CBI Economics

Energy&Climate INTELLIGENCE UNIT

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THE WELSH NET ZERO ECONOMY IN 2025

Scale and industrial transformation

May 2026

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Foreword – Energy and Climate Intelligence Unit

Communities in Wales are increasingly struggling in the face of floods, rising sea levels and increasing food prices. There is no end to this unless the world reaches net zero emissions, hence Wales's own net zero target.

British scientists first distilled the concept of net zero – simply put, you need to stop adding more emissions to the atmosphere (than are sucked back out) otherwise temperatures won't stabilise – you have to stop adding to the problem or you won't stop climate change.

And the faster you get there, the less likely you are to trigger tipping points, such as the Atlantic currents that keep us much warmer than we would otherwise be, without which Wales's climate would dramatically change, resulting in the country, and the UK, struggling to grow food.

Net zero essentially means burning increasingly less oil and gas. And with the second energy crisis in just a matter of years – the first having cost Welsh households the equivalent of £2,285 each – there is now ever greater focus on shifting away from oil and gas, the prices of which are being driven by conflict and geopolitics.

Small Welsh businesses and their workers are driving forward the net zero economy, they are the unsung heroes of creating greater energy security whilst reducing the emissions that cause climate change. The communities of places like Wrexham, Pembrokeshire, Rhondda Cynon Taf and Newport are leading the way.

Critical to livelihoods and job-creating growth is policy consistency and delivering on the pipeline of investment in renewables which in recent times Wales has fallen behind the rest of the UK on in deployment terms.

Combining country and US State commitments to reaching net zero, 84% of global GDP is covered by a net zero target – this is a global megatrend with the UK as a whole more than half way to achieving the target and China's emissions now likely having peaked.

This global trend is now driven as much by economics as government policy and is clearly both unstoppable and driving change everywhere. The Port Talbot steelworks that had struggled for many years is now set for a new future with electric arc furnaces, but that transition isn't without challenge making growth in new industries ever more important to create new opportunities for highly skilled communities.

As Europe (and the UK) introduce taxes at the border to make dirtier imported steel pay a price, this potentially puts Port Talbot's steel at a competitive advantage, particularly if the electricity that feeds it becomes progressively cleaner, powered by renewables. This is the way the world is moving with several car companies now committed to buying 'green steel'. The status quo is now itself often a recipe for decline.

The ingenuity and skill of thousands of Welsh workers is already shaping a new era in Wales's proud industrial history. That mission is delivering greater energy security while cutting the emissions that cause climate change and helping it to keep up in a fast-growing global, competitive marketplace.

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 Wales is clear and increasingly compelling.

Net zero is already a meaningful part of the Welsh economy. It supports over 41,000 jobs and generates £4.0 billion in economic value, with activity embedded across energy, manufacturing, construction and environmental services.

Net zero is not operating at the margins – it is embedded within the industries that underpin the Welsh economy. Across the country, a broad base of businesses, the majority small and medium-sized enterprises, are delivering this transition through engineering, construction, manufacturing and specialist services.

This is a transition that is already visible in local economies. In Newport and the wider South Wales Industrial Cluster, industrial decarbonisation is reshaping heavy industry through carbon capture, hydrogen and electrification. In Pembrokeshire, investment in hydrogen and energy storage is creating new opportunities linked to low-carbon infrastructure.
In Wrexham, net zero activity is closely tied to advanced manufacturing and industrial supply chains.

This matters because the next phase of the transition will be decisive. Wales is more exposed than many parts of the UK to the decarbonisation of heavy industry, and the pace of change will shape both economic outcomes and regional resilience. The opportunity is to secure long-term industrial renewal – supporting high-value jobs, strengthening supply chains and attracting new investment.

But that outcome is not guaranteed. Realising it will depend on whether Wales is able to capture the value associated with a growing pipeline of infrastructure investment, and whether businesses have the conditions they need to invest. High electricity costs and wider competitiveness pressures risk slowing progress at a critical moment.

At the same time, global shifts in energy markets and increasing investment in clean technologies are accelerating the transition worldwide. For Wales, this reinforces both the urgency and the opportunity to position itself at the forefront of industrial decarbonisation.

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, Confederation of British Industry

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Executive summary

Net zero activity is already a significant and high-value component of the Welsh economy. It contributes a total **£4.0 billion in gross value added (GVA)**, equivalent to **4.3% of total Welsh economic output**, and supports **over 41,300 full-time equivalent (FTE) jobs**, representing around **3.1% of Welsh employment** across all channels of impact.[1] Productivity within net zero companies stands at **£117,500 per worker**, approximately **72% above the Welsh average**, underlining the technical intensity and high value-added nature of this activity.

Wales's net zero economy is underpinned by a commercially active business base of **approximately 1,342 employers**, of which **87% are small or medium-sized enterprises (SMEs)**. This includes around 53% micro-enterprises, 22% small firms and 12% medium-sized businesses. The dominance of SMEs highlights that net zero activity in Wales is not concentrated among a handful of large infrastructure developers but is instead embedded across a wide base of independent firms.

Net zero activity in Wales is strongly concentrated in infrastructure-intensive and industrial sectors. Electricity and gas generation form the largest direct contributor, supported by substantial activity in waste and water services, construction, engineering and manufacturing supply chains. This sectoral profile reflects Wales' established strengths in energy generation, heavy industry and port infrastructure. Indirect and induced impacts extend into professional services, wholesale trade and financial services, demonstrating how industrial decarbonisation and energy investment diffuse value across the wider economy.

Wales plays a central role in the UK's future net zero infrastructure build-out. The country has an estimated **£13.1 billion renewable energy generation infrastructure pipeline**, representing **10.9 GW of capacity** and approximately **4.0% of the UK's total GW pipeline**. Nearly half of this capacity sits within the active development pipeline, with over **£1.3 billion already under construction**. Large-scale offshore wind, grid and storage projects underpin this forward-looking opportunity, positioning Wales as a strategically important geography in the UK's energy transition and presenting a defining opportunity to anchor supply chains, particularly in coastal and industrial communities.

[1] These figures are the sum total of direct, supply cain and induced impacts.

At a local level, net zero activity is embedded across Welsh authorities, with several areas recording particularly high shares of local economic output and employment. The scale of local exposure is closely tied to the presence of energy assets, industrial capability and supply chain depth:[2]

- **Wrexham** records the highest share of local GVA supported by total net zero activity at **7.0%**, supporting over **2,340 jobs**. This reflects the area's strong industrial and manufacturing profile, including energy-intensive producers with investments in biomass and efficiency, clean energy firms such as solar inverter and battery storage specialists, and electric vehicle charging infrastructure providers.
- **Pembrokeshire** (**5.3% of local GVA**, **1,600 jobs**) is anchored by emerging low-carbon infrastructure, most notably a consented 100 MW green hydrogen facility at the Pembroke Net Zero Centre, alongside battery storage projects and local solar installation businesses serving homes and commercial premises.
- **Rhondda Cynon Taf** (**5.2% of local GVA**, **2,890 jobs**) benefits from renewable energy assets, including wind farms and generation on former industrial land, alongside firms in transport decarbonisation and EV charging management, reflecting broader participation in Wales's industrial transition.
- **Newport** (**5.1% of local GVA**, **2,620 jobs**) forms part of the South Wales Industrial Cluster (SWIC), with its contribution driven by industrial and logistics supply chains, including steel processing, advanced manufacturing, large-scale recycling and battery energy storage for grid flexibility.

The economic opportunity linked to net zero is not abstract or distant, it is already locally significant and regionally embedded. Realising the full potential of the transition will depend on successfully decarbonising heavy industry, equipping ports and industrial clusters to support offshore wind and emerging technologies, strengthening domestic supply chains and aligning skills provision with the demands of high-productivity technical sectors. If these conditions are met, net zero can act as a catalyst for industrial renewal, supporting high-value employment, regional resilience and long-term productivity growth across Wales.

[2] These local level findings are based on the total economic contributions so include direct, supply chain and induced effects.

Introduction

Net zero as an industrial turning point for Wales

Wales brings a distinctive economic profile to the net zero transition. Compared to many parts of the UK, the Welsh economy retains a relatively strong industrial base, with deep capabilities in energy generation, environmental infrastructure, advanced manufacturing, engineering and port activity. These sectors are both energy-intensive and strategically important – making decarbonisation not only a climate imperative, but an economic inflection point.

