

ECONOMIC OPPORTUNITIES

FROM CLIMATE ACTIONS

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Introduction

Actions to decarbonise our economy and increase the sustainability of our economic activity are often seen in terms of cost rather than as an investment to conserve and enhance our environment and future, and within this to safeguard our economy. The argument that reaching net zero in line with current plans will be to the detriment of people's pockets has gained traction in various countries, for example, the UK, due to politicisation¹. This argument appeals to those with a fear of change and plays into the hands of vested interests, for example those fossil fuel companies resistant to change.

Rather than focussing on costs, this paper highlights the economic opportunities expected from actions designed to mitigate climate change, specifically for the Isle of Man. This is in line with the Island's Economic Strategy, and the vision for a sustainable future, which includes considering how our "climate change commitments can inform and positively influence our economic growth, opportunities and stability over the long term."

The sections below consider the required changes to the economy in the transition to net zero, the economic opportunities being achieved from decarbonisation in the UK and those which could be realised in the Isle of Man with reference, in particular, to [KPMG's Big Picture Strategic Economic Framework Phase 3 Report](#) from June 2022, the [Economic Strategy](#) from November 2022 and the [Economic Strategy Annual Update 2023](#), the [Island Plan](#) from 2023 and the [Update](#) from 2024/25, the [Tax Strategy](#) 2024-26 and the [Climate Change Plan 2022-27](#).

In 2022, businesses in the UK generated
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in Low Carbon and Renewable Energy Economy ("LCREE") turnover
-Office for National Statistics, 2022

LCREE employment in 2022 was estimated at
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-Office for National Statistics, 2022

Changes to the economy resulting from decarbonisation

In identifying economic opportunities, a good starting point is to consider those changes to the economy which are necessary as part of the transition to net zero. These can broadly be described as follows²:

- Some parts of the economy will need to adapt their products and processes, e.g. using clean technology.
- Some existing activity will need to scale up, e.g. EV sales, repairs and charging points, ASHP installation.
- Some existing activities linked to fossil fuels will need to be reduced.
- Some entirely new activities may be initiated, e.g. carbon capture and storage.
- Some new skills will need to be learnt to enable the above.

Some of the above changes will result in new jobs, others, under a just transition, will provide an alternative employment for people currently working in activities linked to fossil fuels, e.g. upskilling of car mechanics to become EV specialists.

A decoupling of economic growth from greenhouse gas emissions has started in various regions around the world³, primarily because of much cheaper energy and an increase in the use of digital technology. It should be noted however with regards to digital technology that there is a risk that, whilst it has a significant potential to drive down emissions, it becomes an increasing source of emissions in the future.

