

The logo for the Scottish Trades Union Congress (stuc) is displayed in a white box. The letters 'stuc' are in a bold, lowercase, sans-serif font. A red horizontal bar is positioned to the right of the 'c', with a white square cutout in the center of the bar.

MARCH 2024

The background of the entire page is a photograph of an offshore wind farm. Three large white wind turbines with yellow bases are visible in the distance. In the foreground, a large red and white service vessel is positioned near one of the turbines. The sky is a clear, pale blue, and the sea is a deep blue with some whitecaps.

# Mind The Gap

**THE INCREASING GULF BETWEEN JOBS AND  
TURNOVER IN SCOTLAND'S LOW CARBON AND  
RENEWABLE ENERGY ECONOMY**

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Scottish Trades Union Congress

# KEY FIGURES

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- Between 2021 and 2022, there was a £4billion increase in turnover by companies involved in the Low Carbon and Renewable Energy (LCRE) economy in Scotland, yet employment fell by 4,000.
- As of 2022, there are fewer jobs in Scotland per £1million of turnover in the LCRE economy than any previous year recorded by the ONS data.
- By comparison, the number of jobs in relation to turnover has risen for the rest of the UK between 2021 and 2022.
- Economic activity in the LCRE economy including turnover, imports, and exports is now largely comprised of activity in offshore and onshore wind, yet these sectors provide a significant minority of employment.
- Employment in both offshore and onshore wind fell between 2021 and 2022 despite a 66% increase in offshore turnover (£1.67bn) and 82% in onshore wind (£1.81bn) in the same period.
- Scotland's LCRE economy balance of trade, measured by exports minus imports, has widened for the first time since 2018. This now stands at £407.5m in 2022, the largest gap since the ONS records began, and an increase from £35m in 2021.
- Despite Scotwind commitments amounting to £1bn of investment into Scotland for every GW of capacity, this is just 37% of the total investment from developers to deliver the projects.

# INTRODUCTION

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From Fife's turbine jacket fabrication yard in 2020, Campbeltown's turbine tower factory in 2021, to Ross-shire's carbon fibre production facility earlier this year, workers across Scotland have been left holding the bag of poor government policy, and companies pursuing their bottom line.

The latest set of figures from the ONS demonstrate once more that an active industrial strategy is urgently needed to prevent further extraction of wealth from Scotland's natural resources without an adequate return for workers and their communities.

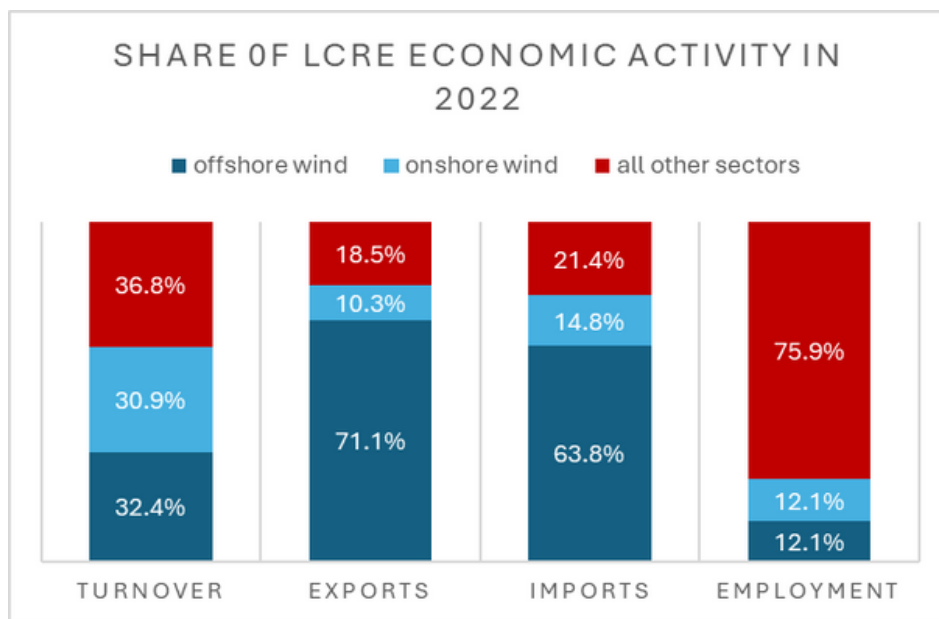
The Irish Investment Bank, Vattenfall, and Orsted – publicly owned entities from the Irish, Swedish, and Danish Governments – all hold stakes in Scotwind projects. Yet there is no UK or Scottish equivalent, including the Scottish National Investment Bank.

