

Shetland Energy Strategy



2025

Foreword

With so many energy projects underway or being planned here in Shetland, it is important that we stand back and consider where energy transition will lead us to and what our community can do to shape that future.

We know from our own history that places where major socio-economic change has been abrupt, it can take decades to recover, such as happened in Unst with the closure of the RAF base. This is our opportunity to manage the transition to cleaner forms of energy.

Energy transition is not new. However, the scale and pace of change required is unprecedented, this is our opportunity to put in place a framework to support decision making on energy transition. This strategy is intended as a tool to help local decision-makers and national policy-makers make choices that progress the transition in alignment with our unique circumstances and our vision. The long-term outcomes of energy transition are clear but the short to medium term actions are less clear and at times contradictory. We require a Shetland approach, which recognises our legitimate interests and concerns.

Every person has a part to play in the energy transition and changing how we use energy. However, tackling this is not something we can do in isolation. We must empower ourselves and those around us to make our clean, affordable, secure energy vision a reality. As the local authority we are taking the lead on drafting the Shetland Energy Strategy to ensure Shetland has a voice.

We are not starting from scratch; with the completion of the Viking Energy wind farm and the associated infrastructure we can see the extent of the project and the huge change on our landscape. We can look at the experience of energy transition in other energy hubs such as Northeast

Scotland, Grangemouth and Teesside to learn from their experience. We can also look to Orkney and the Outer Hebrides to see what has worked and what hasn't there.

We need to put in place a policy to support a Just Transition for our communities. As such massive change poses important questions on social, economic and environmental challenges as well as the opportunities. The vital requirement for Shetland people to achieve the fair energy prices we deserve as the host community for this and so many other renewable energy developments is a particular focus for the Council. Affordable energy is a priority and action to attain that has begun. As there is no single solution, we require action both on the whole energy system along with fiscal and regulatory changes to ensure long term affordable energy.

Another key need is to make the fullest use of the green energy being produced here for our own inclusive growth through adding as much value here as we can. This will see innovative use of existing and cutting-edge technology. An example of this would be ensuring there is a route to market for community and locally owned renewable energy generation connected to the distribution network through a high position on the Transmission ANM queue. This small amount of export would enable projects to happen.

We need to maximise our impact on climate change while providing the employment to keep an active skilled workforce in our community and stop the need to import expensive fuel.

The Shetland Energy Strategy sets out what our energy ambition is. We want to see a fair energy transition for Shetland away from fossil fuels for both generation and demand. A Just Energy Transition will require cooperation and collaboration with a wide range of project partners, as well as people who live and work in our community.

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Executive summary

What is the Shetland Energy Strategy?

The Shetland Energy Strategy is a framework to support decision-making on local energy transition projects. It is intended for the Shetland community including the various organisations that are involved in energy transition. We emphasise a Shetland approach that recognises legitimate local interests and concerns and delivers a fair energy transition for Shetland.

Why do we need to change?

The UK Climate change committee released its seventh carbon budget in February 2025 for the period 2038-2042. The Committee recommends a limit of 535MtCO₂e for the UK's greenhouse gas emissions including emissions from international aviation and shipping.

This is an ambitious target, reflecting the importance of the

task, and will require UK emissions to fall to 87% below their 1990 levels. There is no silver bullet in all this. The country will require action across all fronts.

The Shetland Net Zero Route Map has highlighted the magnitude of the challenge for Shetland. Due to our island location and marine-based economy, green electrification is not suitable for all our energy usage. For example, our marine sector, will require alternative low-carbon fuels.



Why do we need an energy strategy?

Our transition to cleaner forms of energy in Shetland will be different to most other places, given that we have been a major oil and gas energy hub for nearly 50 years and have access to world-class natural resources, particularly wind energy. We have a dispersed population with a reliance on ferries and aeroplanes for our lifeline travel. We have high levels of car ownership which will require different transport models and EV infrastructure. We require high levels of investment in our

built environment to improve the energy efficiency, and as we don't have access to the gas grid our decarbonisation of heat will also be different.

The energy transition, and how we achieve it, involves people at home, at work, and in the community. Therefore, people need to be empowered and be at the heart of this strategy.

An energy strategy helps this as we need to be more co-ordinated across Shetland to achieve this.

Background

Shetland has a wide range of infrastructure and capacity. However, there are imbalances. Oil and gas have been extracted from wells around Shetland and exported for refining. Our fuels are then reimported at high cost. We require a transition that is fair.

Shetland is cold and Shetland is windy. Our natural resources are key to a cleaner future, but our climate means people spend more money on their energy

bills to keep their homes and businesses warm.

The transition to net zero is an opportunity to make things fairer. It is therefore essential that, while we build on our past successes, we also learn from past problems.

While our renewable energy resources are second to none, being an island means there is increasing competition for space and a risk of overdevelopment. We need to have clear routes to market for that energy. Therefore, it is essential that projects are considered as part of the whole energy system. We need to look at the big picture and how all forms of new energy connect with demand. This is to ensure we have the right projects in the right place, reducing the impact on the environment and making the most of the opportunities.

Shetland's high fuel poverty rates are all the more stark at a time of large-scale renewable projects in Shetland. The 443MW Viking Energy wind farm

is now operational with enough power for about 500,000 homes, and plans are progressing for 2.8GW of offshore wind developments to the east of Shetland.

Shetland is now connected to the National Grid for the first time. A second interconnector is planned and there are ambitions for green hydrogen and synthetic low carbon fuel production.

Key issues

The Council has recognised for some time the need to understand the implications, issues and opportunities associated with energy transition arising from:

- Climate change mitigation and adaptation,
- The maturation and general decline of oil and gas production,
- The high cost of living and doing business in Shetland due to our high use and cost of energy and increasing competition for space and resources

- The development of large-scale onshore and offshore renewable energy generation on and around Shetland
- The potential development of large-scale hydrogen and associated e-fuel production from onshore and offshore renewable generation
- Consideration of the whole energy system to balance energy generation, use and related infrastructure requirements across all scales of development from a property level through to the whole island archipelago
- Balancing such developments with the protection of our natural environment and our existing economy
- The need to create and retain local wealth, supporting our existing industries to decarbonise and remain competitive, economic diversification and maximising community benefit

What is a Just Energy Transition?

Energy transition is not new. It is happening now just as it has many times. We are now entering a new era of energy transition to take us away from the use of fossil fuels. These fuels have provided a super source of energy for over 200 years, from industrial use of coal to natural gas.

A just energy transition ensures that this shift is done in a fair and inclusive manner, ensuring that no one is left behind in the process.

In Shetland there is and will be both island-based and external interest in developing clean energy projects. Some factors can be managed but many are out with our control and as a result we need to have a plan on how we manage change.

What is the Whole Energy System – the bigger picture

The whole energy system is the complete network of interactions between electricity, gas, heat, transport, water, and carbon capture utilisation and storage. They should all work together as part of the energy transition.

It is essential that we consider that bigger picture of a whole energy system. Huge amounts of investment need to be made in new infrastructure. The country is moving from centralised generation of energy and distributed use to distributed generation and distributed energy use. This investment is paid for by energy customers and has an impact on

the local environment. We need to ensure that the future energy system is fit for purpose, avoiding duplicated activities by working together.

A Fair Share for Shetland

In December 2024 Shetland Islands Council endorsed a report setting out 'A Fair Share for Shetland' as it transitions to greener energy.



The report has been produced by the Isles' first Energy Transition Taskforce – including Shetland Islands Council, the energy industry (NORN, VOAR and the Shetland Net Zero Forum), Highlands and Islands Enterprise, Hjaltland Housing Association, UHI Shetland and Shetland's two Members of the Scottish Youth Parliament.

It provides a framework for how Shetland could achieve a fair share of renewables activity and looks at how the isles could limit further developments.

This strategy builds on the work from the taskforce, which examined community benefit, local, community or shared ownership, compensation and fiscal and regulatory measures.

