Public Bodies - Climate Change Reporting

This form is your annual report, required under the Climate Change (Public Bodies' Reporting Requirements) Regulations 2022 (as amended by the Climate Change (Public Bodies' Reporting Requirements) Amendment Regulations 2023).

This report relates to compliance with the climate change duties set out in Section 21 of the Climate Change Act 2021.

The climate change duties are:

(1) A public body, in performing its duties, must act in the way that it considers best to contribute to —

(a) the meeting of the net zero emissions target by

(b) the meeting of any interim target;

(c) supporting the just transition principles and the climate justice principle;

(d) sustainable development, including the achievement of the United Nations sustainable development goals; and

(e) protecting and enhancing biodiversity, ecosystems and ecosystem services.

Please complete this form and submit it to: **publicbodiesclimate@gov.im** along with any supporting documents.

Public bodies' climate change reporting does **not** feed into the national GHG inventory.
It is intended to provide an overview of climate action within the public sector and ensure that the climate change duties are understood and being implemented.
The report therefore focusses on a small number of high-level indicators.
It is not a full-scale, detailed emissions report, which would need to be undertaken by a suitably experienced emissions auditor.

Guidance is included throughout and FAQs are included on a separate tab.
However, if you have any queries about how to complete this form please email: **publicbodiesclimate@gov.im**

>>>> In each section relevant to your public body ONLY complete the GREEN fields <<<<

Only complete the sections (tabs) relevant to your category of public body, as follows:

Category A	Category B	Category C
More than 150 fte stationed employees	**Between 16 and 150 fte stationed employees**	**Inactive or 15 or fewer fte stationed employees**
Introduction	Introduction	Introduction
Reporting Period	Reporting Period	Category C
Baseline (if baseline year different to reporting period)	Governance & Behaviour	
Governance & Behaviour	Missing & Estimated Data (if applicable)	
Missing & Estimated Data (if applicable)		

Q-I1 PUBLIC BODY INFORMATION

Name of public body (choose from drop down)	Cabinet Office
Contact phone number	01624 685711
Contact email address	enquiries.cso@gov.im
Number of fte stationed employees	371

CATEGORIES A & B ONLY

REPORTING PERIOD DATA

In this tab enter the data for the period 1 April 2022 - 31 March 2023

>>>> Only fill in the GREEN fields <<<<

Your emissions will be automatically calculated and appear in the BLUE fields

Q-R1 TRANSPORT

Both category A and B public bodies must complete this question.

Enter the total amount of each vehicle fuel used during the reporting period, in the units listed.

	Amount used	Emissions	
Petrol (litres)	0	0	$kgCO_2e$
Diesel (litres)	0	0	$kgCO_2e$
Coal (tonnes)	0	0	$kgCO_2e$
	Total transport emissions:	0	$kgCO_2e$

If you have used a fuel that is not listed, for the purposes of powering a vehicle, please contact CCTT

Q-R2 BUILDINGS (HEATING)

Both category A and B public bodies must complete this question.

Enter the total amount of each heating fuel used during the reporting period, in the units listed.

	Amount used	Emissions	
Natural gas (kWh)	270,099.76	49,304	$kgCO_2e$
Heating oil (litres)		0	$kgCO_2e$
Coal (tonnes)		0	$kgCO_2e$
LPG/Propane (litres)		0	$kgCO_2e$
Wood - Logs (tonnes)		0	$kgCO_2e$
Wood - Chips (tonnes)		0	$kgCO_2e$
Wood - Pellets (tonnes)		0	$kgCO_2e$
	Total buildings emissions:	49,304	$kgCO_2e$

If you have used a fuel that is not listed, for the purposes of heating a building, please contact CCTT

Q-R3 ELECTRICITY GENERATION

Both category A and B public bodies must complete this question.

Enter the total amount of each fuel used to generate electricity during the reporting period, in the units listed.

	Amount used	Emissions	
Petrol (litres)	0	0	$kgCO_2e$
Diesel (litres)	0	0	$kgCO_2e$
	Total electricity generation emissions:	0	$kgCO_2e$

If you have used a fuel that is not listed, for the purposes of generating electricity for the public body's own use, please contact CCTT.