The transition to net zero is therefore not simply about expanding renewable energy generation or reducing emissions. In Wales, it is closely intertwined with the future of heavy industry, the modernisation of infrastructure, and the resilience of industrial communities. The Climate Change Committee (CCC) has highlighted that Wales is particularly exposed to changes at a small number of large industrial and power sites, meaning the pace and timing of decarbonisation at individual locations can have an outsized effect on Wales's overall pathway. This makes the transition more place-specific, and potentially more abrupt, than in larger, more diversified economies.[3]

This report provides the first comprehensive assessment of the scale and structure of net zero–related economic activity in Wales. It quantifies the sector's contribution to output and employment, examines how impacts are distributed across industries and local economies, and analyses the forward-looking investment pipeline that will define the next phase of growth. In doing so, it treats net zero not only as an emissions pathway, but as an emerging industrial and services economy - with identifiable business capacity, supply chains and delivery capability.

[3] **Wales' Fourth Carbon Budget**

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.

The 2025 edition reflects a refined and strengthened classification framework. As the net zero economy has matured, the taxonomy has been updated to tighten inclusion criteria, clarify the treatment of mixed-portfolio and adjacent activities, and ensure that identified activity makes a clear and demonstrable contribution to the transition.

These refinements reflect a structured effort to improve precision in a small number of edge cases, rather than a fundamental change in scope. Consistent with previous editions, the approach remains deliberately conservative in defining net zero-related activity. In particular, only activity that can be clearly attributed to the transition is included, meaning that the estimates presented here may understate the broader low-carbon activity captured by alternative frameworks that include secondary or partial activities.

This edition therefore establishes a new baseline. Figures presented here are 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 Wales, 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 Welsh net zero economy in 2025.** This chapter sets out the scale and economic significance of net zero-related activity in Wales. It quantifies the sector's contribution to GVA and employment, examines productivity and wage levels, and outlines its role within Wales's wider industrial base and supply chains.
- **Chapter 2: Regional and local economic exposure.** This chapter explores how net zero-related activity is distributed across Wales. It examines the sector's regional and local footprint, identifying areas with particularly high levels of economic exposure and assessing the implications for local labour markets and industrial communities.
- **Chapter 3: Strategic implications.** This chapter draws together the findings of the report to consider their implications for Wales's economic structure and competitive position.

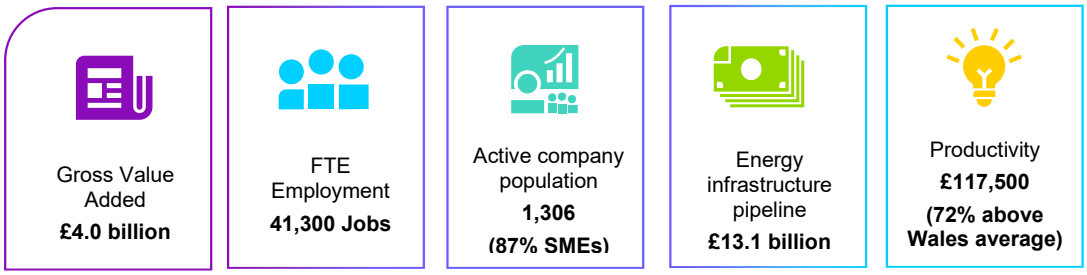
The Welsh net zero economy in 2025

A significant contributor to Wales's economy

Wales is home to a thriving net zero economy. Net zero-related activity contributes **£4 billion** to Wales's economy, representing **4.3% of total Welsh GVA**.[4] This places the sector on a similar scale to established industries, such as agriculture, within Wales and underscores its economic materiality.

The sector supports over **41,300 full-time equivalent jobs**, accounting for approximately **3.1% of Welsh employment**.[5] These jobs are distributed across energy generation, manufacturing, construction, engineering and professional services.

Net zero activity therefore represents a meaningful and established component of Wales's economic base.



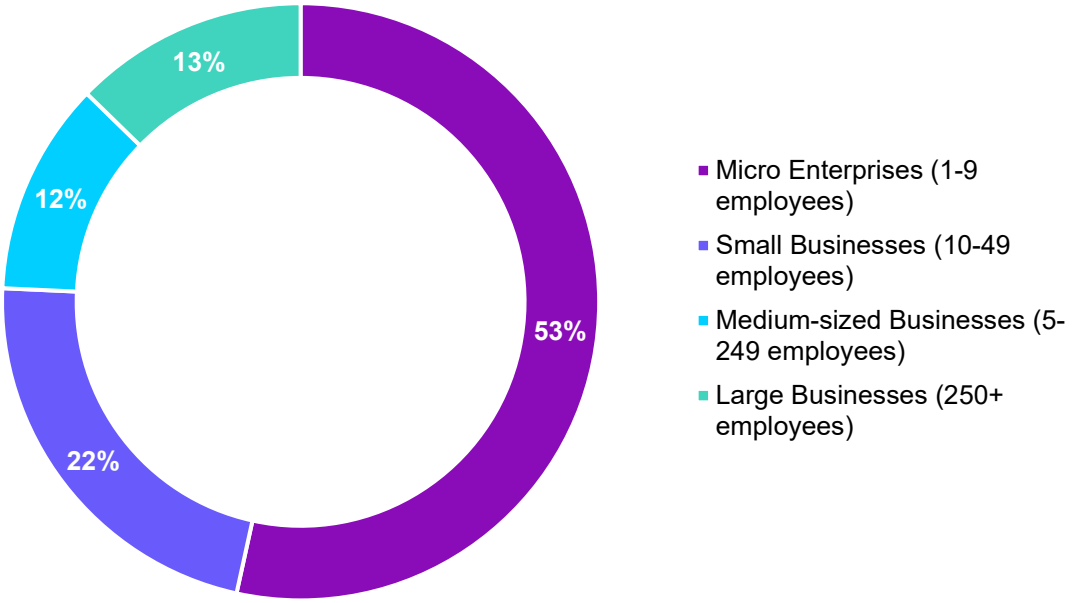
A broad and commercially active business base across sectors and local areas

Wales's net zero economy is supported by a diverse and commercially active business base operating across energy generation, environmental services, manufacturing, construction and professional services. Under the RTIC framework, approximately 1,729 companies are identified as operating within the Net Zero RTIC, of which 1,306 report employees and turnover, demonstrating a substantive operational footprint across Welsh regions and supply chains.

The sector is strongly SME-led. Around 87% of identified firms, with reported turnover and employees, are small or medium-sized enterprises, including approximately 53% micro-enterprises (1-9 employees), 22% small firms (10-49 employees) and 12% medium-sized businesses (50-249 employees). Only 13% are classified as large enterprises (250+ employees) **(Figure 1).**

[4] This GVA figure is the sum of the direct, supply chain and induced contributions supported by the net zero industry.
[5] This FTE Jobs figure is the sum of the direct, supply chain and induced contributions supported by the net zero industry.

Figure 1: Distribution of net zero companies in Wales by employment size



Source: The Data City (2026)

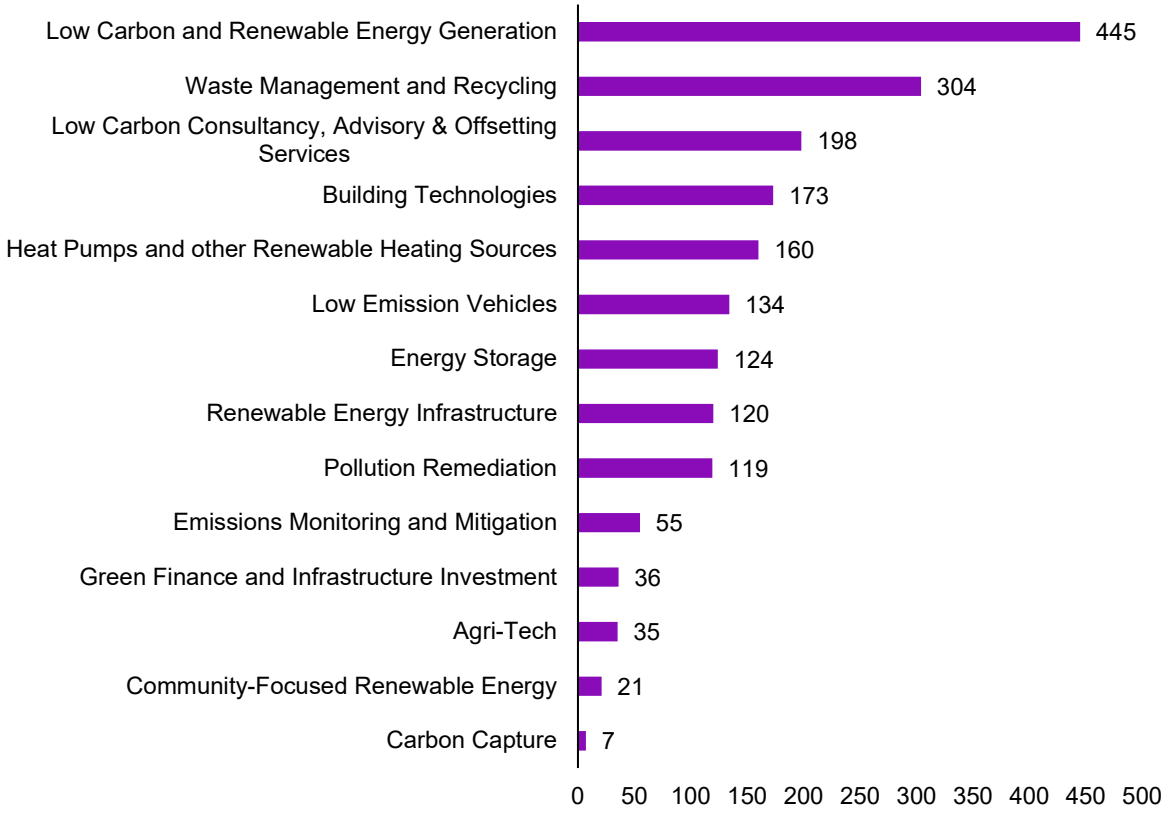
The age profile of firms further illustrates sustained market dynamism. Over half, 56%, of companies have been established since the beginning of 2010, and 15% since the beginning of 2020. This indicates sustained business formation linked to expanding clean energy deployment, infrastructure build-out and industrial transition activity across Wales.