Ambition	To achieve a fair energy transition for Shetland away from fossil fuel into a whole energy system for both generation and use. To ensure local, clean, secure and affordable energy for everyone.		
	A Just Transition	Whole Energy System	A Fair Share
2045 Vision	We have a fair and managed energy transition, with no one left behind.	We have an efficient integrated energy system, where impacts on the environment are minimised.	We have maximised community wealth building opportunities. Shetland has a fair share of the value of energy production, distribution and utilisation and supply chain activity as a means of increasing community wealth, delivered through strong engagement.
Meaning	<ul style="list-style-type: none"> Addressing risks and impacts Identifying opportunities and benefits Promoting accountability Driving systematic change 	<ul style="list-style-type: none"> An energy plan for Shetland Take advantage of strategic planning tools, to coordinate energy development with local infrastructure, land use, and community priorities. We have an established environmental monitoring system with cross sectoral engagement to limit and fully understand the impact of clean energy development on existing economic activities such as seafood, agriculture and tourism 	<ul style="list-style-type: none"> We receive a fair share as set out in “A Fair Share” prepared by the Energy Transition Taskforce. We have a community benefit system based on the new Council community benefit policy. We have an expanded supply chain embedded in the delivery of the energy transition supporting skilled and high-quality jobs.
Action Areas	<ul style="list-style-type: none"> Economic modelling Skills and jobs Energy transition risk register Engagement with developers, local business and industry Affordable energy 	<ul style="list-style-type: none"> A demand and generation map for Shetland with projections out to 2045. Electricity Transmission and Distribution Network Strategy for Shetland Mechanism to share data with and from NESO, SSEN Distribution and Transmission and others to ensure all parties are using the same information. Strategic planning tools, to coordinate energy development with local infrastructure, land use, and community priorities. Environmental monitoring system 	<ul style="list-style-type: none"> Community benefits Ownership Indirect benefits and market gains Compensation payments Fiscal and regulatory changes
Who will lead this strategy?	EmPowering Shetland, with quarterly meetings of the Energy Strategy Sounding Board.		

Glossary

An extended glossary is available in Annex 6*.

<u>Clean energy</u>	Energy, such as electricity or hydrogen fuel, that is produced without emitting greenhouse gases and therefore does not contribute to climate change.
<u>Climate change</u>	The long-term shift in global climate patterns, including extreme weather events and rising sea levels, linked directly with the warming of the Earth's atmosphere. Climate change is rapidly accelerating due to human activities, such as burning hydrocarbons for transportation and energy.
<u>Decarbonise</u>	Altering an organisation, product, service, or investment so that it is delivered producing less emissions. Carbon is used as a stand-in for all greenhouse gas emissions.
<u>EmPowering Shetland</u>	Group within the Shetland Partnership, formed to help accelerate inclusive growth and the green energy transition in Shetland.
<u>(Greenhouse gas / GHG) emissions</u>	Gases which, when dispersed in the atmosphere, trap the Sun's radiation within the Earth's atmosphere and cause global warming. This achieves a similar effect to a greenhouse, hence the name. Greenhouse gases include carbon dioxide, methane, nitrous oxide, and water vapour.
<u>Fossil fuels</u>	Fuels such as oil, coal, and natural gas which derive from decomposed organic material – hence 'fossil' fuel. This organic matter is primarily made of carbon, therefore burning it releases carbon dioxide. See: hydrocarbons.
<u>Fuel poverty</u>	A household that spends more than 10% of its income on fuel costs is in fuel poverty. If this rises

	to more than 20%, the household is in extreme fuel poverty.
<u>Generation</u>	How energy is made before it is distributed, such as from wind turbines turning or hydrocarbons burning in a power plant.
<u>Net Zero</u>	When the carbon emitted is equal to the carbon captured.
<u>Offsetting</u>	Offsetting involves the exchange of credits within voluntary markets.
<u>Whole Energy System</u>	The whole energy system is the complete network of interactions between the electricity, gas, heat, transport, water, and carbon capture utilisation and storage.

Section 1 - Introduction

Certain groups within society will experience the energy transition more acutely than others. This is particularly the case for island communities such as Shetland, which are highly reliant on hydrocarbons for their existing industries and lifeline services.

A Just Transition is not a given, we need to take a considered approach to ensure a Just Transition to net zero.

Purpose

Energy transition in Shetland is complex. The Shetland Energy Strategy is a framework to support decision-making on local energy transition projects. It is intended for the Shetland community including the various organisations that are involved in energy transition. We emphasise a Shetland approach that recognises legitimate local interests and concerns and delivers a ‘fair share’ for Shetland.

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How will it be used?

The Shetland Energy Strategy aims to:

- A. Put people at the forefront of the energy transition
- B. Act as a blueprint for developers, funders, and decision makers
- C. Hold the key partners accountable
- D. Provide information and awareness on how the energy transition will impact Shetland
- E. Influence and inform the development of national (UK and Scotland) energy and renewables policy, plans and strategies

What are the challenges?

Managing the response to Climate Change is the biggest challenge of our generation. This is a global challenge that cascades right down to a local level. Given Shetland's energy credentials, such massive change present us with the opportunity to transition to a fairer energy system and become a net zero island. Our work ties in with the need to reduce our emissions as set out in the Shetland Net Zero Route Maps (NZRM)¹ and the need for places such as Shetland to be prioritised in the planning and delivery of a "Just Transition"².

What is 'energy transition'?

Energy transition is the transformation of the global energy sector from fossil fuel based to zero carbon sources. For this to be successful, energy related CO₂ emissions must be significantly reduced by the middle of the century in order to mitigate climate change and limit global temperature to within 1.5°C of pre-industrial levels.

How will this be done?

In order to achieve a Just Energy Transition for Shetland we need to consider the whole energy system. Otherwise, there are risks of magnifying

¹ [What are we doing? – Shetland Islands Council](#)

inequalities and rural deprivation rather than reducing it. There is no one size fits all solution. Energy transition needs to happen throughout society on all scales. From industrial decarbonisation projects right down to insulating our homes better and personal transport decisions. By adopting the energy hierarchy (figure 1) and considering the whole energy system, this should help ensure that projects deliver wider benefits to the community and reduce impacts.

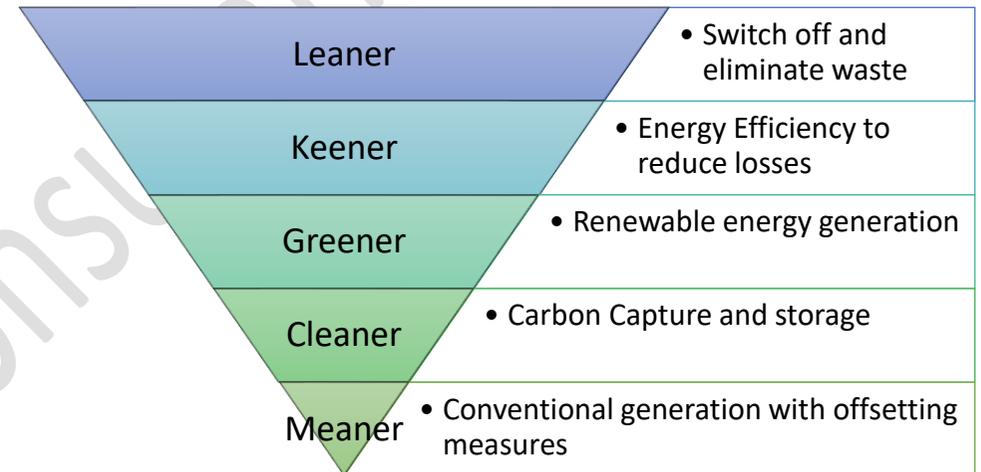


Figure 1 Energy hierarchy

We therefore need to consider the whole system and the different options to:

- reduce inequalities,
- tackle climate change, both through adaptation and mitigation
- help deliver inclusive growth, and,
- improve our health and wellbeing.

² [Shetland Islands Council Committee Information - Submission Documents](#)

Monitoring and delivery

The Shetland Energy Strategy Sounding Board will provide a forum for the Shetland Islands Council and local industry to oversee the progress of the Shetland Energy Strategy.

The Sounding Board will align to EmPowering Shetland as described in figure 2. As there will be areas such as skills which are relevant to multiple sectors.

EmPowering Shetland has been formed to help accelerate inclusive growth and the green energy transition in Shetland. It will provide a monitoring and delivery framework for the Energy Strategy as part of the Shetland Partnership framework. The Energy Strategy is also aligned to the Shetland Climate Change Strategy which is another work-package within the Shetland Partnership.

