

PHASE ONE ACTION PLAN PROGRESS REPORT 1st April 2021 - 31st March 2022



July 2022

INTRODUCTION

In May 2019 Tynwald formally recognised that there is a global climate emergency and the need for urgent climate action in the Isle of Man. Professor James Curran led a project to help the Island understand how it could play its part in reducing greenhouse gas emissions and, supported by a cross-governmental team, produced the IMPACT (Isle of Man Programme for Achievement of Climate Targets) report.

That report was quickly followed by the Council of Ministers Action Plan for Achieving Net Zero Emissions by 2050 (more commonly known as the Phase One Climate Action Plan) which was unanimously approved by Tynwald in January 2020. The Climate Change Transformation Team and Board were then established to deliver the plan and on-going climate action.

The Phase One Action plan consisted of 60 actions across 10 workstreams, running until 1st April 2022. This report gives a detailed update of the progress during the period 1st April 2021 to 31st March 2022.





PROGRESS SUMMARY

An action-by-action status update is set out in Appendix 1.

20 ACTIONS COMPLETED

27 ACTIONS IN PROGRESS

7 ACTIONS SUPERSEDED

3 ACTIONS CLOSED

3 NOT COMMENCED

NOTE

- Superseded - Either an action in the Climate Change Plan 2022-2027 supersedes the previous action in the Phase One Plan, or the Climate Change Act 2021 provides a statutory framework for completion of the action.
- Closed - deemed not feasible, etc.
- Not started - The Climate Change Transformation Team carried out a prioritisation exercise across all 60 actions to enable resource to focus on the most urgent actions.

HIGHLIGHTS

Highlights of progress during the report period include:

- The Bill came into effect as an Act on 14th December 2021 enshrining our net zero goal in law and establishing a clear framework for climate action planning and accountability for delivery.
- Emissions data has been reviewed and improved through work with the UK's data assessment contractor. This work identified a material overstatement of property related emissions and, in agreement with the UK organisation who prepare both countries' data, has resulted in a material adjustment to the Island's stated emissions from 2004-2018.
- A prioritisation methodology was introduced so that potential projects are principally appraised on the basis of their net costs per unit of reduction of CO2 emissions, whilst increasingly taking account of the social and economic implications.
- Future energy scenarios were modelled for the Island to help inform how we could reach our previous target of 75% renewable energy by 2035 and ultimately 100% by 2050. Work has continued to identify the best mix of renewable and carbon neutral electricity sources for the Island and an Energy Strategy is being developed.
- Renewable heating scenarios have been developed and published to identify the potential roadmap to achieve the decarbonisation of heating systems.
- The Green Living Grant was launched which will support up to 1,200 home owners to improve the efficiency of their homes. This is predicted to save around 3,000t CO2/year and is subject to ongoing review as to its effectiveness.





HIGHLIGHTS CONTINUED

- Ongoing work with government estate managers to identify opportunities for sustainable and appropriate energy efficiency measures across the government estate has been joined up with a Strategic Infrastructure Needs Assessment.
- Work with University College Isle of Man and the construction industry to develop the skills needed to ensure near net zero housing, identifying and establishing courses to upskill and add to the pool of contractors.
- Six hybrid buses operating around the Island's public transport network and DOI are increasingly buying electric vehicles where possible for the government vehicle fleet.
- 85,000 trees have been planted at Meary Veg. Once established, this will sequester around 100t CO2 per year.
- An initial peat restoration project has begun.
- Work on the blue carbon project has begun – collecting the data needed to understand and maximise the potential of our marine habitats to contribute to our climate goals.
- A Citizens' Forum was held regularly during 2021, which was instrumental in the formation of the principles for the Green Living Grant.
- Following public consultation, an interim target of 45% reduction in emissions by 2035 was approved in March 2022 by Tynwald.

STATUTORY REPORT CONTENT

The following content complies with the requirements of section 19 of the Climate Change Act 2021.

1. Changes made to the plan during the reporting period

There were no changes made to the Phase One Plan during the reporting period.

2. The way the just transition principle and the climate justice principle have been implemented

Action 10.6 of the Phase 1 Action Plan set out the requirement to: “Develop a strategy for just transition that will enable all sectors of society to make the necessary change and prevent exclusion or disadvantage through change”. That action aligned very closely to part of what was needed to meet the requirements of the Act in relation to providing guidance for public bodies.

These workstreams were therefore amalgamated and completed in the form of the ‘Climate Change Duties – Guidance for Public Bodies’ which includes the ‘Fair Change Framework’ covering in detail the just transition and climate justice principles (published 31 March 2022).

3. The extent to which biodiversity, ecosystems and ecosystems services have been enhanced, protected or otherwise affected

The physical work undertaken leading directly to the enhancement, protection and restoration of ecosystems, habitats and biodiversity has been limited during Phase 1; however, the works listed below will, as they mature and reach completion, have an increasingly positive impact:

- People’s Wood at Meary Veg
- Peatland restoration work
- New woodland creation adjacent to King’s Forest, Greeba

An increase in ambition and funding for nature-based solutions, including with the private sector, will be required if the Island is to meet its net zero target as substantial fugitive emissions are anticipated to remain. An improvement in the monitoring, assessment, and tracking of the expected benefits is essential to understanding the impacts of the actions undertaken.





4. Sustainable Development Goals linkages

Appendix 2 lists the links between actions in the Phase One Plan and the Sustainable Development Goals.

5. New emission sources

No new significant emission sources were identified during the report period.

6. Barriers to emission reductions

6.1 Embedding a culture of climate action and ensuring all government departments make decisions which align to lowering emissions.

Finding a balance between the changes needed to reduce emissions and the existing functions of government departments and boards has been challenging. Departments have their existing functions to consider and concerns about resource and funding for climate action are common.

For effective climate action to be achieved, emission reduction must become embedded in decision making across government. The team's role is expected to focus on facilitating departments (and other public bodies) to decide themselves how best to deliver emissions reductions, in ways which support delivery of their existing functions.