The net zero economy in Wales spans a broad range of activities under the RTIC framework. **Figure 2** illustrates the distribution of firms across the principal sub-sectors, highlighting both depth and diversity within the Welsh net zero landscape.

The largest concentration of businesses is in Low Carbon and Renewable Energy Generation (445 firms), underlining the central role of clean power within the sector. This is followed by Waste Management and Recycling (304 firms) and Low Carbon Consultancy and Advisory Services (198 firms), indicating that environmental services and professional support functions also form a substantial part of the ecosystem.

Beyond generation, there is meaningful activity across building technologies, renewable infrastructure, heating technologies and energy storage, reflecting participation across both supply-side energy production and demand-side decarbonisation.

Figure 2: Net zero business count by sub-sector [6]



Source: The Data City (2026)

[6] 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

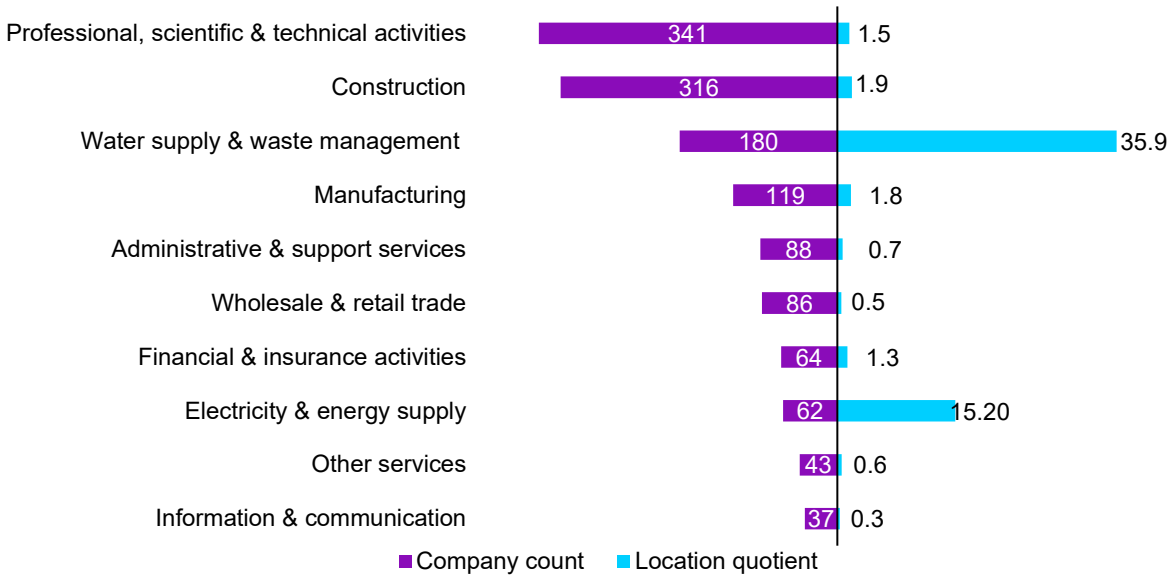
Mapping firms to SIC codes provides insight into both the structure and specialisation of Wales's net zero economy. **Figure 3** shows that the largest concentration of firms sits within Professional & Technical Services (341 firms), followed by Construction (316) and Water Supply and Waste Management (180). Manufacturing (119 firms) also represent a significant component. This distribution indicates that Wales's net zero economy is not solely generation-led; it is underpinned by a substantial services and infrastructure base, reflecting the importance of engineering, advisory and delivery functions within the transition.

Wales's concentration of net zero activity reflects the structure of its business base. Relative concentration is assessed using location quotients (LQs) - a measure of sectoral specialisation that compares a sector's share of the regional economy to its share nationally. An LQ above 1 indicates that a sector is more concentrated locally than the national average, suggesting relative specialisation.

On this basis, Electricity & Energy Supply (LQ 15.2) and Water Supply and Waste & Management (LQ 35.9) exhibit exceptionally high levels of concentration, indicating deep structural specialisation in energy production and environmental infrastructure. These sectors are disproportionately represented within Wales's net zero business base and likely play an outsized role in its clean economy.

In addition, Professional & Technical Services (1.5), Construction (1.9), Manufacturing (1.8) and Agriculture (2.3) sit above national benchmarks, suggesting broad-based supply chain participation rather than narrow sectoral dependence. Together, this profile indicates that Wales's net zero economy is anchored in core infrastructure and environmental services, supported by a diversified delivery and professional services ecosystem.

Figure 3: Business count and location quotient of net zero businesses in Wales by SIC section



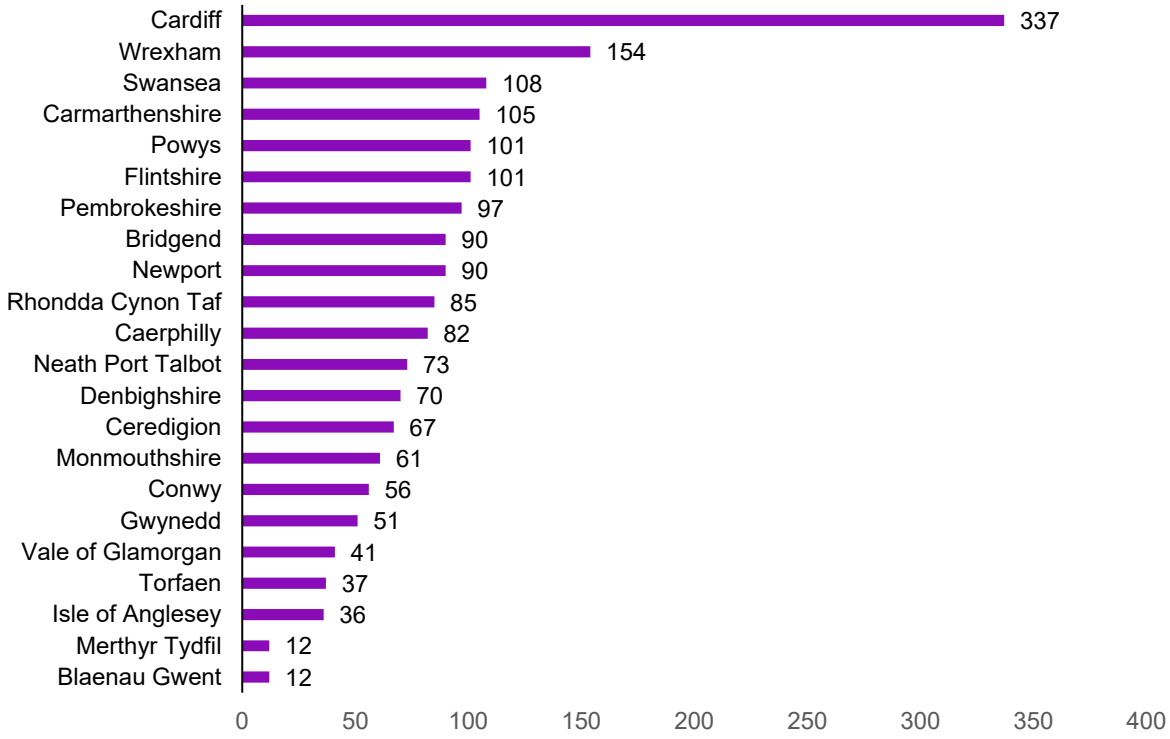
Source: The Data City (2026)

Net zero-related businesses are distributed across Wales's local authority areas, with identifiable centres of concentration. Figure 4 shows that Cardiff hosts the largest number of firms (337), reflecting its role as Wales's principal commercial and professional hub. It is followed by Wrexham (154) and Swansea (108), with Carmarthenshire (105), Powys (101), Flintshire (101) and Pembrokeshire (97) also representing significant clusters of activity.