The final Energy Strategy and Just Transition Plan must reflect the issues raised in this report. Together with the forthcoming Green Industrial Strategy, the Scottish Government must set out to bring the active involvement of the public sector into the green economy, using ownership at a national and local level alongside stricter conditions to guarantee the creation of new jobs, on good terms, and community wealth from renewable energy.

# ACTIVITY IN SCOTLAND'S LOW CARBON AND RENEWABLE ENERGY ECONOMY

In March 2024, the Office for National Statistics published their estimates of the size of Scotland's low carbon and renewable energy economy (LCRE economy) in 2022. [1]

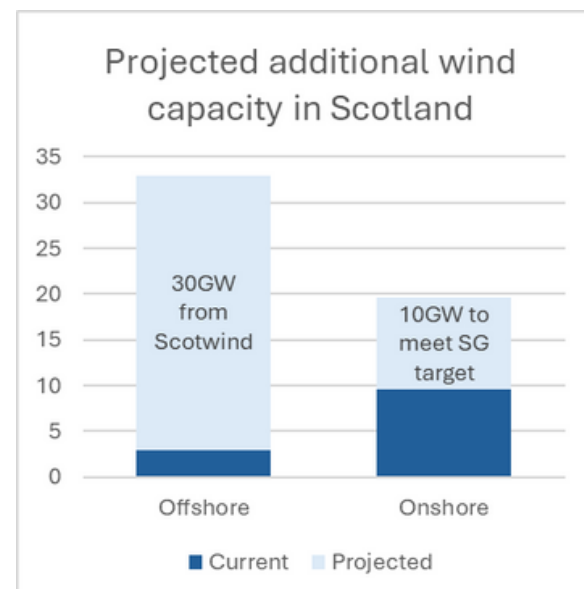
The ONS estimates for 2022 show that the economic activity in terms of turnover, exports, and imports is dominated by offshore and onshore wind. However, by comparison, wind provides a significant minority of LCRE employment.



Changes in the overall state of the LCRE economy between 2021 and 2022 are largely driven by changes in offshore and onshore wind. As a result, the remainder of this report focuses on trends in the wind sector. We consider who has benefited from the development of the wind capacity in Scotland today, and what the consequences may be as we set out to reach ambitious targets for new wind generation.

There is a potential 30GW of new offshore wind to be developed through the ScotWind leases, and a target for a further 10GW of onshore wind by 2030 which represent huge potential increases to current capacity. [2]

The Scottish Government is currently finalising its Energy Strategy and Just Transition Plan and preparing a Green Industrial Strategy, and this provides an opportunity to ensure that we maximise the social and economic benefit of Scotland's growing wind capacity. However, the latest ONS data raises issues which require urgent action before the opportunity of Scotland's wind to create jobs and reindustrialise our communities will be lost, as benefits flow to companies.



# JOBS IN SCOTLAND FALL AS INCOME FOR COMPANIES SOARS

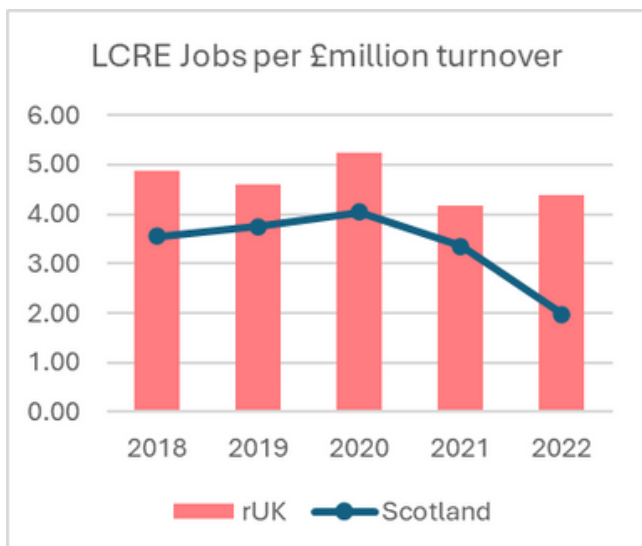
Despite a £4 billion increase in turnover, jobs in the LCRE economy fell by 4,000 in 2022 to 25,700.



