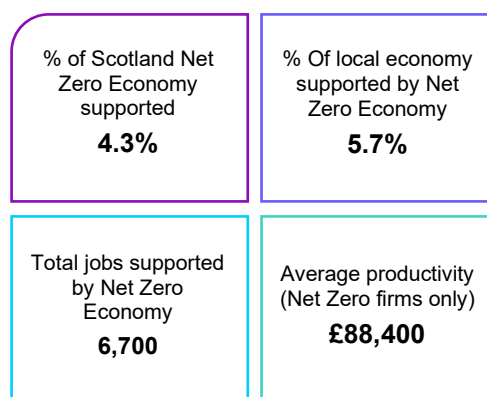


## Aberdeenshire

Aberdeenshire plays a complementary but distinct role in Scotland’s net zero transition, characterised by its extensive rural geography and industrial supply chain base. While Aberdeen City functions as the strategic and corporate centre of the North East energy economy, Aberdeenshire provides much of the potential operational capacity underpinning energy transition activity.

A key asset within Aberdeenshire is the Hywind Scotland floating offshore wind farm off the Peterhead coast, the world’s first commercial floating wind installation and a globally recognised milestone in offshore renewable energy. Hywind Scotland has consistently recorded the highest average capacity factor of any UK wind farm, demonstrating Aberdeenshire's capacity to host pioneering clean energy infrastructure at scale.

Aberdeenshire’s coastal settlements, including Peterhead and Fraserburgh, also play an important role in supporting offshore energy operations. In addition to infrastructure, Aberdeenshire has a strong advanced manufacturing and engineering base distributed across market towns and industrial estates which form a critical part of the North East’s energy supply chain.



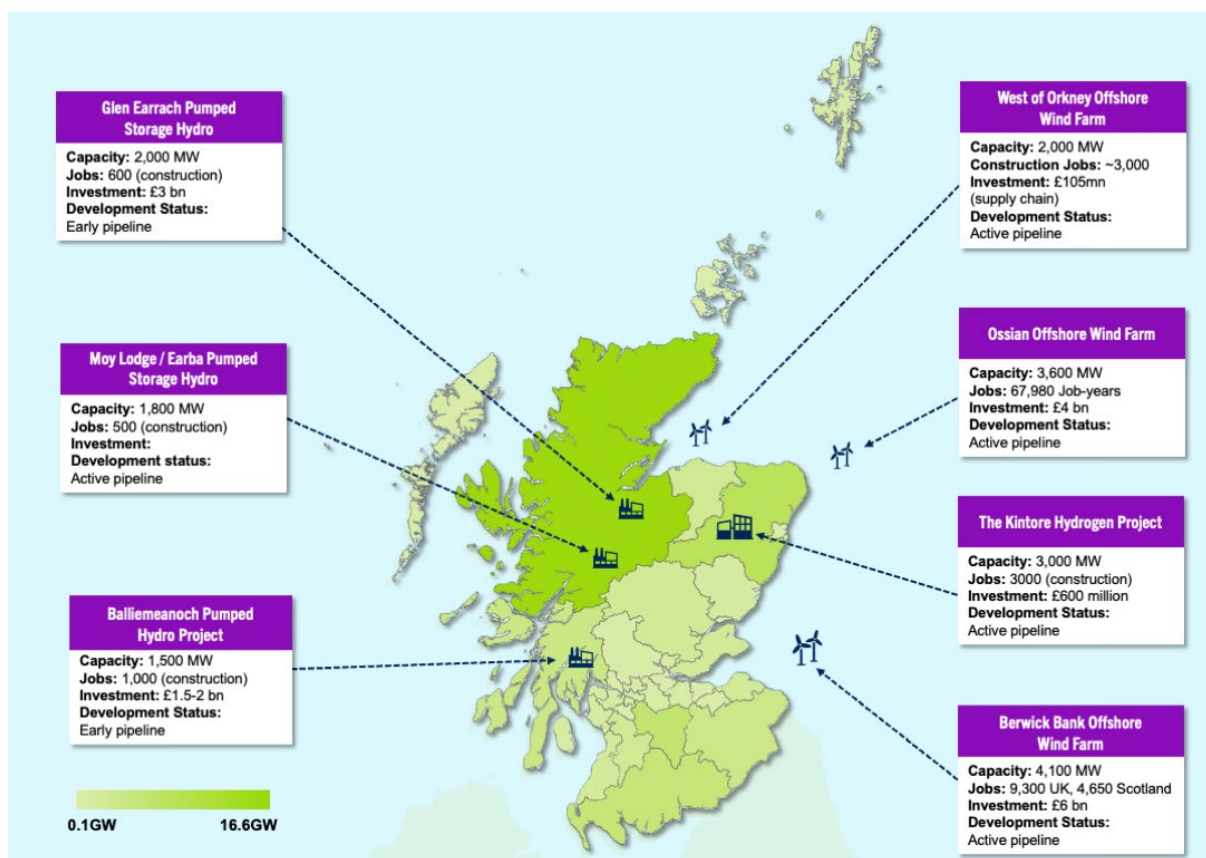
Overall, the scale and concentration of net zero-related activity within certain local authorities have important implications. In areas where these industries account for a relatively high share of local GVA or employment, economic performance is more closely tied to the pace of energy infrastructure deployment and decarbonisation initiatives.