Beyond the largest urban centre, the distribution indicates that net zero capability extends well beyond Cardiff. Authorities such as Bridgend (90), Newport (90), Rhondda Cynon Taf (85), and Caerphilly (85) demonstrate meaningful participation, while activity is also present across more rural areas including Ceredigion (67) and the Isle of Anglesey (36).

While some firms operate across multiple locations - meaning counts are not strictly additive - the overall pattern confirms that Wales's net zero economy is geographically broad-based, combining strong urban concentrations with substantial activity across industrial and rural authorities.

Figure 4: Net zero business count by local authority



Source: The Data City (2026)

Local area location quotient analysis further highlights the degree of local level specialisation. The following location quotients compare the share of net zero firms within a local authority to the equivalent share across Wales; values above 1 indicate relative concentration.

Several Welsh authorities exhibit particularly high levels of specialisation. Wrexham records the highest location quotient (11.1), indicating a strong relative concentration of net zero businesses. This is followed by Ceredigion (9.3), Pembrokeshire (7.6), Neath Port Talbot (7.4) and Powys (6.9).

These patterns suggest that, while Cardiff leads in absolute firm numbers, relative specialisation is strongest in a number of smaller and more industrially focused authorities. In these areas, net zero activity forms a disproportionately large component of the local business base, indicating deeper structural integration within the local economy.

A significant and embedded economic contributor

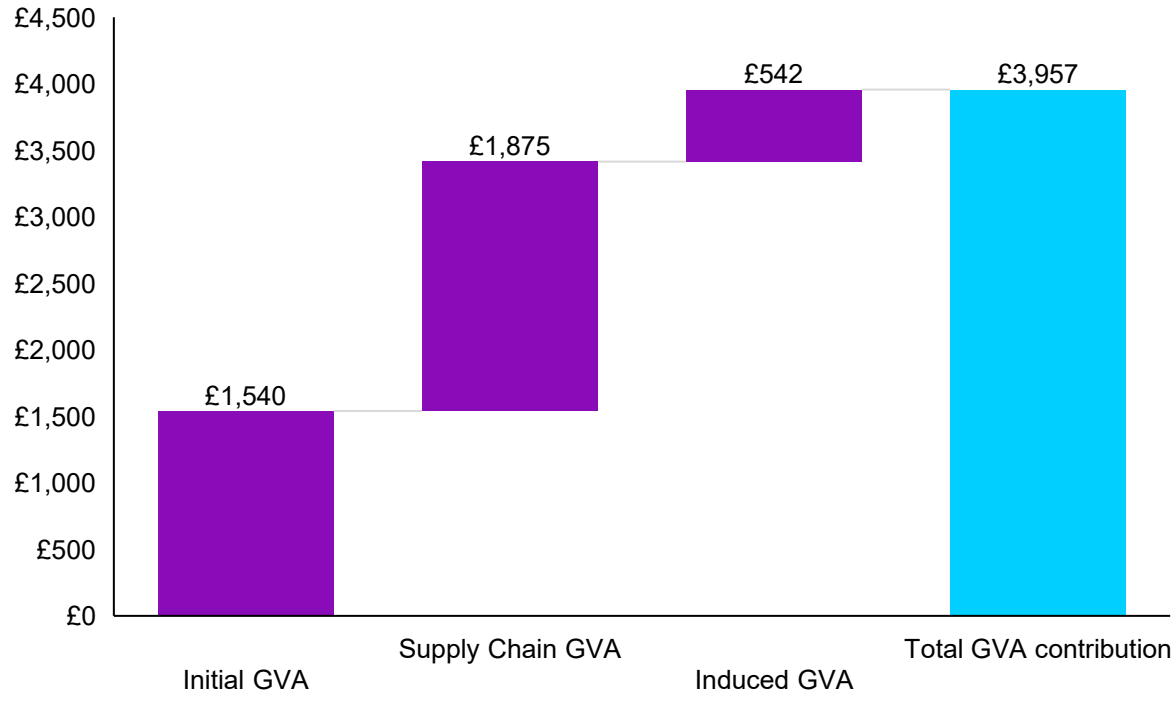
Beyond its direct footprint, the economic contribution of net zero-related activity extends through Wales's wider industrial ecosystem.

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 Wales's broader economic structure.

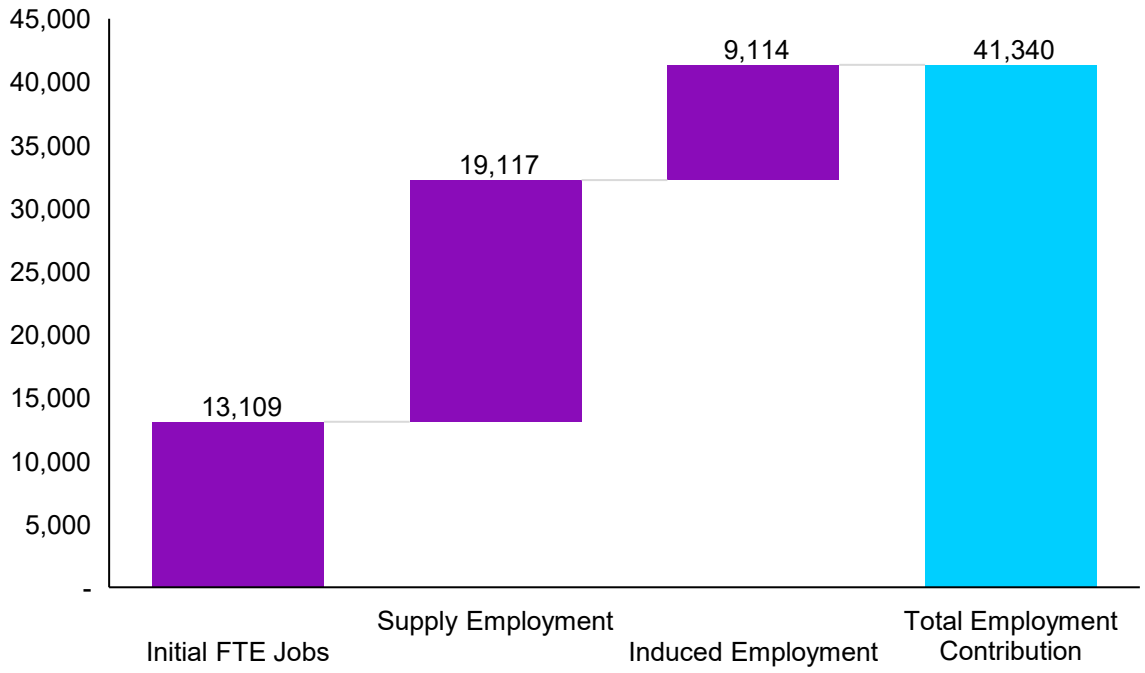
Figure 5 presents the direct, supply chain and induced impacts of net zero activity on Wales's economy. In total, the sector generates £4.0 billion in GVA, equivalent to 4.3% of total Welsh economic output. Of this, approximately £1.5 billion arises from direct activity, while a further £1.9 billion is supported through supply chain demand and £542 million through induced household spending effects. This distribution highlights the importance of upstream procurement and downstream consumption in amplifying the sector's impact.

Employment effects follow a similar structure. Net zero activity supports around 41,300 full-time equivalent (FTE) jobs across Wales. This includes approximately 13,100 direct roles, 19,100 jobs sustained through supply chains, and 9,100 supported through wage-driven spending effects.

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



Source: CBI Economics (2026)



Source: CBI Economics modelling (2026)

These wider impacts across the economy arise through well-established economic linkages. Investment in renewable energy, storage infrastructure and low-carbon technologies requires engineering services, construction activity, component manufacturing, grid integration and professional advisory support. At the same time, incomes earned within the sector circulate through local economies, supporting retail, hospitality and other consumer-facing sectors.

Wales's net zero economy therefore operates as a connected and economy-wide contributor rather than a discrete or isolated segment. Its effects are transmitted across industries and regions, reinforcing its structural importance within the broader Welsh economic system.

A high-value and productive sector

Net zero-related industries in Wales operate at productivity levels significantly above the economy-wide average. Economic value generation per full time worker is approximately £117,500 per FTE, around 1.72 times the Welsh average, indicating that the sector is concentrated in higher value-added activities.

This differential reflects the composition of the sector. Activity is weighted toward capital-intensive and technically specialised functions, including electricity generation, grid infrastructure, advanced manufacturing, environmental engineering and professional services. These areas typically exhibit higher capital deployment per worker and stronger output intensity than the broader economy.

The earnings profile reinforces this pattern. Median full-time earnings within net zero industries stand at £39,812, approximately 11.2% above the Welsh industry average (£35,796). The wage differential suggests a workforce concentrated in technical, engineering and professional occupations, alongside skilled trades and infrastructure delivery roles.

