Item: 7

Policy and Resources Committee: 17 June 2025

Orkney Islands Council Offshore Energy Development Strategy

Report by Director of Enterprise and Resources

1. Overview

1.1. In December 2024, Council endorsed a draft Outline Strategic Offshore Energy Development Strategy for Orkney for further development.

1.2. In endorsing the draft strategy, Council approved that £4 million be ring-fenced from current resources within the existing Marine Services budget areas, in order to deliver the Strategic Offshore Energy Development Strategy in the period up to May 2027.

1.3. £2.2 million of this ringfenced budget has already been assigned as a contribution towards the Pre Construction Services Agreement for Scapa Deep Water Quay.

1.4. Significant consultation has been undertaken to prepare the Orkney Islands Council Offshore Energy Development Strategy.

1.5. This report looks in detail at the drivers for change, the opportunity presented by offshore energy development, and sets out a framework for action.

2. Recommendations

2.1. It is recommended that members of the Committee:

i. Approve the Orkney Islands Council Offshore Energy Development Strategy, attached as Appendix 1 to this report.

ii. Request the Director of Enterprise and Resources to present an update to the Policy and Resources Committee, in due course, on the Orkney Islands Council Offshore Energy Development Strategy, following expiration of the approved funding timeline in 2027.

3. Revised Strategy

3.1. Following consideration of the Outline Strategic Offshore Energy Development Strategy for Orkney by the Policy and Resources Committee on 27 November 2024, on 10 December 2024, the Council resolved:

i. That the draft Outline Strategic Offshore Energy Development Strategy for Orkney, attached as Annex 1 to the joint report by the Chief Executive and the Corporate Director for Enterprise and Sustainable Regeneration, be endorsed for further development, in consultation with members of the Harbour Authority Sub-committee and relevant local stakeholders, with a final version to be submitted to the Policy and Resources Committee in early 2025.

ii. That a budget of £4 million be ring-fenced from current resources within the existing Marine Services budget areas, in order to deliver the Strategic Offshore Energy Development Strategy in the period up to May 2027.

iii. That powers be delegated to the Chief Executive, in consultation with the Corporate Director for Enterprise and Sustainable Regeneration and members of the Harbour Authority Sub-committee, to authorise spend from the budget, referred to above, in the period up to May 2027, thereby ensuring Elected Member oversight of that budget.

iv. That the following three red line commitments to all Elected Members in respect of the Strategic Offshore Energy Development Strategy be endorsed:

- No borrowing or financial commitment from the Council that is not fully understood and agreed by Members to be affordable and sustainable.
- Development decisions around any asset to be clearly flagged and understood by Elected Members and taken transparently by Members with access to all relevant information and data.
- Control over use of assets to be retained by the Council so that activities and use can be understood now, and in the future.

3.2. This report presents a final version of the Orkney Islands Council Offshore Energy Development Strategy to Council for consideration.

3.3. Extensive consultation with internal and external stakeholders has been carried out to inform preparation of the strategy. This has resulted in a strategy which looks in detail at the case for change, quantifies the opportunity, and analyses where Orkney's strengths can be best applied. In its framework for action, the Strategy recognises that it is not the role of the Council to deliver on the opportunities presented in isolation and focusses on identification of areas where Council intervention and resources may be considered appropriate.

3.4. Any proposal to utilise funding assigned to the Strategy will be progressed through the delegation established by Council in December 2024.

3.5. It is recommended that the Director of Enterprise and Resources should present an update to the Policy and Resources Committee on the Orkney Islands Council Offshore Energy Development Strategy following expiration of the approved funding timeline in 2027.

For Further Information please contact:

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Implications of Report

1. **Financial -** Whilst there are no financial implications arising directly from this report, it is expected that many of the actions listed at Table 4 of the attached strategy will require resource – both officer time, and funding. Where possible, every opportunity to draw in external funding should be explored, including from business partners and entrepreneurial investment, to deliver the economic benefits of this strategy, noting that some of the proposals and requests target funds ring-fenced from within the existing Marine Services budget areas. Any expenditure outside approved, or delegated, funding will require to be brought before members for consideration.
2. **Legal –** There are no material legal implications arising from the recommendations contained in this report.
3. **Corporate Governance –** The relevant governance is outlined in section 3.1 above.
4. **Human Resources -** No direct implications
5. **Equalities -** An Equality Impact Assessment has been carried out and is attached as Appendix 2 to this report.
6. **Island Communities Impact -** An Island Communities Impact Assessment has been carried out and is attached as Appendix 3 to this report.
7. **Links to Council Plan:** The proposals in this report support and contribute to improved outcomes for communities as outlined in the following Council Plan strategic priorities:
   ☐Growing our economy.
   ☐Strengthening our Communities.
   ☒Developing our Infrastructure.
   ☐Transforming our Council.
8. **Links to Local Outcomes Improvement Plan:** The proposals in this report support and contribute to improved outcomes for communities as outlined in the following Local Outcomes Improvement Plan priorities:
   ☐Cost of Living.

☒Sustainable Development.

☐Local Equality.

☐Improving Population Health.

9. **Environmental and Climate Risk -** No direct implications
10. **Risk -** No direct implications
11. **Procurement -** No direct implications
12. **Health and Safety -** No direct implications
13. **Property and Assets -** No direct implications
14. **Information Technology -** No direct implications
15. **Cost of Living -** No direct implications

List of Background Papers

Outline Draft Strategic Offshore Energy Development Strategy, December 2024

Appendices

Appendix 1 - Orkney Islands Council Offshore Energy Development Strategy.

Appendix 2 - Equality Impact Assessment.

Appendix 3 - Island Communities Impact Assessment.

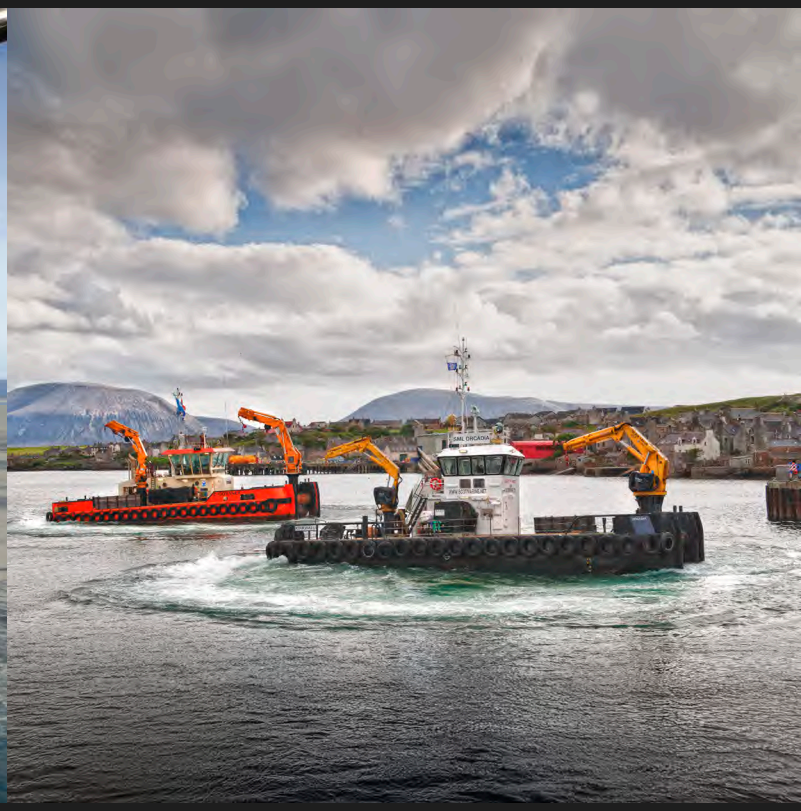
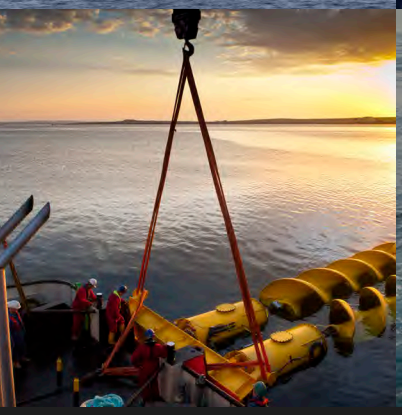
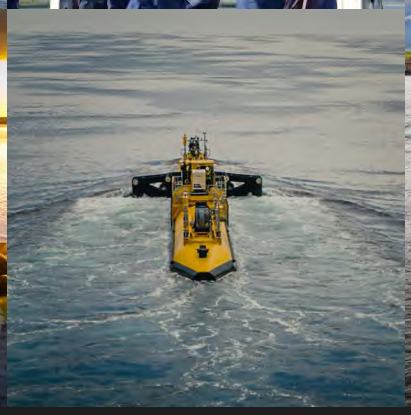
Appendix 1

ORKNEY ISLANDS COUNCIL

Offshore Energy Development Strategy

June 2025



Contents

Executive Summary

Orkney is facing significant challenges with regard to its economy and demographics, and at the same time is also presented with significant opportunity by the anticipated investment in offshore energy development activity. Orkney is well positioned, geographically and strategically, to reach for this opportunity to help address its challenges and to drive long term prosperity. This report looks at the case for change, and quantifies the opportunity available, setting out the following vision:

Vision for Offshore Energy Development in Orkney

Offshore Energy Development is supporting a just transition for future generations, driving prosperity in Orkney, complementing our traditional sectors, creating a vibrant economy in harmony with our natural environment, and rebalancing our demographic challenges.

Four key pillars which Orkney can build on in taking hold of the opportunity are set out alongside six support themes to inform a framework for action.

Development Pillars

- Renewable Energy Infrastructure
- Harbour infrastructure and Scapa Flow
- Innovation and technology leadership
- Supply chain and workforce

Support themes

- Maximise potential of existing harbour assets
- Secure investment in new infrastructure
- Support innovation activity
- Support the local supply chain
- Promotion and engagement activity
- Support skills development

The strategy looks specifically at the action Orkney Islands Council should consider taking in order to position Orkney for success and sets out a framework for how it might consider proposals to assign resource towards developing the sector. In doing so it also recognises that in many cases the actions required will not be the responsibility of the Council. Offshore energy development is a nationally significant opportunity, and development of the sector is not something which the Council could or should undertake by itself. It must be done in partnership with local, regional and national stakeholders.

The Council's ability to work together with partners to grasp the opportunity presented could have a significant bearing on the future direction and prosperity of Orkney.

1. Introduction

At the General Meeting of the Council held on 10 December 2024 it was resolved, inter alia, that a draft Outline Strategic Offshore Energy Development Strategy for Orkney be endorsed for further development, in consultation with members of the Harbour Authority Sub-committee and relevant local stakeholders, with a final version to be submitted to the Policy and Resources Committee in early 2025.

Following consultation with relevant stakeholders, this Council-owned strategy has been developed to explore the potential and need for Orkney to grasp the opportunities presented by offshore energy developments.

The opportunity presented by offshore energy development is nationally significant, and many aspects of the response to the opportunity require to be driven at a national or regional level. This strategy is a Council strategy, which seeks to quantify the opportunity and identify areas where the Council should seek to work with and influence others, and it identifies areas where it might be appropriate for the Council to consider intervention or allocation of resources.

2. Case for Change

The economy in Orkney is generally considered to be relatively diverse and buoyant, with key sectors of agriculture, tourism, aquaculture, food and drink, creative, and energy all performing well. Alongside this our population is growing, unemployment has been amongst the lowest in the country for many years, and hourly wages are relatively high[1].

The most keenly felt challenge reported by local businesses is recognised as securing workforce, with a lack of suitable accommodation cited as a key issue in attracting skilled workers to Orkney.

Underlying these broad observations are some important considerations as set out in the following sections which evidence that, behind the broadly positive façade of Orkney's economy, there are significant areas of concern.

2.1. Cost of living

Whilst employment and wage statistics show Orkney's economy is performing well, there is a generally accepted understanding that 'underemployment' (both in terms of being able to find as much work as one would like year-round, and being able to find work well matched to one's skills and experience) is prevalent. The cost of living in Orkney is also higher than average, with the high cost of energy and transport reflected in the high fuel poverty statistics for Orkney. Higher average hourly wages therefore do not directly translate to more expendable income or a higher standard of living in Orkney.

2.2. Demographics

Media coverage on the back of publication of the initial release of data from the 2022 census highlighted that Orkney is the only Local Authority area outside of the central belt with a growing population. Closer analysis of more recently available detail on the figures however points to significant areas of concern.

This is reflected in two publications by Orkney's Community Planning Partnership – the Orkney Community Plan for 2025 to 2030[2], and a Population Growth and Decline in Orkney Briefing[3].

