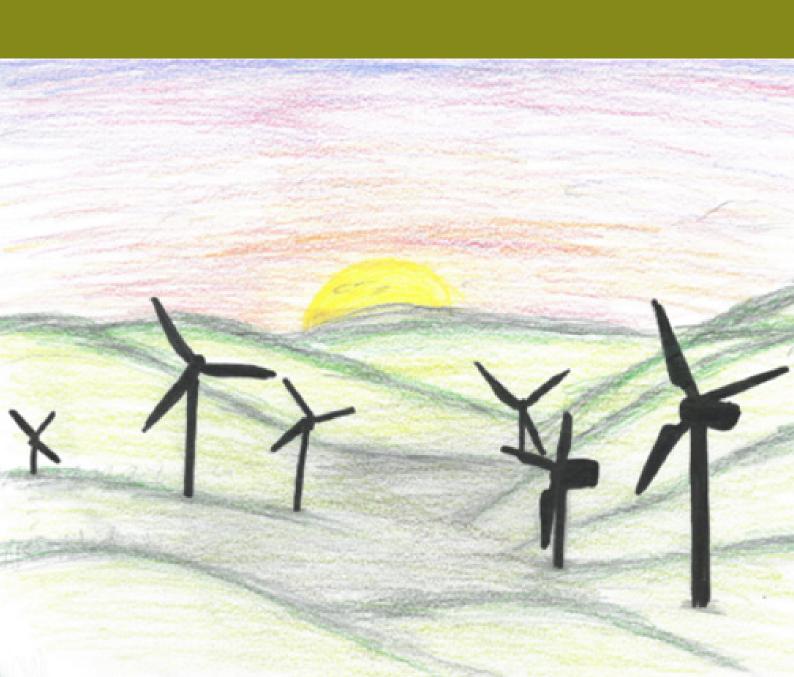


Carbon Neutral Islands Project Progress Report



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Foreword from Scotland's Cabinet Secretary for Rural Affairs and Islands



Climate change and nature loss are the greatest threats facing our planet. We're already seeing the impact in Scotland. Accordingly, the Scottish Government have declared a climate emergency and increased our climate action, including our commitment to reach net zero by 2045 as set out in the ambitious 2019 Climate Change Act.

As Cabinet Secretary for Rural Affairs and Islands, I want to ensure that our island communities are front and centre in the journey to net zero. Scotland's islands are home to a wealth of natural resources and expertise in the field of renewable energy. However, at the same time – as with islands globally – they are the first to suffer the negative consequences of climate change such as predicted sea level rise, increased instances of flooding and coastal erosion. This negatively affects water supply, food production, health, tourism and accelerates habitat depletion.

The Carbon Neutral Islands Project has been developed following the 2021-22 Programme for Government commitment to support three islands to become carbon neutral by 2040. The ambition was increased at COP 26, where I announced that we would support six islands in their journey to carbon neutrality by 2040.

This report sets out the progress made so far to support the islands that have been identified to become carbon neutral - Barra, Great Cumbrae, Hoy, Islay, Raasay and Yell - laying the foundations for future action relevant for all other islands in Scotland.

I am delighted that the project has communities at its heart. Implementation will take a bottom-up approach including active participation of island communities and organisations to ensure their voices are heard and they have a say in their own decarbonisation journeys. Just transition principles are integrated throughout the project to ensure that island communities can take advantage of the opportunities this monumental challenge presents.

I look forward to the continual progress of this important commitment which will keep islanders at the forefront of our journey to net zero and beyond.

Mairi Gougeon MSP

Cabinet Secretary for Rural Affairs and Islands

Introduction

Scotland and the Climate Emergency

Climate change and nature loss are amongst the greatest threats facing our planet. Small, low-lying islands are under threat from climate change and predicted rising sea-levels. Climate change is expected to increase instances of flooding and coastal erosion, whilst simultaneously negatively affecting water supply, food production, health, tourism and accelerating habitat depletion.

Island communities on Barra, South Uist, Tiree, Sanday, to name just a few, are already facing the challenges of sea-level rise and coastal erosion.

Scotland has declared a climate emergency and stepped up its climate action and commitments through Scotland's 2019 Climate Change Act - calling for net zero greenhouse gas emissions by 2045. Scotland's climate change legislation also ensures we prepare and adapt to the impacts which are already locked in, including rising sea levels and more extreme weather.