Productivity and wage characteristics point to a sector that contributes not only to employment growth but to economic quality. The combination of elevated productivity and above-average earnings indicates that net zero activity strengthens Wales's higher value-added industrial base, supporting income generation and long-term capability development rather than lower-productivity expansion.

Net zero as a cross-sector demand driver

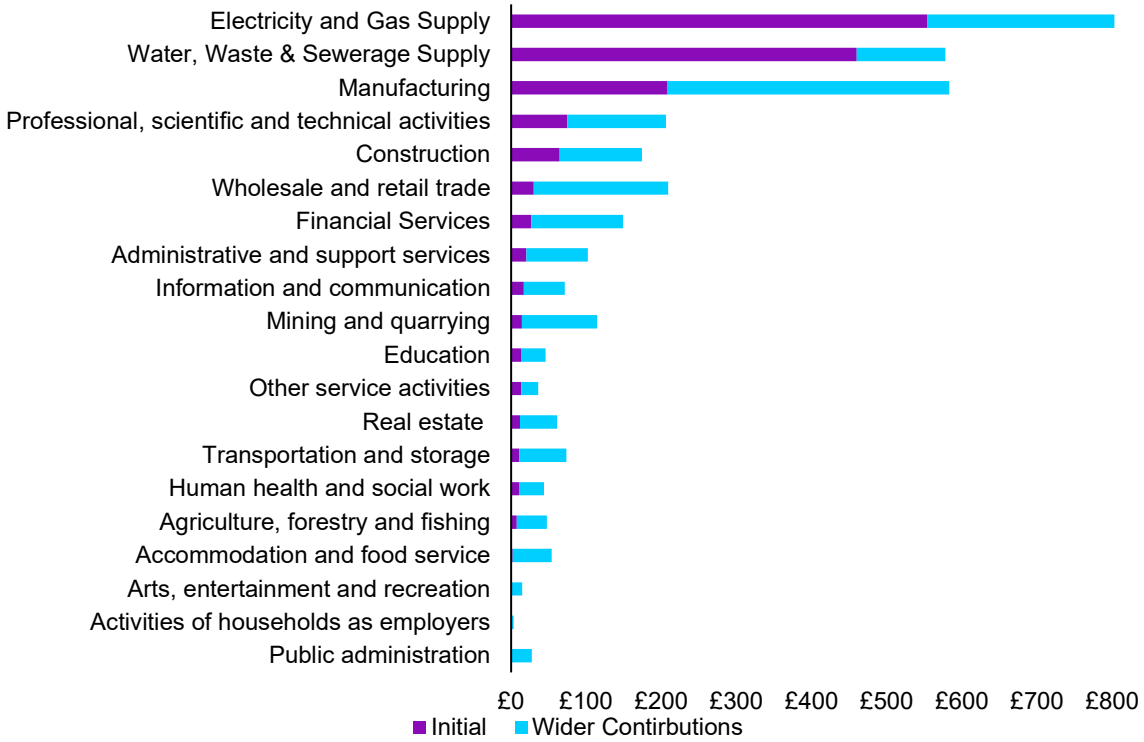
Wales' net zero economy is anchored by the energy sector, with activity heavily concentrated in Electricity & Gas. This sector alone generates £554m in direct GVA and a further £810m through wider economic effects, making it the single largest contributor overall. The scale of both its direct and spillover impacts underline the central role of energy in driving net zero economic activity across Wales, with strong linkages into the wider economy.

Environmental infrastructure also plays a significant, though more internally focused, role. Water Supply, Waste and Sewerage contribute £460m in direct GVA compared to £118m in indirect effects, indicating a delivery-intensive profile where a larger share of value is created within the sector itself rather than through extended supply chains. This contrasts with the energy sector's broader economic reach and suggests differing value chain structures across net zero activities.

Manufacturing represents another key pillar, though with a more balanced distribution between direct and indirect impacts. Net zero businesses generate £208m in direct GVA within the sector, alongside a further £375m through supply chains and spillovers. This highlights manufacturing's dual role: as both a direct producer of net zero goods and a beneficiary of upstream and downstream activity linked to the transition.

These dynamics indicate that net zero activity in Wales acts as a catalyst across professional services, engineering, manufacturing and trade-related sectors. While core energy and environmental industries anchor the direct footprint, a significant share of economic value is transmitted through advisory services, project finance, construction, component manufacturing and procurement networks. Overall, the data suggests that net zero investment does not remain confined to a few sectors. It stimulates demand across a wide range of sectors, reinforcing inter-industry linkages and amplifying its economic reach beyond the originating energy activities.

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



Source: CBI Economics (2026)

Wales's energy infrastructure pipeline

Table 1 outlines the scale and composition of Wales's renewable energy investment pipeline, based on analysis of the Renewable Energy Planning Database. Wales's pipeline comprises an estimated £13.1 billion of planned investment and 10.9 GW of capacity, representing just over 4% of total UK pipeline capacity. While this share is more modest than that of some larger UK regions, it nonetheless reflects a significant volume of future capital deployment relative to the size of the Welsh economy. More than half of this capacity is currently in active development, with £1.3 billion under construction, providing near-term visibility on project delivery.

Table 1: Pipeline summary of renewable energy generation projects in Wales

Pipeline stage[7]	Capacity (GW)	Estimated investment (£bn)	% of pipeline
Early pipeline	4.5	3.7	41%
Active pipeline	5.7	8.0	52%
Under construction	0.7	1.3	6%
Total	10.9	13.1	100%

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

Battery storage represents the largest share of planned capacity (6.6 GW), followed by ground-mounted solar PV (1.5 GW), onshore wind (1.2 GW) and offshore wind (0.9 GW). This technology profile highlights Wales's growing role in electricity system flexibility and storage, alongside continued deployment of established renewable generation technologies.

Beyond the REPD pipeline, nuclear power represents a further dimension of Wales's clean energy ambitions. The Wylfa site on the Isle of Anglesey (Ynys Môn) in North Wales has been selected to host three Rolls-Royce Small Modular Reactors (SMRs), marking one of the most significant low-carbon infrastructure commitments in Wales in recent decades. SMRs differ from conventional nuclear plants in that they are factory-built in standardised modules, offering comparatively lower upfront costs, greater construction flexibility, and faster deployment timelines. Rolls-Royce has indicated that the programme will support an average of almost 8,000 highly skilled jobs, with benefits likely to extend across the local supply chain in North Wales and beyond.

[7] 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).

Local economic exposure to the net zero economy

Net zero activity is distributed across Wales

Net zero-related activity is geographically embedded across Wales. In absolute terms, Cardiff accounts for the largest contribution to net zero GVA, at approximately £838 million, significantly ahead of the next highest authority, Wrexham, at around £316 million.[8] This reflects Cardiff's role as Wales's principal commercial and professional services centre.

However, absolute scale does not fully capture local economic exposure. In several authorities, net zero-related industries account for a larger proportion of total economic output and employment than in the capital. The relative importance of the sector therefore varies across Wales depending on industrial structure and the presence of energy or infrastructure-linked activity.

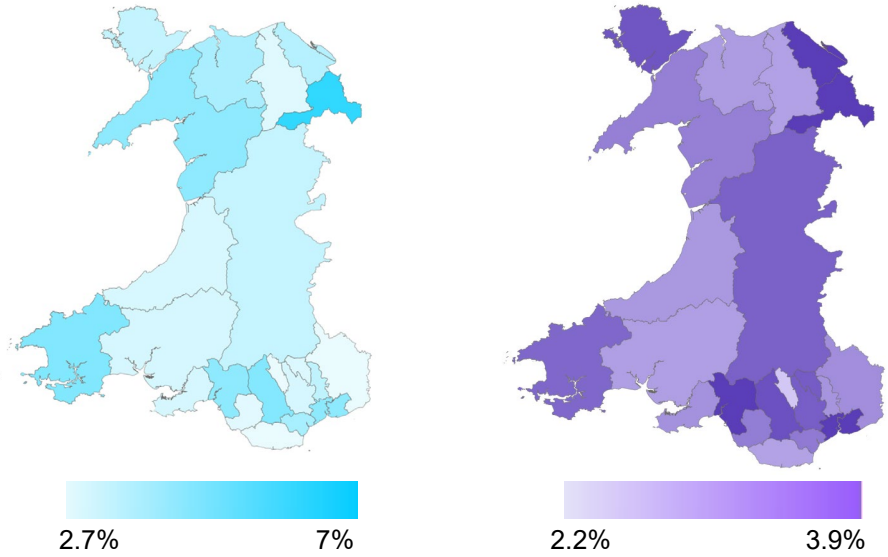
Three broad spatial patterns are evident:

- **Urban service concentration**, where net zero activity is associated with advisory, financial, technical and corporate functions.
- **Industrial and infrastructure-linked clustering**, particularly in areas with energy generation assets, grid infrastructure or manufacturing capability.
- **Distributed supply chain participation**, where smaller firms contribute through engineering, fabrication, logistics and specialist services.