1 Office for National Statistics (2024). Earnings and hours worked, place of work by local authority, 2023 data.

2 Orkney Community Planning Partnership (2025), Local Outcomes Improvement Plan 2025-2030

3 Orkney Community Planning Partnership (2025), Briefing: Population growth and decline in Orkney

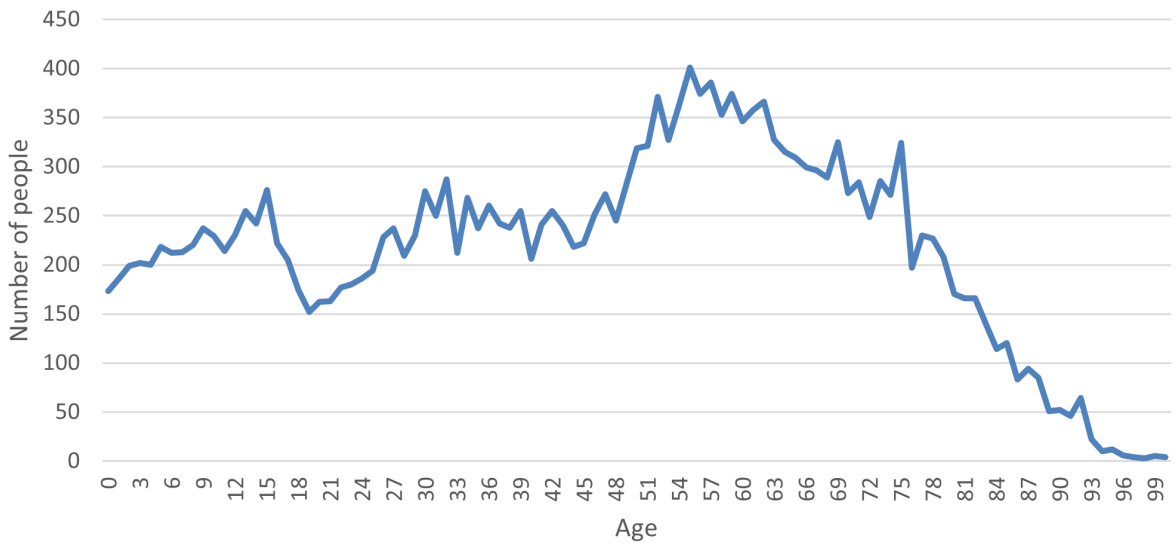
Some of the key findings of the population report were that:

- From 2001 to 2011, Orkney's population grew by 11%. Between 2011 to 2022, this growth slowed to 3%, and between 2022 and 2023, it appears to have stalled.
- The population of the ferry linked isles dropped by 5.2% between 2011 and the 2022 census results.
- 49% of Orkney's population is aged 50 or above compared to the national average figure of 42%. On the ferry-linked isles, 60% of residents fall into this category.
- Only 7% of Orkney's population is aged between 16 and 24 years, compared to 11% for Scotland as a whole.

Looking at age profile data for Orkney from the 2022 census (Figure 1) clearly illustrates that:

- The demographic is not well balanced, is skewed towards older people, and will likely become much more so in coming years.
- Birth rate is in decline
- There is a notable dip in young adult population, likely to be part related to our young people leaving Orkney to study.
- A large number of people will retire in the next 15 years and will not be replaced in the workforce.

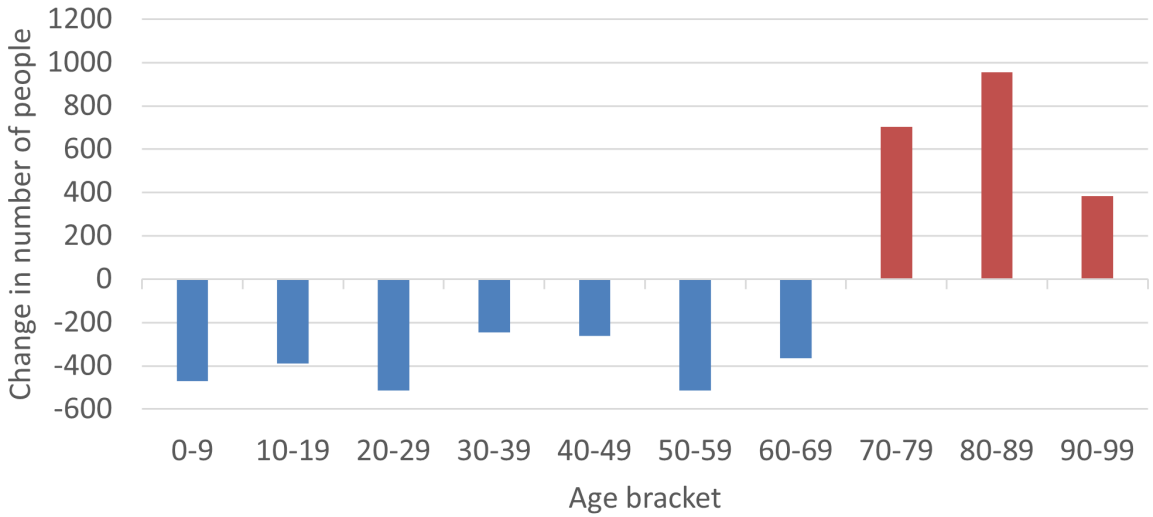
Figure 1 Age profile per 2022 census[4]



4 Scottish Government (2025), Scotland's Census 2022 data, available at www.scotlandscensus.gov.uk

These observations are supported and quantified in a Scotland's Rural Collage (SRUC) study[5] using data from the National Records of Scotland[6]. It shows that for the period 2018-2028 natural population change (births minus deaths) in Orkney is predicted to be minus 3.5%, and is assessed that without significant inward migration, Orkney's population will decline by 2.7% by 2043. In this period the projected number of children (0-15) will decrease by 754 people, working-age people (16-64) will decrease by 1775 people, and the number of those aged 65-89 will grow by 1429 people, with 496 more people aged 90 and over. This is illustrated in Figure 2.

Figure 2 Expected change in population 2018 – 2043[6]



This data suggests that, just for Orkney's young and working age population to stay where it is, net inward migration would require to increase by more than 100 young and working age people every year. This wouldn't however redress the imbalance between working age and older people, and the fact that more people will need to be engaged in caring for the elderly.

5 SRUC (2024), Rural and Agricultural Development: Maximising the potential in the islands of Orkney, Shetland and Outer Hebrides

6 National Records of Scotland (2025), Subnational population projections of Scotland for Scottish Council areas from 2018 to 2043.

2.3. Gross Value Added

Gross value added (GVA) is a measure of the increase in the value of the economy due to the production of goods and services. Regional data for GVA is produced by the Office for National Statistics. For smaller regions such as Orkney, the quality of data is unreliable and outputs are susceptible to error and should be treated with caution. Nonetheless the data does provide a decent means for comparison and an indication of trends over time. The overall GVA for Orkney is presented in Figure 3 alongside that of Shetland and the Western Isles. The impacts of COVID and Brexit are visible in the data, which suggests that GVA growth appears to be on a downward trend for Orkney and Shetland. Notable is that Orkney appears to be performing relatively poorly compared to the UK and Scotland as a whole (Figure 4), with our economy essentially now back to where it was in the late 1990's, and no clear rationale as to why this is the case, other than noting that a decline in oil and gas activity may have played a role.

Figure 3 Regional gross value added (£ million in 2019 prices)[7]

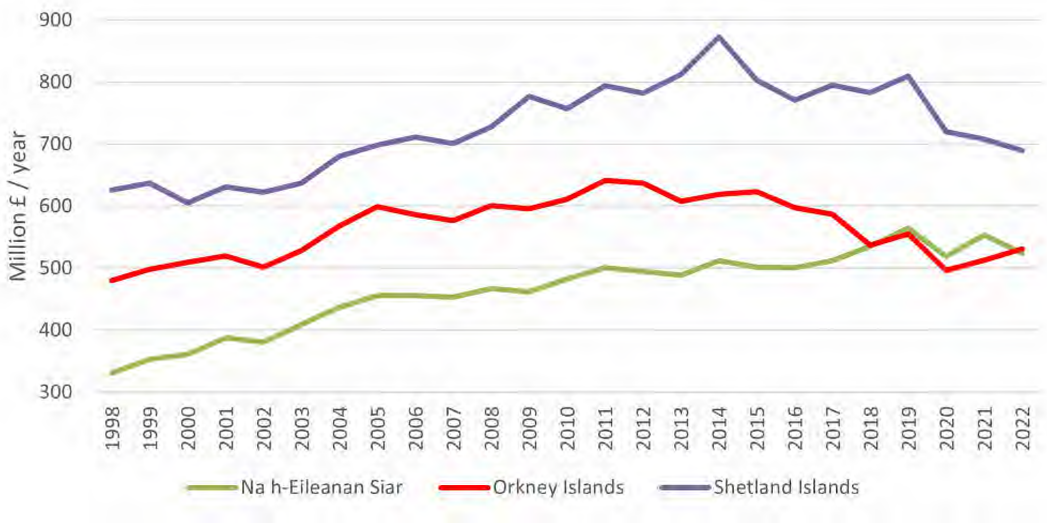
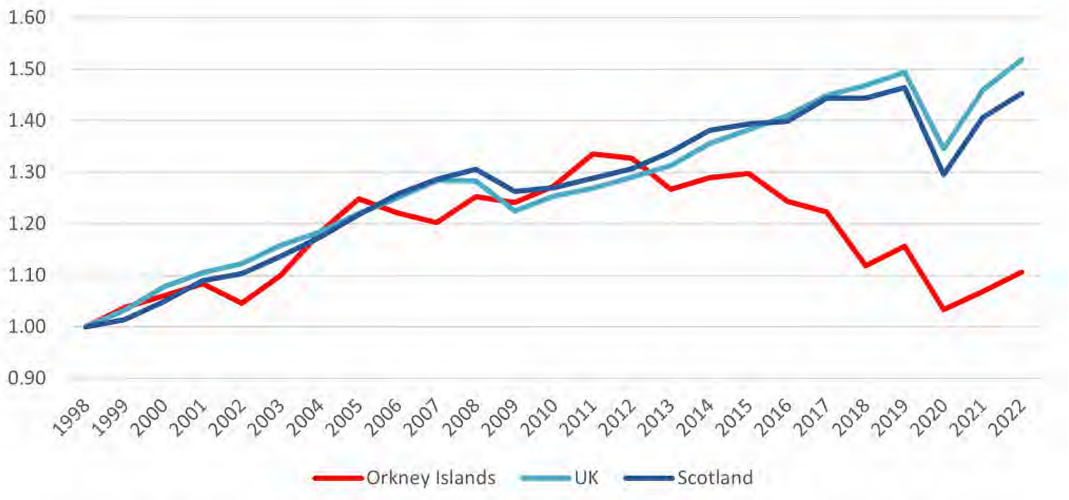


Figure 4 Regional gross value added (inflation adjusted and compared to 1998)[7]

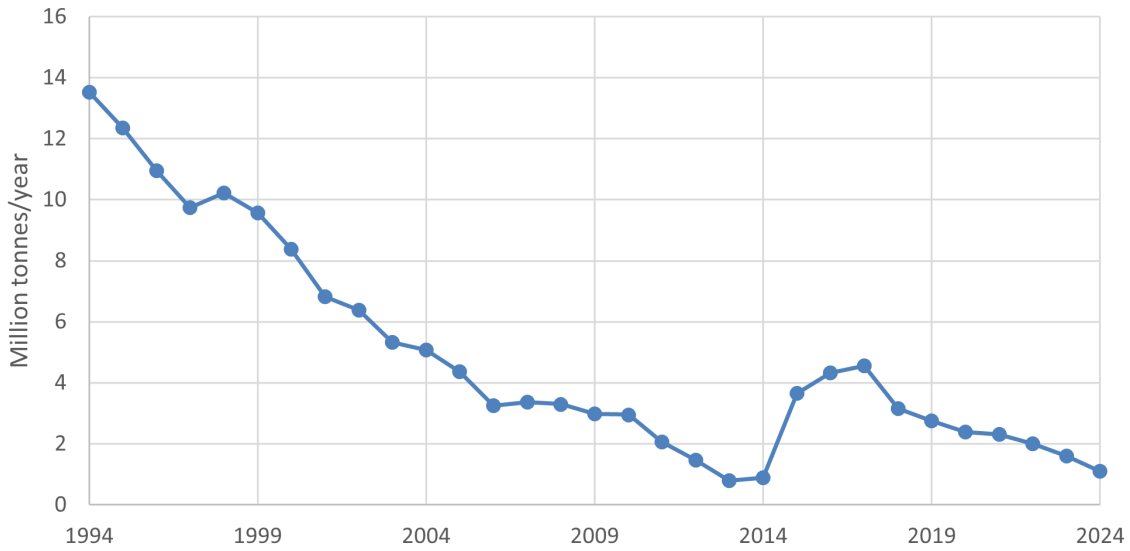


7 Office for National Statistics (2025). Dataset for Regional gross value added (balanced) by industry: all ITL regions

2.4. Decline in Flotta oil terminal

Built in 1976, Flotta Oil Terminal has been a key economic driver in Orkney for 50 years. However, the volume of crude oil shipped form Flotta has been on a steady decline over the last 30 years from circa 14 million tonnes/year in 1994 to just over 1 million in 2024 (Figure 5). In line with this the number of direct jobs at the terminal has reduced from around 500 in the 1990's, to around 160 in 2024, with a restructure in June 2025 seeing the workforce halved to around 80 through redundancies. Ownership of the facility, which has changed many times, is due to change again, with current owners Repsol Resources UK having announced an asset merge with a private equity firm, Neo Energy, to create a new UK entity, Neo Next, 55% owned by Neo, pending regulatory approval. The current base case for cease of production for Flotta is 2032. Decommissioning activity on site may extend beyond end of production, however it is clear that the economic benefits felt by hosting the Flotta Oil terminal have already significantly reduced and will disappear in the coming years. Repsol's own analysis would suggest that activity at the terminal is currently worth around £30 million GVA/year to the Orkney economy. There is a need to consider how Orkney can ensure a Just Transition[8] as our economy transitions away from carbon intensive industries towards net zero.