The Islands (Scotland) Act 2018, the National Islands Plan and climate change as a strategic objective

Scotland's islands are at the heart of a unique place-based piece of legislation. In fact, the Islands (Scotland) Act 2018 (the Act) is one of the few pieces of island-specific law in the world.

The Act requires Scottish Government to publish a <u>National Islands Plan</u> every five years setting out how we intend to improve outcomes for island communities. In December 2019 the first ever National Islands Plan was published, following an extensive community consultation.

Although almost all of the strategic objectives are related to the Carbon Neutral Islands Project, there are at least three that are directly relevant:



Strategic Objective 5

To reduce levels of fuel poverty



Strategic Objective 8

To improve and promote environmental wellbeing and deal with biosecurity



Strategic Objective 9

To contribute to climate change mitigation and adaptation and promote clean, affordable and secure energy



Climate change and net zero has also featured prominently in the £25.8 million Islands Programme aimed at supporting delivery of the National Islands Plan. For example, following the success of our £2.5 million Islands Green Recovery Programme and due to the close alignment of our over-subscribed Island Communities Fund (ICF) with the ambitions and priorities of the Climate Change Division, on 2 November 2021, Cabinet Secretary for Net Zero, Energy and Transport, Mr Matheson approved a further £526,000 of investment to the £2 million ICF; utilising finance transferred from the Sustainable Action Fund. This facilitated a second tranche of ICF projects and further investment in island projects that had strong community climate themes.

It is within this wider context, and building on the ambitious community-led vision for change, that we want to promote and support the huge potential and natural capital of our islands to help us reach our net zero and climate resilience ambitions.

The Carbon Neutral Islands Project – First Steps Towards Decarbonisation

Programme for Government commitment

In the 'A Fairer, Greener Scotland: Programme for Government 2021-2022', Scottish Government announced the commitment to support at least three islands to become fully carbon neutral by 2040. At COP26 the Cabinet Secretary for Rural Affairs and Islands announced that she would be taking this ambition even further by aiming to support six islands in their journey towards carbon neutrality by 2040. The Carbon Neutral Islands project (the Project) will support one island in each of the six local authority areas which have responsibility for islands in Scotland.

Definition of a Carbon Neutral Island

The Project considers carbon neutrality akin to net zero. Accordingly, a carbon neutral island is an 'island where the greenhouse gas (GHG) emissions (captured as CO_2 equivalent) are in balance with the sinks'. Sinks can be natural resources capable of absorbing CO_2 (trees) or technological solutions that do the same thing (carbon capture and storage). Carbon neutrality is to be achieved by 2040, five years prior to Scotland as a whole.

The Project will look at carbon neutrality as broadly as possible in line with the Scottish Government's updated Climate Change Plan list of sectors:

- Electricity
- Buildings
- Transport
- Industry
- Waste and the Circular Economy
- Land Use, Land Use Change and Forestry (LULUCF)
- Agriculture
- Negative Emissions Technologies.

In addition, the project will also include a blue carbon component which will support Scotland to refine its nationwide methodologies in this field.

Drivers underpinning the Carbon Neutral Islands Project

The Project is underpinned by three key drivers: alignment, justice and fairness, and replicability.

Alignment: The project aims to align with existing island-based climate change efforts and to avoid duplication. The first step towards this was a <u>study mapping island-based climate accounting exercises</u>, <u>projects and funding</u>.

Justice and fairness: The project will support islands to become carbon neutral in a just and fair way. In order to ensure a just approach, the project will take into account the recommendations of the Just Transition Commission. Fairness will be promoted through an effective bottom-up participatory process driven by the six island communities.

Replicability: All Scottish islands will benefit from the project through the sharing of good practices coming from the implementation of the project. Effectively the six islands will act as catalysts for net zero action across Scotland.

Selecting the six carbon neutral islands

In order to identify the six carbon neutral islands we established an External Technical Working Group. This group was made up of local authority officers and representatives from socio-economic organisations, such as Highlands and Islands Enterprise, University of the Highlands and the Islands, Scottish Islands Federation, Scottish Futures Trust and the Young Islanders Network.