This approach will make best use of the extensive knowledge and expertise those public bodies have in their own fields; will foster ownership of actions to reduce emissions; and contribute to compliance with the statutory climate change duties for public bodies.

The Act requires that we perform responsibly as government but inevitably the organisation is still learning how to deliver across its vast range of services as well and there are early challenges and teething troubles. The climate change duties and associated reporting will help to facilitate this change.

6. Barriers to emission reductions (continued)

6.2 Balancing good governance with urgent delivery, reflecting the climate emergency.

We need to get better at allocating resources appropriately. We will work with Treasury to review how we do this.

6.3 Capacity and resourcing

The number of staff in the team has fluctuated over the reporting period from 12 to four, during which time there have been a number of deadlines, set by the Act, which have required a great deal of work in a short time frame. This has been very challenging. At the same time, our colleagues around government are facing the same resourcing pressures and we will work with them to improve access to our fund to encourage applications which support resource allocation.

6.4 Cost of living rise

The recent cost of living rise has had a mixed effect on global climate change action. In many countries, it has spurred on action to move quickly to renewables and move away from the volatility of fossil fuels and guarantee energy security, with the UK announcing a move to 95% low carbon electricity by 2030. There is now an increased focus on energy efficiencies, such as fabric improvements, to reduce fuel bills which also have a positive impact on lowering emissions from buildings.

6.5 Meeting public ambition

Much of the work carried out to date by the team has been strategic – defining our roadmaps to ensure no regrets decisions across a range of scenarios and presenting this information to the Climate Change Transformation Board for onwards recommendation to the Council of Ministers. This means that tactical action has progressed less quickly, and that the scale of ambition which the public expects is often not achieved.





7. Unforeseen consequences of actions

There were no unforeseen consequences identified as a result of action taken to mitigate against climate change.

8. Extent to which the regulation and order making powers under the Act have been used

- The Climate Change (Interim Target) Regulations 2022 (SD 2022/53) were approved by Tynwald at the March 2022 sitting.
- The Climate Change Act 2021 (Appointed Day) (No.1) Order 2022 (SD 2022/135) was laid before Tynwald at the May 2022 sitting.
- On the 31st March 2022 the Climate Change Duties – Guidance for Public Bodies was published in accordance with section 22(3) of the Act.
- The Climate Change (Public Bodies Reporting Requirements) Regulations 2022 (SD 2022/124) are to be laid before Tynwald at the July 2022 sitting for approval.

9. Actions not in the plan which contributed to emissions reductions

Whilst we do not yet have emissions data for the period of this report we expect to see an emissions reduction in two areas: transport and energy.

In 2021 travel restrictions due to COVID were still in place and we expect that emissions from land and air travel will be lower than 2019 data. This cannot be deemed to be a long term reduction. A parallel reduction in road fuel through home working is also likely to be seen.

In addition to this, a planned outage on the steam turbine used in the CCGT (combined cycle gas turbine) power station in Pulrose meant that the Island imported the majority of its electricity between June and November 2021, leading to a significant (albeit temporary) reduction in local emissions.

10. New research during the period of the plan

During the period identified, three significant reports were released by the IPCC (Intergovernmental Panel on Climate Change) covering the causes, impacts and mitigation of climate change.

10.1 The Physical Science Basis (Working Group 1 Report)

This report details a definitive inventory of the physics of climate and climate change. It is considered the most important and complete source of scientific knowledge regarding climate change produced globally.

Section A.1 of the report's Summary for Policy Makers states that "It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred".

The report provides evidence which shows that much of the damage caused by human-induced climate change is now irreversible but makes clear that this should not deter effort to mitigate against those effects, which can still be limited by reducing emissions.

10.2 Impacts, Adaptation and Vulnerability (Working Group 2 Report)

This report focuses on the consequences of climate change and the ability of humans, the environment and ecosystems to adapt to the changes outlined in the Working Group 1 report.

Section B.1 of the report's Summary for Policy Makers states that "Human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability. Some development and adaptation efforts have reduced vulnerability. Across sectors and regions the most vulnerable people and systems are observed to be disproportionately affected. The rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt."





10.2 Continued

Section D.5.3 of the report's Summary for Policy Makers states that "The cumulative scientific evidence is unequivocal: Climate change is a threat to human well-being and planetary health. Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all."

10.3 Mitigation of Climate Change – (Working Group 3 report)

This report focuses on the consequences of climate change and the ability of humans, the environment and ecosystems to adapt to the changes outlined in the Working Group 1 report.

It also highlights the actions that can be taken to limit climate change and its effects. Although the report states that countries' current efforts are not sufficient to limit global warming to 1.5°C, it emphasises that urgent action and comprehensive policy packages, based on options that are readily available, could cut emissions by 50% by 2030.

The report makes it clear that immediate global action is needed and that delay will increase future costs.

10.4 Research conducted locally

The Climate Change Transformation Team commissioned two important reports during the reporting period:

- The Future Energy Scenarios (Arup Group)
- The Renewable Heating Scenarios (Gemserv)

Cross government working groups were set up to oversee the reports and members of the Citizens' Forum were also involved. The reports outline a range of scenarios, based on cost and levels of ambition, to reach net zero by 2050 across energy supply and building technology/heating systems. From these scenarios, strategies now need to be formed.

APPENDIX 1

ACTION BY ACTION UPDATE

1. Council of Ministers is committed to urgently establishing a Climate Change Transformation Programme, with a dedicated fund and a Political Steering Board to develop and deliver government's climate change action plan

Ref	Action	Status	Update
1.1	Establish a transformation fund to support activities and action in 2020/21.	Complete	An Environmental Protection Fund and a Climate Change Mitigation Initiative Fund have been established by Treasury. The funds were given a further £10 million (£5 million each) in the financial year 21/22.
1.2	Create a Climate Change Transformation Programme structure, Political Board and reporting and review cycles.	Complete	The Programme structure has been put in place with a monthly reporting and review cycle to the Climate Change Transformation Board.
1.3	Create a Climate Change Transformation Programme Team.	Complete	A team was put in place in October 2020 and comprised scientists, engagement specialists, researchers and project delivery officers dedicated to ensuring the Isle of Man reaches its net zero targets.
1.4	Prepare Phase 2 action plan for government, to be presented to Tynwald in 2021.	In progress	The Isle of Man Climate Change Plan 2022-2027 is expected to be presented to Tynwald in October 2022
1.5	Deliver the Phase 1 action plan, and report to Tynwald on progress in July 2020.	Complete	This action was completed in July 2020 and the progress report can be found on our website netzero.im .