Figure 5 Crude oil exports from Flotta over time



8 Scottish Government (2021), Just Transition- a fairer, greener Scotland

2.5. Summary

Taking key considerations from above together paints an overall picture for Orkney which is concerning;

- The high cost of living
- The scarcity of labour and accommodation challenges
- The long-term decline in GVA
- The end of life of Flotta Oil Terminal
- The deficit between births and deaths
- The expected significant further reduction in working age population
- The expected significant further increase in older population requiring care

This is reflected in the five-year Orkney Community Plan 2025-2030 which identifies that "if the isles are to continue to be sustainable, efforts need to be put in to encourage and support younger people to remain and move to the isles and attract people with the essential skills to provide services and develop the economy". It identifies Sustainable Development, supporting economic growth that benefits local people and protects the environment, as a strategic priority.

There is clear need to create increased economic activity to drive opportunities for well paid jobs, to encourage our young people to stay and work in Orkney, and to encourage working age people and families to move to Orkney.

3. Opportunities for growth in Orkney

3.1. Existing sectors

Looking at a breakdown of the economy in 2022 (per Figure 6, where box size is relative to GVA contribution) shows that Orkney has a good diversity of activity, with notable importance of the public sector (including health and education) as well as primary industries such as agriculture, and tourism related sectors.

Figure 6 Relative size (GVA) of sectors of the Orkney economy 2022[9]

Whilst Orkney's economy is relatively diverse, there are limited opportunities for significant growth. This is set out in Table 1 which provides high level commentary on selected key sectors.

9 Office for National Statistics, Regional gross value added (balanced) by industry: all ITL regions

Table 1 Growth potential in selected existing key sectors

Sector	Growth limitation
Public Sector (including Health, public admin, and education)	Public sector budgets are in long-term decline, with no indication of a substantial change or potential for meaningful growth.
Agriculture	Agriculture requires land which is in limited supply. Land in Orkney is extensively farmed, and there is no prospect of significant growth in availability. The change from the European Common Agricultural policy towards the Agriculture (Scotland) bill has introduced uncertainty in the sector. Whilst Agriculture is expected to remain a mainstay of the economy, there is limited potential for significant growth.
Aquaculture	Aquaculture activity has grown significantly in Orkney. More easily accessible and consentable sites are now taken. The sector is looking at expansion of existing sites for growth, however whilst the overall farmgate value of the fish is high and may increase, the knock-on benefits to the local economy are unlikely to grow significantly.
Tourism	2024 saw circa 173,000 overnight visitors, and 214,000 cruise passenger arrivals in Orkney. Accommodation is widely reported to be at capacity for much of the summer season and cruise activity is plateauing. There is therefore considered to be limited capacity for further significant growth in the sector.
Arts, creative, food and drink, wholesale and retail	Orkney's economy benefits from activity in these sectors where output is already considered to be high in an island context. There may be room for further growth, but considering that the overall contribution of these sectors to the wider GVA figures is modest, even significant growth would only be expected to make a limited impact.
Construction	Construction should generally act as a knock on to a growing economy, insofar as a growing economy should drive increase in construction. Targeting construction as a growth sector is in that sense counterintuitive.

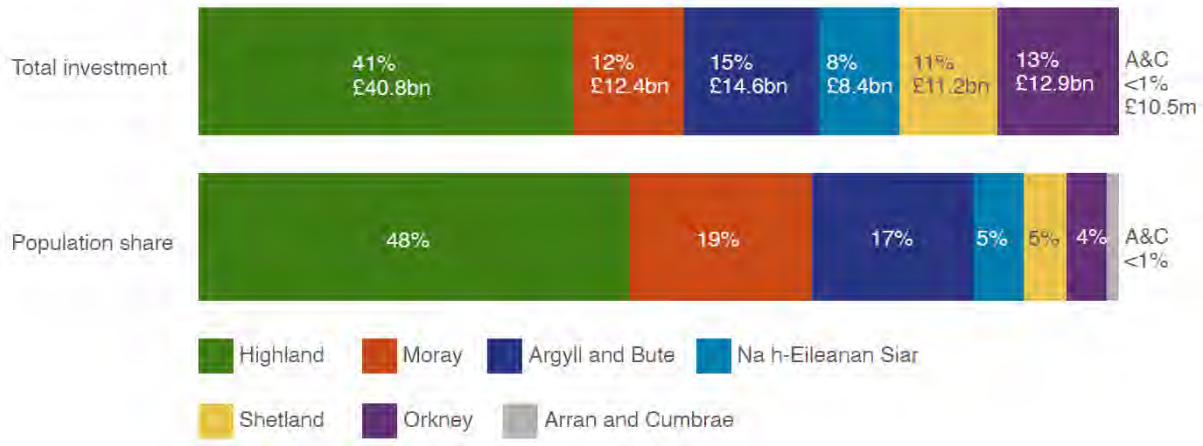
It is important to note that it is not suggested that these sectors cannot see growth. Rather it is simply recognised that there are practical limitations in growth of existing key sectors. Growth would be highly desirable and possible in many but, in looking for a driver for significant additional long term sustainable prosperity, the above do not provide extensive scope.

3.2. Sectors with potential for significant growth

Highlands and Islands Enterprise (HIE) in partnership with the Highlands and Islands Regional Economic Partnership (HIREP) has undertaken research to better understand the breadth of economic opportunities across the Highlands and Islands, focusing on those with the greatest potential to bring transformational change to the region over the period 2025-2040[10]. The study was focused on 'Regional Transformational Opportunities' (RTO's) which will bring clear and substantial shifts and major cross-cutting impacts at scale, rather than more localised and incremental changes. It is recognised that there is also potential in the more traditional sectors of tourism, heritage, culture, food and drink and the primary industries, but these sat outside the parameters of the study. The report is intended to express the scale of opportunity, and as such, is not a forensic account of every potential investment across the region. It is appreciated that data is changing frequently and so the report can only be indicative. Notwithstanding the above limitations, the report provides a very useful analysis of the scale of opportunity available.

Outputs show a potential investment pipeline of over £100 million for the region, and the scale of opportunity for Orkney is particularly high at 13% of the total for the region, compared to 4% population share, as set out in Figure 7.

Figure 7 Economic Potential by Local Authority (HIE, 2025)



Overall, the opportunity presented for the region is shown to be greater than that seen in previous waves of significant investment in the region related to hydro-electric between 1943 and 1965, and oil and gas between 1965 and 1980.

10 HIE (2025), Regional Transformational Opportunities in the Highlands and Islands report, May 2025.

The report notes a clear clustering of potential investment activity which for Orkney is around marine energy (wave and tidal stream) and offshore wind. It identifies 28 projects currently proposed in Orkney over the period 2025-2040 and offers the analysis set out in Table 2.

Table 2 Regional Transformational Opportunity analysis outputs for Orkney (HIE, 2025)

Scenario	Investment	GVA	Job years (development, construction, installation)	Operational jobs
Unadjusted	£12.89bn	£11.08bn	11,960	830
Adjusted	£9.45bn	£8.1bn	8,550	560

The unadjusted analysis assumes all projects identified in Orkney go ahead, and the adjusted figure makes allowance for project attrition. Jobs over the 15-year development, construction and installation period will not be evenly distributed, but would equate to an average of 530 jobs in the adjusted scenario, this, added to the operational jobs, shows that the proposed investments could yield over 1,000 direct jobs. The analysis doesn't take account of additional jobs in the economy, which would be expected in the local supply chain and support services.

The report notes key enablers will be in the areas of housing, skills development, service provision, transport infrastructure, grid connection, ports, planning process, and digital connectivity.

3.3. Summary

The analysis undertaken shows that Orkney's traditional sectors do not offer the growth required to address our challenges, and supports the assertion that offshore energy development (including offshore wind and marine energy) is the right focus for targeting growth for Orkney at a level which could have a meaningful impact on our economic and demographic challenges and help drive long term prosperity for Orkney.

4. Offshore energy development – market analysis

With marine energy and offshore wind activity identified as a 'Regional Transformational Opportunities' for Orkney, an overview of the market potential is set out in this section to better understand the areas of opportunity.

4.1. Offshore energy market context

Marine Energy

Orkney is home to some of the best wave and tidal energy resources in the world, part of the reason that the European Marine Energy Centre (EMEC) was established here in 2003.

The potential for further commercial rollout of wave and tidal stream technologies in Orkney is significant. A recent study estimates there could be a potential combined market for almost 9 GW of tidal stream and wave energy in Scotland by 2050, concentrated around Orkney, generating over £8 billion GVA[11]. The report highlights the need for innovation, skills development, collaboration and infrastructure updated (grid and ports) to make this happen. The relative impact on GVA from wave and tidal energy at a local level is also notable, with an independent study highlighting that GVA per MW from wave and tidal is more than three times higher than for onshore wind[12].

The world's largest tidal stream turbine developed by Orbital Marine Power (an Orcadian company) is currently deployed at the EMEC site producing up to 7% or Orkney's energy needs. EMEC is working with government to expand its tidal test site from 10 MW to 50 MW with 24.9 MW having already secured revenue support from the UK Government. Beyond this developers are exploring larger projects in local waters with Orbital recently scoping for a 170 MW project in the Westray Firth.

Test and demonstration of wave energy projects continue at EMEC's wave test site at Billia Croo, with the potential to increase the capacity of the site in the 2030's.

Offshore wind

Scotland is currently home to around 4 GW of operational offshore wind projects, with 11 GW due to be installed by 2030 and a total pipeline of 45 GW (Figure 8), comprising 21 GW fixed, and 25 GW floating[13]. The UK market is estimated at 82 GW by 2035, and 115 GW by 2050, whilst globally predictions are for 2,000 GW by 2050[14]. Fixed bottom offshore wind turbines have been installed at significant scale already (19 GW in the UK) and can be considered fully developed technology with low risk.

11 Edinburgh University (2025), Future Economic Potential of Tidal Stream and Wave Energy in Scotland, Edinburgh University Policy and Innovation Group, 2025

12 GHD (2021), A Transmission Link for Orkney: an impact analysis on the Orkney Economy, May 2021.

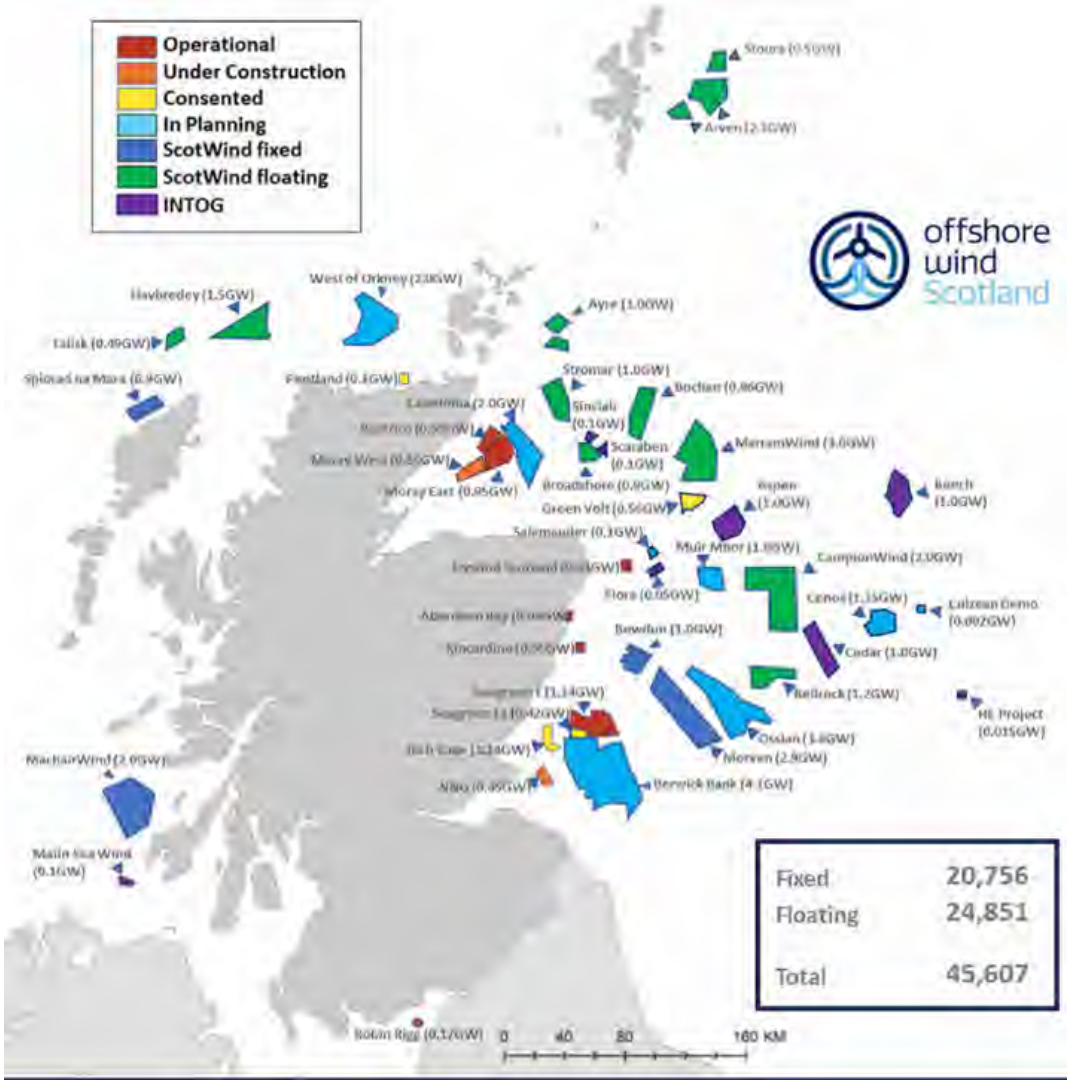
13 SOWEC (2025), Scotland's offshore wind industry: Progress and potential, Scottish Offshore Wind Energy Council, 2025.