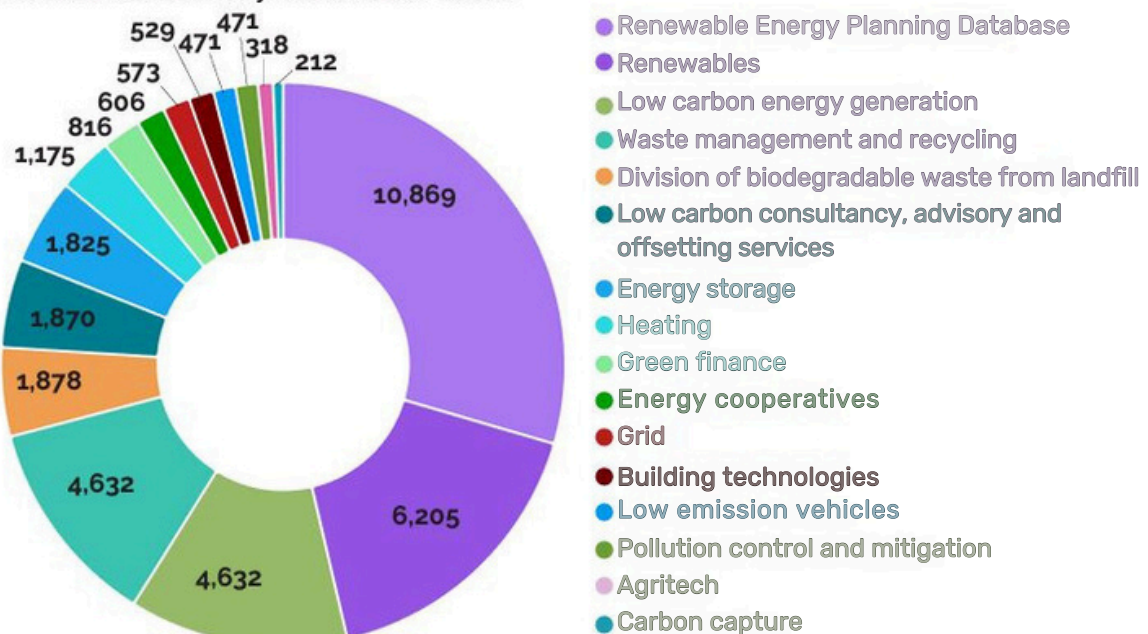


Changes to the economy resulting from decarbonisation

In the UK, in 2022, businesses generated an estimated £69.4 billion in Low Carbon and Renewable Energy Economy (“LCREE”) turnover, a £15.2 billion (28.0%) increase since 2021⁴. LCREE employment in 2022 was estimated at 272,400 full-time equivalent (FTE) employees, a 20,100 FTE (8.0%) increase since 2021⁴. The construction industry had the largest employment in 2022⁴, with 99,100 FTEs (36.4% of total LCREE employment). The professional, scientific and technical activities industry saw the largest employment increase, rising from 36,600 to 46,200 FTEs (26.2%) between 2021 and 2022⁴.

The UK’s net zero economy, which comprises a number of new and emerging sectors, such as renewables, carbon capture and green finance, as well as more traditional, established sectors, such as manufacturing, grew 9% in 2023⁵ in contrast to stagnation in the wider economy with GDP growth at just 0.1% in 2023. Jobs in the net zero economy are highly productive, generating on average £114,300 in economic activity, more than one and a half times the UK average of £72,550 and are also better paid by almost £10,000, the average salary in the net zero economy being £44,600 compared to the £35,400 UK average⁵. Figure 1 below shows the breakdown of the UK’s net zero economy by business sub-sector.

Figure 2: Business count by net zero sub-sector



Source: CBI Economics, The Data City, 2023

Economic opportunities identified for the Isle of Man

The following reports for and from Isle of Man Government highlight the potential economic opportunities to be gained from the transition to net zero and more widely from making the Island's economic activity more environmentally sustainable.

1. [KPMG Strategic Economic Framework Report](#) – section 4.1 refers to the Island's strategic objectives, which include improving the Island's environmental and social sustainability and growing new and key sectors of the economy, and notes that these are intrinsically interlinked.

The references to environmental sustainability within the report are in relation to the embedding of ESG principles into business decision making. The report does however contain some examples of sectors in which environmental sustainability or climate change actions could increase economic opportunity as follows:

- (Government) offering incentives or facilitating investment in promising green technology companies could encourage the growth of a hub on the Island.
- The Island's natural resources, for example leasing the seabed for offshore wind generation.
- A green investment fund to invest in green-technology businesses that are aimed at solving green issues for small jurisdictions.
- (Government) developing and promoting the Island as an attractive location for data centres powered and cooled using sustainable energy sources.
- The Island's attributes: natural resources, small size (and therefore potentially a suitable location for trialling innovative technologies, including clean technology solutions) and its strengths in other supporting domains (and therefore potential for initiatives such as a hub for sustainable finance).

2. [Isle of Man Economic Strategy](#) – mentions the development and growth of a "green economy" and "monetising the green economy" referring to making the most of our natural resources and research and development.

The Strategy also refers to "accelerating our Energy Strategy to provide long term security, stability, and decarbonisation, and consciously and proactively investing in the Climate Change Action Plan, placing sustainability at the heart of the economy." An example is given of "introducing legislation and regulation to permit the leasing of the Island's natural resources for renewable power generation and carbon capture (which) would diversify Government revenue, create a new sector for workforce displaced by automation and digitisation whilst contributing to the maintenance of healthy Government finances and improvement of the Island's sustainability credentials."

Within the Annual Update from December 2023, whilst there is reference to various climate change initiatives, there are no examples given where these may be creating opportunities for economic growth.

Economic opportunities identified for the Isle of Man

3. [Our Island Plan](#) – one of the three core strategic objectives which comprise the vision for the Island is for a sustainable future, which includes a sustainable environment. The Plan, which incorporates the Economic Strategy, reiterates the vision of placing sustainability at the heart of the economy and fully embedding sustainability in economic policy-setting. Whilst referring to progressing the implementation of the Economic Strategy Ambitions under the section on the economy, the Plan doesn't provide any examples of sustainability initiatives to benefit the economy.

The 2024/25 Update on the Island Plan, from March 2024, refers to the development of onshore and offshore wind capabilities that will create new revenue streams for future economic sustainability.

1. [Tax Strategy 2024-26](#) – the strategy, published in February 2024, doesn't specifically mention climate change but, under the vision, one of the two main functions of tax systems is recognised as supporting economic, social and environmental aims by "income/wealth redistribution and/or behaviour change".