2. Council of Ministers commits to government leading with large scale changes to reduce emissions

Ref	Action	Status	Update
2.1	Review government policies and align with the delivery of the target set for the Isle of Man to achieve net zero carbon by 2050.	Superseded	<p>This workstream now falls under the Climate Change Act 2021 climate change duties for public bodies. Guidance for public bodies in relation to their climate change duties was published on 31st March 2022 in line with the statutory deadline.</p> <p>Climate impact assessment methodology will be developed to meet the statutory implementation date of 31st December 2023 or earlier to assist us in the delivery of this action throughout government.</p>
2.2	Include performance indicators in the Programme for Government that will monitor and improve the Departments, Boards and Offices' individual carbon/greenhouse gases impact.	In progress	<p>Our Island Plan has superseded the Programme for Government and performance indicators have been included on behalf of the Climate Change programme. However indicators for Departments, Boards and Offices' individual greenhouse gases have not yet been set.</p>
2.3	Carry out a climate impact audit on government's estate creating a strategic plan to reduce emissions and maximise opportunities for carbon sequestration.	In progress	<p>This work has commenced and is expected to be completed by the end of 2022.</p>
2.4	Carry out short term actions to reduce the carbon impact of Government estates, such as implementing LED lighting, biomass boilers, electric space heating wherever possible.	In progress	<p>Engagement is underway with government estate managers and Treasury to develop a set of criteria where funding will support the reduction of CO2 emissions across government estates.</p> <p>A building rationalisation project is needed to determine which government buildings will be kept and which will be disposed of before money is spent on energy efficiencies. Treasury and estate managers are working together on a Strategic Infrastructure Needs Assessment which will help to ensure investments deliver long term benefits for the climate and our built environment. This action is expected to form part of the commitment to decarbonise the government estate in the Climate Change Plan 2022-2027.</p>

Ref	Action	Status	Update
2.5	Create a plan for installing cycle racks (with charging points for EV bikes) and showers in all public buildings, where suitable, and begin implementation.	In progress	To-date the Department of Infrastructure has installed cycle racks for 309 bikes in 14 locations, plus numerous showers.
2.6	Create policy immediately to move the government fleet to be electric or reduced emission vehicles by default (where practical) with the electrification of the public service fleet (excluding certain categories of specialist vehicle) to be achieved by 2030.	In progress	The government electric vehicle fleet currently stands at 4.6% of the car and van fleet. We are also working closely with DOI on their Fleet Strategy which currently states that all new purchases will aim to be electric by default.
2.7	Place the order for the first hybrid buses and put in place a programme for wider implementation.	In progress	To move the Island's public transport system away from carbon heavy vehicles the Department of Infrastructure has purchased six Mercedes Citaro single deck low emission hybrid buses. The wider implementation is expected to be delivered as part of a Strategic Transport Decarbonisation Review.
2.8	Fully implement government's plastics plan and eliminate unnecessary single use plastics and other disposables from government use.	Complete	Government's plastics plan has been fully implemented and the avoidance of purchase of single use plastics by departments has been agreed in principle. A commitment to develop a Waste Management Strategy in conjunction with the Department of Infrastructure and Department of Environment, Food and Agriculture as part of our Island Plan is expected to appear in the Climate Change Plan 2022-2027.
2.9	Develop and implement a plan to significantly reduce food waste across the government estate.	Superseded	An action to work with Department of Infrastructure, local authorities and businesses to inform a waste strategy that addresses emissions is expected to appear in the Climate Change Plan 2022-2027.

Ref	Action	Status	Update
2.10	Develop and implement a climate impact assessment to be required as part of all government procurement processes.	Superseded	A review of procurement processes was carried out in 2021 and an interview took place with the Climate Change Transformation Team with a sustainability section now included in the final report to Treasury. In addition, Climate Impact Assessments (including procurement decisions) will be delivered to meet the statutory implementation date of 31st December 2023 or before.
2.11	Encourage mobile working, where possible for government employees to reduce travel requirements.	Closed	COVID restrictions made mobile/remote working commonplace for government workers. Where appropriate government departments still are supporting employees who can work from home to reduce travel requirements. Government Technology Services has enhanced mobile technologies and infrastructure to facilitate the transition to remote working.

3. Council of Ministers commits to securing no less than 75% of the Island's electricity from renewable sources by 2035

3.1	Develop a strategic plan for delivering 75% of the Island's electricity from renewable sources by 2035.	In progress	The Future Energy Scenarios (FES) report by external consultants Arup Group has been completed which identifies five pathways to achieving 75% of the Island's electricity by renewable sources by 2035.
3.2	Model the future electricity grid requirements.	In progress	The future electricity grid requirements were a high level output of the FES work referred to above, though significant technical appraisal is ongoing.
3.3	Launch prior information notice (pre tender) for onshore renewable energy generation up to a maximum capacity of 20MW.	Complete	A Prior Information Notice (PIN) process was completed in October 2020 and responses helped IoM Government to develop a tender for the FES work.

Ref	Action	Status	Update
3.4	Launch prior information notice (pre tender) for offshore wind farm.	Closed	An agreement is already in place with Orsted and a review of the Offshore Energy Strategy is currently underway. This action has been closed until the results of the strategy have been finalised and agreed.
3.5	Review MUA practices and the Electricity Act and propose changes to encourage diversified generation.	Complete	Manx Utilities practices were reviewed and the Climate Change Act 2021 contains amendments to the Electricity Act 1996 designed to facilitate diversified generation.