Q-R4 ELECTRICITY USE

Both category A and B public bodies must complete this question.

Enter the total amount of electricity used during the reporting period, in kWh.

	Amount	Emissions	
Electricity used (kWh)	340,301.71	143,607	$kgCO_2e$

TOTAL FOR REPORTING PERIOD

This section will show the public body's total emissions, for the reporting period, based on the data entered.

NOTE: This report is limited to a small number of high level indicators and therefore does not cover all GHGs or GHG emitting activites.

Total reported emissions:	192,911	$kgCO_2e$

Q-R5 LAND AND HABITATS

Both category A and B public bodies must complete this question.

Enter details of any parcels of land of over 1 hectare owned by the public body during the reporting period.

Parcel reference / address	Area (hectares)	Habitat type	Gas exchange (pa)	
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
			0	$kgCO_2e$
		Total gas exchange:	0	$kgCO_2e$

IMPORTANT

Some habitat types are EMITTERS (ie. they release CO_2 into the atmosphere).

Habitat types that remove CO_2 will return a minus value in the blue column, habitats that release CO_2 will return a positive value.

PLEASE NOTE

This section is designed to give only a rough indication of the carbon removed by the land owned by the public body and, in future reports, to track land use change.

If you have more detailed information or would like to improve the level of detail relating to removals by land owned by the public body, please contact the Climate Change Transformation Team.

Please see 'Guidance Notes' for assumptions.

NET REPORTED EMISSIONS FOR REPORTING PERIOD

The public body's net emissions (ie. emissions minus carbon stored) for the reporting period are:	192,911	$kgCO_2e$

Q-R6 BASELINE SAME AS REPORTING PERIOD?

Only Category A public bodies need to complete this question.

Is the reporting period also the public body's baseline year?	Yes - reporting period and baseline are the same

CATEGORIES A & B ONLY

GOVERNANCE & BEHAVIOUR

In this tab enter the data for the period 1 April 2022 - 31 March 2023

Only fill in the GREEN fields

Q-G1 DECISION MAKING

Only category A and B public bodies should complete this question.

	Description	Name of supporting document (if applicable)
Please describe any processes or mechanisms by which the public body has included the climate change duties in its decision making processes. See guidance notes if you are not sure how to answer.	Government Change Services (GTS) have developed a core set of green requirements that are used in all their procurement activities that place value on the environmental impact of their services. These will be considered when scoring tenders for new services. GTS has also amended the hardware catalogue, to show the carbon footprint of all their hardware so that customers can make an informed choice and understand the impact to the environment.	Netcetera Green Tariff (extract from data centre contract)
	In our other directorates and bodies changes have been made to procurement in line with updated Treasury and GTS guidance with compliance to climate change duties.	
	The template for submitting Council of Ministers papers references the Public Sector Climate Change Duty, meaning that the Public Sector Climate Change duty must be taken in to account.	Council paper template January 2023
	Climate change duties are considered in any major policy or legislation that is developed as per the Legislative Impact Assessment. The new Climate Change Impact Assessment tool will be rolled out in the coming year for all major policy or legislation.	
	The Climate Change duties are discussed at leadership and team meetings across Cabinet Office.	
	Climate Change is a standing agenda item now in the Business Change Services (BCS) Management Committee that sits on a monthly basis. Climate Change issues will be discussed in this forum and any decision making cascaded down to the team.	

Q-G2 AWARENESS

Only category A and B public bodies should complete this question.