There are now fewer jobs per £1million of turnover in the LCRE economy in Scotland than any previous year recorded by the ONS data. By comparison, the number of jobs in relation to turnover has risen for the rest of the UK between 2021 and 2022.

Last year, our analysis highlighted the growing gap between turnover and employment in offshore and onshore wind.[3] This gap has continued to widen between 2021 and 2022 with a 66% rise in offshore turnover (£1.67bn), and 82% in onshore wind (£1.81bn).

Despite the income made by companies in the wind sector rocketing, the number of jobs in Scotland in both sectors has fallen. 2022 represents a new low since the ONS records began for the number of jobs for every £1m of turnover made by wind companies.



# TRADE GAP UNDERMINES POTENTIAL FOR GREEN JOBS

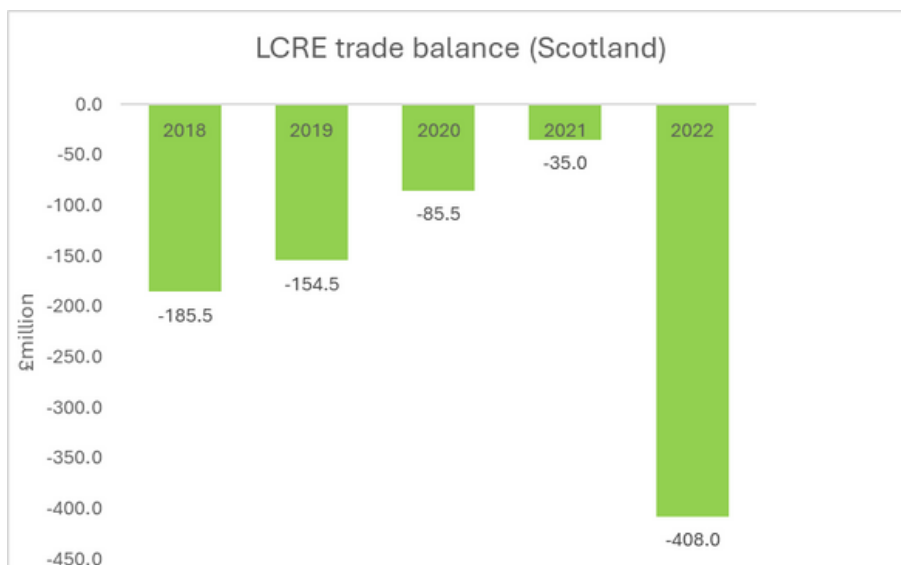
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STUC analysis of previous years editions of the ONS figures have highlighted the importance of building a domestic renewables manufacturing base to ensure the greatest possible employment and economic benefit from increases in renewable energy generation, particularly offshore wind.

It is widely recognised that growing employment in the LCRE economy depends on having an industrial base for manufacturing and construction. Most of the investment necessary to develop, install, and operate offshore wind farms goes towards the purchasing of manufactured components such as nacelles and towers, and in the construction phase when foundations are laid, turbines installed, and cabling connected.[4]

Analysis published in April 2021 showed just 9% of the capital expenditure for five major wind farms in Scotland (Beatrice, Moray East, Neart Na Gaoithe, Sea Green, and Hywind) was in Scotland.[5]

The latest data shows that Scotland's LCRE economy balance of trade, measured by exports minus imports, has widened for the first time since 2018. This is the largest gap since the ONS records began, increasing from £35 million in 2021 to £407.5 million in 2022.