4. Council of Ministers commits to providing a wide range of incentives, both financial and non-financial, and raising standards to reduce emissions from buildings in the Isle of Man.

4.1	Build awareness and skills for contractors in energy efficiency and low carbon heating options.	In progress	The development of a skills roadmap to outline the transition across the construction industry is progressing with guidance from industry professionals and a report is due to be published.
4.2	Develop building controls to assist with meeting climate targets, to include the ban of fossil fuel heating appliances by 2025 in new build properties and set an appropriate date by which to ban the replacement of existing heating appliances with oil powered models.	In progress	Fossil fuel heating systems in new buildings will be banned by 2025 under the Climate Change Act 2021; bringing the ban of fossil fuel heating systems forward is expected to be included in the Climate Change Plan 2022-2027 along with a commitment to start to phase out fossil fuel heating system replacements from 2025, in line with the recommendations from the Renewable Heating Scenarios report.
4.3	Develop and propose revised support schemes for energy efficiency and space heating to reduce property emissions.	Complete	Government departments have worked collaboratively to develop a grant scheme to reduce residential property emissions. The Green Living Grant Scheme launched on 1st October 2021 and is operated by the Department for Enterprise, using funding from the Environmental Protection Fund.

Ref	Action	Status	Update
4.4	Establish a new, low electric heating tariff to encourage electrification of heating.	Closed	The Manx Utilities Comfy Heat Tariff is an existing tariff aimed at customers looking to charge their EVs or use electric heating in their homes. There are currently no plans to establish a new tariff.

5. Council of Ministers commits to increasing natural carbon capture opportunities, whilst protecting and enhancing ecosystems, to help reach net zero by 2050

5.1	Complete the first in a series of peat land restoration projects, restoring a minimum of 1000 acres.	In progress	The peat land restoration project began early in 2021. Work will continue to be managed by the Department of Environment, Food and Agriculture alongside their business as usual activities. The next phase of work will begin in winter 2022 after the animal breeding season is finished. Expected completion 2023-2024 season.
5.2	Complete the first in a series of woodland planting projects with wider ecosystem benefits (for example natural flood risk management, biodiversity).	In progress	Woodland assessments have taken place with a plan to create more woodland in 2021/22. A site has been selected and funding approval is pending.
5.3	Plant a woodland (Keyll y Theay) of 85,000 trees at Meary Veg.	Complete	Planting of the People's Wood at Meary Veg Santon has been completed.

Ref	Action	Status	Update
5.4	Develop a comprehensive land management plan to maximise carbon sequestration and maintain and restore biodiversity and wider ecosystem services.	In progress	A working group from across government has completed a specification for commissioning a comprehensive Land Management Plan. This plan will identify key opportunities and risks around land management for carbon sequestration and for emissions. Commitments related to the Land Management Plan are expected to appear in the Climate Change Plan 2022-2027.
5.5	Provide additional incentives for tree planting under the Agricultural Development Scheme and through a dedicated woodland grants scheme.	Complete	The new Agri-Environmental components of the Agricultural Development Scheme launched in April 2021 and the Woodland Grant Scheme was approved by Tynwald in July 2021.
5.6	Ban all peat cutting.	In progress	The Climate Change Act 2021 includes amendments to the Forest Act 1984 which, once enacted, will ban all peat cutting and all activities relating to the unlicensed disturbance of peatlands. Work is now needed to develop a peatland register.
5.7	Develop a comprehensive blue carbon management plan to maximise carbon sequestration and maintain and restore biodiversity and wider ecosystem services.	In progress	Phase 1 of a project to maximise blue carbon has been approved by Treasury and delivery by the Department of Environment, Food and Agriculture has commenced.
5.8	Work in partnership with the Manx National Farmers' Union (MNFU) to consider the active role agriculture can play in increasing sequestration.	In progress	Engagement with MNFU is ongoing and we will produce documentation to advise and guide commitments related to agricultural emissions reduction in the Climate Change Plan 2022-2027.

Ref	Action	Status	Update
5.9	Develop planning advice on maximising carbon sequestration, minimising emissions and maintaining and restoring ecosystem services, and work towards a requirement for biodiversity net gain and for appropriate Sustainable Drainage Systems in future planning policy.	In progress	A policy to include appropriate Sustainable Drainage Systems (SuDS) is being developed with planning and ecosystems policy officers.

6. Council of Ministers commits to achieving net zero carbon emission transport by 2050

6.1	Ensure new Isle of Man Steam Packet Company vessel specification allows transition to alternative, low carbon fuel.	Complete	The new vessel specification allows transition to alternative, low carbon fuel.
6.2	Develop an Active Travel Strategy in line with Planning Policy for areas outside of Douglas.	In progress	The Department of Infrastructure launched the Active Travel Strategy in 2018 to encourage people to make every-day journeys by more active means, such as walking and cycling. The strategy focuses on all areas, not just areas outside of Douglas. This expected to appear as a key action in the Climate Change Plan 2022-2027.
6.3	Bring forward a strategy which promotes public transport and active travel; considering a package of measures that will be required to change travel behaviour, including vehicle duty orders, car parking charges, planning policies, car sharing and deploying electric charging points in park/ride and park/walk facilities.	Superseded	The Strategic Transport Decarbonisation Review will progress this by identifying the roadmap for the Island to decarbonise surface transport which will move us forward in reaching net zero by 2050. This action is expected to form part of the Climate Change Plan 2022-2027.

Ref	Action	Status	Update
6.4	Develop an all island charging network by 2030; strategically aligning plans for private and public sector provisions (including facilities for high speed charging).	In progress	Manx Utilities are developing the Island's charging network and have to date installed 74 public electric charging points, in line with their objective of one charging point per 10 electric vehicles on the Island. There are 772 electric vehicles currently registered on Island (February 2022).
6.5	Announce future road tax requirements.	Superseded	This action will be delivered by collaboratively working with the Department of Infrastructure to ensure alignment with the Strategic Transport Decarbonisation Review.
6.6	Announce end date for registration of fossil fuelled vehicles.	In progress	The Climate Change Plan 2022-2027 is expected to include a ban on registrations of new petrol and diesel cars from 2030 and hybrids from 2035, in line with the UK and EU.