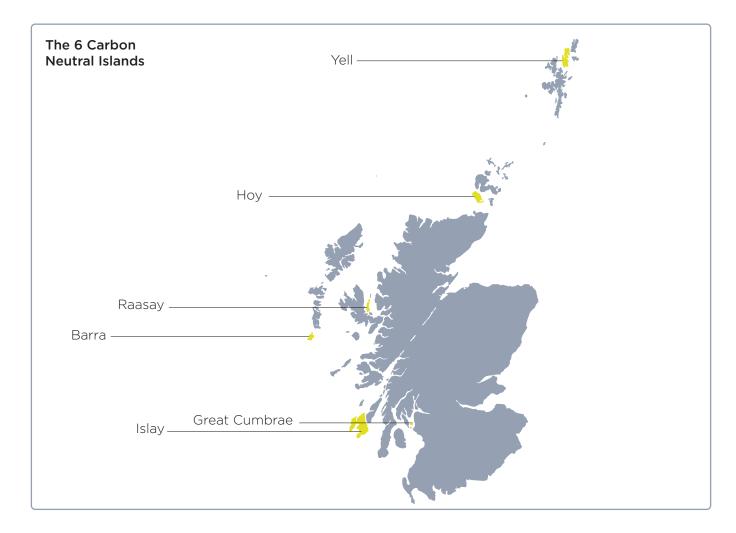
In collaboration with the External Technical Working Group we identified a set of criteria that assisted us in identifying the six islands. The criteria fell into the following six areas:

- Housing
- Fuel poverty
- Energy
- Transport
- Economy
- Carbon sequestration.

While these areas were used to help identify a mix of islands that would provide as much learning as possible, the Project will focus on all areas relevant to the climate emergency.

Following input from the External Technical Working Group and relevant policy colleagues across the Scottish Government we identified the following six islands:

- Barra
- Great Cumbrae
- Hoy
- Islay
- Raasay
- Yell.



We know that each island is unique and this is also the case when it comes to decarbonisation. However, many will also face similar challenges and opportunities. The selection process outlined above was designed to bear this in mind and it is anticipated that good practices from each of the selected islands will be applicable to other islands across Scotland and in some instances the nation as a whole.

Implementation strategy

The Project implementation strategy focuses on three key stages; carbon audits, community climate change action plans and climate change investment strategies.

Carbon Audits: It is crucial to get a complete understanding of the greenhouse gas emissions' baseline for each island in order to inform plans on how to decarbonise. This will be done through the development of carbon audits, which constitute an important first step in moving towards carbon neutrality. The carbon audit will serve as a tool to help drive action and as an indicator tracking progress over time

When it comes to carbon audits, the Project will align as far as possible with the Scottish Government emission inventory baselines and methodologies and will include: energy, transportation, waste, industrial processes, agriculture, forestry and other land use. The Project will also include a blue carbon audit. This aims to help understand the potential relative contribution of marine habitats for climate mitigation and adaptation in an island context.

Community Climate Change Action Plans: The Project will support Scotland's islands to achieve carbon neutrality according to their own decarbonisation priorities and at a pace that they feel comfortable with.

To do so, the six carbon neutral islands will receive support towards developing a community climate change action plan that responds to the interests of the island stakeholders and community. The community will be engaged to explore what the key priorities are for each island and how best to tackle these in order to make real and lasting change. This will ensure that the voice of island communities will truly drive the decarbonisation and resilience-building process, delivering on the fairness driver of the Project.

Climate Change Investment Strategies: In order to deliver on the community climate change action plans, we will support the development of investment strategies. These strategies will lean upon three different financial levers:

- Existing public funding
- Public-private partnership
- Private investment.

Community Energy Scotland

Community Energy Scotland (CES) was identified as the most appropriate delivery partner, being well suited to coordinate the three implementation phases (carbon audits, community climate change action plans and investment strategies). CES has extensive ties with island communities and has previously delivered work building on effective community engagement.

In order to embed the project within island communities CES has supported the development of a steering group on each of the six islands. These steering groups have identified local anchor organisations who have employed community development officers who will co-ordinate input from the community into the project.



Where required CES will bring in technical expertise to support key actions such as the blue carbon audits.