14 Renewable UK (2024), 2024 Offshore Wind Industrial Growth Plan: Expanding the Horizon of the UK's Offshore Wind Supply Chain, 2024.

Floating turbines have been tested and installed in small arrays, but the market is largely accepted to be likely to follow behind fixed projects. For floating projects, technology risk is relatively low, as they represent an iteration of fixed turbine design, and technology regarding floating structures is well understood from other sectors. The challenge around floating technology development is therefore mostly related to cost reduction. Fixed projects are generally considered to be viable in water depths of less than around 60m, with floating projects targeting depths of more than 60m.

With more than a billion pounds of supply chain spend for every GW of offshore wind installed, the scale of opportunity is large. Indeed, it is estimated that around 30,000 new jobs will be added to the sector in Scotland between now and 2030[15]. Orkney is geographically well positioned around much of this development, and the safe deep waters of Scapa Flow offer a unique selling point which could drive activity towards Orkney.

Figure 8 Offshore wind projects in Scotland[16]



15 Skills Development Scotland (2025), Career opportunities in Scotland across offshore wind

16 HIE (2025), Figure produced by Highlands and Islands Enterprise for Offshore Wind Scotland. Used with permission.

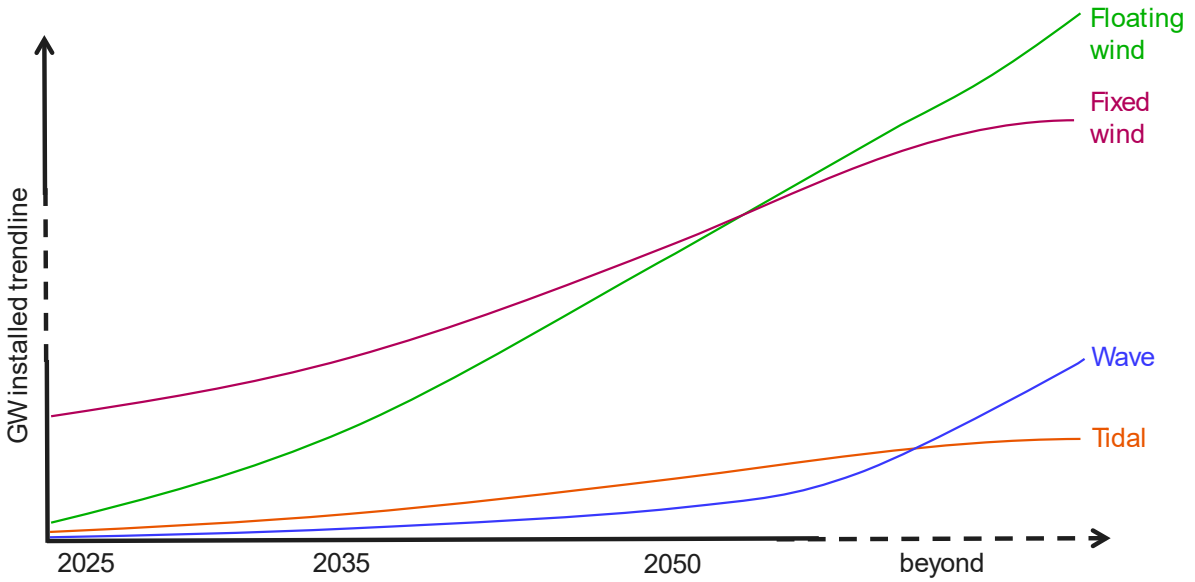
Development opportunities

Whilst there are clear overlaps in the opportunity presented by wave, tidal stream and offshore wind developments, it is also important to reflect on the differences and how that impacts on the opportunity as set out in Table 3 and Figure 9.

Table 3 Differences in wave, tidal and offshore wind opportunity in Scottish Waters

	Wave	Tidal Stream	Offshore wind fixed	Offshore wind floating
Scale of opportunity	Single unit tests to 2030. 4-5GW by 2050	Less than 100 MW by 2030 4-5GW by 2050	11GW by 2030 (mostly fixed) c. 50GW by 2050 (mostly floating)	
Technology readiness	Early	Approaching commercial with significant revenue support	Fully commercial and optimised	Advanced, with some development on floating structures
Location of resource	All west coast of UK, but greater in the north	Very specific channels, mostly concentrated around Orkney	All around UK, in water depths of less than c. 60m	All around UK in water depths of over c. 60m

Figure 9 Differences in wave, tidal and offshore wind opportunity



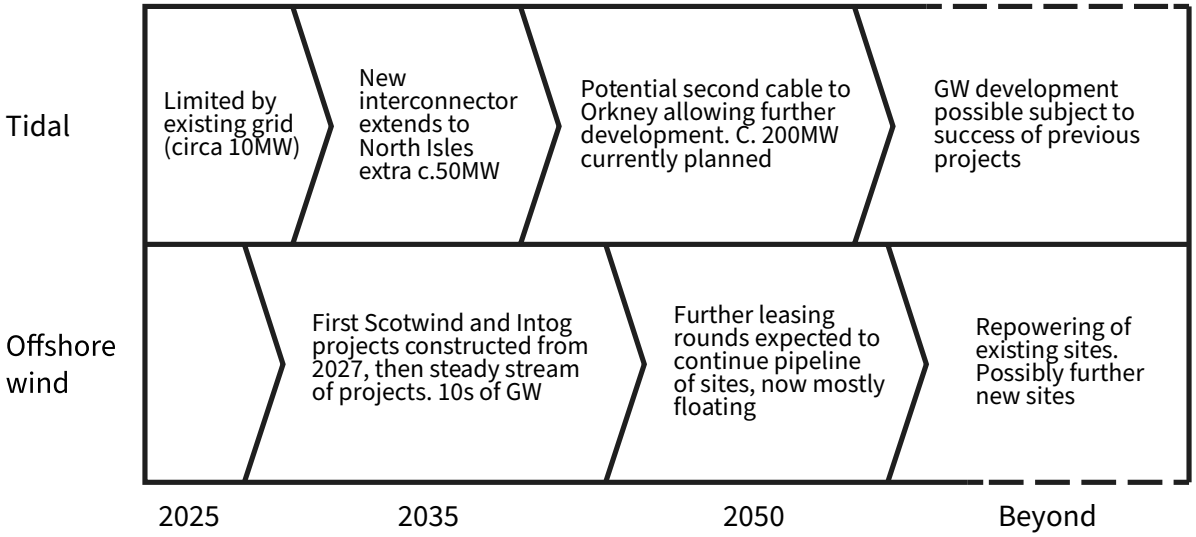
All sectors could be developed at GW scale in future. Comparing wave and tidal, tidal is at a more advanced stage of development, with a viable medium-term pathway to significant levels of installation, although long term the overall market size is constrained by limitations in the number of channels of water with suitable conditions (generally considered to be streams with at least 2.5m/s peak flows. For wave the overall market potential is greater than for tidal due to widespread access to good wave conditions on exposed westerly coastlines, but technology development is at an early stage, with no clear timeframe for installation at scale.

For offshore wind the overall market is much greater than for wave and tidal. Fixed offshore wind is already installed at GW level in Scotland, and will continue to ramp up steadily. Long term there is expected to be a plateau as suitable shallow sites (below around 60m water depth) become utilised. Floating offshore wind installation is some way behind fixed offshore wind, but the overall sea area available for floating is much greater, meaning that long-term it has ability to grow beyond fixed installs. Critical to note is that the resource for tidal is highly concentrated in and around Orkney, so if tidal developments are to take place, they must happen near Orkney. Offshore wind on the other hand is a much bigger opportunity in terms of pipeline, but relatively few projects have consent, and there is a degree of uncertainty around which projects will go ahead and where, as well as choice as to onshore base location etc. Waters around Orkney that are suitable for offshore wind development are generally over 60m in depth, so most potential will come from floating wind. The notable exception to this is the West of Orkney Wind project, which is a fixed offshore wind farm under development, located on a relatively shallow bank.

In terms of timescales for development of projects in proximity to Orkney there is a degree of uncertainty, with grid connection dates provided by the network operator being the key driver for installation dates, and significant proposals around electricity market reform currently under consideration by the regulator. It is however clear that the network operator will be unable to connect all projects in a short space of time due to the level of new infrastructure required, and so there is likely to be a natural smoothing of project development timelines based on available grid connection dates. Construction periods will work backwards form grid connection dates, probably over two or more years. West of Orkney Wind is generally considered to be the most advanced Scotwind project, and it is currently hoping to receive consent in 2025, begin offshore construction in 2027, and generate first power in 2029. It is expected that other offshore wind projects will follow thereafter.

The situation with tidal development is closely tied to available grid in Orkney (particularly the onward delivery of a Transmission connection to Eday), although as proposed projects get larger, they may be able to justify project specific grid connections. The general timeline of tidal and offshore wind developments in proximity to Orkney are set out in Figure 10 below, recognising of course that there is a degree of uncertainty.

Figure 10 Tidal energy and offshore wind in proximity to Orkney - build out timescales



4.2. Community benefits

As well as providing economic opportunity to local enterprises, offshore energy development could also contribute to Orkney through other mechanisms.

It has become standard practice for developers of renewable energy projects to voluntarily commit to making funds available to local communities. This presents an opportunity for Orkney to benefit from Community Benefit Payments. The Scottish Government is currently considering consultation responses on 'Best Practice Guidelines for Community Benefits from Net Zero Energy Developments', with guidelines expected to be produced by the end of 2025. It is hoped that these guidelines will set a clear methodology for determining 'community' from offshore projects, and a clear expectation in terms of quantum of payment to be made available from each development linked to the scale of the development. In the absence of clarity from Scottish Government Guidelines, the Council has an established policy on Community Benefit from Offshore Energy Developments[17] which sets out that it will seek to maximise community benefits from new offshore renewable energy generation developments, and to help direct these benefits fairly and equitably into supporting the communities of Orkney. Community benefit funds are also expected to be made available from electricity network operators linked to grid infrastructure developments.

Orkney should also benefit from an increase in Crown Estate Scotland Net Revenue Payments to Local Authorities related to revenue generated from Scottish Crown Estate marine assets out to 12 nautical miles. Crown Estate Scotland income is passed to Scottish Government who, since 2019, have committed to passing these funds back to coastal communities via Local Authorities. The agreement should include income related to offshore energy developments within 12 nautical miles of shore, which could lead to a significant increase in these funds. Scottish Government has however taken the stance, since announcement of Scotwind Leases, that contrary to its previous commitment, it will retain new income related to offshore wind. This is an issue of contention going forward.

17 Policy and Resources Committee, 23 November 2021, Community Benefit from Offshore Renewable Developments

4.3. Market needs

Existing fixed and floating offshore wind sector developments have utilised the current available port infrastructure in the UK, but it is recognised that the required port infrastructure to unlock the future industrialised scale of floating offshore wind does not yet exist. Renewable UK has produced a report detailing the expected requirements for port infrastructure to cover all stages of floating offshore wind[18]. Within the detail in this report there is a wealth of knowledge of what ports could look like to support the full range of offshore wind requirements. It has highlighted the need for two to five integration ports in Scottish Waters, those being facilities in the vicinity of the wind farm used to install the wind turbine on the substructure prior to deployment offshore. The report found that, at present, there are no port facilities in the UK which fulfil integration port requirements.