Inclusive Growth: “growth that combines increased prosperity with greater equity; that creates opportunities for all; and distributes the dividends of increased prosperity fairly.” The purpose and structure of EmPowering Shetland is as follows:

- Provide an interface for large-scale developers and investors.
- Grow capacity in Shetland to support large-scale developments.
- Shetland Energy Strategy monitoring and delivery framework.
- Develop, promote and implement the energy development principles.



Figure 2 EmPowering Shetland structure

Shetland Energy Development Principles

EmPowering Shetland is responsible for the development, promotion and implementation of the development principles. Those planning or proposing major developments will be encouraged to follow these principles throughout the planning and delivery of projects.

These principles are:

- Environmental Protection (SIC and industry Led)
- Local Supply Chain Integration (HIE Led)
- Sectoral Co-Existence (Energy Forum Led)
- Benefits to Community (SIC Led)

The Shetland Energy Development Principles were approved by Shetland Islands Council in December 2022 to help deliver a Just Transition for Shetland.

EmPowering Shetland recognises that neither it nor the organisations within it are the consenting authority for many of the energy generation projects that will come forward in Shetland and its surrounding seas. Those powers sit with the UK and Scottish Governments and their agencies.

However, EmPowering Shetland along with Shetland Islands Council is clear that it does have an important role in community leadership. This includes promoting and representing the islands' interests and supporting the community to understand and contribute to the energy transition.

The Energy Development Principles – four main components

Environmental Protection	Local Supply Chain Integration
<ul style="list-style-type: none"> • Climate Change impact and mitigation • Impacts and protection of wildlife and biodiversity on and around Shetland • Protection of the Shetland landscape and seascape and containment of impacts on it 	<ul style="list-style-type: none"> • Jobs in Shetland • Contracts and opportunities for Shetland businesses • Commercial Infrastructure • Skills and Training for current, and new, Shetland residents
Sectoral Co-Existence	Benefits to the Shetland Community
<ul style="list-style-type: none"> • Competition for mutually important locations • Impacts on the sustainability of our key natural resources • Any other beneficial or detrimental interactions between sectors • SFA have created their own asks*** 	<ul style="list-style-type: none"> • Fair Share of value from all developments, offshore and onshore • Financial Benefits to the community • Product Benefits; e.g. affordable energy for Shetland households • Public Goods Benefits

Figure 3 Shetland Energy Development Principles

Strategy development and structure

The vision for the Energy Strategy looks out to 2045 but, as there are many unknowns in the short and medium-term, the energy strategy will be iterative, developing as technology and policy advances become more certain and infrastructure investment decisions are made.

Following the acknowledgement of a climate emergency by the Council back in 2020, the Council initiated the climate change programme. One of the first actions undertaken was to commission the Shetland Net Zero Route Map³. This study provides detailed information on the magnitude of the challenge to reach net zero. This is however only part of the story. If Shetland is to remain a viable place to live and work, it is essential that we have a secure and affordable energy supply and support our existing industries to develop and transition.

Research & Development

Work on the strategy began in early 2022, developing through many conversations with third parties. This was coordinated by the Council's Future Energy Team and EmPowering Shetland with consideration for the existing and emerging energy-related strategic frameworks.

During 2024, EmPowering Shetland undertook a review of the groups involved in energy transition and associated industries. This resulted in a much clearer structure (see Figure 2). Around the same time the Energy Transition Task Force, the Shetland Power System Working Group and EmPowering Skills were created. Each of these groups are formed from a mixture of public bodies along with local and external industry representatives.

See Annex 3, the consultation summary including a list of previous strategies.

³ [What are we doing? – Shetland Islands Council](#)

Risks

Summary of the top risks associated with energy transition in Shetland, further information can be found in Annex 4 Risk Register

- Losing jobs, skills and infrastructure – there are currently around 1,000 people employed directly and indirectly in oil and gas in Shetland and decisions must be made on the decommissioning or reutilisation of infrastructure. The difference in speed between the decline of the oil and gas sector and the development of other industries will have a large impact on the decisions which need to be made and how the transition plays out.
- Economic sector vulnerability to change – our key economic sectors either rely on oil and gas-related work, which we need to transition away from, or are heavily dependent on fossil fuels that may be replaced by more expensive forms of cleaner energy.
- High cost of living – it is expensive to live and do business in Shetland. We don't have access to low-cost gas for heating, we are reliant on ferries and planes to connect us to the mainland, and we have a limited workforce. Alternative forms of energy must be affordable, and we must consider the timeline for projects to smooth the impact on the supply chain.
- Ineffective National Energy Strategies – highly ambitious targets have been set for the UK and Scotland, and there is an ambitious pipeline of projects out to the mid-2030s for Shetland. But without a strategic plan linking generation and demand to overall UK energy policy, there is a high risk of failure.
- Low Community Engagement – energy transition will be undertaken by people at home, work and in the community, but if they can't see a clear link to "what is in it for us" they will be slower to engage.

Section 2 – Background

The energy transition in Shetland will impact all aspects of our community.

Both the UK and Scottish Governments have set ambitious targets in relation to climate change and achieving a Just Transition. Clearer plans are emerging on how these targets will be met, where these developments are to happen, along with the associated infrastructure that will be required to enable them to materialise.

The energy transition and the work to be done to achieve a fully just transformation will be undertaken by people at home, at work, and in the community.

Table 1 provides a summary of the SWOT analysis undertaken; a more detailed version is available in Annex 5.

Table 1 SWOT analysis summary

Strengths	Weaknesses
<ul style="list-style-type: none"> Outstanding renewable energy resource Transferrable and high-quality skills within the local economy Robust infrastructure to build from; oil and gas, marine, roads 	<ul style="list-style-type: none"> Unclear which future fuels will be required in Shetland and the volumes Limited at scale hydrogen production globally Route to market for energy
Opportunities	Threats
<ul style="list-style-type: none"> Partnership working Economic growth and diversification Rebalancing control to ensure clean, secure and affordable local energy 	<ul style="list-style-type: none"> Resistance to change Miscommunication Cost of clean alternatives Political uncertainty Ageing population

⁴ [Clean Power 2030 Action Plan: A new era of clean electricity – main report - GOV.UK](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/100000/clean-power-2030-action-plan-main-report.pdf)

Overall

We will achieve a fair energy transition for Shetland away from fossil fuel into a whole energy system for both generation and use. **To ensure local, clean, secure and affordable energy for everyone by considering:**

1. A Just energy Transition and the bigger picture
2. The whole energy system, and,
3. A Fair Share for Shetland

A Just Transition

Shetland’s role in energy transition is of national importance, as it has been for the past 50 years. In many aspects Shetland is a microcosm of the UK’s energy ecosystem and lessons from here are replicable across the globe. Change is inevitable and, as many of the decisions in relation to energy are out with our control, the consideration of the whole energy system for Shetland and the recognition of the need for a Fair Share is vital. Decisions in relation to energy need to consider the bigger picture, taking account of the resources available here and the route to market for the energy.

In addition to the high-level decisions on energy generation we must also find local solutions to national targets. For example, the highly ambitious target set by the Scottish Government to reduce fuel poverty to 5% by 2040 or the targets for building performance in privately owned and rented accommodation. These targets will be difficult to achieve even with a local approach being taken.

Whole energy system

We are in a period of transition, significant decisions on infrastructure investment must be made and this will be paid for by energy customers. The Clean Power 2030 Action plan⁴ highlighted that around twice the

amount of transmission network infrastructure will be needed in the nation's grid by 2030 as has been built in the last decade.

A Fair Share

It is essential that we explore how Shetland can maximise value and community wealth building opportunities. Energy Transition in Shetland will not be a one-to-one switch from one job to another, one industry to another or one transport method to another.

We have an established skilled workforce with many skills that are transferrable and adaptable. Of the 23,000 population, there are an estimated 13,600 people in employment in Shetland⁵.

However, this workforce is ageing. There has been a decline in the number of young people coming in to fill job vacancies across Shetland even with 97.8% of 16–19-year-olds⁶ in education, employment, training and personal development. It is estimated that there are around 1,000 people employed directly and indirectly in oil and gas. Large numbers of people will be required during the construction phases of the bigger renewable energy projects and there will be enduring employment in operation and maintenance phases. While the terms and conditions of these new jobs are likely to be more modest in comparison to oil and gas, they will still offer good employment opportunities. Many of the skills are transferable from oil and gas. However, it is likely that future energy developments will be more technology driven requiring fewer people to work.