This concentration increases exposure to policy, regulatory and investment cycles, highlighting the importance of stable funding frameworks and clear delivery pipelines. The geographically distributed nature of net zero activity across Scotland supports economic diversification and stimulates cross-sector demand in a broad range of local economies.

## Local investment and infrastructure deployment

The Scotland-wide scale of the energy infrastructure pipeline is reflected in geographically concentrated project developments across a number of local authority areas. While Chapter 1 establishes Scotland’s overall share of the UK’s energy pipeline, **Figure 8** shows the spatial distribution of projects revealing how future investment aligns with existing industrial clusters and areas of high economic exposure.

**Figure 8:** Distribution of renewable energy projects in the pipeline (GW)<sup>9</sup>



Source: REPD (2026) and CBI Economics modelling

<sup>9</sup> The pipeline is taken from the renewable energy planning database. CBI economics categorise projects by Early, Active and Under Construction depending on their development status. The top seven biggest projects are Scotland are selected as case studies. Investment and employment data in the graphic is taken from publicly available estimates.

Offshore wind accounts for a substantial share of Scotland's renewable energy pipeline. As of Q4 2025, seven offshore wind projects with capacities exceeding 1GW were being tracked in the Renewable Energy Planning Database (REPD), together representing approximately 14.2GW of potential generating capacity. These large-scale developments form a core component of Scotland's future electricity mix and are central to meeting both domestic decarbonisation targets and wider UK energy security objectives.

The largest project in the pipeline is Berwick Bank Offshore Wind Farm (4.1GW), located in the Firth of Forth off the East Lothian coast. If fully developed, it would rank among the largest offshore wind farms globally, with the potential to generate enough electricity to power several million homes. The scale of the scheme also carries significant implications for supply chain activity, port utilisation and grid reinforcement, particularly along Scotland's east coast.

Moreover, the Ossian Offshore Wind Farm (3.6GW), situated off the Angus coast, is a ScotWind-leased floating offshore wind project and is expected to generate enough electricity to supply up to six million homes annually. As one of the most advanced large-scale floating wind developments in the pipeline, it reflects Scotland's strategic focus on deploying deep-water offshore wind technology. Further north is another ScotWind development, the West of Orkney Wind Farm (2GW), located in deeper waters off Scotland's north coast.

Highland has the largest renewable energy pipeline capacity of any Scottish local authority. Across early-stage applications, consented projects awaiting construction, and schemes currently under development, the total pipeline amounts to approximately 16.2GW of installed capacity, representing a potential investment value of just under £69 billion, underlining the strategic importance of the region within Scotland's future energy system.