The pathway to a final developed offshore wind project can be broken down into the following value chain:

Planning and development	• 3-5 years • Includes reaching financial close
Manufacturing and fabrication	• 1-3 years • Across multiple locations
Installation and commissioning	• 1-2 years • Includes assembly, transport, integration
Operations and maintenance	• 20-30 years • Includes monitoring, transport, integration
Decomissioning or repowering	• 2-4 years • Site restoration and disposal of equipment

18 Renewable UK (2023), Floating Offshore Wind Taskforce: Industry Roadmap 2040, Building UK Port infrastructure to unlock the floating wind opportunity, March 2023

Port infrastructure and supply chain support will be required throughout all these stages and a multi-port solution will be needed as close as possible to development sites to facilitate the production value chain.

It is unlikely that Orkney will be seen as a suitable location for large scale manufacturing and fabrication of equipment, however it could play a role in the assembly, integration, storage and deployment of offshore wind structures. These activities will require large laydown areas with deep water quay access, storage areas (both marine and terrestrial) for items such as mooring and piles, large areas of sheltered water for wet storage of devices delivered direct from manufacture ready for assembly and integration, and dedicated operations and maintenance berths.

For wave and tidal developments the stages of development are the same, albeit on a smaller scale, and there is still a requirement for specialist port infrastructure that will allow deployment, maintenance and storage of equipment coming to and from site. For these technologies, whilst it is possible that some limited manufacturing activity could be undertaken locally the main activity will be around installation and operation.

4.4. Overall findings

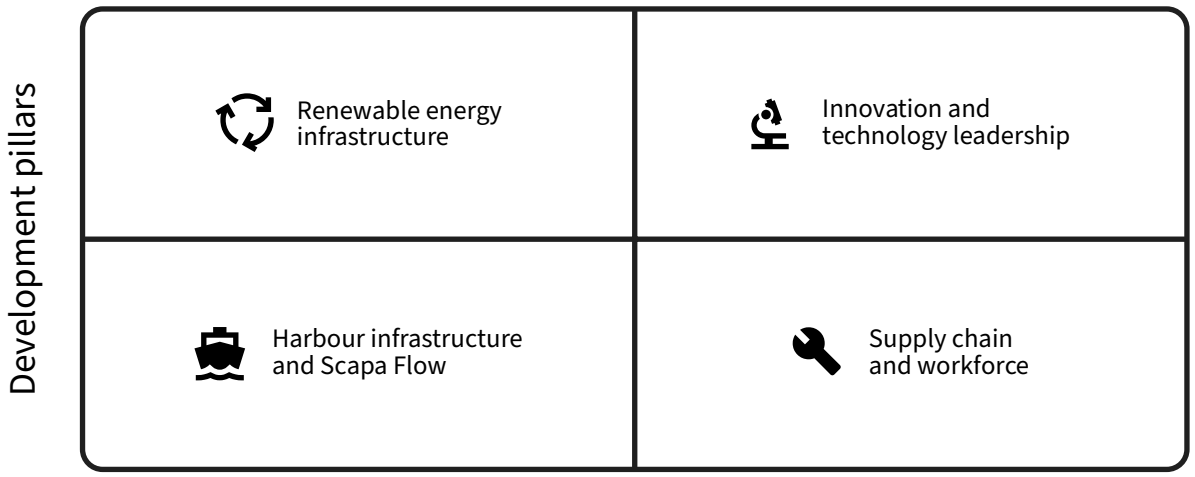
Considering market context, projects in development, industry needs, and industry contacts with OIC to date:

It is clear that in general the main near-term to medium-term opportunities for Orkney are in tidal energy, more so than wave, and with the exception of the West of Orkney wind farm development, largely in floating rather than fixed offshore wind.

In addition, Orkney is unlikely to feature significant levels of manufacturing, but is expected to be able to play a significant role in construction, and operations and maintenance activity. The local supply chain is also well positioned to pick up work in development activities.

5. Offshore Energy Development pillars for Orkney

In identifying offshore energy development as a key area for potential growth, and understanding the scale of opportunity, it is important to consider what assets Orkney can utilise, build on, and develop to take hold of the opportunity presented. These assets have been summarised under four pillars;



Each of these pillars is considered in turn by looking at the existing situation, and at development opportunities.

5.1. Renewable energy infrastructure

Existing

Orkney has since 2013 been a net exporter of renewable electricity, producing more than it needs locally from a combination of wind, solar, and tidal generation of around 80 MW installed capacity with a 50 MW link to mainland Scotland. The installation of renewable generation technology has been a driver for growth, however the grid has been operating at full capacity since 2012 when the grid operator announced a ban on new grid connections, effectively pausing further expansion of the sector. The approval of a new 220 MW interconnector for Orkney in 2022, currently under construction and due for completion in 2028, will open up further growth, but it is known that there are already more projects looking for a connection than will be able to fit on the new cable.

The European Marine Energy Centre (EMEC) testing facilities for wave and tidal energy devices are also key pieces of infrastructure in Orkney with capacity to test multiple grid connected devices simultaneously on both sites. To date Orkney has hosted testing of 34 devices from 23 developers of wave and tidal stream energy devices at EMEC.

Development opportunity

For onshore wind there is a limit to the number of realistic sites of sufficient scale and in proximity to a cost-effective grid connection in Orkney to be viable. Thus whilst growth in onshore renewables is expected over the coming decade, it will be limited by availability of suitable sites. The technologies which offer most potential for growth are therefore in our seas; offshore wind, wave and tidal.

EMEC is currently in the process of seeking to expand the capacity on its tidal energy test site at the Falls of Warness to allow for installation of up to 50MW. Technology developers are lined up to utilise the facility, having secured a generous level of revenue support through the Contracts for Difference mechanism and with the backing of around £70 million of Horizon Europe funding. The key dependency is ability to secure a cost-effective connection to the new interconnector, which will require a further Grid Supply Point proposed for Eday to go ahead. SSEN is understood to be currently seeking approvals to proceed with the link. This is considered likely to require progression of a wind energy project in the North Isles, alongside the EMEC expansion, to justify the link.

Further to this, Orbital Marine Power has submitted a request for scoping opinion for a 170 MW project in the Westray Firth. Whilst in the early stages of the planning process, to be successfully developed, this project is highly likely to require a further grid connection for Orkney beyond the interconnector currently under construction. The decision makers with regard to grid connection will be SSEN as system operator and Ofgem as regulator.

The newly established National Energy System Operator (NESO) also has a role to play as it has been given responsibility by government to develop Regional Energy Strategic Plans (RESPs) which will "help ensure that local areas get the energy infrastructure they need to meet local net zero and growth ambitions". If RESPs are to be used to drive decision making in grid infrastructure investments, it will be important to ensure that Orkney's unique potential is reflected in the plans.

The default option for generation of most offshore wind will be to export directly to the UK mainland transmission network. It is conceivable that a 'private wire' from offshore wind projects could transmit significant volumes of electricity to Orkney, provided a suitable 'use' could be found locally, such as in powering energy intensive industries like data centres, or in producing low carbon fuels.

Of note is the potential for significant production of green hydrogen through electrolysis of renewable energy. Repsol proposed such a project at the Flotta Oil Terminal in 2021, looking to divert GW scale offshore wind into Flotta to produce large volumes of green hydrogen. This presents a strong opportunity to transition industrial activity on Flotta away from oil and gas, and towards low carbon fuels. Having undertaken feasibility work on the project, and in a challenging operating environment, it is understood that progression of these proposals was paused in 2024, largely due to uncertainty over offtake for hydrogen produced. Separate to this Hammers Hill Energy has also proposed production of hydrogen derivative fuels from new wind generation in Evie.

Whilst there is clear interest in further developing hydrogen infrastructure, the shape that this will take in future is hard to predict at present. Large scale hydrogen, or hydrogen derivative fuel, production is therefore viewed as having significant potential, but as a longer-term opportunity. The Flotta Oil Terminal remains a strong candidate for contributing towards a Just Transition by moving away from carbon intensive industry, towards production of low carbon fuels.

5.2. Harbour infrastructure and Scapa Flow

Existing

The Orkney County Council Act of 1974 authorised the Council to exercise jurisdiction as a statutory Harbour Authority and defined the areas in which the new authority was empowered. These were Scapa Flow and its approaches, Wide Firth and Shapinsay Sound to include Stromness, Kirkwall and the Flotta Oil Terminal. The Harbour Authority became responsible for safe operation of 29 piers and harbours in Orkney and, in order to provide support services for the new terminal, developed a towage fleet, VTS vessel monitoring, pilotage, counter pollution procedures, and an in-house marine environmental unit.

Since the busy heyday of the terminal at Flotta there has been a steady decline in the number of vessels calling and a decline in the income generated for the OIC reserves. The nearly 50-year-old facility is now taking on average one vessel per month and this decline puts pressure on the Harbour Authority to find other business to justify upkeep and to fund investment in wider harbour infrastructure.

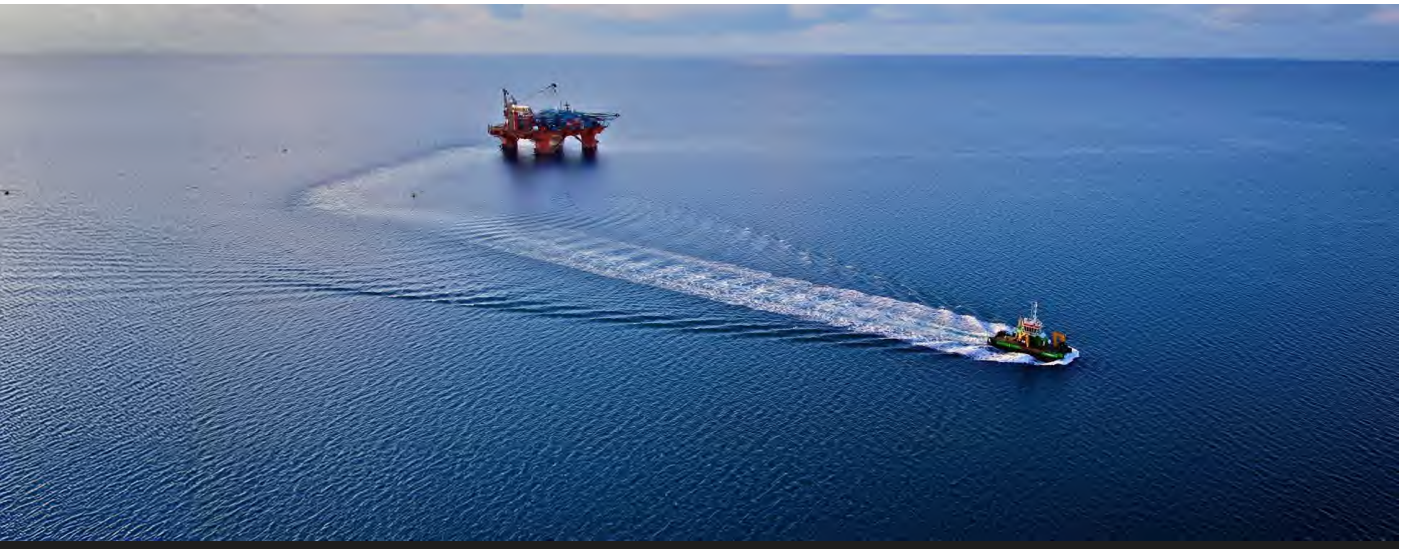
The marine assets owned and operated by the Council are substantial and the recent investment in a fleet of three new 78 tonne bollard pull tugs is a statement that the Council sees activity in Scapa Flow as an integral part of the marine sector and driver for income generation for the future. There is an important requirement to offset the declining income from Flotta with alternative activity, to ensure that there is not a subsidising of the assets and to provide continued income to maintain harbour infrastructure and provide income to the Council general fund.

In terms of harbour facilities, between 2011 and 2014 Council secured £22 million of investment in upgrading Lyness and Hatston and developing Copland's Dock as part of its 'three ports strategy', the business cases for which were strongly influenced by the scale of opportunity in the marine renewable energy sector.

Outside of the pier infrastructure, Scapa Flow is a nationally significant strategic asset, as demonstrated by its role in the world wars, and provides the deep, sheltered waters that have proven to be desirable for activity related to ship-to-ship transfers, and for the wet storage of offshore structures such as oil rigs and FPSO's.

Development opportunity

In 2020 Council adopted a Harbours Masterplan Phase 1 with the fundamental purpose to provide a structured framework for the physical development and transformation of Orkney's harbours over a 20-year period.