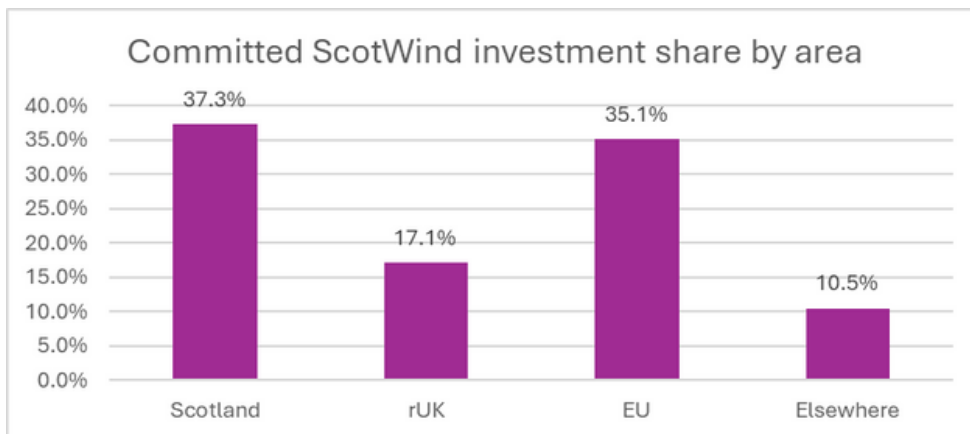


The deficit in offshore and onshore wind makes up a majority of the overall deficit in the LCRE economy, at a combined £286.5m.

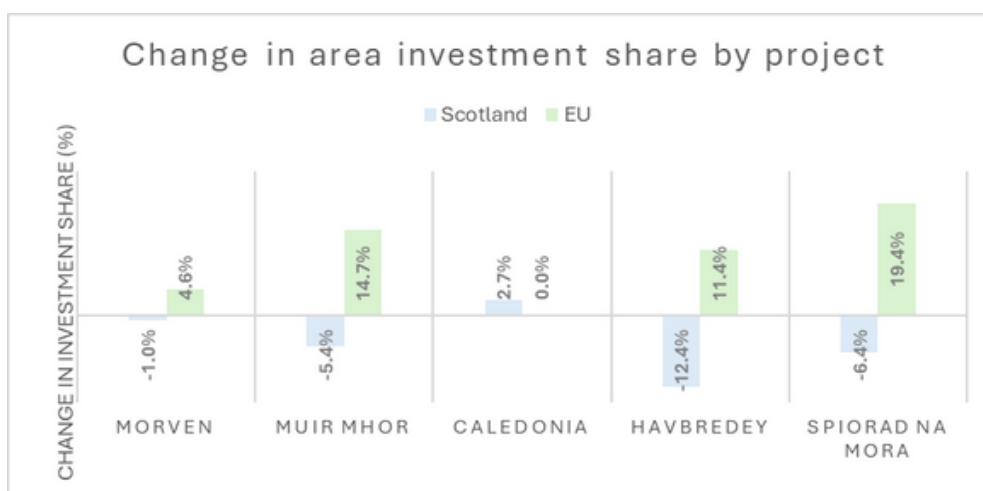
The trajectory of employment in relation to turnover seen in wind is the consequence of years of inadequate planning, conditionality, and investment to support manufacturing and fabrication capacity across Scotland. This has led to the trade deficits seen across the LCRE economy, as the bulk of investment in offshore wind farms is sent overseas and components imported.

# SCOTWIND POTENTIAL NOT SECURED IN SCOTLAND

The opportunity from ScotWind was described in 2022 by then First Minister Nicola Sturgeon as “truly historic”.[6] The Scottish Government has repeatedly cited the £1 billion of investment in Scotland for every GW of capacity set out across the supply chain commitments of the developers. This is a significant sum in isolation but represents just 37% of the total investment committed to deliver the projects. The EU will also see nearly £1bn of investment for every GW of Scotwind based on the most recent supply chain commitments.



As part of the ScotWind process, developers are required to submit Supply Chain Development Statements every two years. The first plans were submitted in 2021 and updated in 2023.[7] Only two years after their original statements, five developers changed their commitments. In four of these, the share of the total project investment into Scotland was reduced, with most increasing the share that will be invested into the EU instead.



Companies are required to report on any changes to their SCDS, including reasons for reductions in investment in Scotland.[8] These early reductions in the share of investment coming to Scotland are deeply concerning given projects are still in their early stages. The Scottish Government should set out the reasons given for these reductions, and any action they will take to address issues in the supply chain which have led to these decisions.