2. [Climate Change Plan 2022-27](#) – under the Business deliverables of the Plan, one of the benefits of change is cited as economic opportunities for businesses to respond to growing demand for low emissions goods and services.

There is a reference to sequestration projects and renewable energy generation creating economic opportunities in a green economy. Under the support areas, in relation to adaptation and resilience, reference is made to economic opportunities in the construction and ecosystem restoration sectors.

The Plan also refers to innovation in the context of the deliverables around waste, and specifically the opportunities for growth and innovation for businesses engaged in the circular economy.

Economic opportunities by sector in the Isle of Man

Looking at each of the Island's main economic sectors in turn, the following opportunities can be identified.

Sector	Economic opportunities from moving to net zero
Construction	Retrofitting (plumbing, joinery, glazing, electrical) including installation of air source heat pumps and solar panels; adaptation work, e.g. flood protection; introduction of new recycled building materials for new builds
Banking	Green finance
Utilities	Offshore and onshore wind turbines; waste management including repurposing and recycling
Insurance	New products to cover renewable power assets and green technologies
Investment and sustainable finance	Proactive investing in sustainable companies and flows of capital to sustainable economic activity
Professional services	ESG advisory services
Financial services	Sustainability resources to ensure ESG compliance, e.g. Chief Sustainability Officer and other officers
Education	Upskilling; Sustainability awareness courses
ICT and Technology	Internet of Things and Cleantech development
Tourism, entertaining and catering	Sustainable tourism; amenity value from local nature projects
Agriculture, forestry and fishing	Securely and sustainably grown and locally sourced food; provision of projects to generate income from the sale of carbon and other nature units.
Retail/Other services	EVs and other low emission products; circular economy initiatives including services such as repairs, cleaning, maintenance etc.
Engineering and manufacturing	Components for low emission products and renewable energy systems

Economic opportunities by sector in the Isle of Man

Please note also that decarbonisation initiatives within certain sectors will benefit businesses in other sectors. For example, Cleantech can benefit many sectors and the availability of renewable energy is necessary to attract and retain certain existing businesses, particularly those in supply chains which are increasingly being scrutinised for embedded emissions.

More generally for the Island's economy, there is potential for climate change mitigation to help address several of the key challenges listed in the Economic Strategy and thereby create economic opportunities:

-Growing wealth disparity – the introduction of a carbon tax on high polluting activities/assets, as one lever in encouraging behavioural change, could be used to help fund decarbonisation and provide funding to help support those with more limited means to make the transition to net zero and, potentially, as has been budgeted in Ireland, to make households on lower incomes better off.

-Ageing population and demographic challenges – ESG policies are extremely important for younger workers. One in three Gen Z workers have rejected offers of employment due to poor ESG records⁶. Eight out of ten Gen Z employees reported that it was important for company values to align with their own beliefs and 75% expect their employers to be a force for good in society⁷. By 2029, Millennials and Gen Z are estimated to make up 72% of the world's workforce⁸. Therefore, implementing a progressive approach to climate change mitigation, at a national and business level, and thereby appealing to younger workers' values, could increase the attractiveness of the Island as a place to work and potentially address the demographic challenges highlighted in the Economic Strategy.



Quantification of economic opportunities

To express the economic opportunities from climate change actions, i.e. decarbonising our economy, a selection of the more immediate and tangible actions are listed below with an estimation of the economic benefits of each of these to the Island's economy.

Area	Estimated economic activity	Notes (see Appendix 1 for calculations)	Impact on Economy
Construction	Up to £275m in total	Retrofitting – new revenue stream (App 1, #1)	Increase GDP.
Construction	Approx £65m in total	New residential buildings – renewables (App 1, #2)	Transfer from fossil fuel to renewables sector – no incremental impact on GDP.
Banking	Approx £102m (with Exchequer benefit of approx. £1.5m)	Bank lending to individuals for retrofit costs (App 1, #3)	No increase GDP but potential increase in corporate tax revenues for Government.
Utilities	Approx £2.3m of Exchequer benefit	New jobs created by offshore wind farm (App 1, #4)	Increase in jobs contributing to increase in direct tax take.
Sustainable finance	Approx £120m per annum (with Exchequer benefit of approx. £7.5m)	Growth of 5% in finance sector from sustainable finance initiative (App 1, #5)	Increase GDP. Increase in jobs contributing to increase in direct tax take.

There are other areas of activity where economic benefits can be estimated but due to more uncertainty these calculations would require the use of more assumptions than those listed above.