Taken together, these patterns indicate that Wales's net zero economy forms part of a dispersed economic network rather than being confined to a single metropolitan hub or industrial cluster. Local authority analysis confirms that net zero-related industries contribute to both output and employment across the country, though the scale of exposure differs materially by area. **Figure 7** overleaf presents the proportion of total local GVA and employment supported by net zero-related industries across Welsh local authority districts.

[8] These figures include the direct, supply chain and induced effects.

Figure 7: % of Local Authority District (LAD) GVA and employment supported by net zero industries



Source: CBI Economics (2026)

Across Wales, the relative economic contribution of net zero induced activity varies considerably by local authority. On a total impact basis (including direct, supply chain and induced effects), Wrexham records the highest share of local GVA supported by net zero activity at 7.0%. This is followed by Pembrokeshire (5.3%), Rhondda Cynon Taf (5.2%) and Newport (5.1%). In these authorities, net zero-related industries represent a more significant component of overall economic output relative to the size of the local economy.

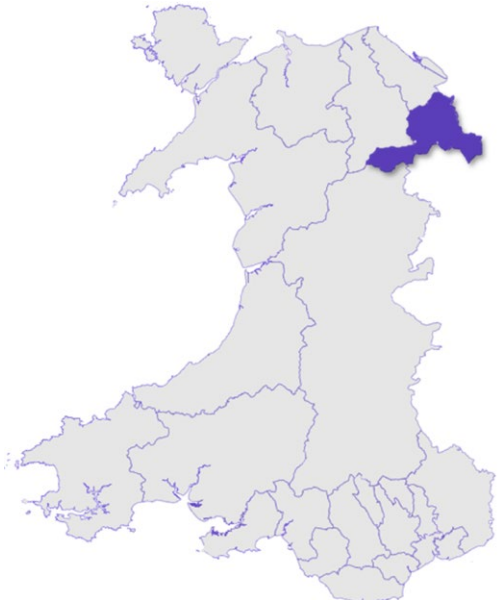
Employment impacts display a similar distribution. Wrexham records the highest proportional employment support, with 3.9% of total local FTEs linked to net zero activity, followed by, Neath Port Talbot (3.8%), Flintshire (3.7%) and Newport (3.6%). These figures illustrate that labour market exposure to the transition is uneven, with certain authorities more closely tied to energy infrastructure, manufacturing and supply chain activity than others.

The variation in local exposure reflects Wales's existing economic geography. Authorities with higher shares of net zero-related GVA and employment typically combine energy infrastructure, industrial capability and supply chain capacity. In other areas, participation is more service-oriented or linked to smaller-scale generation and downstream activities. The following section examines in greater detail the factors underpinning higher concentrations of net zero-related activity in specific Welsh authorities.

Wrexham

% of Wales's Net Zero Economy supported **8.0%**	% of local economy supported by Net Zero Activity **7.0%**
Total jobs supported by Net Zero Economy **2,340**	Average productivity (Net Zero firms only) **£153,250**

Net zero-related industries make a significant contribution to Wrexham's economy, supporting around 2,340 direct jobs and accounting for 7.0% of total local economic output. As explored previously, Wrexham records the highest location quotient for net zero-related businesses in Wales, at 11.1, meaning the area is around eleven times more concentrated in net zero firms than the UK average relative to its overall business base, indicating a clear local specialisation.



The concentration reflects Wrexham's strong industrial and manufacturing profile. Businesses such as Sunsynk UK Ltd, which manufactures solar inverters and battery storage systems, represent the area's growing clean energy manufacturing base and its contribution to the wider net zero supply chain.

The area is also home to electrification businesses such as Rawson EV Power Ltd, which provides electric vehicle charging infrastructure.

The mix of industrial decarbonisation, clean technology and energy infrastructure services helps explain why net zero activity represents a comparatively large share of Wrexham's local economy.

Rhondda Cynon Taf

% of Wales's Net Zero Economy supported **7.2%**	% Of local economy supported by Net Zero Activity **5.2%**
Total jobs supported by Net Zero Economy **2,890**	Average productivity (Net Zero firms only) **£121,000**

Net zero-related industries support around 2,890 direct jobs in Rhondda Cynon Taf and account for 5.2% of total local economic output, representing 7.2% of Wales's overall net zero economy. While the authority does not host as many net zero businesses as some other areas, its economic exposure reflects strong participation through supply chain and infrastructure activity.

The area benefits from a number of renewable energy assets and energy-related developments, including Llwyncelyn Wind Farm, Graig Fatha Farm, and renewable generation located on the former Nant-y-Gwyddon landfill site, illustrating the reuse of former industrial land for clean energy purposes. These projects contribute both direct generation activity and ongoing maintenance and engineering demand.

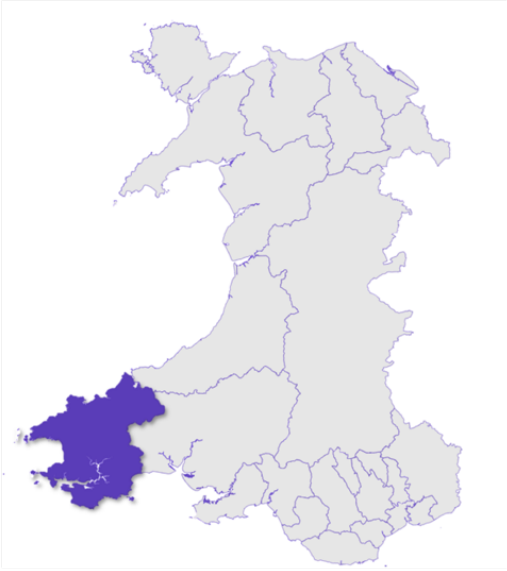
Local firms also support the low-carbon transition. FuelActive, based in the area, develops fuel efficiency technology aimed at reducing emissions from transport fleets, while Clenergy EV provides smart electric vehicle charging management software and infrastructure solutions. Together, these businesses reflect participation in transport decarbonisation and energy management services

Pembrokeshire

% of Wales' Net Zero Economy supported	% Of local economy supported by Net Zero Activity
4.1%	**5.3%**
Total jobs supported by Net Zero Economy	Average productivity (Net Zero firms only)
1,600	**£145,700**

Net zero-related industries make a meaningful contribution to Pembrokeshire's economy, accounting for 5.3% of total local GVA and supporting around 1,600 total jobs, with average sector productivity of approximately £147,700 per worker.

Pembrokeshire's net zero activity is anchored in a combination of emerging low-carbon infrastructure and local decarbonisation initiatives. Central to this is the Pembroke Net Zero Centre, where RWE has secured planning approval for a 100 MW green hydrogen facility expected to produce up to 2 tonnes of green hydrogen per hour, reducing CO_2 emissions by an estimated 93,000 tonnes per year once operational.[9] The site also includes a consented £200 million battery storage project, RWE's largest in the UK, comprising 212 lithium-ion containers with a capacity of 700 MWh, with construction due to begin in 2026 and operations targeted for 2028.[10]



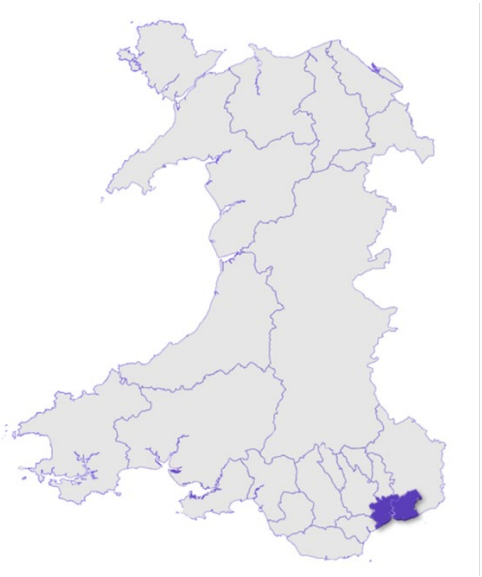
Alongside hydrogen development, Pembrokeshire County Council has been progressing renewable and energy-efficiency measures across public assets, including solar installations, LED streetlighting upgrades, heat pump feasibility studies and biomass deployment to reduce emissions from buildings and services.