The exact number and type of jobs that will be required will depend on the type of development and its project delivery and operational model.

Affordable energy

Affordable energy is a high priority and action to attain that has begun. Shetland has some of the highest levels of fuel poverty. As we use more energy and it costs more on average as we don't have access to low-cost mains gas. We also recognise that we are in a period of transition and require long term as affordable energy. The UK Government have confirmed that they will be implementing Reformed National Pricing rather than zonal pricing for wholesale energy and Ofgem have recently announced a consultation on how costs are allocated across the energy system. High level engagement in these changes will be required.

⁵ [Indicators – Shetland Partnership](#)

⁶ [Indicators – Shetland Partnership](#)

Active energy transition projects

- SSEN Distribution and Transmission - Gremista grid supply point and 132kV network connection to Kergord substation,
- EnQuest - Sullom Voe Terminal Complex new stabilisation facility to reflect the current and predicted throughput of oil⁷,
- SSEN Distribution - North Mainland Shetland Reinforcement Project⁸
- Zenobe – Lerwick BESS (70MW)⁹
- Lerwick Port Authority – Dales Voe Ultra-Deep-Water Quay¹⁰
- Equinor – Rosebank¹¹
- Statkraft Beaw Field onshore wind farm (72MW)¹²
- Statkraft Energy Isles (126MW)¹³
- Statkraft Mossy Hill Onshore Wind Farm (36MW)¹⁴
- Shetland Aerogenerators Ltd - Luggies Knowe 2 with BESS¹⁵
- North Hoo Fields
- Shetland Aerogenerators Ltd – Neshion Energy Park¹⁶
- Statkraft Green Hydrogen project Scatsta
- Veri - plans to transition the SVT site to future fuel production and for use with carbon capture¹⁷
- SSEN Transmission - 2nd interconnector 1.8GW has outline approval and due to be complete 2034¹⁸,

- Stoura Offshore Wind Farm (500MW)¹⁹
- Arven offshore Wind Farm (2.3GW)²⁰
- West of Shetland oil and gas electrification²¹
- SSEN Distribution – Strategic Development Plan Shetland²²
- NESO – Regional Energy Strategic Plan Scotland and the Strategic Spatial Energy Plan GB²³
- ICNZ²⁴
- Ocean REFuel Economic modelling with the Centre for Energy Policy²⁵
- The transition from Load Managed Areas^{26,27} to alternative methods of managing the electricity system.
- Brae District Heating Project²⁸

There is a lot of energy-related activity going on!

⁷ [SVT projects](#)

⁸ [North Shetland Reinforcement Project - SSEN](#)

⁹ [Shetland Battery Energy Storage System - Zenobe](#)

¹⁰ [Ultra-Deep-Water Quay | Lerwick Port Authority](#)

¹¹ [Rosebank oil and gas field - Equinor](#)

¹² [Projects | Beaw Field Wind Farm - Statkraft UK](#)

¹³ [Projects | Energy Isles Wind Farm - Statkraft UK](#)

¹⁴ [Projects | Mossy Hill Wind Farm - Statkraft UK](#)

¹⁵ [Luggie's Knowe Phase 2 | Projects | Shetland Aerogenerators](#)

¹⁶ [Shetland Aerogenerators leads proposals for energy park located next to one of Europe's largest oil terminals | Shetland Aerogenerators](#)

¹⁷ [Sullom Voe Terminal – Veri Energy](#)

¹⁸ [SSEN Transmission selects Sumitomo Electric Van Oord Consortium as Preferred Bidder for Shetland 2 HVDC link - SSEN Transmission](#)

¹⁹ [Welcome to the Stoura Offshore Wind Farm Website](#)

²⁰ [Homepage - Arven Offshore Wind Farm](#)

²¹ [West of Shetland](#)

²² [gremista-grid-supply-point---strategic-development-plan---for-consultation.pdf](#)

²³ [Regional Energy Strategic Planning \(RESP\) | National Energy System Operator](#)

²⁴ [ICNZ | Decarbonising Scotland's islands](#)

²⁵ [Economic Modelling | Ocean REFuel](#)

²⁶ [The Future of Load Managed Areas - SSEN](#)

²⁷ [feedback-from-flexibility-service-providers-on-scotlands-islands-rfi_external.pdf](#)

²⁸ [Views sought for a district heating network in Brae – Shetland Islands Council](#)

Section 3 – A Just Energy Transition

Vision - We will achieve a fair and managed energy and wider economy transition, with no one left behind.

Energy transition can follow various routes to net zero but if it is to deliver benefits across all levels of our community it needs to be a “just transition”. The Scottish Government report, *Just Transition – A Fairer, Greener Scotland*²⁹ (September 2021) defines a **just transition** as:

both the outcome – a fairer, greener future for all – and the process that must be undertaken in partnership with those impacted by the transition to net zero. Just Transition is how we get to a net zero and climate resilient economy, in a way that delivers fairness and tackles inequality and injustice (p.5)

We know energy transition has to happen and that the level and pace of change is unprecedented. We know from our own history that places where major socio-economic change has been abrupt, it can take decades to recover, such as happened in Unst with the closure of the RAF base. This is our opportunity to manage the transition to cleaner forms of energy.

The current energy system is unfair and high levels of investment is required to transition the energy system, which is ultimately paid for by the customer. It is essential that this cost is shared fairly as it will affect our ability to deliver affordable energy and for companies and organisations looking to make financial investment decisions.

Many of the technical and non-technical barriers to transitioning to net zero are our challenges now, but other communities will have the same challenges in the future or have faced them already.

In conjunction with the Centre for Energy Policy, through the EPSRC Ocean ReFuel project, economic modelling has been undertaken to identify pathways for maximising economic benefits for Shetland over time and to mitigate the impacts of potentially costly elements and stages of the transition.

We need to:

- Address the risks and impacts
- Identify opportunities and benefits
- Promote accountability
- Drive systematic change

<p>Opportunities</p> <ul style="list-style-type: none"> • Create a planned, managed transition that takes account of Shetland’s needs • Engage and integrate the community into Shetland’s energy transition. 	<p>Challenges</p> <ul style="list-style-type: none"> • The transition is complex with no reliable timetable • There are conflicting priorities across various sectors
<p>Co – benefits</p> <ul style="list-style-type: none"> • Fairer place to live • Reduced cost of living – lower energy prices and limiting the impacts of competition for space and resources on all local prices • Skilled and well-paid employment • Warmer homes • Energy security in all sectors • A cleaner environment to promote all our industries 	
<p>How will we measure change?</p> <ul style="list-style-type: none"> • Shetland is an active participant in a properly joined up, national, whole energy system • A full understanding of the energy transition risks will become more apparent with time • Successful transition of jobs • Cost of energy to the community 	

²⁹ To read the entire document, go to: <https://www.gov.scot/publications/fairer-greener-scotland-programme-government-2021-22/>

Section 4 - Whole Energy System

Vision – We will have an efficient integrated energy system, where impacts on the environment are minimised.

National Policy Factors

National Planning Framework 4 (NPF4) is part of the statutory development plan for Scotland and sets out the national spatial strategy to guide development and the use of land up to 2045. It has development plan status and must be taken into account in decision-making on planning applications. The currently adopted **Shetland Local Development Plan** also forms part of the statutory development plan, providing more detailed, locally specific policies and proposals.

The National Marine Plan (NMP) (2015) contains national objectives and policy for offshore wind and marine renewable energy. NMP2 is currently in the process of being developed. Additionally, The Sectoral Marine Plan for Offshore Wind (2020) identified options for offshore wind, including the NE1 area East of Shetland, which have since received option agreements from the Crown Estate Scotland for up to 2.8GW of energy in 2022. Work is also progressing to update the Draft Sectoral Marine Plan for Offshore Wind Energy in 2025 to include Test and Demonstration development for offshore wind in the Shetland Region.

The Clean Power 2030 Action Plan³⁰ is the UK government's action plan on the pathway to a clean power system by 2030, highlighting the need for a strategic plan on energy infrastructure investment.