# RECOMMENDATIONS

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From Fife's turbine jacket fabrication yard in 2020, Campbeltown's turbine tower factory in 2021, to Ross-shire's carbon fibre production facility earlier this year,[9] workers across Scotland have been left holding the bag of poor government policy, and companies pursuing their bottom line.

Research commissioned by the STUC estimates that with the right policy and funding, Scotland could see up to 95,000 green jobs created in energy.[10] However, these jobs are not guaranteed as past promises have shown.[11] The latest set of figures from the ONS demonstrate once more that an active industrial strategy is urgently needed to prevent further extraction of wealth from Scotland's natural resources without an adequate return for workers and their communities.

The Irish Investment Bank, Vattenfall, and Orsted – publicly owned entities from the Irish, Swedish, and Danish Governments – all hold stakes in Scotwind projects. Yet there is no UK or Scottish equivalent, including the Scottish National Investment Bank. Public ownership or equity stakes enables greater prioritisation of social objectives like securing a just transition for energy workers and building community wealth across the country.

With or without greater public ownership, the Scottish Government must set strict conditions for companies developing offshore and onshore wind to address the widening gap between turnover and employment. The ScotWind supply chain process must be tightly scrutinised with intervention to ensure developers maintain at least their original commitments. Early decreases in the share of investment in Scotland must be challenged, and companies excluded from future projects if they fail to explain deviation from their commitments.

The final Energy Strategy and Just Transition Plan must reflect the issues raised in this report. Together with the forthcoming Green Industrial Strategy, the Scottish Government must set out to bring the active involvement of the public sector into the green economy, using ownership at a national and local level alongside stricter conditions to guarantee the creation of new jobs, on good terms, and community wealth from renewable energy.



# NOTES ON THE ONS DATA

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The Office for National Statistics publishes estimates of the size of the UK's Low carbon and renewable energy economy (LCREE), including employment and turnover every year. The estimates are based on a survey of 25,000 businesses.[12] Starting in 2015 (for reporting year 2014) the Office for National Statistics (ONS) 'Low Carbon and Renewable Energy Survey', is the primary source of official information on the LCREE (Low Carbon and Renewable Energy) economy.

The ONS defines the LCREE as "economic activities that deliver goods and services that are likely to help the UK generate lower emissions of greenhouse gases, predominantly carbon dioxide." There are 17 defined sectors which ONS consider to meet this definition.

For the purpose of considering the LCREE in Scotland, it is clearer to view through the industry "groups" identified by the ONS which further categorise the 17 sectors into six groups:

1. Low carbon electricity
2. Energy efficient products
3. Low emission vehicles and infrastructure
4. Energy from waste and biomass
5. Low carbon heat
6. Low carbon services

The ONS LCREE data continues to provide the most comprehensive overview of the state of the sector in relation to employment, company turnover and wider business activity. There are limitations to the data, with coefficients of variation (CVs) for all figures presented by the ONS. In certain years and sectors, figures are not provided either due to confidentiality or because they are below a minimum level of employment or turnover.

Despite the coefficients of variation across the data, the ONS notes the strength of the LCREE survey due to its high response rate compared to similar business surveys.

# REFERENCES

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1. [ONS Low carbon and renewable energy economy, UK: 2022](#)
2. Current capacity from [Energy Statistics for Scotland, Q3 2023](#)
3. [STUC Analysis of ONS Low Carbon and Renewable Energy Economy data for 2021](#)
4. Catapult Offshore Renewable Energy, [Wind farm costs](#)
5. BVG associates, [UK and Scottish content baseline and roadmap](#)
6. Scottish Government, [Offshore Wind Development](#)
7. Crown Estate Scotland, [ScotWind Leasing Round](#)
8. Crown Estate Scotland, [ScotWind Leasing Engagement document on Supply Chain Development Statement](#)
9. Despite citing 'deteriorating market conditions' for the closure of the site in Campbeltown in September 2021, in July of that year CS Wind purchased a majority stake in Portugal's largest wind tower manufacturer ASM Industries SA for €46.5m to 'advance into Europe's offshore wind power market.' [reported by The Korean Economic Daily.](#)
10. STUC, [Green Jobs in Scotland report](#)
11. STUC, [Broken Promises and Offshored Jobs](#)
12. ONS, [Quality and Methodology Information for the LCREE survey.](#)



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