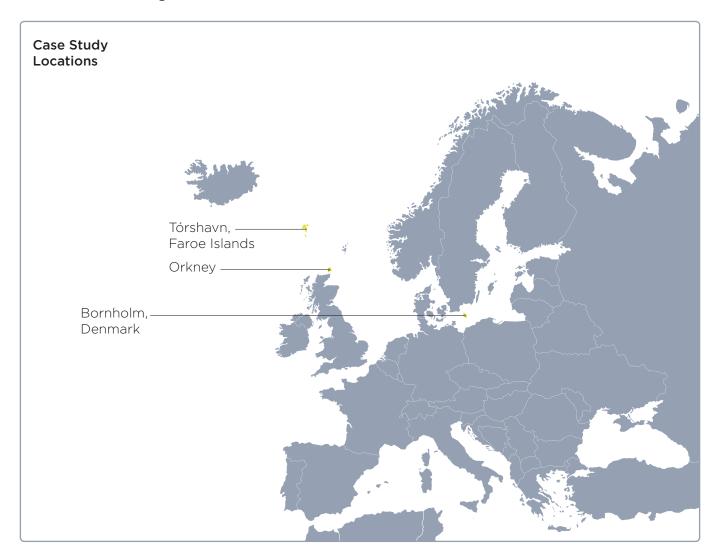
Island	Anchor organisation	CDO
Yell	North Yell Development Council	Reuben Irvine
Hoy	Island of Hoy Development Trust	Aisling Philips
Barra	Voluntary Action Barra & Vatersay	Shona MacLeod
Raasay	Raasay Development Trust	Rosie Macinnes and Tom Luinsk
Islay	Islay Energy Trust	Neil Gow
Great Cumbrae	Cumbrae Community Development Company	Recruitment in progress

Overall, the Project will produce 6 carbon audits, 6 climate change action plans and 6 climate change investment strategies, one for each carbon neutral island. The work and the partnership that will go into producing such deliverables will allow the Project to draw lessons and good practices for all other Scottish islands.

Research Supporting the Project

Mapping the landscape

An important first step of the Project was mapping past and current climate change accounting exercises on Scottish islands and previous climate change related projects on Scottish islands and on oversea islands, with a specific focus on islands in Northern Europe (figure below). This <u>mapping exercise</u> was carried out by Ricardo following a commission from ClimateXchange.



One of the key findings from the study was that because of the diversity of Scottish islands it is important that the project provides decarbonisation support within a framework that is flexible and adaptable to local needs. Not all islands will need a greenhouse gas inventory to the same degree of accuracy or coverage. However, there is a need for an overarching framework that ensures consistency and comparability and that supports continuous improvement over time. Similarly, a climate plan or funding option that is relevant to one island may not be relevant to another island. That said, there are considerable opportunities for joint working and cross-learning between island communities within Scotland.

Overall, the study concluded that the project offers an opportunity for island communities to learn from each other, and to engage with others outside of Scotland, to continue to understand approaches, options and best practices in accounting GHG emissions, implementing climate action and unlocking climate finance.

Skills and sectors analysis

In December 2022 we will commence a study, commissioned through climateXchange, that will map the net zero gap skills on Scottish islands and carry out a net zero readiness assessment of island based relevant socio-economic sectors.

Net zero gap skills: The study will map skills needed to enable island decarbonisation. The goal will be to highlight to relevant stakeholders the need to strengthen existing training programmes or develop new ones.

Net zero readiness assessment: The study will assess current decarbonisation efforts of different economic sectors. The goal is to provide data for the future development of sector specific decarbonisation guidance, which will be informed by the outcomes of the net zero gap skills part of the study.

The study will shadow the six carbon neutral islands while having all Scottish islands in mind. This will contribute to the replicability driver of the Project.

Young Islanders and Decarbonisation

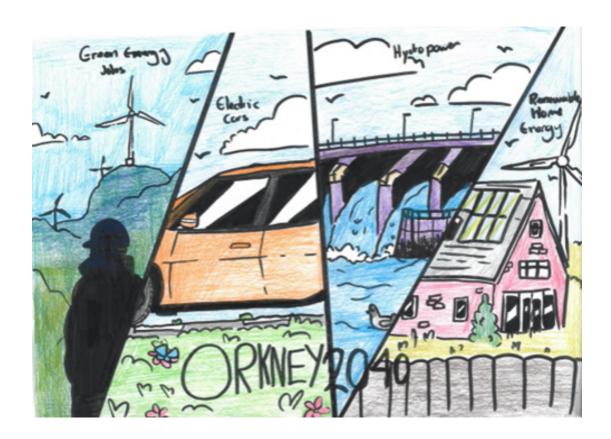
Our young people have a very strong voice when it comes to climate change. Movements like "Fridays for Future" and the rise in climate change litigation brought forward by youth groups demonstrate that young people are not only aware of climate change, but are keen to play an active role in dealing with it.