On 10 July 2025 the UK Government announced their policy position on the Review of Electricity Market Arrangements. That review is placing a higher emphasis on strategic energy planning based on improving the efficiency of the national power system.

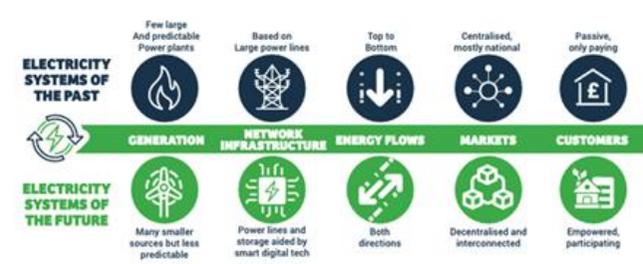


Figure 4 Electricity system of the past and future

We know our emissions baseline is different to other places, that our energy generation potential is far in excess of our local demand and that this pattern is replicated across the North of Scotland adding to the challenge of how to get Shetland's energy to market. We will also see increasing competition for space and resources which could have implications for the already high cost of living and doing business.

We need to consider the energy system locally, how best to fit the components together and find local solutions that maximise benefits and ensure the transition of the economy is one that sustains and ideally improves the prosperity of local businesses and people.

We need:

- A demand and generation map for Shetland with projections out to 2045.
- An Electricity Transmission and Distribution Network Strategy for Shetland
- A mechanism to share data with and from NESO, SSEN Distribution and Transmission and others to ensure all parties are using the same information.
- Strategic planning tools, to coordinate energy development with local infrastructure, land use, and community priorities.
- Environmental monitoring system

³⁰ [Clean Power 2030 Action Plan - GOV.UK](#)

<p>Opportunities</p> <ul style="list-style-type: none"> Existing infrastructure to build from Shetland is a microcosm of the UK energy system to develop new approaches to considering the whole energy system Find local solutions through strong engagement with key stakeholders 	<p>Challenges</p> <ul style="list-style-type: none"> High cost of investment in infrastructure, Complex system with many moving parts Spatial squeeze on our land and sea areas
<p>Co – benefits</p> <ul style="list-style-type: none"> Reduced emissions Grow our prosperity in an equitable way 	
<p>How will we measure change?</p> <ul style="list-style-type: none"> The development of strategic planning tools, to coordinate energy development with local infrastructure, land use and community priorities. The community feel they can influence decisions affecting their local area Minimise visual and environmental impacts 	

Preparing our own policy tools

The importance of building an integrated energy system for Shetland through cooperation and collaboration is a high priority. We must avoid sub-optimal and stranded assets, as these developments will ultimately be paid for by energy customers and will have an impact on our environment. There are a number of routes that energy transition in Shetland can take, it is therefore important that all information is taken into consideration.

Back in 2020, the Council identified that energy transition needs to happen and there was a high risk of Shetland either being left behind or the transition happening to us. As a result, the Council acknowledged a climate emergency, and the Opportunity for Renewable Integration with Offshore Networks (ORION) Clean Energy Project was initiated to highlight the opportunities in Shetland to transform our current dependency on fossil fuels to affordable renewable energy to address fuel poverty and improve community wealth.

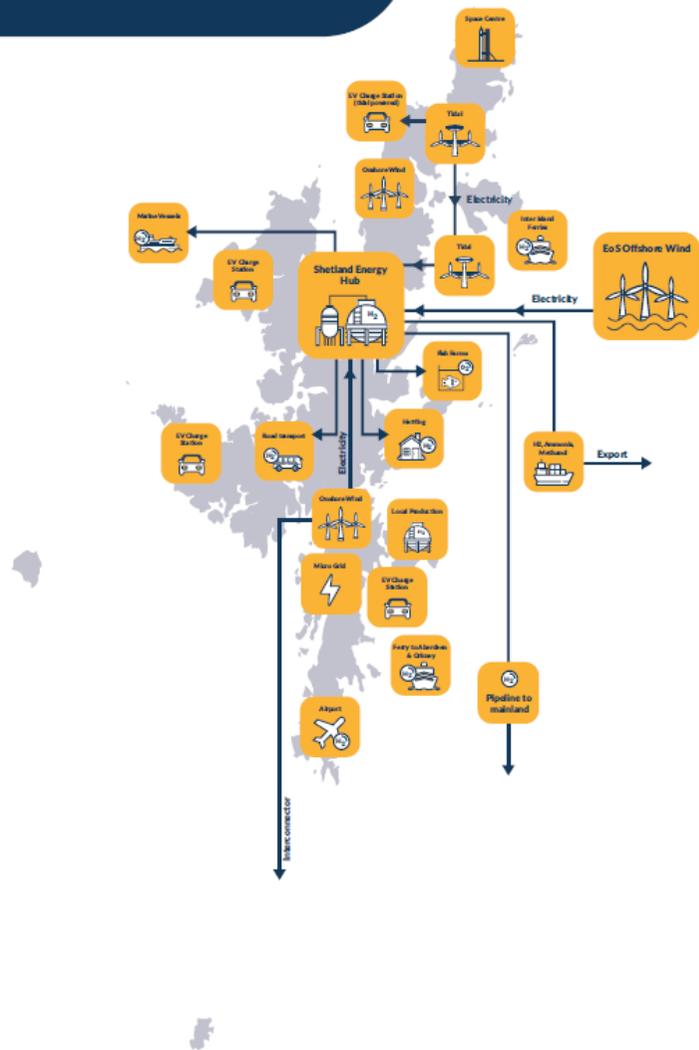
Following the initiation of the ORION Clean Energy Project there has been strong engagement with energy developers and other key stakeholders. One of the key successes is the formation of the Shetland Power System Working Group and we are also seeing progress nationally through the initiation of the National Energy System Operator (NESO) for Great Britain, to oversee the whole energy system. This will be done through the development of Regional Energy Strategic Plans (RESPs) and a Strategic Spatial Energy Plan for the UK.

Shetland also has strong engagement with the other island local authorities through the Islands Centre for Net Zero an Islands Growth Deal Project with the focus of accelerating decarbonisation in the islands.

Through the sharing of information, we have gained a great deal of knowledge on the generation, use and storage of green hydrogen. At present green hydrogen production is being investigated for three projects in Shetland, the green hydrogen will be used as a clean chemical feedstock to produce derivative products such as ammonia and clean synthetic fuels. There are no plans to burn green hydrogen directly.

National Planning Framework 4 (NPF4), the Shetland Local Development Plan and the Shetland Partnership Plan all have an integral role in the decision-making processes for energy developments in Shetland. The role of the Energy Strategy is to highlight the scale, and the breadth of development required to transition our energy system along with the need to consider the whole energy system.

How we're energising Shetland



Good environmental stewardship: Minimising development Impacts

The task force, while clear on working toward a fair share for Shetland, also recognised that there were red lines or things it does not want. In this, there is a desire to avoid unsuitable or damaging development and for there to be significant environmental stewardship in the context of both onshore and offshore developments.

As regards onshore developments, the task force recognised that there are significant visual and local environmental impacts from large-scale onshore wind farms and their associated enabling infrastructure.

Full analysis of all the negative environmental and socio-economic impacts caused by additional onshore renewable energy developments must be undertaken including the cumulative effect of multiple projects within a small island group. Developers will also be encouraged to work together to identify shared solutions that avoid duplicated infrastructure. The Sullom Voe Development framework process is a positive example of joint working.

In terms of offshore, all fishing industry sectors will be adversely impacted by the spatial squeeze of planned sites and the cabling infrastructure corridors. Shetland believes there is much further work required on the suitability of any further commercial offshore wind development around Shetland and, if it has to be embraced, the adequacy of any compensation.

Figure 5 Energising Shetland infographic summarising the components of energy transition

Section 5 – A Fair Share for Shetland

A Fair Share for Shetland

Vision - We maximise community wealth building opportunities. Shetland has a fair share of the value of energy production, distribution, utilisation and supply chain activity as a means of increasing community wealth, delivered through strong engagement.

Economic performance in Shetland remains strong and we have a robust well-established supply chain, with potential to increase capacity. However, energy transition will have a wide range of direct and indirect impacts. The Shetland economy is particularly reliant on a few key sectors that employ large numbers of the population including fishing, aquaculture, oil and gas and tourism. Our main economic sectors are either engaged with the oil and gas sector which we need to transition away from, or are reliant on, fossil fuels and are difficult to decarbonise. All this makes Shetland vulnerable to change.