The Harbours Masterplan has been developed to enable the Harbour Authority to make informed decisions to meet changing markets, grow new markets, and safeguard Orkney's harbours as essential economic drivers and community assets for future generations. It identifies drivers that make a case for change:

- Cessation of activity at the Flotta Oil Terminal leading to a significant drop in Harbour income
- Lack of appropriate infrastructure constraining current operational and economic activity
- The need to invest in harbour infrastructure to attract substantial new business opportunity

It also recognises the need to deliver against commercial, financial, socio-economic and environmental considerations and proposes development at six harbour locations;

- New development of a deep water quay in Scapa Flow.
- Major extension of the Hatston Pier site.
- Expansion of Kirkwall Harbour and redevelopment of waterfront.
- Expansion of Copland's Dock in Stromness.
- Expansion of Scapa Pier.
- Extension of hard standing and storage at Lyness

Further to adoption of the Harbour Masterplan, initial investigations have shown that environmental restrictions at Scapa Pier mean that it is unlikely to be able to be expanded. Further development at Lyness was initially not progressed due to an issue with oil contamination but the decision to remediate this, and conclusion of that project, has brought forward the possibility of upgrading the land at Lyness.

Significant development work has however progressed with regard to Scapa Deep Water Quay (SDWQ), and expansion of Hatston. These projects are both recognised as 'National Developments' in the Scottish Government's national spatial strategy (National Planning Framework 4). Design and environmental work has been undertaken and consents are being sought for both projects. In addition a pre-construction services agreement has been entered into with a preferred bidder for construction of SDWQ.

Separate to the above there have been proposals for alternative harbour developments in Scapa flow, both traditional and floating. Repsol Resources UK, operators of the Flotta Oil Terminal, submitted a request for scoping opinion for an ultra deep water quay (UDWQ) on Flotta in February 2024, although it is understood that the project is not being actively pursued further at present. In addition locally based companies Aquatera and Orcades Marine have been developing a Scapa Flow Mega-hub proposal targeted at the offshore wind market.

In April 2024, the Strategic Investment Model (SIM) Working Group, comprised of offshore wind developers, the Scottish Government, enterprise agencies and Crown Estate Scotland assessed 45 proposals for offshore wind infrastructure investment. It selected 10 'priority' projects of high relevance and interest to developers, and 19 'progress' projects of good or medium interest and relevance to developers. SDWQ was identified as 'Priority', with Flotta UDWQ and Scapa Flow Mega-hub identified as 'Progress'. The SIM process has facilitated opportunities for all proposals involved to pitch to developers and investors.

The prevalence of project proposals in Scapa Flow speaks to the clear strategic value in Scapa Flow as a large body of safe and deep sheltered water in proximity to offshore wind developments. Particular interest has been shown by offshore wind developers, and the wider industry, in the role that Scapa Flow could have as a strategically advantageous location for final assembly of turbines, storage of components on-shore, and wet storage of foundations and assembled turbines. Work to define what form a wet storage area for offshore wind in Scapa Flow should take is being actively developed under three strands: regulatory, environmental and engineering. Council is also involved in working with government departments to standardise how wet storage locations will be licensed and consented through SOWEC, Scottish renewables and the Scottish Offshore Wind Ports Association.

The Scapa Deep Water Quay is being progressed as a renewables hub to support offshore wind farm developments in Scotland. It has been designed recognising the needs of developers and features:

- A cut-and-fill design
- 600m quayside
- 15-20m water depth at quayside
- 20 hectares of laydown area
- Heavy loading capacity (25t/m2)

A decision on consents for the project is expected in late 2025 with a build cost expected to be around £250 million. In order to develop a viable business case for consideration by Council it is considered necessary to attract significant government financial support, and third party investors, into the project. The project has already attracted £5 million of support form the Scottish Government via HIE towards pre-construction service agreement works, and has been placed on the funding reserve list for the UK Government Floating Offshore Wind Manufacturing Investment Scheme (FLOWMIS).

An independent report on SDWQ proposals found that the project, if developed, would meet developer needs, attract around 200 long term jobs in the operational phase, and would drive activity of the right order of magnitude for sustainable influx of working age people to help offset the effects of an aging population and support higher level of service provision across the islands[19].

19 Hall Aitken (2024), Scapa Deep Water Quay: Business case review summary

5.3. Innovation and technology leadership

Existing

Orkney has a long history of research and innovation, particularly in the energy and marine sectors. Selected significant milestones include:

- Hosting the first grid connected wind turbine in the UK in the 1950s
- Hosting the largest wind turbine in the world at Burger Hill in the 1980's
- Establishment of Heriot watt University campus in Stromness in 1989
- Establishment of EMEC in 2003 and subsequent testing of wave and tidal devices
- Becoming a hub for community owned renewable generation through the 2000s
- Participation in numerous EU and government backed hydrogen and smart energy projects such as BIGHIT, ReFlex, ICNZ, SATE etc.
- Establishing the Orkney Research and Innovation Campus (ORIC) in 2018.
- The Council becoming an onshore wind farm developer to successfully secure approval for a new interconnector for Orkney in 2022.

The development of EMEC – the world's first and leading test centre for marine energy – has had a significant impact in Orkney as well as across the UK economy in terms of employment, supply chain development and encouraging public and private investment to service the sector.

Economic analysis undertaken in 2023, celebrating 20 years of EMEC, showed that EMEC had to that point generated over £130 million GVA for Orkney, supporting an average of 112 FTE jobs.

To date £42 million has been invested in the centre by public sector organisations including Orkney Islands Council (c. £1 million), Highlands and Islands Enterprise, and the Scottish and UK Governments. Thus over £8 has been accrued for every £1 spent by the public purse. The centre has been self-sufficient since 2011.

Over time EMEC's activities have expanded form wave and tidal testing, to hydrogen, local energy systems, and alternative fuels, stimulating over £500 million investment in R&D projects. EMEC's international reputation continues to attract political and business interest in Orkney.

Liked to the above activity, over several decades Orkney has hosted countless visitors and delegations from across the globe, interested in hearing about the developments and activities taking place in the energy sector in Orkney, and local stakeholders have also promoted Orkney globally, taking on opportunities that have arisen to apply knowledge and experienced gained in Orkney across the world. Orkney now enjoys a strong reputation and recognition as a good place to collaborate and to test innovative ideas. A key driver and influencer for much of the above has been EMEC.

Development opportunity

Whilst it has taken decades to build up local expertise and a global reputation for excellence in innovation in the renewables and marine sectors in Orkney, the space is fast moving and maintaining this expertise and reputation will require investment in infrastructure, hosting of new innovative projects, and proactive business development.

Energy innovation development in the Islands, including for renewable energy generation, renewable hydrogen production, infrastructure and shipping, and associated opportunities in the supply chain are recognised as 'National Developments' in the Scottish Government's national special strategy (National Planning Framework 4), highlighting the potential role that Orkney could have.

Orkney's natural resources, supply chain and reputation as a good place to test technologies also lends itself to diversification into other related sectors, such as subsea robotics, component testing, and innovative operational mechanisms including artificial intelligence and use of 'digital twins'. Local organisations are actively investigating such opportunities and recently launched an International Blue Economy Robotarium in the islands.

EMEC also has plans to create a new 60-120 MW Floating Offshore Wind Test Centre (Figure 11), with a site to the west of Orkney identified as the preferred area for development[20]. The business case produced for the project suggests it could deliver £690 million GVA to the UK. The UK Government, in its Offshore Wind Industrial Growth Plan 2024 identified EMEC and Orkney as a potential area for investment for enabling technology development[21].

20 EMEC (2023), White Paper: The need for a National Floating Wind Test Centre, November 2023.

21 Renewable UK (2024), 2024 Offshore Wind Industrial Growth Plan: Expanding the Horizon of the UK's Offshore Wind Supply Chain, 2024.

Figure 11 EMEC Floating Offshore Wind Test Centre visualisation[22]

The Council has actively participated as a project partner is a number of innovative energy projects in Orkney, with inclusion of local government partners often a prerequisite for funding bids to support such projects. Continuation of such activity presents a strong development opportunity.

Due to the breadth and depth of innovation activity taking place in Orkney, and high level of renewable generation, Orkney is an ideal location to be considered as a microcosm and model for the UK and world to learn from. Challenges and blockers identified in demonstrating technologies here today are providing learning for the rest of the world for tomorrow. Recognising this role, and reflecting on the challenges discovered here as projects have pushed the boundary of innovation, it has been proposed that Orkney should seek special recognition from Government as an 'innovation zone'. Council has promoted this concept to UK Government as it considered establishment of 'green freeports' and 'investment zones'. Continuing to promote such a concept as opportunities arise could lead to significant benefit as such a designation could create a preferential environment for further innovation activity in Orkney.

22 EMEC (2025). EMEC Floating Offshore Wind Test Site visualisation. Used with permission.

5.4. Supply chain and workforce

Existing

Interlinked with Orkney's long history of innovation and the gradual build-up of marine assets, Orkney has developed a vibrant and diverse supply chain with experience in the renewables sector across; consultancy, academia, facilities, transportation, logistics, agents, construction, engineering, fabrication, electrical, and vessel operations. Within these companies an estimated 300-400 FTE staff are employed in the renewables sector in Orkney.

An important hub of activity locally has been at the Orkney Research and Innovation Campus (ORIC) in Stromness. The campus, owned and operated by Highlands and Islands Enterprise, hosts a number of organisations active in the space, creating a cluster of expertise and activity.

Additionally, local companies have built up a fleet of assets, including various vessel types, engineering equipment, marine equipment, and subsea technologies, which over time has increased the scope of work which can be undertaken locally, but has also allowed locally based companies to win work throughout the UK and globally.

An example of this is local marine operations companies, where experience gained locally has led to work being won elsewhere, which has driven growth. Separately investment has also been seen in locally grown companies being taken over, and by companies expanding into Orkney.

A survey of 18 local companies in 2024, undertaken by X-Academy, highlighted the importance of renewables related business to the companies, making up more than half of revenue for more than half of the respondents. Analysis of the survey results identified four main challenges;

- Attracting new talent
- Retirement of experienced workforce
- Business understanding and readiness
- Housing availability

In addition, Orkney is notable in the prevalence of academic institutions, hosting three Universities in UHI Orkney, Herriot Watt University, and Robert Gordon University. UHI Orkney plays a key role in provision of skills development opportunities locally, not least with the Maritime Studies department who provide critical training and certification for local mariners. Herriot Watt, at its International Centre for Island technology, undertakes a range of marine research and runs postgraduate courses related to renewable energy and the marine environment, attracting students from across the globe. Graduates through these courses have been the mainstay of supplying new talent into local companies.

Development Opportunity

Local companies have already achieved growth through the renewable sector, and the increase in activity expected in coming years will offer significant opportunity to continue this. As has already been seen, this growth opportunity is also likely to attract new entrants, and changes in ownership of companies.

X-Academy analysis and survey results in 2024 (unpublished) identified renewables as the main driver for predicted growth businesses surveyed and estimated around 1000 FTE jobs in Orkney from proposed developments over the coming decade, with potential to add and hold 100s of jobs annually. This is supported by the more recent Regional Transformational Opportunity research undertaken by HIE.

A 2023 survey by Giraffe Consulting, commissioned by HIE and OIC, of 25 businesses in the renewables space in Orkney, identified that more than 70% of businesses expected substantial business growth in the next five years. It investigated the potential role that a supply chain trade body could have in helping to coordinate the sector. A recent Scotland-wide renewable energy supply chain survey showed that although pipeline uncertainty (which projects will be built and when) and regulatory uncertainty are viewed as key challenges, 64% of businesses are actively investing in skills, capabilities and facilities[23].

It is clear that greater information sharing, upskilling and coordination of the supply chain to help it to adapt and grow would be beneficial. HIE, learning from and building on activity it has undertaken in Shetland under the 'empowering Shetland' banner, is actively considering implementation a new programme of activity within Orkney which could include supply chain coordination and integration activity.

In terms of investment in skills and workforce development, UHI Orkney has potential and ambition to deliver more, but requires investment. This is challenging at a time when further education institutes across the country find themselves in a tough financial position. A good example is the Maritime Studies Department, who provide critical training and certification for local mariners. Currently there are limitations on what marine training courses can be undertaken locally, which means local mariners often have to travel to mainland Scotland to obtain the required certification. There is an opportunity to drive more of this activity locally but it requires investment in the equipment and facilities needed to run the courses.

Heriot Watt also has significant potential to grow student numbers in Orkney, noting that it has been facing challenges in providing funding support to attract Masters students. Given its demonstrable role in attracting young people to move to Orkney over many years, and thereafter find work in local companies, it could play a key role in supplying talent to local companies as they grow.

23 Scottish Renewables (2025), Scotland's Renewable Energy Industry: supply chain impact statement

Alongside the above, offshore wind developers have made commitments to invest in skills development as part of their bids to secure seabed leases, and in some cases are already supporting activity. The TalEntEd project, part of the Islands Growth deal, also has a focus on fast-tracking the decarbonisation of the islands through opportunities in education, skills and entrepreneurship, to support an increase of sustainable employment. Staff are being recruited locally under this project which should add resources to help drive forward the skills agenda. Plans to develop ORIC, also part of the Islands Growth Deal, creating significant new rentable office accommodation, could also be a key enabler for growth of local businesses and further development of a renewables 'cluster'.