7. Council of Ministers commits to work with our business sector and industries to adapt as market conditions change and to facilitate economic growth in the transition to a neutral economy

7.1	Review of business/industry emissions and options to reduce emissions - in partnership with Chamber of Commerce and other business and industry partners.	In progress	Work to improve data inputs into the greenhouse gas inventory has increased our understanding of business emissions. Supporting businesses in their plans to reduce emissions is expected to form part of the Climate Change Plan 2022-2027.
7.2	Review of agriculture emissions and options to reduce emissions, in partnership with Manx National Farmers' Union (MNFU).	In progress	Engagement with the MNFU is ongoing to explore what options, and what barriers, are in place to prevent further carbon sequestration on farms. A commitment to develop an agricultural emissions reduction strategy is expected to form part of the Climate Change Plan 2022-2027 which could be facilitated by amendments to the Agri-Environment Scheme to encourage sustainable and lower emission practices.

Ref	Action	Status	Update
7.3	Publish a re-skilling strategy and action plan for a green economy, to include a further and higher education programme to match skills to future needs.	Not started	This action will not be delivered until all formal strategies have been delivered. However, work is underway with regard to capacity and reskilling the construction sector.
7.4	Establish a local offsetting scheme to fund Isle of Man carbon sequestration projects, initially to offset personal and business flights.	In progress	Following an initial assessment an offsetting scheme was found to be unfeasible on the Island due to the limited land size and risk of disproportionate governance overheads. However, the research showed that a scheme which enables businesses to contribute to funding local sequestration projects would be more feasible and therefore is expected to form part of the Climate Change Plan 2022-2027.
7.5	Develop a strategy to encourage green technology and innovation on the Isle of Man.	In progress	Work is underway with external consultants to create the Economic Strategy for the Isle of Man on the opportunities in this sector.
7.6	Investigate opportunities for further business hubs in key locations around the Island.	Not started	This work stream was not started as the focus on working from home became a higher priority in reducing emissions.
7.7	Develop plans that encourage a climate action and a circular economy by reviewing business support schemes to incentivise climate positive initiatives and discourage climate negative ones.	Not started	This work was not completed; however, the Climate Change Plan 2022-2027 is expected to contain a commitment to review the support offered to local businesses.

8. Council of Ministers reconfirms its commitment to bring a Climate Bill into the branches by June 2020

Ref	Action	Status	Update
8.1	Carry out a formal public consultation on the Climate Change Bill.	Complete	A formal public consultation on the Climate Change Bill was carried out in July/August 2020 and the responses contributed to the formation of the Climate Change Bill. The Climate Change Act 2021 is now in effect.
8.2	Introduce a Climate Change Bill into the branches by June 2020 that will provide a legal framework to enable the delivery of net zero emissions by 2050.	Complete	The Climate Change Act 2021 came into effect on 14th December 2021.

9. Council of Ministers is committed to a full awareness and engagement campaign to enable individuals and organisations to understand climate change and undertake the changes required to achieve net zero.

9.1	Develop and implement a public information and engagement campaign; promoting zero carbon actions that individuals, families and businesses can take.	Complete	Our public engagement and communications campaign, Net Zero Isle of Man includes new social media channels, focus groups, community events and pop-up sessions across the Island to raise awareness of climate change and increase action. This is an ongoing action.
9.2	Create website with information and resources to inform and inspire action (e.g. energy efficiency tools, business tools).	Complete	The climate change website netzero.im was launched in September 2021. This provides clear and concise advice for the Island's communities with a focus on educational toolkits and guidance to actively reduce emissions. Also included in the site are interactive dashboards, articles by subject matter experts, guidance for businesses, blogs, community events, and how to take action.

Ref	Action	Status	Update
9.3	Organise community events to provide inspiration, information and advice to enable change.	Complete	Community events are a central part of our engagement programme and we have run a series of in-person drop ins, online webinars, talks and forums (including our Citizens' Forum) during the past 12 months.
9.4	Commission independent focus groups to explore and report on public support and capability for change, to inform the phase 2 action plan.	Complete	Independent focus groups were commissioned to complete the insights work that has identified the perceived barriers around low carbon lifestyles. These were held late in 2020. This approach will continue to find new and improved ways of involving the public in the decisions that affect their lives. Additional insights research was carried out in December 2021
9.5	Raise awareness of climate science and climate action in schools and encourage change.	In progress	We have engaged with young people to talk about climate change and a combination of learning activities and teacher training have been rolled out across schools since September 2021.

10. Council of Ministers is committed to further research and analytical work to understand the complexities and impact of Professor Curran's report upon our economy, our environment and across all sectors of our community, reporting to Tynwald with government's climate change action plan