	Description	Name of supporting document (if applicable)
Please describe any ways in which the public body has raised staff awareness of the climate change duties. See guidance notes if you are not sure how to answer.	GTS have taken the following measures to raise staff awareness on climate change duties: • Appointed a sustainability and climate change lead. • Amended their communication strategy so that staff are regularly updated on our climate change actions and progress at a weekly all staff meetings. For those that cannot attend the meeting (leave etc.) they can watch it back at a later date.	
	At Business Change Services the "Climate Change Duties – Guidance for Public Bodies" document has been shared with all staff for reference and added to the new starter information pack.	
	One member of Business Change Services staff is an IOMG Energy Champion and is and will be relaying information to their Team via Microsoft Teams and in Team meetings.	
	Within all of our offices there are staff notices reminding people of considerations to save/ not waste energy, and recycling.	
	Jo Overty from Unesco Biosphere visited the Welcome Centre and gave a talk to the team on 11th October 2022. This included how we can promote to the public and visitors the IOM's Biosphere status and how visitors to the island can help to contribute to it.	
	A climate change information pack and details of the Climate Change Duties has been uploaded to the Public Health staff Teams channel and the duties have been incorporated into Public Health's staff induction programme.	

Q-G3 EMISSIONS REDUCTION PLANS

Only category A and B public bodies should complete this question.

	Status	Name of document (if applicable)
Has the public body prepared a climate change/emissions reduction plan? Please choose from the drop down list and enter the name of the document.	Preparation of plan in progress	There is not a plan as yet for the whole Cabinet Office. However, GTS are currently authoring their emissions reduction plan through their Climate Change Lead. PIN have drafted an emissions reduction plan which is appended to this report.

Q-G4 OTHER RELEVANT DOCUMENTS

Only category A and B public bodies should complete this question.

Has the public body prepared any other documents, in relation to the climate change duties, **during the reporting period?**	**Yes - see below**

	Name of document	Relevant climate change duty	Status
Please enter details of any plans, strategies or other similar documents relating to the climate change duties. Please refer to the guidance if you are not sure how to answer.	Passport, Immigration and Nationality Office (PIN) - Heat Loss Report	Emissions reduction	Complete
	Government Technology Services (GTS) CO2 reduction poster	Emissions reduction	Complete
	Awareness session slides PIN	All	Complete
	Climate Resilient Appraisal North and West	All	Complete
	Pilot Climate Impact Assessment Tool	All	Complete
	GTS Climate Change Poster	All	Complete
	GTS Travel Survey	Emissions reduction	Complete
	Hardware Details (GTS hardware audit)	Emissions reduction	Complete
	Built Environment Reform Programme	Sustainable Development	On-going

Q-G5 CLIMATE ACTION

Only category A and B public bodies should complete this question.

Has the public body taken any action to reduce its emissions, or in relation to any other aspect of the climate change duties, **during the reporting period**?	**Yes - see below/attached**

Please complete the table below with details of any actions taken.
If multiple actions are contained within a supporting document please feel free to refer directly to the document, rather than listing the actions individually.