In December 2024, the Shetland Islands Council approved “A Fair share for Shetland” report. It was prepared by the Energy Transition Task Force due to the identified need to explore how Shetland could maximise value and community wealth from renewable energy activity in Shetland.

In particular, the call for a “Shetland Tariff” retains considerable local and political interest.

We need to:

- Receive a fair share as set out in “A Fair Share” prepared by the Energy Transition Taskforce.
- Have a community benefit system based on the new Council community benefit policy.
- We have an expanded supply chain embedded in the delivery of the energy transition supporting skilled and high-quality jobs.

<p>Opportunities</p> <ul style="list-style-type: none"> • We have approved A Fair Share for Shetland guideline and the Community Benefit report. • Grow our local supply chain to support the energy transition • Community wealth building 	<p>Challenges</p> <ul style="list-style-type: none"> • Community wealth building is restricted when it comes to large-scale energy development • Too much pressure on local services and the labour market • Developers using external supply chains to deliver projects, missing out on local knowledge
<p>Co benefits</p> <ul style="list-style-type: none"> • Increase our Gross Regional Domestic Product (GRDP), as a measure of income generated, and the share retained within Shetland. • Diversify our economy 	
<p>Indicators for change</p> <ul style="list-style-type: none"> • Real GRDP growth for Shetland • Skilled employment and sustainably higher real wage rates • Expanding, younger population and thriving communities 	

Energy transition presents a range of economic opportunities for Shetland. This is at all scales - from improving the energy performance of our built environment, through to the creation of new industries by largescale energy developments such as offshore wind and the local production of hydrogen and synthetic low carbon fuels. A recent report published by HIE highlighted that there is around £11.17 billion in regional transformation

opportunities planned for Shetland in the next 15 years³¹. This presents Shetland with a ‘once in generation’ opportunity to capture as much of this spend on island and significantly increase our GRDP as a result.

Retaining local wealth

Three of the main economic sectors in Shetland are, seafood³², oil and gas and engineering. The energy transition will have a substantial, direct impact on these sectors.

Our marine sector has the dual challenge of being both comparably more difficult to decarbonise and reacting to the demands for sea areas made by renewable energy projects. A high level of engagement is therefore essential to ensure all interests are considered.

The prospects for continuing oil and gas production through Shetland are uncertain at the time of writing. However, the maturing basin reserves and

the need to transition away from fossil fuels mean that the eventual end of oil and gas production here is inevitable.

Shetland has a strong and skilled supply chain, particularly in engineering, civil, marine and technical services. This existing capability will be key for maximising local benefit in any future energy scenario. We must continue to support our local supply chain to develop their skills, capabilities and capacity to engage in any new opportunities and ensure large-scale developments maximise local content opportunities at both construction and operational phases.

Creating local wealth

Figure 6 provides a summary of the current pipeline of projects that we are aware of. There are still many uncertainties associated with these projects.

Indicative timing for large scale energy transition projects

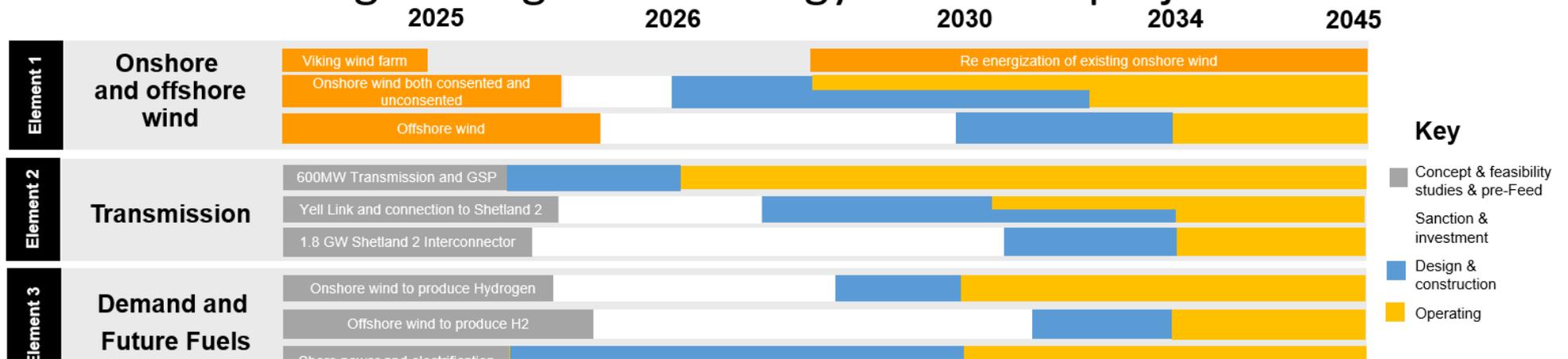


Figure 6 Indicative timing for large energy transition projects

³¹ [£100bn potential of ‘transformational’ projects in the Highlands and Islands | HIE](#)

³² Both fisheries and aquaculture

Achieving a Fair Share for Shetland

Achieving a Fair Share for Shetland builds on the work of the Energy Transition Taskforce and involves many different components³³.



Figure 7 Achieving a Fair Share for Shetland

Community benefit

Future negotiations with energy developers on community benefit will be based on the results from the report [Analysis of Shetland Community Benefits](#) produced by consultants Aquatera, Voar and Community Energy Scotland.

The principles cover future onshore and offshore wind developments as well as future carbon capture and hydrogen projects.



Figure 8 the Energy Transition Task Force 2024

What does this mean?

Community benefits are voluntary payments made by developers. This is to recognise the impact of developments on local areas.

Councillors have agreed a guaranteed minimum payment, per Megawatt, per year, with a gross revenue share for future projects as follows. The guaranteed payment will be index-linked to rise with inflation.

Table 1

Sector	Onshore Wind	Floating Offshore wind	Hydrogen / PtX /CCS
Gross revenue share	5%	2.5%	
Guaranteed minimum payment	£7.3k/MW/year (2024 prices)	£5.0k/MW/year (2024 prices)	Agreed based on a minimum production threshold

This is an increase from the **industry standard** of £5,000 per MW per year, which has been put in place for the Viking Wind Farm.

A Fair Share for Shetland says: “There is a strong moral argument that communities across Shetland should share in wealth being created from the islands’ natural resources through a just transition to net zero”.

³³ [Shetland Islands Council Committee Information - Submission Documents](#)

Ownership

There are three models of ownership:

- Community or Municipal ownership (SIC), which is full ownership of a scheme
- Shared Ownership – part ownership through an investment stake by community / municipality
- Local ownership – where there is a part or full ownership, by an organisation (outwith of community / SIC but based in Shetland)

There is a degree of overlap between the three and there are various business model arrangements available depending on the nature of the project. Each project should be considered individually.

We must be mindful that to achieve a just energy transition we require action across on a wide range of decarbonisation and energy transition projects. Community groups are uniquely placed to both influence and ensure that new developments help their community and to progress projects to meet their own local needs. It is important that the role of the community is considered as part of the whole energy system as this will also benefit wider local challenges and opportunities such as affordable energy, jobs and transport.

Recommendations 7 and 8 from the community benefit report highlight the need to develop a portfolio of appropriately sized projects linked to the energy and whole system needs of an area. This is an action area to be considered as part of the whole energy system for Shetland.

An example of a wholly community owned wind farm is the 4.5MW Garth Wind Farm owned by the North Yell Development Council.

Garth Wind Farm, operated by the North Yell Development Council



The 4.5MW Garth Wind Farm is operated by the North Yell

Development Council (NYDC) – a charity dedicated to community development in their area. Their motto ‘Enterprise, Initiative and Self Help’ fits the project’s aspirations well.

After a lengthy lead in phase, work began on site in late 2016 and was commissioned by the 8th March 2017. The total construction cost of the windfarm was £8.3m. Now that the wind farm is operational, NYDC manage the farm’s operation and finances.

The benefits of the Garth Wind Farm to the community are two-fold:

1. Five 900kW wind turbines generate clean electricity for the local grid,
2. Profit created is invested back into the local community via NYDC.