The local private sector further strengthens this ecosystem. Companies such as Silverstone Green Energy and Preseli Solar Ltd provide solar development and installation services, supporting distributed renewable generation across homes and businesses.[11]

[9] **Planning approval secured for RWE's Green Hydrogen Plan**
[10] **RWE to build its largest battery energy storage facility in the UK**
[11] **What are we doing - Pembrokeshire County Council**

Newport

% of Wales Net Zero Economy supported **7.4%**	% Of local economy supported by Net Zero Activity **5.1%**
Total jobs supported by Net Zero Economy **2,620**	Average productivity (Net Zero firms only) **£131,000**



Net zero-related industries support approximately 2,620 direct jobs in Newport and account for 5.1% of total local economic output, contributing 7.4% of Wales's overall net zero economy. Newport forms part of the wider South Wales Industrial Cluster (SWIC), a regional initiative focused on decarbonising heavy industry through carbon capture, hydrogen and industrial electrification, linking the city's industrial base to broader regional transition plans.

Newport's comparatively high share of Wales's net zero economy is driven largely through its industrial and logistics supply chains. The city has a strong manufacturing, materials processing and port-based economy, with firms engaged in steel processing, construction materials, advanced manufacturing and transport logistics. Local businesses such as Wastesavers, which operates large-scale recycling and resource recovery services, contribute to the circular economy and emissions reduction, while Ampeak Energy is involved in battery energy storage and grid services, supporting electricity system flexibility.

Overall, the scale and concentration of net zero-related activity within certain local authorities has important implications for how the transition is experienced across Wales. Where net zero industries account for a relatively high share of local GVA or employment, economic outcomes become more closely linked to the pace of project development, infrastructure build-out and industrial investment. In these areas, the transition is not an abstract long-term agenda but a near-term determinant of business demand and supply chain activity.

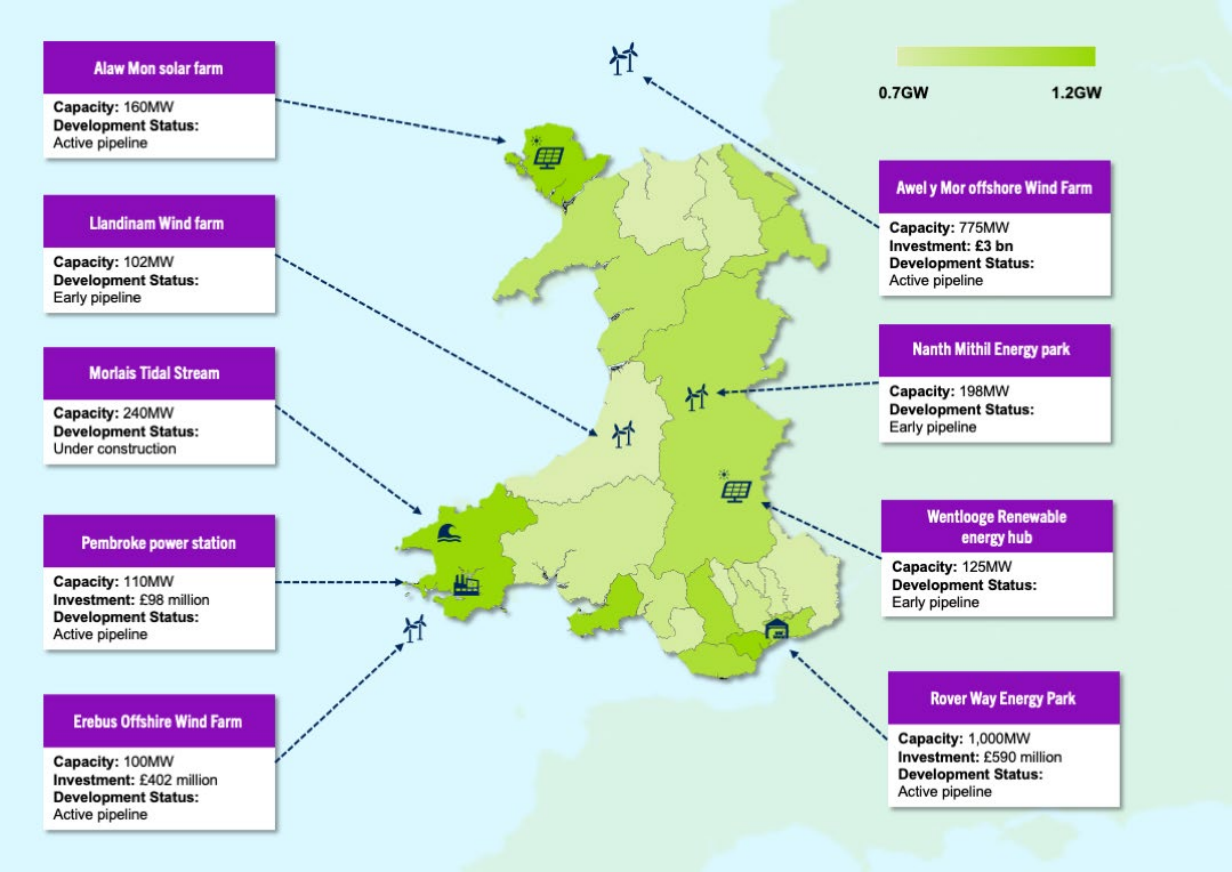
This concentration brings both opportunity and risk. It creates clearer pathways for local growth in high-value, technically specialised activity, but it also increases exposure to policy, regulatory and delivery cycles. As a result, sustainable stable funding frameworks such as the contract for difference scheme, predictable pipelines and coordination across planning, grid and skills systems matter disproportionately for Wales's most exposed local economies. At the same time, the geographic spread of net zero activity, across urban hubs, industrial authorities and rural areas, means that growth is not concentrated in a single corridor. Sustained delivery would allow multiple local economies to diversify their industrial base and strengthen resilience through participation in the net zero economy and its associated supply chains. In the next section, we explore this in further detail by examining the regional distribution of planned investments and infrastructure deployment, highlighting the importance sustained policy commitments makes for a clear and credible pipeline.

Local investment and infrastructure deployment

The Wales-wide energy infrastructure pipeline provides a forward-looking indicator of where economic activity associated with the transition is likely to materialise. While Chapter 1 establishes Wales's overall share of the UK pipeline, **Figure 8** illustrates how planned capacity is distributed spatially, revealing how future investment aligns with existing industrial clusters and areas of economic exposure.

For local economies with elevated shares of net zero-related GVA and employment, the pipeline is more than a measure of generating capacity - it represents a signal of future construction demand, engineering contracts, professional services activity and long-term operational roles. The geographic concentration of projects therefore has implications for regional labour markets, supply chain participation and the durability of local economic growth linked to the transition.

Figure 8: Distribution of renewable energy projects in the pipeline (GW)



The Isle of Anglesey hosts the largest renewable energy pipeline of any Welsh local authority, with around 1.2 GW of capacity in development across multiple technologies. A central component is the Morlais Demonstration Zone, a 240 MW tidal stream project off the island's north-west coast. Having secured consent and progressing through phased deployment, it is one of the largest tidal stream schemes in Europe and is expected to power tens of thousands of homes while supporting marine energy supply chains.

Alongside marine energy, Anglesey has substantial planned solar capacity. The Alaw Môn Solar Farm and Energy Storage Facility (160 MW) is among the largest proposed solar schemes in Wales, with the Porth Wen Solar Farm (50 MW) further strengthening the renewable portfolio. Battery storage is also a major element of the pipeline, including the Penrhos Works BESS (350 MW) and Carrog Ganol, Rhosgoch BESS (300 MW), both progressing through active development stages to provide grid balancing and system flexibility.

The second largest pipeline is located in Cardiff, driven primarily by the proposed Rover Way Energy Park and Data Centre, which includes a 1 GW battery energy storage facility. The scale of this scheme makes it one of the largest battery storage proposals in the UK, highlighting the growing importance of energy system flexibility and urban grid infrastructure alongside generation assets.

The third largest local authority pipeline is in Pembrokeshire, where development is concentrated across battery storage and hydrogen production. Two 350 MW battery storage projects at the Pembroke Power Station site and at Goldborough Road are currently in the active pipeline. In addition, a 110 MW hydrogen production facility is progressing at the Pembroke site. The facility aims to reduce roughly 93,000 tonnes of CO2 emissions each year - equivalent to removing 18,600 cars from the road each year.[12]

Offshore wind also plays a growing role in Wales's pipeline. The most notable project is Awel y Môr Offshore Wind Farm, approximately 10.5 km off the North Wales coast. In January 2026, the project secured a Contract for Difference award, moving it toward Final Investment Decision. With a proposed capacity of 775–1,100 MW, it has the potential to supply electricity equivalent to more than half of Welsh homes while supporting substantial construction and operational employment.

Another significant initiative is the Erebus floating offshore wind project in the Celtic Sea off Pembrokeshire, proposed at 100 MW. As one of the first floating offshore wind developments in Welsh waters, and also awarded a CfD in January 2026, Erebus represents an early step in establishing deep-water offshore wind capability.