Examples include:

- The numbers of Island businesses still to implement energy efficient systems (and therefore potential for construction activity).
- The numbers of larger businesses still to create sustainability roles (and therefore potential employment opportunities).
- The potential increase in environmentally conscious visitors to the Island if the Island's hospitality sector and infrastructure were to have sustainable and forward-thinking offerings on a wider scale.
- Projected increase in numbers of EVs (and therefore opportunities for training needed for upskilling, and revenue from sales and repair services).
- Projected increase in active travel and related infrastructure (and therefore bicycle sales and repair services).
- The potential increase in recycling rates to at least match those in the UK (and therefore opportunities for businesses providing recycling/repurposing services).

Conclusion

This paper highlights some of the potential economic opportunities from the decarbonisation of the Isle of Man's economy, and it is hoped will encourage further thinking and analysis to help in evaluating the economic benefits that could be gained from more closely aligning wider Government strategies with the Climate Change Plan deliverables and in identifying viable business opportunities and the resources necessary to enable change.



References

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Appendix 1 – Calculations of estimated economic activity

1. Construction - Retrofitting work - Number of properties potentially requiring retrofit – in the last [Private Sector House Condition Survey \(2018-20\)](#), 90% of private dwellings double glazed and 70% have loft insulation of 100mm+. The private housing sector comprises 35,151 houses, potentially then up to 3,500 dwellings require double glazing and over 10,000 dwellings require better levels of loft insulation. 78.4% (27,558) of properties fall below a SAP rating of C. The potential cost for retrofitting is in the range of £17.5m (for the installation of double-glazing at an assumed cost of £5k on average per property) to £275m if all housing stock were to be brought up to a minimum SAP rating of C (based on an assumed average cost per property of £10k).

2. Construction - Based on a current population of approx. 85,000, the Economic Strategy includes an ambition to grow the population by 15,000 to 100,000, with 5,000 new jobs, over the next 15 years, i.e. by 2037. Per the last [Private Sector House Condition Survey \(2018-20\)](#) the average household size is 2.3 persons. On this basis, another 6,500 dwellings are required by 2037, around 430 new dwellings per year. The installation of an integrated renewable energy system, with a combination of solar panels, battery storage and air source heat pump is estimated to be around £10k per property, i.e. approx £65m.

3. Banking (green finance) - referring to the findings of recent (Gemserve) consultancy work undertaken on green financing mechanisms for retrofit work, 37% of respondents expressed a willingness to take out a loan to meet the cost of work. Assuming that retrofitting is undertaken on those properties with a SAP rating of less than C (27,558 in total) and assuming an average cost per property of £10k, there is the potential for loan financing of around £102m. Assuming a net interest margin (spread) of 3% and an average loan period of 5 years, could provide a total return to the banks of up to £15m, which at a corporate tax rate of 10%, provides the potential for total Government revenue of up to £1.5m.

4. Utilities - Currently proposed onshore and offshore wind developments – per Appendix 16 of the [Impact Report](#), Orsted's Walney extension (87 turbines) created up to 250 new jobs. As of December 2023, up to 100 turbines are planned by Orsted off the coast of Maughold. Per the Government Accounts ([Blue Book](#)) for 2022/23, total tax take (on employees) is £357m (£175m (ITIP) and £240m (NI Class 1)). Dividing this by the economically active working population, per the [Isle of Man in numbers](#), in 2021, was around 44k = average tax take of £9,430 per person per annum). Assuming 250 new jobs are created on the Island by Orsted and that these are at an average salary level, this would create an increased tax take of £2.3m per annum.

Appendix 1 – Calculations of estimated economic activity

5. Sustainable finance - According to Global Market Insights (<https://www.gminsights.com/industry-analysis/sustainable-finance-market>) the Sustainable Finance Market size was valued at USD4.2 trillion in 2022 and is projected to register a compound annual growth rate of 22.4% between 2023 and 2032. A conservative net inflow rate of 5% could be used for a sustainable finance project for the Isle of Man to reflect natural capacity restraints and to prudently allow for the likelihood that a proportion of investment into Sustainable Finance products in the Isle of Man may be a diversion of assets currently sitting in more traditional investments. It is estimated, per the [Economic Dashboard](#), that there are approximately 9,600 people employed in financial services. A projected estimate of a 5% increase would result in 480 new jobs. Using a figure of £9,430 (per 4, above) this would result in an exchequer benefit of £4.5m per annum from successful completion of the sustainable finance project. Additionally, current estimates suggest that the introduction of Pillar II tax will generate circa £60m from Isle of Man financial services upon introduction. Using the same, conservative positive 5% impact resulting from additional output generated by Sustainable Finance products, there would be an additional income benefit of £3m per year from Pillar II tax take. Financial services represent around £2.4bn of the Isle of Man's £5bn GDP. Using the same growth figure of 5%, this would constitute an annual growth in GDP of around £120m.