6. Route map

Drawing on analysis in previous sections of this report it is clear that Orkney is facing significant challenges with regard to its demographics and economy, and offshore energy development has been shown to be the sector with most promise in driving change to address these issues. The relationship between these two elements has driven production of a vision statement for offshore energy development in Orkney:

Vision for Offshore Energy Development in Orkney

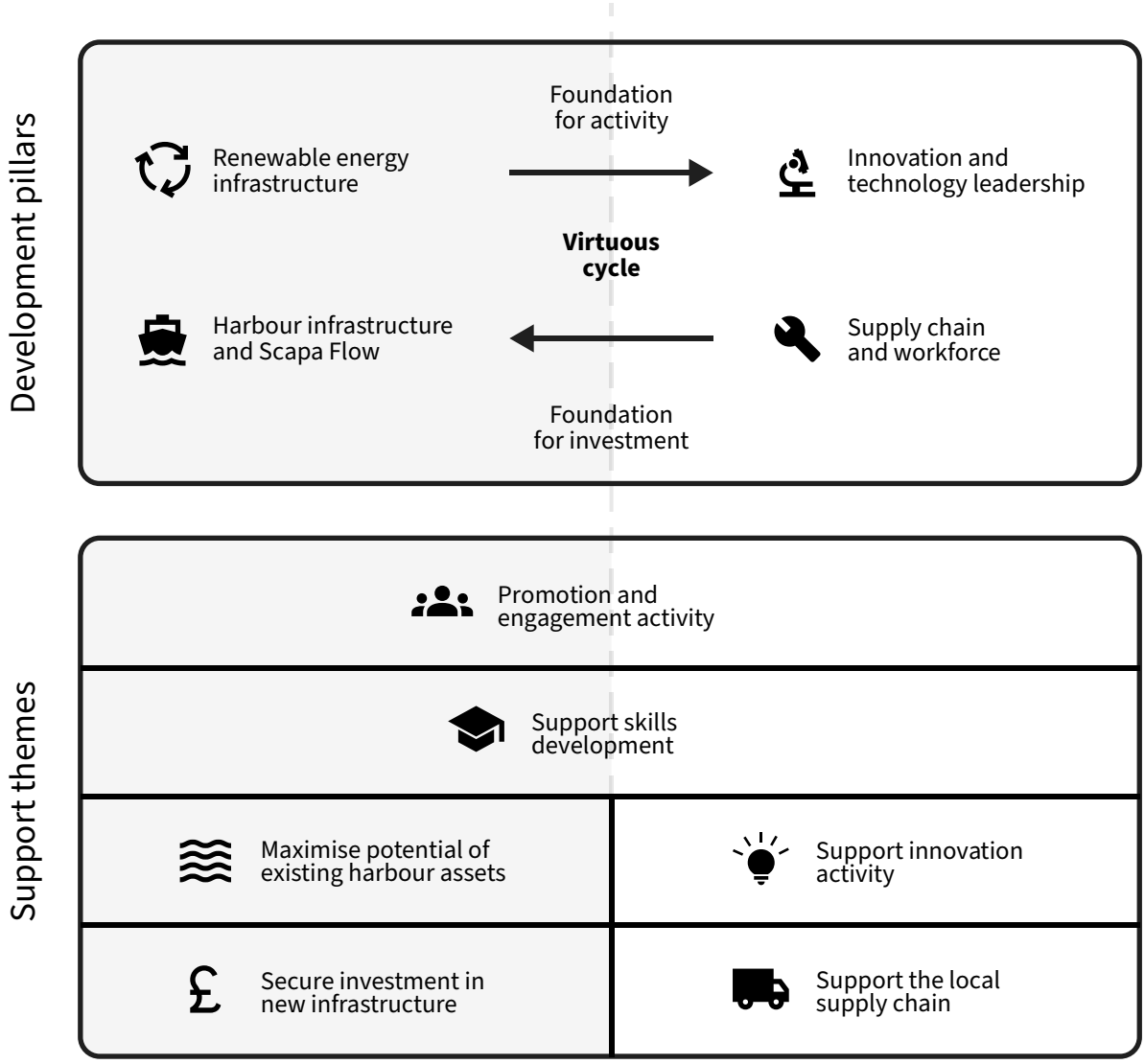
Offshore Energy Development is supporting a just transition for future generations, driving prosperity in Orkney, complementing our traditional sectors, creating a vibrant economy in harmony with our natural environment, and rebalancing our demographic challenges.

Analysis in section 5 identified four pillars of development and explored existing assets and development opportunities for each. Doing so as shown the interlinked nature of these pillars in supporting future offshore energy development activity. Developing our renewable energy infrastructure and harbour infrastructure, including Scapa Flow, provides the foundation for activity on which innovation and supply chain capacity are built. In turn, these pillars drive business activity providing the foundation for investment to support further infrastructure development.

The above is true both at an internal Council level, and a wider Orkney community perspective. For the Council there is clear benefit to attracting increased marine activity to Orkney to diversify harbour activity, offset a continued decline in oil and gas activity, and help maintain the critical mass of assets under OIC control, thereby supporting income generation to be used for the benefit of our communities, and supporting activity in the sector and driving opportunity for the local supply chain.

This creates two halves of a virtuous cycle which can act together to help address the demographic and economic challenges identified. Council can support each half in different ways, and undertake actions which support across all areas. Figure 12 sets out the interlinked nature of the pillars, and sets out support themes under which Council activity can be considered appropriate in supporting further development of the pillars.

Figure 12 - Development pillars and themes for action



The above support themes provide the basis for development of a framework for action for offshore energy development. In doing so it is important to reflect on the interconnection between this strategy, and other existing strategies, to identify synergies, but avoid overlap and duplication. Key areas of overlap include:

- Housing
- Workforce
- Transport
- Grid
- Social value
- The planning system
- Marine Planning

An inexhaustive list of relevant strategies related to the above statement is provided in Appendix 1.

In addition, it must be recognised that offshore energy developments are a nationally significant growth opportunity and that the Council is not resourced to deliver on the opportunity on its own. It will rely on and interact with a large number of national, regional and local partners. In determining its own areas of activity, Council should not unduly provide resource to areas which are the responsibility of government or other government agencies. It is critical to focus on items which the Council has a clear role, or in which there is an identifiable gap in delivery. An inexhaustive list of partner agencies, related to the above statement is provided in Appendix 1. Council must also be mindful of potential interactions with existing sectors of the economy, and the need to balance development opportunity, with the protection and enhancement of the environment.

7. Framework for action

A framework for action has been mapped against the support themes identified in Section 6, namely;

1. Maximise potential of existing harbour assets
2. Secure investment in new infrastructure
3. Support innovation activity
4. Support the local supply chain
5. Promotion and engagement activity
6. Support skills development

The framework is set out in Table 4.

Table 4 Framework for action

Ref.	Detail
1. Maximise utilisation of existing harbour assets	
1.1	Undertake an assessment of the potential future development of existing assets, harbours and vessels, and seek to submit applications for external funding towards harbour upgrades where appropriate.
1.2	Produce an updated Harbours business plan to inform decision making with regards to development of existing assets, in line with the Harbours Masterplan.
1.3	Consider resourcing within the business development team in Marine Services to support increased business development activity.
2. Secure investment in new infrastructure	
2.1	Consider strategic approach to attracting investment into harbour developments, including governance issues, in order to present viable business plans for consideration.
2.2	Work with partners such as HIE and ORIC to develop onshore facility infrastructure proposals for consideration.
2.3	Support HIE/HIREP in lobbying activity on Regional Transformational Opportunities and the requirement for a national response to address the challenges.
2.4	Work with governments and government backed funding initiatives to help pull investment towards Orkney.
2.5.	Continue to lobby for improved grid connection for Orkney and on energy policy of relevance to Orkney's interests, including working with the National Energy System Operator to ensure that its strategic plans reflect the scale of opportunity in Orkney.
3. Support innovation activity	
3.1	Support for proposals to expand on the range of testing infrastructure available in Orkney.
3.2	Support feasibility studies exploring innovation opportunities.

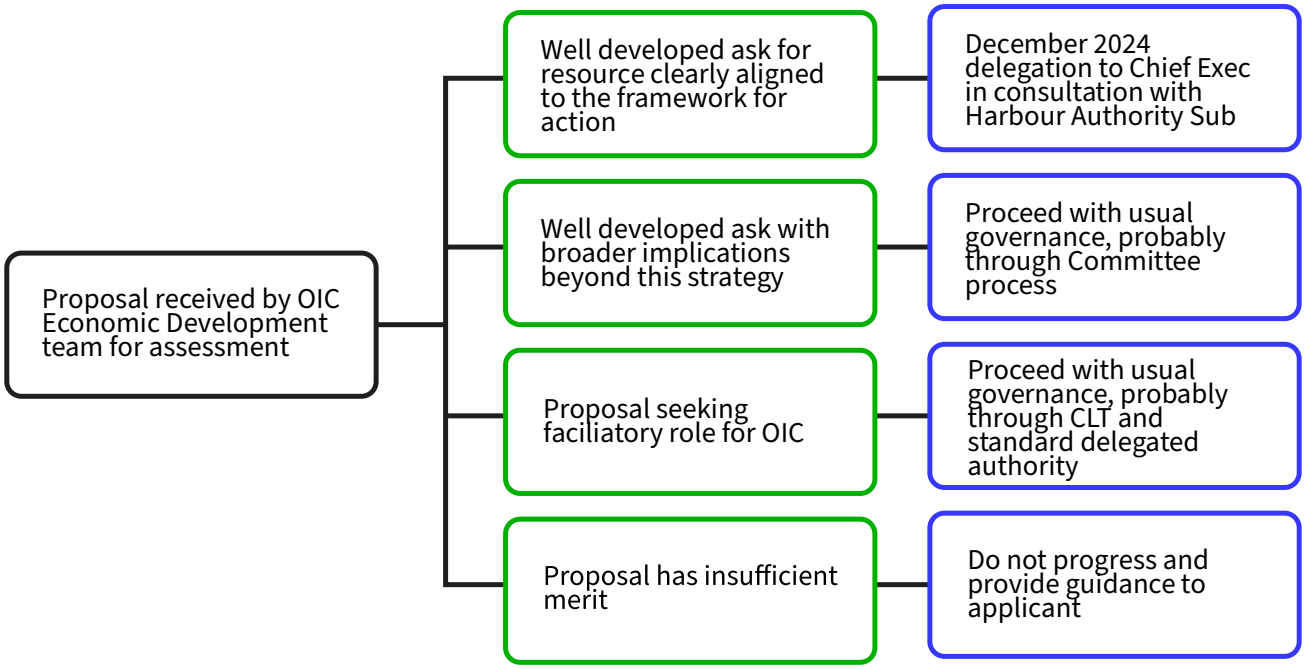
3.3	Consider participation in collaborative funding bids focussed on innovation in the offshore energy development sector.
3.4	Explore opportunities for green hydrogen, clean fuel production, and future maritime fuel use as they become apparent.
3.5	Support promotion of Orkney as an 'innovation zone' with special regulatory and financial incentives in place to drive activity.
4. Support the local supply chain	
4.1	Support HIE in its activity to facilitate coordination of offshore energy development activity locally.
4.2	Consider supplementing and adjusting OIC business development grants available to the local supply chain.
4.3	Continue to facilitate opportunities for local companies to meet with developers and contractors and to learn about the sector, including initiatives such as 'offshore wind business breakfasts'.
4.4	Support coordination of local businesses at industry events, with a coordinated 'Orkney' presence where possible.
4.5	Support establishment of a supply chain trade body in partnership with HIE.
5. Promotion and engagement activity	
5.1	Establish a formal internal information sharing protocol to ensure coordination of visiting developers, investors or persons of influence.
5.2	Support Elected Member participation in national conferences of relevance to the sector.
5.3	Continue to provide elected member seminars with visiting developers etc.
5.4	Consider supporting an Offshore Energy Development conference or event in Orkney to promote our assets.
5.5	Continue to lobby on areas of activity such as securing community benefit payments from developers, receiving full Crown Estate net revenue payments from Scottish Government, and other issues in Orkney's interests.
5.6	Consider support to enhance promotion of Orkney energy activity, opportunity, and reputation through social and other media.
6. Support skills development	
6.1	Support lobbying activity, project developer activity, and the Islands Growth Deal Projects, where they can increase investment in the local skills and education agenda.
6.2	Consider provision of financial assistance to support the sustainability of relevant locally run courses.
6.3	Consider support for capital investment in Orkney College, in partnership with other funders, particularly in provision of maritime studies, construction and engineering related courses.

8. Delivery

The Framework for Action set out in Section 7 is intended to direct and inform activities and interventions, but not to be overly specific or prescriptive. As such it is anticipated that proposals will be developed by Council departments and external parties which can be considered for support against the Framework for Action. It should be recognised that, whilst the Framework for Action has attempted to elicit the main areas in which action is likely to be appropriate, it is entirely possible that proposals could come forward which don't sit neatly within proposed actions, but which are nonetheless meaningful and worthy of further consideration for support.

Proposals will be triaged by the Council Economic Development team and taken forward through one of the four routes set out in Figure 13.