Description of action/s	Relevant climate change duty	Status	Name of document
The Built Environment Reform Programme was led and developed from the Cabinet Office to address key aspects of the system to support a quality, vibrant, built environment for the future and address issues that impede progress and a refreshed planning system for customer service. This is now underway and being delivered by DEFA, with the Major Applications process and incentives for brownfield site development already in place. BCS are continuing to support the delivery of the Built Environment Reform Programme. This programme aims to review and amend the Planning process to accommodate changes driven by the Climate Change Act and legislation.	Sustainable Development	On-going	Built Environment Reform Programme
Business Change Services are using minor capital funding to support the delivery of two small project initiatives: DEFA Biosphere Nature Recovery Network DEFA Blue Carbon Mapping	Biodiversity and Ecosystems	On-going	
The External Relations team works with other departments to sign up to interntional measures which relate to climate change or other environmental matters. In addition, the team supports the participation of IOM Government officials in the British-Irish Council, which also runs work sectors which target sustainable development and work on climate change.	All	On-going	
The International Development funding streams are focused on projects which target climate change, and therefore many international projects supported by the Isle of Man Government address this issue.	Just Transition / Climate Justice	On-going	
GTS has developed processes to ensure that all IT hardware is recycled at the end of its useful life. Each recycled device is estimated to save 48.6kg/CO2, we recycle around 2000 units annually. Recycled of IT hardware assets has saved approx. 97 tonnes of CO2e from being generated in the supply chain.	Emissions reduction	Complete	
GTS has commissioned a dedicated climate action group chaired by Climate Change Lead for GTS, the Head of Service strategy, with the remit to develop KPIs and initiatives to reduce our environmental impact.	Emissions reduction	On-going	
GTS utilise on-island data centres at different geographic locations. One of their three datacentre providers uses 100% green energy (hydroelectricity) to power their facility which saves 52 Tonnes of CO2 from being generated each year. They also work closely with their data centre providers to reduce the impact of services to the environment.	Emissions reduction	Complete	
GTS has replaced around 2000 devices with more energy efficient versions which has saved approx. 262 tonnes CO2e annually.	Emissions reduction	On-going	
GTS has worked closely with their supply chain to remove plastics and non-recyclable materials from packing and shipping materials this has led to the packaging of items from HP being up to 95% recyclable and items from Microsoft being up to 100% recyclable.	Emissions reduction	Complete	
CABO is a key stakeholder and member of the Housing and Communities Board and has been providing administrative support to the Board. It has worked with DOI to make sure that appropriate design and building standards for new and existing housing is in line with the Climate Change action plan. The Housing and Communities Board also undertook investigations into empty properties and brown field sites to reduce the need to build on green field sites. The H&C Board Action plan included Protecting green field sites from unnecessary development.	Sustainable Development	On-going	using and Communities Board Action Plan
The Get Online Centre opened on 16th January 2023. The Welcome Centre and Get Online Centre have introduced customer Ipads to reduce paper waste. Staff have also been trained to assist customers in completing application forms and other tasks electronically, rather than using paper documents.	Emissions reduction	On-going	
A Health and Care Transformation project - the Manx Care Record - aims to implement a single overarching digital care record that provides appropriate staff from all parts of health and care with access to key data from each relevant system used in the delivery of care. Electronic health records have the potential to improve the environmental footprint of the health care industry, ultimately eliminating paper records and x-ray films etc. If the Manx Care Record is successfully implemented, this, in turn, will result in less goods or materials being needed, which points to greater sustainability. This is, just one example, and we encourage all projects to have open conversations about climate change duties and sustainability with their stakeholders at the start of their project, and throughout their course.	Emissions reduction	On-going	
A Public Health self-assessment framework tool is being developed for use by policy makers linked to sustainability principles within Our Island Plan. This includes a focus on physical activity levels, environment sustainability, green spaces and recycling.	Multiple (please specify in description)	On-going	
The concept of sustainable development sits at the heart of the planning system. The Island Development Plan aims to ensure that the development needs of the Island's residents are justifiably met, both now and in the future, and that said development is in appropriate, sustainable and well connected locations with minimal harm to the Island's ecology, landscape beauty, character or national identity.	Sustainable Development	On-going	
The Island's planning system recognises the importance of the countryside, its ecology, biodiversity and landscape beauty and aims to protect, and where possible, to enhance these characteristics.	Biodiversity and Ecosystems	On-going	

Q-G6 HIGHLIGHTS

Only category A and B public bodies should complete this question.