The geographic distribution of projects highlights three distinct investment themes: marine energy and storage concentration in Anglesey, urban grid-scale flexibility in Cardiff, and industrial decarbonisation and storage clustering in Pembrokeshire. The scale and diversity of this pipeline illustrate that Wales's future energy system development will be regionally differentiated, combining generation, storage and low-carbon fuels across multiple technology pathways.

[12] **RWE Pembroke Green Hydrogen**

Strategic implications

Net zero as part of Wales's industrial core

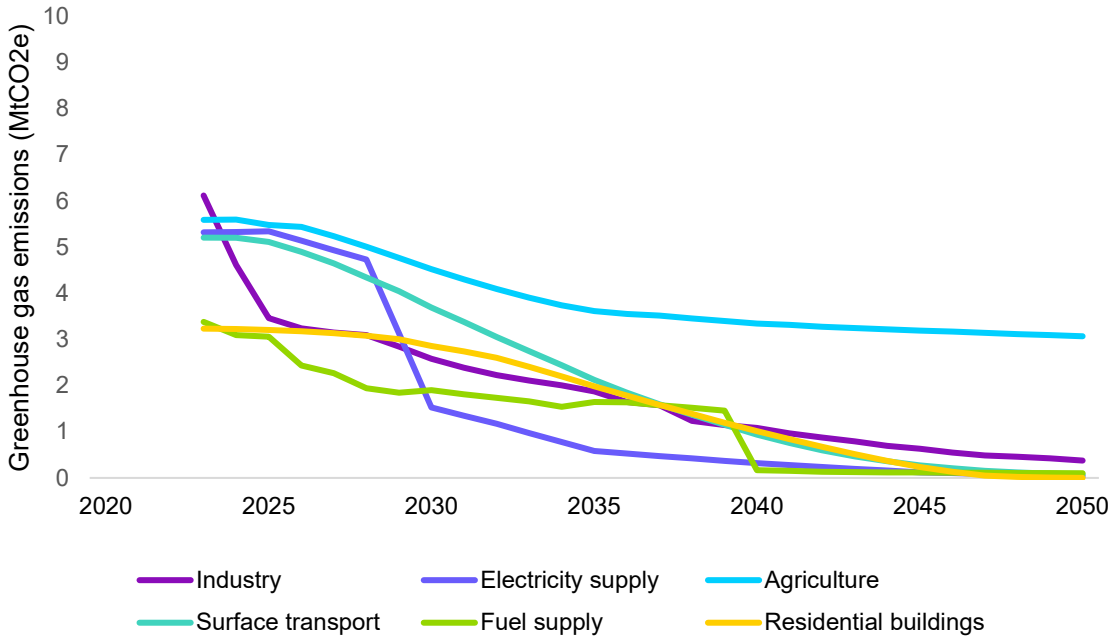
The evidence presented in this report demonstrates that net zero-related industries are structurally embedded within Wales's economy. They account for a material share of national output and employment, are concentrated in infrastructure and industrial sectors, and are geographically distributed across both urban and industrial authorities.

Unlike smaller, purely service-led sectors, net zero activity in Wales is closely aligned with energy generation, environmental infrastructure, construction, manufacturing and engineering supply chains. This alignment means the transition intersects directly with Wales's core industrial capabilities. Net zero should therefore be understood not as a peripheral growth niche, but as part of Wales's industrial core – influencing productivity, regional exposure and long-term economic resilience.

Industrial decarbonisation and competitive positioning

Wales has traditionally had proportionally more emissions from heavy industry than the rest of the UK, and closure of energy intensive sites, linked to structural long-term decline and high energy prices, has had an impact on its industrial structure. A large share of its territorial emissions has historically come from a small number of industrial sites, most notably steel production at Port Talbot. In 2022, over half of industrial emissions were linked to the blast furnaces, which closed in 2024 and are due to be replaced by an electric arc furnace by 2027.

Figure 9: Wales six largest emitting sectors



Source: Climate Change Committee (CCC) Wales's Fourth Carbon Budget (2025)

This change materially alters both Wales's emissions profile and its industrial structure. As emissions from primary steel production fall, electricity supply, agriculture and surface transport will account for a larger share of remaining emissions. The focus of transition policy and investment will therefore shift accordingly.

The business data suggest that Wales has an established base of firms in electricity supply, environmental services, construction and manufacturing. This indicates capacity to participate in infrastructure delivery, environmental management and industrial retrofitting associated with the transition.

The economic outcome, however, will depend on the degree to which Welsh-based firms are able to win work from the transition pipeline, rather than it flowing to firms based elsewhere. Renewable generation, grid reinforcement and industrial upgrading generate demand for construction, engineering, professional services and ongoing operations. Where these activities are undertaken by firms based in Wales, income and employment effects are retained domestically; where they are imported, the benefits leak out. Infrastructure delivery is therefore the critical mechanism through which the transition translates into lasting local economic gain.

Infrastructure delivery and local exposure

Wales's £13.1 billion renewable energy pipeline and recent procurement outcomes signal continued participation in the UK's low-carbon build-out. The distribution of this pipeline, spanning storage, solar, onshore wind, offshore wind and hydrogen, suggests a diversified technology base.

For local authorities where net zero-related activity already accounts for a significant share of GVA and employment, infrastructure delivery outcomes have immediate economic implications. Construction cycles, grid readiness, consenting processes and investment timelines influence labour demand, contractor activity and business confidence.

The UK government has recognised that expanding and upgrading electricity distribution networks is critical to building a secure energy system that can support low-carbon demand, and that proactive investment "ahead of need" is required to enable this transition. [13]

Stable and credible policy frameworks - including long-term procurement visibility, grid planning clarity and coordination across regulatory systems, therefore influence not only generation targets but local labour markets and supply chain continuity. Given the uneven distribution of economic exposure across Welsh authorities, delivery consistency matters disproportionately for those areas where net zero activity forms a larger share of the local economy.

[13] **Government Response to the National Infrastructure Commission's Study 'Electricity distribution networks: Creating capacity for the Future'**

Skills, productivity and workforce alignment

The Welsh net zero economy is characterised by elevated productivity and above-average wages, reflecting the concentration of activity in technical, capital-intensive and engineering-related roles. As the project pipeline progresses and industrial decarbonisation accelerates, demand for specialist green skills is growing sharply.

Adzuna labour market data shows that between 2024 and 2025, advertised roles with Wales referencing environmental impact assessment increased by 172%, reflecting a broadening infrastructure pipeline. Water-related skills are rising across the board, with water quality up 152%, water management up 103%, and hydrology up 95%, pointing to intensifying pressure on water infrastructure planning and delivery. In energy, nuclear energy skills surged 138%, retrofitting grew 97%, and installation of solar energy was up 89%.

These trends point to broadening demand across engineering, environmental management, construction modernisation and distributed energy systems. Workforce alignment will therefore be central to sustaining competitiveness and capturing long-term economic value.

The transition presents both risk and opportunity for industrial communities. In areas historically dependent on energy-intensive sectors, decarbonisation is likely to reshape employment composition and technical skill requirements. While legacy industrial capabilities provide a strong foundation, the scale and pace of skills growth evidenced in labour market data suggest that workforce development, retraining and technical education systems will need to evolve in parallel with infrastructure deployment to ensure local populations benefit fully from new investment. Net zero is therefore not solely about deploying infrastructure; it is also about equipping people with the skills and jobs the transition demands.

Conclusion

This report demonstrates that Wales's net zero economy is economically material, geographically embedded and structurally aligned with its industrial base. With £4.0 billion in GVA and over 41,300 jobs supported across all channels, net zero-related industries form a meaningful component of national output and employment. Their footprint extends across energy systems, environmental infrastructure, manufacturing, construction and professional services, reinforcing the sector's cross-cutting nature.

The sector's productivity premium, approximately 72% above the Welsh average, highlights its contribution to higher-value activity and technical capability. These characteristics position net zero as a driver of economic quality as well as scale.

At a local level, economic exposure varies, with certain authorities exhibiting particularly high concentrations of net zero-related activity. In these areas, the pace and stability of infrastructure delivery and industrial investment are closely tied to local economic outcomes.

Looking forward, Wales's £13.1 billion renewable energy pipeline and recent procurement outcomes confirm its continued participation in the UK's energy transition. The scale of planned deployment presents a substantial opportunity. Realising the associated economic benefits will depend on effective delivery, policy certainty and the capacity of domestic supply chains and workforces to participate fully.

The findings within this report point to a central conclusion - net zero is no longer an emerging adjunct to the Welsh economy but an established and increasingly integral part of its industrial structure.

The transition to net zero will therefore shape not only emissions trajectories, but Wales's long-term productivity, regional resilience and industrial competitiveness. Managing this transition effectively will be central to securing both environmental progress and durable economic strength in the years ahead.

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