Figure 13 Offshore Energy Development Strategy proposal consideration routes



As can be seen actions and proposals with clear merit emanating from this strategy requiring a decision on funding will be considered by the Chief Executive in consultation with the Corporate Director for Enterprise and Resources and the Harbour Authority Sub Committee per December 2024 decision of the Council, whilst proposals with wider implications may require to be considered through the usual Committee process. Similarly, proposals supported but with minor implications may be able to be taken forward under standard delegation to officers.

It should be noted that, depending on the body making a request, subsidy control implications may influence the Council's ability to provide support. Budget utilisation will be reported as part of standard reporting of Marine Services budgets. The strategy will be reviewed on expiration of the agreed funding timescale of May 2027.

Appendix 1 – Existing strategies and delivery partners

Selected existing strategies and national and regional delivery partners of relevance to the Council Offshore Energy Development Strategy are set out in Tables 5 and 6 below.

Table 5 Selected existing Strategies of relevance

Strategy	Overview
OIC Council plan	Identifies 'Growing our Infrastructure', 'Strengthening our Communities', and 'Developing our infrastructure' as key aims. A target outcome is that vital projects identified within the Harbours Masterplan have been delivered.
OIC Harbours Masterplan, 2020	Identifies issues, constraints, drivers and opportunities, resulting in proposals to further develop harbour infrastructure. The document has been adopted as planning policy advice.
Orkney Local Development Plan	Sets out a vision and spatial strategy for the development of land in Orkney over the next ten to twenty years. The plan contains the land-use planning policies which Orkney Islands Council will use for determining applications.
Orkney Islands Regional Marine Plan	Contains policies to guide public authority decision making on sustainable development and activities within, or that affect, the Orkney Islands marine region. This plan is scheduled to be adopted in Winter 2025/26.
OIC Local Housing Strategy 2024-2029	A Housing Needs and Demand Assessment (HNDA) and draft Local Housing Strategy were developed through the Orkney Housing Market Partnership which encompasses a range of stakeholders. Following this the Orkney Local Housing Strategy was approved alongside a Delivery Action Plan in June 2024. The strategy identified housing demand over a 20-year period from three scenarios. The action plan includes more than 70 actions including annual development of a Strategic Housing Investment Plan (SHIP).
Orkney Community Plan for 2025 to 2030	Describes what the members of the Orkney Community Planning Partnership aim to achieve by working together
Orkney Sustainable Energy Strategy 2017-2025 and 2022 draft action plan	A community strategy and action plan which identified 52 actions. An Orkney Energy Strategy Stakeholder Group (OESSG) is established, along with an Energy and Enterprise Specialist Task Group, established to help prioritise the draft energy action plan.
Orkney Community Wealth Building action plan	In production and expected to be synergistic to the Offshore Energy Development Strategy
Orkney vision for a climate resilient and Net Zero future	A vision, principles and priorities for a climate resilient and NetZero future for Orkney.

Highlands and Islands Regional Economic Partnership Strategy, 2025-2030	Sets out a collaborative approach to delivering improved; • Profile and investment • Housing • Transport and digital connectivity • Innovation and entrepreneurship • Response to skills and labour requirements
The National Plan for Scotland's Islands	Provides a framework for action in order to meaningfully improve outcomes for island communities.
Scottish Government Sectoral Marine Plan for Offshore Wind Energy 2020	The plan identified options for the future development of commercial-scale offshore wind energy in Scotland which informed the Scotwind leasing process, and is due to be updated through 2025.
HIE strategy 2023-2028	Strategy for the Scottish Governments economic development agency for the Highlands and Islands.
National Strategy for Economic Transformation	Set's out priorities for Scotland's economy as well as the actions needed to maximise the opportunities of the next decade to achieve a wellbeing economy.
Skills Development Scotland Strategic Plan	National Skills Agency strategy
National Planning Framework 4	The National Planning Framework 4 is a long-term plan for Scotland that sets out where development and infrastructure is needed.
A Blue Economy Vision for Scotland	Sets out the long-term ambition for Scotland's blue economy to 2045.

Table 6 Selected national and regional delivery partners

Organisation	Role
Skills development Scotland	The national skills development agency for Scotland
Energy Skills Partnership	Energy Skills Partnership for Scottish colleges
Scottish Renewables	Membership body covering all renewable energy technologies
Scottish Offshore Wind Energy Council (SOWEC)	The body which guides offshore development in Scotland. Its mission is to coordinate and grow the sector.
Marine Energy Council	Represents the tidal stream and wave energy sector. Aim to enable investment for the UK to be a world-leader in harnessing the power of its ocean's tides and waves
Scottish Offshore Wind Ports Alliance	Forum of leading port associations targeting offshore wind. Orkney Harbour Authority is a member.
The Clean Energy Cluster	The national voice of Scotland's offshore wind supply chain launched in January 2025
Highlands and Islands Enterprise	The Scottish Government's Economic Development Agency for the region
Highlands and Islands regional Economic Partnership	A partnership of public, private and academic organisations in the Highlands and Islands
The Scottish Government	Has committed £500 million over 5 years to support offshore wind infrastructure
The UK Government	Has committed to support offshore wind infrastructure
GB Energy	May have a role in investing in marine renewables projects
UKRI	Funds research and development activity
Ofgem	The energy market regulator
National Energy System Operator (NESO)	Responsible for setting out future needs for energy infrastructure
SSEN	The electricity network operator for the north of Scotland
Low Carbon Contracts Company and UK Government Department for Energy Security and Net Zero	Operate and manage the Contracts for Difference revenue support mechanism for renewable energy technologies

ORKNEY
ISLANDS COUNCIL

Equality Impact Assessment

The purpose of an Equality Impact Assessment (EqIA) is to improve the work of Orkney Islands Council by making sure it promotes equality and does not discriminate. This assessment records the likely impact of any changes to a function, policy or plan by anticipating the consequences, and making sure that any negative impacts are eliminated or minimised and positive impacts are maximised.

1. Identification of Function, Policy or Plan	
Name of function / policy / plan to be assessed.	Orkney Islands Council Offshore Energy Development Strategy
Service / service area responsible.	ESR
Name of person carrying out the assessment and contact details.	Sweyn Johnston sweyn.johnston@orkney.gov.uk
Date of assessment.	13 May 2025
Is the function / policy / plan new or existing? (Please indicate also if the service is to be deleted, reduced or changed significantly).	New Strategy

2. Initial Screening	
What are the intended outcomes of the function / policy / plan?	To establish a framework for action from which to assess requests for support with regard to offshore energy development.
Is the function / policy / plan strategically important?	Yes. It sets out a major opportunity for Orkney and a route to assigning of resource.
State who is, or may be affected by this function / policy / plan, and how.	Council departments, businesses and organisations in Orkney with an interest in offshore energy development.
How have stakeholders been involved in the development of this function / policy / plan?	One to one meetings with stakeholders have been undertaken throughout development of the strategy.

Is there any existing data and / or research relating to equalities issues in this policy area? Please summarise. E.g. consultations, national surveys, performance data, complaints, service user feedback, academic / consultants' reports, benchmarking (see equalities resources on OIC information portal).	No.
Is there any existing evidence relating to socio-economic disadvantage and inequalities of outcome in this policy area? Please summarise. E.g. For people living in poverty or for people of low income. See The Fairer Scotland Duty Guidance for Public Bodies for further information.	No.
Could the function / policy have a differential impact on any of the following equality areas?	The strategy sets out the type of actions Council should consider to help take advantage of a significant economic opportunity. It is not expected to have a differential impact on the equality areas listed.
1. Race: this includes ethnic or national groups, colour and nationality.	
2. Sex: a man or a woman.	
3. Sexual Orientation: whether a person's sexual attraction is towards their own sex, the opposite sex or to both sexes.	
4. Gender Reassignment: the process of transitioning from one gender to another.	
5. Pregnancy and maternity.	
6. Age: people of different ages.	
7. Religion or beliefs or none (atheists).	
8. Caring responsibilities.	

9. Care experienced.	
10. Marriage and Civil Partnerships.	
11. Disability: people with disabilities (whether registered or not).	(Includes physical impairment, sensory impairment, cognitive impairment, mental health)
12. Socio-economic disadvantage.	

3. Impact Assessment	
Does the analysis above identify any differential impacts which need to be addressed?	No
How could you minimise or remove any potential negative impacts?	
Do you have enough information to make a judgement? If no, what information do you require?	Yes

4. Conclusions and Planned Action	
Is further work required?	No.
What action is to be taken?	
Who will undertake it?	
When will it be done?	
How will it be monitored? (e.g. through service plans).	

Signature: [redacted]

Date: 13 May 2025

Name: SWEYN JOHNSTON (BLOCK CAPITALS).

Please sign and date this form, keep one copy and send a copy to HR and Performance. A Word version should also be emailed to HR and Performance at hrsupport@orkney.gov.uk

Island Communities Impact Assessment

Orkney Islands Council Offshore Energy Development Strategy

Preliminary Considerations	Response
Please provide a brief description or summary of the policy, strategy or service under review for the purposes of this assessment.	To set out the opportunity for Orkney and establish a framework for action from which to assess requests for support with regard to offshore energy development.
Step 1 – Develop a clear understanding of your objectives	**Response**
What are the objectives of the policy, strategy or service?	To coordinate and enhance the Council's response to the economic opportunity presented by offshore energy development.
Do you need to consult?	The objective was established through a report to Council, so no requirement to consult for this step.
How are islands identified for the purpose of the policy, strategy or service?	The strategy considers Orkney as a whole.
What are the intended impacts/outcomes and how do these potentially differ in the islands?	The strategy is intended to coordinate and enhance the Council's response to the economic opportunity presented by offshore energy development. The opportunities in any island will be impacted by infrastructure and businesses/organisations present.
Is the policy, strategy or service new?	Yes
Step 2 – Gather your data and identify your stakeholders	**Response**
What data is available about the current situation in the islands?	Information on harbour infrastructure, businesses, organisations, demographics.
Do you need to consult?	Not for this step.
How does any existing data differ between islands?	Small variation in data quality and outcomes exist but generally data sets are reasonable for all islands

Are there any existing design features or mitigations in place?	No
Step 3 – Consultation	Response
Who do you need to consult with?	Internal and external stakeholders with a key interest in offshore energy development.
How will you carry out your consultation and in what timescales?	One to one meetings.
What questions will you ask when considering how to address island realities?	Open questions to garner what stakeholders feel is important to be captured in the strategy.
What information has already been gathered through consultations and what concerns have been raised previously by island communities?	No specific issues raised
Is your consultation robust and meaningful and sufficient to comply with the Section 7 duty?	Yes
Step 4 – Assessment	Response
Does your assessment identify any unique impacts on island communities?	No
Does your assessment identify any potential barriers or wider impacts?	No
How will you address these?	

You must now determine whether in your opinion your policy, strategy or service is likely to have an effect on an island community, which is significantly different from its effect on other communities (including other island communities).

If your answer is **No** to the above question, a full ICIA will NOT be required and **you can process to Step 6**.
If the answer is **Yes**, an ICIA must be prepared and y**ou should proceed to Step 5**.

To form your opinion, the following questions should be considered:

• Does the evidence show different circumstances or different expectations or needs, or different experiences or outcomes (such as different levels of satisfaction, or different rates of participation)? • Are these different effects likely? • Are these effects significantly different? • Could the effect amount to a disadvantage for an island community compared to the Scottish mainland or between island groups?

Step 5 – Preparing your ICIA	Response
In Step 5, you should describe the likely significantly different effect of the policy, strategy or service:	
Assess the extent to which you consider that the policy, strategy or service can be developed or delivered in such a manner as to improve or mitigate, for island communities, the outcomes resulting from it.	
Consider alternative delivery mechanisms and whether further consultation is required.	
Describe how these alternative delivery mechanisms will improve or mitigate outcomes for island communities.	
Identify resources required to improve or mitigate outcomes for island communities.	
Stage 6 – Making adjustments to your work	Response
Should delivery mechanisms/mitigations vary in different communities?	No
Do you need to consult with island communities in respect of mechanisms or mitigations?	No
Have island circumstances been factored into the evaluation process?	Yes

Have any island-specific indicators/targets been identified that require monitoring?	No
How will outcomes be measured on the islands?	
How has the policy, strategy or service affected island communities?	Should be beneficial for all of Orkney
How will lessons learned in this ICIA inform future policy making and service delivery?	
Step 7 – Publishing your ICIA	Response
Have you presented your ICIA in an Easy Read format?	Yes
Does it need to be presented in Gaelic or any other language?	No
Where will you publish your ICIA and will relevant stakeholders be able to easily access it?	Published alongside committee report and strategy document on Council website
Who will signoff your final ICIA and why?	Corporate Director

ICIA completed by:	Sweyn Johnston
Position:	Head of Enterprise and Economic Growth
Signature:	
Date complete:	13 May 2025

ICIA approved by:	Gareth Waterson
Position:	Corporate Director for Enterprise and Resources

Signature:	
Date complete:	30 May 2025