A significant proportion of the highland pipeline is concentrated in large-scale pumped storage hydro (PSH) projects. Major schemes include the Glen Earrach (2GW) development, Moy Lodge (1.8GW), Coire Glas (1.5GW) and the Red John (0.45GW) project. Pumped storage hydro plays a critical role in balancing the electricity system by storing excess renewable generation, typically by pumping water uphill when supply exceeds demand, and releasing it to generate electricity during periods of high demand or low renewable output. As intermittent wind capacity continues to expand, these long-duration storage assets are increasingly central to grid stability.

The second largest local authority by pipeline capacity is Aberdeenshire, with approximately 8.3GW of projects in development, representing an estimated £6.8 billion in potential investment. A significant component of this pipeline is the Kintore Hydrogen project, a proposed 3GW low-carbon hydrogen production facility located near Kintore which was granted approval in 2025, its scale positions it among the most substantial proposed hydrogen developments in the UK and reflects Aberdeenshire's role in leveraging existing energy infrastructure and expertise to support emerging low-carbon fuels. In addition to hydrogen, Aberdeenshire has a substantial pipeline of battery energy storage system (BESS) projects, reinforcing its importance to electricity system flexibility. Notable schemes are located in Abbotshaugh (0.5GW), Rothienorman, (0.5GW) and Greystone (0.5GW). These large-scale storage developments allow for greater integration of intermittent generation such as onshore and offshore wind.

Overall, pipeline deployment may:

- Sustain engineering and technical roles in established energy hubs,
- Generate demand for fabrication, maintenance and logistics services,
- Reinforce port and supply chain infrastructure,
- Increase demand for professional services and project finance expertise.

In areas with lower current exposure but significant planned infrastructure, the pipeline may represent an emerging source of industrial activity. The geographic distribution of the energy infrastructure pipeline therefore complements the current economic footprint, illustrating how Scotland's net zero economy is positioned not only in today's output and employment figures, but in the spatial pattern of future capital deployment.



# Strategic implications

## Net zero is structurally embedded in Scotland's economy

The analysis presented in this report demonstrates that net zero-related industries are no longer peripheral or emerging components of Scotland's economy. They represent a material share of national output and employment, and are geographically embedded across multiple local authority areas.

The sector's integration within energy systems, engineering, construction, manufacturing and professional services indicates that net zero activity is intertwined with Scotland's broader industrial base. In several local economies, it accounts for a meaningful proportion of both economic output and employment, underscoring its local economic relevance.

This structural embeddedness suggests that net zero activity should be understood as core to Scotland's economic fabric rather than as a standalone sector.

## Specialisation and competitive position

Scotland exhibits clear areas of specialisation within the UK's net zero economy. High concentrations in electricity and energy supply, environmental services and associated professional activities reflect established capabilities in energy engineering, infrastructure development and system integration.

Scotland's disproportionate share of the UK's planned energy infrastructure pipeline further reinforces this position. With a significant proportion of future generation and grid capacity, the country plays a central role in shaping the UK's evolving energy system.

This specialisation aligns with Scotland's comparative advantages in offshore wind, hydro generation, subsea engineering and technical services. It positions Scotland not only as a site of infrastructure deployment but as a centre of expertise within the wider transition.

## Infrastructure delivery and economic stability

The forward pipeline of energy infrastructure, supported by procurement mechanisms such as Allocation Round 7, provides visibility on future deployment. However, the translation of planned and contracted capacity into operational assets will depend on effective project delivery, stable regulatory frameworks and sustained investor confidence.

Given the level of economic exposure identified in certain local authority areas, infrastructure delivery outcomes have implications beyond energy production. They influence local labour markets, supply chains and regional economic resilience.

In this context, the net zero transition intersects directly with broader questions of economic stability and industrial continuity.