10.1	Complete a comprehensive review and feasibility study on Professor Curran's report - determining more robust costs with an expenditure profile and clear understanding of the impact on all areas of our economy, our environment and across all sectors of our community.	Superseded	This work was incorporated into the development of the energy, renewable heating, transport decarbonisation and land management strategies.
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Ref	Action	Status	Update
10.2	Carry out further research and analytical work on areas beyond the scope of Professor Curran's report that might provide further options for action for the Isle of Man to achieve net zero by 2050.	Complete	The Climate Change Transformation Team undertook research and analysis on a regular basis over the period of the Phase 1 Action Plan which fed into policy recommendations for the Climate Change Transformation Board.
10.3	Undertake a comprehensive exercise to understand the funding options available and the social and economic implications of those options.	Superseded	Costs and funding options of key emission-reduction actions are being assessed as part of the ongoing strategy development work. Further specific research into funding, finance and socio-economic factors is required are expected to form part of the Climate Change Plan 2022-2027.
10.4	Develop a system for setting, reviewing and monitoring carbon targets for Isle of Man emissions, with appropriate advice and validation.	Complete	Extensive work has been completed on reviewing emissions inventory which has given us a more accurate view of our greenhouse gas emissions inventory. In accordance with the Climate Change Act 2021 an interim target of 45% reduction by 2035 was set via regulations, in March 2022.
10.5	Carry out further research to fill evidence gaps identified within Professor Curran's and the Analytical Team's reports.	Complete	Research to fill these evidence gaps is in part being fulfilled in the planned energy, renewable heating, transport and land management strategies.
10.6	Develop a strategy for 'just transition' that will enable all sectors of society to make the necessary changes and prevent exclusion or disadvantage through change	In progress	A just transition strategy, the Fair Change Framework, has been drafted and was published in March 2022. The Fair Change Framework is intended to form part of the statutory guidance for public bodies in relation to fulfilling their duties under the Climate Change Act 2021 and incorporates guidance for implementing the principles of just transition, climate justice, sustainable development and the protection and enhancement of biodiversity, ecosystems and ecosystem services.

Research Area	Research required	Final update
<p>Determine more robust costs and expenditure profile.</p>	<p>Expert financial analysis of each action, improving the data available on costings, carrying out appropriate financial modelling and considering interdependencies of actions. Detailed research on options for funding the delivery of the full plan, including scope for implementing new taxes and levies (including a carbon tax), government bonds, determine taxation regulations and opportunities for 'ring-fencing' funds for decarbonisation.</p>	<p>Detailed financial analysis of transition is not possible until key policy decisions are made regarding future strategies. However, a commitment to develop a Funding Strategy as a priority is expected to appear in the Climate Change Plan 2022-2027.</p>
<p>Start peatland restoration.</p>	<p>Full restoration plan requires survey of peatland condition and sources and sinks identified.</p>	<p>The proposed Land Management Plan will identify and recommend action where peatland restoration is a viable option. The peat land restoration project began early in 2021 and will continue to be delivered by the Department of Environment, Food and Agriculture.</p>
<p>Start woodland planting.</p>	<p>Further research, planning and assessment is required prior to wide-scale woodland and semi-natural habitat creation to determine the best areas, to avoid negative impacts and ensure long-term viability and climate change resilience.</p>	<p>The proposed land management plan will identify and recommend action where woodland restoration is a viable option. A working group from across government has completed a specification for commissioning a comprehensive Land Management Plan which will identify key opportunities and risks around land management for carbon sequestration and for emissions.</p>

Research Area	Research required	Final update
<p>Model future electricity grid requirements.</p>	<p>Detailed modelling of future electricity scenarios.</p>	<p>A high-level stability power systems analysis model was developed in 2021, using the software ERACS by Manx Utilities in partnership with RINA. Arup were able to utilise the model to support the Future Energy Scenarios report. This model covers the transmission network and high voltage distribution network and Manx Utilities retains use of this model. A separate study was completed by EA in 2019 to cover expected uptake of heat pumps and electric vehicles.</p>
<p>Provide planning advice on ecosystem service gain.</p>	<p>Research into effective schemes elsewhere and appropriate content for IOM.</p>	<p>Work is on-going with planning policy officers to inform how the amendments to planning legislation comprised within the Climate Change Act 2021, in relation to a range of climate change concerns, can be implemented.</p>
<p>Develop a Sustainable Drainage (SuDs) policy.</p>	<p>Research specific carbon sequestration rates for individual SuDS elements relevant to temperate/UK climates.</p>	<p>A new SuDs policy is being finalised by the Department of Environment, Food and Agriculture in conjunction with the Department of Infrastructure and Manx Utilities. This policy will encourage the use of SuDs in new developments and allow their adoption by the most appropriate body, which for the majority will be Manx Utilities.</p>
<p>Publish a re-skilling strategy and action plan for a green economy.</p>	<p>Research net zero pathways and associated skills and support needs.</p>	<p>The outcomes of this research identified that the strategic direction for energy, transport and buildings should be established before creating a re-skilling strategy.</p>

Research Area	Research required	Final update
<p>Introduce a single-use plastics ban.</p>	<p>Quantifying carbon benefits of plastics ban.</p>	<p>The Department of Environment, Food and Agriculture consulted on regulations to prohibit the sale and distribution of certain single-use plastic items in 2021.</p>
<p>Launch domestic energy-efficiency scheme.</p>	<p>Full consideration of costs, benefits and wider social, economic and environmental implications of scheme.</p>	<p>The Green Living Grant (GLG) Scheme was launched in October 2021, and it aims to provide Island residents with financial assistance to reduce carbon emissions and household energy bills. The grant provides a financial contribution of up to a maximum of £6,000 per property (March 2022), to date there have been 1400 applications. Domestic Home Energy Assessors have been appointed and audits have commenced. It is expected that the Scheme could significantly lower emissions in around 1,200 properties and save nearly 100,000 tonnes of CO2 entering the atmosphere before 2050.</p>
<p>Revise MUA practices to encourage diversified generation – may require legislation.</p>	<p>Assessment of what is required to enable diversified generation and what the implications will be for enabling this.</p>	<p>Manx Utilities practices were reviewed and the Climate Change Act 2021 contains amendments to the Electricity Act 1996 designed to facilitate diversified generation.</p>
<p>Call for expressions of interest for provision of onshore wind and solar capacity (150MW and 50MW).</p>	<p>To understand the actual cost of energy for onshore wind in Isle of Man, carry out business appraisal of windfarm sites. Research to understand key environmental issues.</p>	<p>The Future Energy Scenarios (FES) report showed neither of these were economically realistic due to on-island economic uplift and lack of export opportunity (the capacity of wind and solar proposed would be greater than Island demand so we would have to constrain them and balancing costs as we know are high). The 2009 Mott MacDonald report suggests that 20MW is the maximum realistic renewable capacity. Several businesses are looking at renewables for off-grid systems.</p>