Are there any actions or initiatives taken by the public body over the reporting period, in relation to the climate change duties, that you would like to highlight?	
If so, please describe the action, project or initiative:	The work of Planning Policy in embedding the Climate Change duties: The planning policy team is concerned with the plan-making process set out in the Town and Country Planning Act (1999). The Act sets out a statutory function to produce the Island Development Plan (IDP). The IDP currently consists of: • The Strategic Plan 2016, • Area Plans which cover the East and South of the Island, • several Local Plans, and • the 1982 Development Order. The Strategic Plan sets high level strategic policy for the development or other use of land, to guide future development on the Island. Area Plans and Local Plans provide detailed policies that are specific to a particular area. Planning policy recognise that the planning system has a crucial role to play in achieving net zero targets. The plan making process embeds an assessment process in it, which helps to achieve climate change targets. The Site Assessment Framework includes a number of criteria that are designed to: a) protect valuable habitat from future development b) avoid areas that are prone to flood risk c) Protect trees d) encourage the use of public transport and e) facilitate active travel Allocated sites are accompanied by a Development Brief that sets out a number of requirements that need to be complied with at the planning application stage. This may include the need for an Environmental Impact Assessment to address areas of environmental concern or a Transport Assessment. Since the enactment of the Climate Change Act 2021, emerging policy documents have been appraised against a number of key climate risks. A Climate Resilience Appraisal has been produced for the Draft Area Plan for the North and West - the key findings of which will inform future policy as it develops. A first iteration of a Climate Resilience Appraisal was completed in November 2022, with a view to ensuring that approvals being sought for emerging policy provision for the North and West of the Island had been assessed against the relevant climate change risks. This led to the planning policy team being asked to attend a series of workshops to deliver a generic climate change impact assessment tool for wider government use. This climate impact assessment tool has now been completed, and colleagues within planning policy have been able to form professional relationships with external consultants in the UK to support knowledge exchange and transfer of knowledge, outside of government. In the Draft Area Plan for the North and West, housing yield calculations factored in likely biodiversity net-gain requirements – in terms of land take – which altered the expected housing yields associated with a site. As part of the Strategic Plan Review Process, a paper has been prepared on the subject of biodiversity net-gain, with a view to setting out a number of options for a policy approach and seeking views on a number of emerging questions. The paper will capture the thought processes arising from a number of workshops that have been held on this topic. Biodiversity Net Gain will be a radical policy shift from the current approach of 'no net loss'. Any responses received back from the public consultation process will be considered during the policy formulation process. As part of the development plan process, Planning Policy publish a series of environmental constraint maps which identify areas of land which are of national or international importance from an ecology point of view such as RAMSAR sites (wetlands of international importance) and Areas of Special Scientific Interest, as well as sites which require further study (such as Areas of Ecological importance). Sites are selected for allocation that are not situated in environmentally constrained areas. More information regarding protected sites can be found here https://www.gov.im/protectedsites The Maps are also used by DEFA officers when assessing planning applications, helping to ensure a balance decision when considering development on or near to land which might be desirable to protect due to its ecology. An assessment criteria for climate change is included in tender documentation, which is factored into a weighted tender assessment process. Just Transition and Climate Justice Public consultation and engagement with stakeholders is key to the development of planning policy and legislation. By way of example, Cabinet Office ran a 12 week online consultation for the Draft Area Plan for the North and West. Several informal 'drop-in' style events were organised and a community guide circulated in the newspaper so as to not exclude members of the community who may not be frequent or confident users of the internet. By their nature, development plans create employment opportunities, either through the direct allocation of employment land, or through supporting the construction and other sectors of the economy, by allocating land for residential development. In addition, development plans also aim to provide for the infrastructure, open space, sport and recreation and community and leisure needs of the Island, as well as facilitating linkages between these facilities by expanding the Island's active travel network and by creating well connected, and well-designed places.

To which aspect of the climate change duties does the action, project or initiative relate?	All

Please briefly explain why you have chosen to highlight this action, project or initiative:	This team have taken steps to embed the climate change duties into business as usual and across multiple workstreams. This will have a demonstrative impact of our Island's environment and communities.

CATEGORIES A & B ONLY

MISSING AND ESTIMATED DATA

Only complete if any of the data on the 'Reporting Period' or 'Baseline' tabs was missing, incomplete or estimated.