Since completing the wind farm project, the organisation provides small scale community grants and donations to local facilities, groups and charities. They have also expanded the Cullivoe Industrial Estate, opened the new North Yell Marina, taken over ownership of the local shop and are progressing local housing projects among other things. The Garth Wind Farm exemplifies successful community ownership, delivering significant financial returns directly to the population of North Yell.

However, without access to the electricity network similar projects can’t be progressed in Shetland.

Indirect benefits and market gains

These are secondary gains accrued from developments. Typically, within the realm of economic development, and happening at all stages and elements, these include use of the local supply chain, direct and indirect employment, skills development, clusters of new and developing industry on the back of energy developments.

Energy development has the potential to boost local supply chain opportunities and skills.

Local supply chain activity

We need to work with existing operators like EnQuest/Veri and Total to sustain and transition existing infrastructure, capacity, skills and high value jobs to support new green developments.

We need to work with all developers to maximise the local content opportunities both at construction and O&M phases to make sure the local supply chain can benefit in a timely manner. We need to ensure developers engage early and work closely with our local supply chain to build capability, address capacity gaps, and overcome the traditional barriers that prevent local firms from securing Tier 1 status and accessing higher-value contracts. If our local supply chain can be fully integrated into Shetland's energy transition, we increase the direct benefits to our island.

Skills and jobs

Shetland has a highly constrained local labour market, we need to focus on high value employment, in both sustaining existing and creating new jobs.

The Centre for Energy Policy's economic modelling work shows Shetland's energy transition will likely need additional workers.

However, we need to ensure transitory workers required for industrial infrastructure and green energy developments doesn't negatively impact our public infrastructure. We also need to ensure it doesn't cause further

pressure on costs for local people and business, including the risk of displacing other activities, such as tourism.

Generally, we need to ensure that the energy transition helps resolve demographic challenges in Shetland, including attracting skilled younger people to work and live here.

Supporting new and developing industry clusters

We also need to explore how developers could be supported in clustering industrial activity. This is in order to make the best, least disruptive and costly, use of land, utilities and other resources in Shetland.

There is already some spatial clustering emerging around the current Sullom Voe and Scatsta airport sites, and this should be encouraged and supported by the local, devolved and national governments, and Highlands and Islands Enterprise.

Compensation payments

A compensation payment is usually a one-off or time-limited payment from developers, recognising a potential 'dis-benefit' to some individual, locality or group from a development. One short definition of compensation is that it is 'payment for an agreed and identified loss' and that compensation is focused on individuals where that loss can be objectively quantified. We should not see compensation as a benefit.

Fiscal and regulatory changes

Fiscal and regulatory measures are taxes, tariffs (special rate for local energy users) or earn back mechanisms from development.

'Shetland Forward'³⁴, Energising Shetland' sets out the ambition to achieve the outcome of a Shetland Tariff. The Council aims to enter discussions with the Scottish Government, the UK Government and industry stakeholders, with a view to negotiating a new settlement to receive a fair return on energy costs given the substantial contribution Shetland is making to clean energy generation.

The Council agreed '**Energising Shetland – Affordable Energy and a Shetland Tariff**' in September 2023³⁵ to investigate mechanisms of achieving lower energy costs for homes and businesses in Shetland. Some of these potential mechanisms are discussed below. The main action being to investigate the various options further.

Land and seabed rents and option payments

The seabed around Scotland is owned by the Crown (the "landlord") and managed by Crown Estate Scotland; consequently, all onshore and offshore project payments will be made to them. Approximately 15% of ScotWind acreage is inside the 12mile contour and 85% are between 12 and 200 miles.

The surplus generated by Crown Estate Scotland for the lease of seabed within the zone up to 12 miles from shore is transferred to the relevant local authority via the Scottish Government. The formula for how these funds are distributed is the subject of bi-annual review and negotiation with COSLA on behalf of local authorities. Adjusting the 12 – 200-mile arrangements would require more fundamental overhaul by the UK and Scottish Governments.

Securing external funding

The scale of investment required to transition our energy system is significant, especially at a time of constrained public resources both locally and nationally. We would like to see a change to the current inefficient competitive approach to funding that has no guarantee of success. Instead,

there should be an alternative model with greater cooperation and collaboration between areas. Achieving net zero will require long-term planning and take time, particularly as there are many interdependencies. But until a more logical system emerges, we must build our expertise to apply for external funding. This involves developing a pipeline of projects in line with the priorities identified through the Shetland Net Zero Route Map and engagement with local interests. Such work would help streamline the grant application process, which is often reactive and operates at very short notice.

Shetland as the host community

It is widely accepted that land proximity is used to demarcate sea boundaries and to identify the most adjacent community. Shetland residents and businesses have long been active across all the waters within the area identified as the Shetland Exclusive Economic Zone (EEZ). Figure 5 highlights the Shetland EEZ, or the part of the United Kingdom's EEZ adjacent to Shetland, the dashed line indicates the area within 50 nautical miles of Shetland's coastline. Those boundaries have been identified in line with that principle of geographical proximity. In addition, Shetland fishermen operate in all these waters.

Action areas

- Community benefits
- Ownership
- Indirect benefits and market gains
- Compensation payments
- Fiscal and regulatory changes

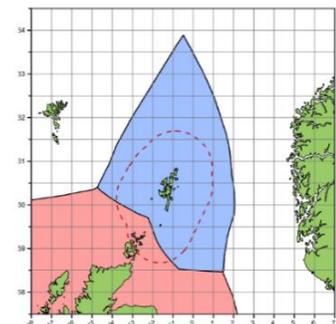


Figure 1 The Shetland EEZ: that part of the United Kingdom's Exclusive Economic Zone (EEZ) adjacent to Shetland (north of a median line between Shetland and the rest of the UK). The dashed line indicates the area within 50 nautical miles of Shetland's coastline.

Figure 9 <https://www.shetland.uhi.ac.uk/t4-media/one-web/shetland/research/statistics/eez-reports/Shetland-EEZ-2020-11-04.pdf> figure 1

³⁴ [Shetland Forward – Shetland Islands Council](#)

³⁵ [Shetland Islands Council Committee Information - Submission Documents](#)

Section 6 – Affordable Energy

The high cost of energy combined with the wider increase in the cost of living is emphasising how important it is that we get the transition right.

One of the overarching themes of ensuring a Just Transition is:

Spreading the benefits of the transition widely, while making sure that the costs do not burden those least able to pay.

The transition to net zero is an opportunity to achieve a more equitable and fair system. Shetland has been an energy hub for nearly 50 years, yet we pay the highest prices for energy in the UK, highlighting the inherent unfairness of the current system.

How to achieve affordable energy?

Affordable energy can only be achieved through viewing the whole energy system in conjunction with fiscal and regulatory changes. As the price of electricity is composed of several costs, as highlighted in the approximate cost stack Figure 10 for domestic customers.

Achieving significant savings on local energy bills will only be possible if there is a more general reform that examines all of the cost elements.

We must also be mindful of the current processes in place to share network costs for the North of Scotland which are to our benefit. We already receive a reduction in our network costs compared to the amount it costs to operate the local electricity distribution network.

There will be significant infrastructure projects across the country to enable the electricity transmission network to move the power to where it is required, all of this will ultimately need to be paid for by the customer either directly through the network costs element of our energy bills or through the wholesale cost element as the majority of transmission costs are paid for by energy generators.

In September 2023, the Council approved Energising Shetland - Affordable Energy and a Shetland Tariff. Highlighting various options to reducing aspects of the cost of energy. Ongoing engagement is required to investigate options further and understand how policy changes will impact the cost of energy locally. Energy markets are highly regulated and the price we pay is made up of a number of costs. The UK Government is undertaking a Review of Electricity Market Arrangements (REMA) concluding that it will reform the energy system under national pricing with a package of measures, rather than by implementing zonal pricing.

We must also consider the wider costs of transition such as the installation of energy efficiency measures and heat pumps which could reduce consumption. Along with the switch to electric vehicles which would change the type of energy purchased. As there is a close relationship between transition and the ability to meet the costs of the transition at all levels from individual households through to the enabling infrastructure projects, it is essential that we consider how it will be paid for.