The Project acknowledges this role and has developed a school component to ensure that young islanders have the opportunity to contribute to the carbon neutrality journey of Scotland's islands.

Climate Change Message in a Bottle

In the run up to COP26 we worked closely with schools across Scottish islands to bring their voice to the conference in Glasgow through the <u>Climate Change Message in a Bottle project</u> led by the University of Strathclyde. This project to a number of events that took place in person and virtually and was attended by the Minister for Children and Young People. A <u>film</u> capturing the voice and perspectives of young islanders was produced by Uist Film which included an endorsement by the singer Sting. An interactive map showing all the messages was also created by Island Innovation. Thirteen island champions were in direct contact with the schools and young islanders before and after COP26.





Taking forward the conference legacy, the Climate Change Message in a Bottle moved into a second phase that aligned with Scotland's Year of Stories. In this phase we worked with fourteen schools whose pupils contributed with stories of their islands in a carbon neutral world by 2030. They produced drawings, some of which were selected through a competition to be the front and back cover of this report. Taking inspiration from these carbon neutral stories, two artists (Melanie Grandidge and Hannah Rioridan) designed a ZINE that was shared with all participating schools.

Both phases of the Climate Change Message in a Bottle have been captured in a final report.

Carbon Neutral Islands Schools Project

Building on the work carried out already in the Climate Change Message in a Bottle, the Project has included a school component, that will be delivered by Youth Scotland.

This will help educate young islanders on climate change and empower them to apply this knowledge within their own island based realities, highlighting the importance of young islanders in policy and decision making – a key objective of the <u>Young Islanders Network</u> and in line with a Programme for Government commitment and National Islands Plan objectives.

Internationalisation

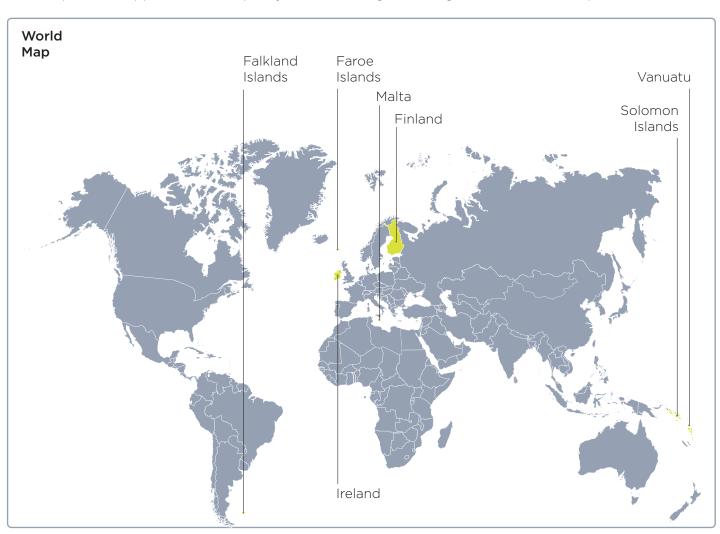
Given the overall net zero international profile of Scotland, the Project has developed an international strategy that reflects the leading role of islands in decarbonisation. The international strategy has two objectives.

Firstly, it wishes to share with islands worldwide good practices and learning stemming from the deployment of renewables across Scottish islands. At the same time, Scotland's islands are keen to learn from success stories elsewhere.

Secondly, the Project is developing the foundations for practical collaborations with island partners that go beyond the mere exchange of good practices. This part of the international strategy will provide an enabling platform for commercial opportunities from and to Scotland in the field of renewables. For example, the government of Malta has shown a strong interest in Scottish islands' experience and commercial opportunities around floating wind and green hydrogen. A field visit by colleagues from the Maltese Energy and Water Agency took place in Orkney and Edinburgh in early September 2022.

The Project has also started exploratory talks around carbon neutrality with the Faroe Islands, the Falkland Islands, Ireland, Finland, Vanuatu and the Solomon Islands.

The international dimension of the Project responds to the ambition present in the <u>National Islands</u> <u>Plan</u> to promote opportunities for policy and knowledge exchange with international partners.





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