## Workforce and skills

The concentration of net zero-related activity in high-productivity sectors underscores its skill intensity. Projections for the expansion of clean energy employment through to 2030 suggest that Scotland is likely to host a growing share of technical, engineering and scientific roles associated with the transition.<sup>10</sup>

This reinforces the importance of workforce development, training provision and skills alignment in supporting continued economic participation in net zero-related industries. The transition therefore presents both industrial and human capital dimensions that will shape Scotland's economic trajectory.

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<sup>10</sup> [Clean Energy Jobs Plan: Creating a new generation of good jobs to deliver energy security](#)

## Looking ahead

The analysis presented in this report demonstrates that net zero-related industries are already economically material, geographically embedded and structurally aligned with Scotland's industrial base.

The transition to net zero is therefore not solely a decarbonisation objective. It is increasingly intertwined with Scotland's economic structure, regional resilience and competitive positioning within the UK.

Several conclusions follow from this evidence:

- Scotland exhibits structural specialisation in net zero-related sectors relative to the UK.
- It holds a central position in future energy infrastructure deployment in the UK.
- Its net zero economy is aligned with high-productivity and technically skilled sectors.
- The pace and effectiveness of infrastructure delivery, supported by stable policy frameworks, will shape Scotland's industrial trajectory.

Net zero-related industries are therefore integral to Scotland's long-term economic position. Their continued development will influence industrial competitiveness, workforce capability and the resilience of regional economies.

Managing this transition effectively will therefore be critical – not only to meeting climate objectives, but to sustaining economic strength and opportunity across Scotland in the years ahead.



## Conclusion

The evidence presented in this report demonstrates that Scotland's net zero economy is already economically material and structurally embedded within the national industrial base.

With £10.2 billion in GVA and 105,000 jobs supported, net zero-related industries form a meaningful component of Scotland's economic activity. These contributions are not confined to a narrow set of firms or technologies. Instead, they are integrated across energy systems, advanced manufacturing, engineering, construction and professional services.

The sector's high productivity, with GVA per FTE job 1.7 times above the Scottish average, and its concentration in technically skilled and capital-intensive activities reinforce its structural importance. Net zero-related industries are not simply expanding in scale; they are contributing disproportionately to value creation, earnings and knowledge-intensive employment within Scotland's economy.

At a regional and local level, the economic footprint is geographically embedded. In several local authority areas such as Perth and Kinross, Aberdeen City, East Lothian, Glasgow City and Aberdeenshire, net zero-related activity accounts for a significant share of both value and employment. This indicates that the transition to net zero has tangible implications for local labour markets and industrial communities.

The analysis of sectoral linkages further highlights the cross-cutting nature of the net zero economy. While direct activity is concentrated in electricity and energy systems, the wider spillovers are substantial. For every £1 of direct economic value generated, a further £1.75 is supported across Scotland's economy through supply chain and induced spending effects. Net zero activity therefore operates as a demand driver within Scotland's broader economic ecosystem, reinforcing inter-sectoral resilience and industrial capability.

Looking forward, Scotland's share of the UK's energy infrastructure pipeline positions it at the centre of future energy system development. With approximately one-third of the UK's planned energy infrastructure capacity located in Scotland, the country plays a strategic role in the delivery of low-carbon generation and grid integration. While the realisation of these plans depends on effective delivery, investment certainty and regulatory clarity, the scale of contracted and planned infrastructure highlights Scotland's continuing importance in the UK's evolving energy system.

Taken together, the findings of this report underscore a central conclusion: net zero-related industries are not an emerging adjunct to Scotland's economy – they are an established and integrated component of its industrial structure.

The transition to net zero therefore intersects directly with Scotland's long-term competitiveness, regional resilience and industrial strategy. Ensuring that this transition is managed effectively and supported by stable policy frameworks will be central to sustaining both environmental progress and economic strength in the years ahead.

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