Research Area	Research required	Final update
<p>Feasibility + call for expressions of interest in geothermal energy.</p>	<p>Further research into viability of geothermal in the Isle of Man.</p>	<p>Geothermal is not viable on the Isle of Man as we have no recent igneous intrusions and was discounted from the Future Energy Scenarios report. Deep-well geothermal energy may become viable in the distant future, but technology must shift substantially.</p>
<p>Launch time-limited subsidy scheme for electric vehicle purchase.</p>	<p>Acknowledging that the market through which we purchase electric vehicles is already subsidised, continue to track the electric vehicle purchase trends in the Isle of Man and if appropriate identify alternative means to stimulate market growth.</p>	<p>This will be considered as part of the Strategic Transport Decarbonisation Review which will be undertaken in 2022. Work is currently in progress with Department of Infrastructure and Manx Utilities.</p>
<p>Map habitat connectivity opportunities.</p>	<p>More detailed work on habitat mapping and connectivity opportunities.</p>	<p>This will be undertaken as part of the proposed integrated Land Management Plan.</p>
<p>Increase active travel in all locations; strengthen planning guidance.</p>	<p>Research into active travel constraints and opportunities outside the current Douglas-centred work.</p>	<p>It is expected this work will be fed through to the Climate Change Plan 2022-2027. Currently the Active Travel Strategy is owned by the Department of Infrastructure and they have been implementing the strategy across the Island.</p>
<p>Agri Environment scheme (AES) includes agri-forestry, produce diversification, innovation in livestock management, precision agriculture, energy generation, direct marketing to customers.</p>	<p>Feasibility and costing assessments for all/most appropriate options. i.e results based payments, high nature value farming payments.</p>	<p>The Climate Change Plan 2022-2027 is expected to include actions to develop both the effectiveness of the AES to support emissions reduction and an agricultural emissions reduction strategy will be undertaken. This will include the feasibility and costing of any recommendations.</p>

Research Area	Research required	Final update
Climate change in curriculum in schools.	Further research into most effective way to deliver climate science and action education and training of educators.	This was an action in the Phase One Action Plan and is expected to be carried through to the Climate Change Plan 2022-2027.
Promote public transport.	Build on existing work into constraints and opportunities for higher uptake of public transport.	This is expected to be carried through to the Climate Change Plan 2022-2027.
Review Dept for Enterprise business support schemes to promote energy/resource efficiency.	Research into local context and international experience in business incentives.	The Department for Enterprise provides a loan of £20,000 to support businesses to move to a low energy transition. This loan amount is being reviewed.
Enhance blue-carbon assets; deliver a marine management plan.	Full audit of blue carbon capacity and potential. New survey work building on benthic (marine) habitat map and analysis of carbon potential.	This was an action in the Phase One Action Plan and the audit was started in March 2022.
Launch subsidy scheme to replace oil-fired heating.	Full assessment of options to deliver this in the most cost-effective way.	This was completed as part of the Renewable Heating Scenarios and as part of the Green Living Grant
Circular economy bill.	Research opportunities for circular economy in Manx context and whether this can be enabled through a single Climate Change Bill.	This was not taken forward, although proposals around a circular economy are expected to be contained in the Climate Change Plan 2022-2027.

Research Area	Research required	Final update
Climate adaptation bill.	Extensive research required on current adaptation, gaps in provision and future needs and whether this can be enabled through a single Climate Change Bill.	This was not taken forward, although adaptation is expected to be addressed in the Climate Change Plan 2022-2027.
Complete grid strengthening and smart grid management, including battery storage.	Further research and modelling of future grid requirements and storage opportunities.	Manx Utilities have taken this action forward.
Encourage distributed energy generation.	Further work on wider requirements and implications of community generation.	This was considered in the Future Energy Scenarios report.
Call for expressions of interest in vehicle charging network.	Research into the most effective approach to vehicle charging, considering private, public and consumer provision and considering wider interdependence and opportunities.	This will be picked up by the Strategic Transport Decarbonisation Review work due to be undertaken in 2022.
Heat from energy-from-waste (EfW) plant now utilised.	Additional work to understand capacity for this, including calculation of EfW renewable energy based on waste feedstock analysis.	This was not taken forward.
Consider legislation for oil-fuel levy if oil-heated property conversions are stalling and increase vehicle tax for fossil fuelled vehicles if progress is slow.	Further research most effective approach to regulating fossil-fuel heating and wider implications in terms of social impacts, commercial implications etc.	Expected to be carried forward in the Climate Change Plan 2022-2027.

Research Area	Research required	Final update
<p>Electrification of public vehicles.</p>	<p>Further research required, e.g. on leasing possibilities and alternative approaches.</p>	<p>This will be picked up by the Strategic Transport Decarbonisation Review work due to be undertaken in 2022.</p>
<p>Diesel power station running on biodiesel, or decision to decommission.</p>	<p>Practicalities regarding the introduction of biofuels in the short term to reduce emissions. Wider implications of decommissioning.</p>	<p>This work has recently been commissioned by Manx Utilities.</p>
<p>Create strategic drop-in business hubs.</p>	<p>Research into most effective approach, market research into interest etc.</p>	<p>This was not taken forward.</p>
<p>Review and decide on feasibility of hydrogen production by hydrolysis.</p>	<p>Results from technical trials in the UK; financial impact assessment of CCGT conversion to hydrogen in £ per kWh. Need to establish optimal mix of renewable electricity generation capacity, hydrogen generation capacity and hydrogen storage capacity.</p>	<p>Hydrogen technology is something we are watching closely. The CCGT (combine cycle gas turbine) can operate at 5% hydrogen blend but hydrogen is currently not seen as viable for domestic use in heating, due to cost.</p>