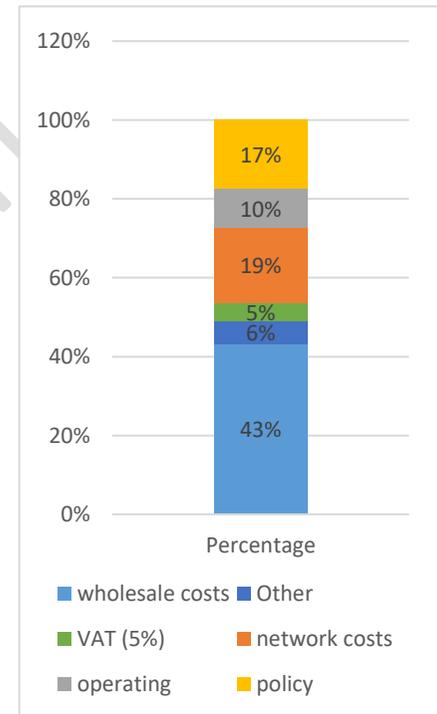


Figure 10 Cost stack based on <https://www.ofgem.gov.uk/energy-price-cap> 1st April 25

Figure 11 provides an indicative summary of different routes to reduce the cost of energy. We must also be mindful that energy consumption patterns are going to change as the demand for electricity increases.

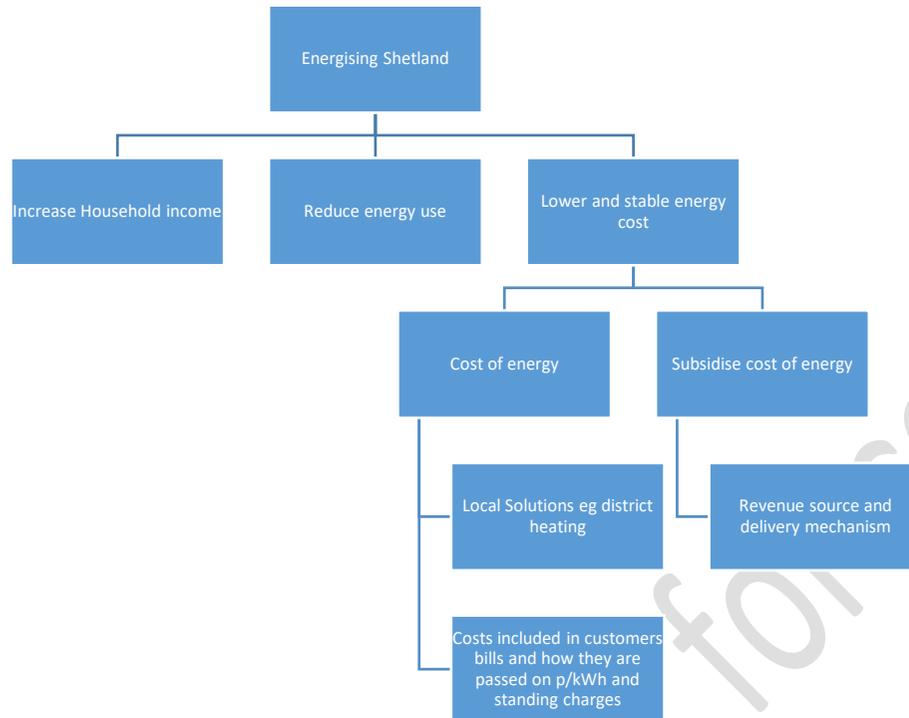


Figure 11 Summary of mechanisms to reduce the cost of energy

Mechanisms

Local systems and engagement with the market

At the extreme end this would be to own and operate a local electricity generation, distribution and supply company for Shetland. This would be unfeasible for the whole of Shetland but could work in certain local circumstances.

It will be essential for customers to have a closer relationship between use and generation. This will enable customers to access lower prices when generation exceeds demand and use less when demand exceeds generation, and the price is higher. This higher level of engagement with energy will also reduce the amount of infrastructure required as the difference between generation and demand will be less. The model isn't new, electric storage heaters have helped balance the grid for many decades. Historically this control was through the Radio Teleswitch Service (RTS) which balanced load on the Shetland Distribution grid and enabled households to access lower cost electricity for heat. The RTS is being switched off and we need to transition to alternative metering arrangements which enable households to benefit from cheaper rate heat and still provide grid flexibility services to manage load on the grid.

We are also going to see changes in how we use electricity with the SSEN Strategic Development Plan for Shetland suggesting that winter peak demand could increase by up to 160%³⁶. This increase is due to increasing EV charging capacity and the transition of heating.

Subsidise the existing cost

This will require a source of funds and a mechanism to pass the reduction onto the customer. Various mechanisms are available, but consideration must also be given to alternative uses of funding. This includes energy efficiency measures which will reduce energy consumption in the long term.

³⁶ [gremista-grid-supply-point---strategic-development-plan---for-consultation.pdf](#)

Section 7 – Communications

Clear, simple communication

People are at the heart of this strategy. Clear communication is key, and people need to be at the forefront of our thinking when it comes to communicating its aims.

Shetland’s energy transition is complex and can be divisive. Issues around affordable energy, energy developments and climate change need to be expressed in a simple and engaging way. We must answer the question from the public – “what’s in it for us?” and take into account Shetland-specific issues.

We must also listen. Good communication works both ways and this strategy and its delivery must reflect that.

Following the UK Government’s position on zonal pricing, Shetland Islands Council will continue to engage with UK Government, Ofgem, the National Energy System Operator and industry about the options for market reform of energy prices.

It is important the Council ensures the isles benefit from any new renewable developments and we must make sure Shetland’s voice is heard.

Who will we communicate with

- The public
- Ofgem as the regulatory body and NESO the National Energy System Operator
- SIC stakeholders – council staff, councillors
- Community stakeholders – community councils
- Partner organisations - Shetland Partnership, EmPowering Shetland, NHS Shetland, UHI Shetland, Highlands & Islands Enterprise, Shetland Fishermen’s Association, Hjaltland Housing Association, CAB, ICNZ, Strathclyde University, LPA, local community development companies.
- Energy Industry – members of the Energy Transition Taskforce, All parts of SSE plc, energy developers (locally owned and external)
- Local media
- Scottish and UK Government
- Parliamentarians – MP, MSP

How we will do it

- Short-form videos for social media, workshops and presentations
- Face to face meetings and drop-in events
- Press releases
- Regular interviews and news items for local and national media
- Information on Shetland Islands Council’s website and social media channels

A communications strategy will act as a live working document to be revisited by the Council.

Section 8 – Conclusions

This strategy informs and should be read alongside, the Shetland Energy Strategy implementation plan, with action areas highlighted within the relevant sections.

The Shetland Energy Strategy sets out where we are in terms of energy transition. Shetland is a leader in energy, and we have a huge renewable energy resource available. However, we also have a high dependence on fossil fuels for our key economic sectors and lifeline services which are difficult to decarbonise, making us vulnerable to change. We have an aging population, declining oil and gas revenue and contracting Council budgets, along with, the continued need for secure and affordable energy. We require a Shetland approach, which recognises our legitimate interests and concerns.

Energy transition must happen, and the scale and pace of change is unprecedented. The Energy Strategy provides a framework to support decision making on energy transition and align further work on ensuring we achieve a fair energy transition. The vision for the Energy Strategy looks out to 2045 but, as there are many unknowns in the short and medium-term, the energy strategy will be iterative, developing as technology and policy advances become more certain and infrastructure investment decisions are made.

Every person has a part to play in the energy transition and changing how we use energy. Tackling this is not something we can do in isolation. We must empower ourselves and those around us to make our clean, affordable, secure energy vision a reality. The energy transition and the work to be done to achieve a fully just transformation will be undertaken by people at home, at work, and in the community.

Our ambition is to achieve a fair energy transition for Shetland away from fossil fuel into a whole energy system for both generation and use. To ensure local, clean, secure and affordable energy for everyone.

Our vision is that by 2045:

- A just transition – we have a fair and managed energy and wider economy transition, with no one left behind
- Whole energy system - we have an efficient integrated energy system, where impacts on the environment are minimised
- We have maximised community wealth building opportunities. Shetland has a fair share of the value of energy production, distribution and utilisation and supply chain activity as a means of increasing community wealth, delivered through strong engagement.