Research Area	Research required	Final update
Commission biomethane plants for isolated gas grids	Understanding of biomethane options and opportunities and wider inter-dependencies.	This was not taken forward
Decide on recommission or decommission of Pulrose CCGT station	Extensive research and modelling required, including work on inter-dependencies, energy security and a wider range of other issues.	The Future Energy Scenarios gave a suggested date of end 2031 for the CCGT to be decommissioned however, discussions are ongoing as to whether it could be re-purposed.
After review, call for expressions of interest in tidal generation	Assessment of generation capacity of tidal range/stream in areas of the Island's seabed and advanced hydrographic modelling of specific areas of the IOM tidal stream.	Tidal generation was considered in the Future Energy Scenarios but at the time of writing the technology is expensive in comparison to other renewable technology. We are keeping track of developments in this area
Review and decide on space heating for gas-fired premises; feed hydrogen into main grid, or convert to electrically-powered heating	Need to establish optimal mix of renewable electricity generation capacity, hydrogen generation capacity and hydrogen storage capacity	This was completed as part of the Renewable Heating Scenarios
Launch subsidy scheme for gas space heating conversions	In depth study and scenario modelling to understand benefits and implications of different approaches to replacing gas heating	This was completed as part of the Renewable Heating Scenarios and as part of the Green Living Grant

APPENDIX 2

SUSTAINABLE DEVELOPMENT GOALS

Phase 1 Actions	Anticipated relation with the UN Sustainable Development Goals																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3	-	-	-	-	-	-	-	-	↑	↑	↑	-	-	-	-	-	-
2.4	-	-	-	-	-	-	-	-	-	↑	-	-	-	-	-	-	-
2.5	-	-	↑	-	-	-	-	-	-	↑	↑	-	-	-	-	-	-
2.6	-	-	↑	-	-	-	-	-	-	↑	-	-	-	-	-	-	-
2.7	-	-	↑	-	-	-	-	-	-	↑	↑	-	-	-	-	-	-
2.8	-	-	-	↑	-	-	-	-	-	↑	-	-	-	-	-	-	-
2.9	-	-	-	-	-	-	-	-	-	-	↑	-	-	-	-	-	-
2.10	-	-	-	-	-	-	-	-	-	-	↑	-	-	-	-	-	-
2.11	-	-	↑	-	↑	-	-	-	-	↑	↑	-	-	-	-	-	-
3.1	-	-	↑	-	-	↑	↑	-	↑	↑	↑	↑	↓	↓	↓	↓	↓
3.2	-	-	↑	-	-	↑	↑	-	↑	↑	↑	↑	-	-	-	-	-
3.3	-	-	↑	-	-	↑	↑	-	↑	↑	↑	↑	-	-	-	-	↓
3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.1	-	-	-	-	-	-	↑	-	-	-	-	-	-	-	-	-	-
4.2	-	-	↑	-	-	↑	-	-	-	↑	-	-	-	-	-	-	-
4.3	-	-	-	-	-	↑	↑	↑	↑	↑	-	-	-	-	-	-	-
4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.1	-	-	-	-	↑	-	-	-	-	-	↑	↑	↑	-	-	-	-
5.2	-	-	↑	-	-	-	-	-	-	-	↑	↑	↑	-	-	-	-
5.3	-	-	↑	-	-	-	-	-	-	-	↑	↑	↑	-	-	-	-
5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5	-	-	↑	-	-	-	-	-	-	-	↑	-	-	↑	-	-	-
5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	↑	-	-	-
5.7	-	-	-	-	-	-	-	-	-	-	↑	↑	↑	-	-	-	-
5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	↑
5.9	-	-	-	-	↑	-	-	-	-	↑	-	-	-	-	-	-	-
6.1	-	-	-	-	-	-	-	-	-	↑	-	-	-	-	-	-	-
6.2	-	-	↑	-	-	-	-	-	↑	↑	↑	↑	↑	-	-	-	-
6.3	-	-	-	-	-	-	-	-	↑	↓	↑	↑	↑	-	-	-	-
6.4	-	-	-	-	-	-	-	-	↑	-	↑	↑	-	-	-	-	-
6.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.6	-	-	↑	-	-	-	-	-	-	↓	↑	↑	-	-	-	-	-
7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	↑
7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	↑
7.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5	-	-	-	-	-	-	↑	↑	-	↑	-	-	-	-	-	-	-
7.6	-	-	-	-	-	-	↑	↑	↑	↑	-	-	-	-	-	-	-
7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.2	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
9.1	-	-	↑	↑	-	-	-	-	-	-	↑	↑	-	-	-	-	-
9.2	-	-	-	↑	-	-	-	-	-	-	↑	-	-	-	-	-	-
9.3	-	-	-	↑	-	-	-	-	-	-	↑	-	-	-	-	-	-
9.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.5	-	-	↑	↑	-	-	-	-	-	-	↑	-	-	-	-	-	-
10.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Potential Impacts	
Positive	↑
Both positive and negative	↕
Negative	↓
No Impact	-



The chart opposite shows the extent to which the actions have contributed to sustainable development, including the achievement of the United Nations sustainable development goals. This is a key requirement of the Climate Change Act.

Each action is listed numerically with an indication of its potential impact on these goals.

LINKS

Future Energy Scenarios

https://www.gov.im/media/1373568/iom-fes-final-report_compressed.pdf

Renewable Heating Scenarios

<https://netzero.im/media/d4xb3dpl/isle-of-man-report-dec-2021-final-combined-v2-compressed.pdf>

Climate Change Duties - Guidance for Public Bodies

https://netzero.im/media/3zabesuf/climatechangedutiesguidanceforpublicbodies_31032022.pdf

Fair Change Framework

https://netzero.im/media/e4nfvdid/fair-change-framework_31032022.pdf

IPCC - Working Group 1 Report - The Physical Science Basis

<https://www.ipcc.ch/report/ar6/wg1/>

IPCC - Working Group 2 Report - Impacts, Adaptation and Vulnerability

<https://www.ipcc.ch/report/ar6/wg2/>

IPCC - Working Group 3 Report - Mitigation of Climate Change – 4th April 2022

<https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/>

2009 Mott MacDonald report

<https://www.gov.im/media/623411/economicandtechnicalappraisalof.pdf>