Only fill in the GREEN fields

Q-M1 MISSING AND ESTIMATED DATA

Complete the table with

Is the data missing for the baseline year, the reporting period or both?	Section	Description (eg. fuel type)	Is the data missing, incomplete or estimated?	Reason why the data was missing, incomplete or estimated.	If estimated, how was the estimate calculated?	Action planned to improve data?	Do you expect the data to be available in respect of the next reporting period? (1 April 2023 - 31 March 2024)
Chose from the drop down list.	*Chose from the dropdown list. For which section of the report is the data missing, incomplete or estimated?*	*Enter a brief description of the data that is missing. Eg. 'petrol use' or 'fuel used to generate electricity'*	*Choose from the drop down list. 'Estimated' includes any data that has not been measured eg. data allocated proportionally, benchmarked or extrapolated.*	*Enter a brief description of why measured data could not be obtained. Eg. Shared building, data not collected/retained*	*Enter a brief description of how the estimate was arrived at. Eg. allocated based on number of staff, benchmarked etc. Was a recognised benchmark used?*	*Enter a brief description of any action planned to obtain/improve the data. Eg. data collection processes updated. If the data cannot be obtained/improved, please explain why.*	*Choose from the drop down list.*
Both	Transport	Fleet vehicle fuel	Missing	Awaiting data from DOI Fleet	N/A	LTA roles will be in position soon to work on the transparency and accessibility of the Estates data and work to supply this missing data for the next reporting period	Not sure
Both	Buildings	Heating	Incomplete	The available data has been complied by the CCTT and covers use from Central Government Office, Markwell House, Illiam Dhone House, Lord Street Police Station, The Lodge and the Sea Terminal Welcome Centre. The following points should be noted: - Hanover Street data is not availible - Data from Illiam Dhone House is taken from 2018/2019 data (April to March), which is the most recent full set of data available - Data for Markwell House may be a slight overestimation due to no data being assigned to the Army Reserves thought to be using the building	Data pulled from the most recent complete data sets	LTA roles will be in position soon to work on the transparency and accessibility of the Estates data and work to supply this missing data for the next reporting period	Not sure
Both	Buildings	Electricity	Incomplete	Some data not available from the DOI system, meaning data for The Lodge and The Sea Terminal Welcome Centre is missing.	N/A	LTA roles will be in position soon to work on the transparency and accessibility of the Estates data and work to supply this missing data for the next reporting period	Not sure

CONTINUATION SHEET

If necessary please use this sheet to add additional information.
Please chose the relevant question number from the drop down list.

Question Number	Additional Information
Q-G1 (Governance and Behaviour - Decision Making)	The procurement undertaken by the Health and Care Transformation Programme has largely been concerned with selecting a provider to give external consultancy support to some of our projects. It has been difficult to identify suitably skilled and available providers on the Island. However, the provider who has been selected (KPMG) undertake most of their work remotely via Teams, meaning there are no additional pressures on the environment through travel etc.
Q-G1 (Governance and Behaviour - Decision Making)	Reference to climate change duties / impact has been included on internal governance paperwork such as cover sheets for items submitted to the Public Health Senior Management Team, to ensure that climate change issues and implications are considered.
Q-G1 (Governance and Behaviour - Decision Making)	In relation to Planning Policy, the plan making process embeds an assessment process in it, which helps to achieve climate change targets. The Site Assessment Framework includes a number of criteria that are designed to: a) protect valuable habitat from future development b) avoid areas that are prone to flood risk c) Protect trees d) encourage the use of public transport and e) facilitate active travel (see Highlights for more information regarding Planning Policy)
Q-G1 (Governance and Behaviour - Decision Making)	A Climate Change Resilience Appraisal has been undertaken for the Draft Area Plan for the North and West, and policy measures identified to align the Draft Plan more closely with net zero targets. Please refer to the attached appraisal.
Q-G1 (Governance and Behaviour - Decision Making)	A test Climate Change Impact Assessment has also been undertaken by the Planning Policy Team – reviewing climate change duties against current policy provisions. The findings have helped to identify policy omissions that have subsequently been included within the scope of emerging policy documents. Please refer to the attached Climate Change Impact Assessment for further details.
Q-G1 (Governance and Behaviour - Decision Making)	Passport, Immigration and Nationality (PIN) have drafted an emissions reduction plan and as a consequence have identified opportunities within the PIN office for significant heat loss reduction and cost saving which would reduce overall heating costs and thereby significant CO2 emission reduction. (Heat loss report attached). Currently seeking DOI costings to feed into business case(s).
Q-G2 (Governance and Behaviour - Awareness)	Planning Policy staff have attended a CPD event looking at the development of climate change policies arising from the Intergovernmental Panel on Climate Change's reports over time. Selected Planning Policy staff have also attended workshops and meetings in respect of biodiversity net gain, active travel and sustainable urban drainage, as part of their ongoing professional duties in the workplace.
Q-G2 (Governance and Behaviour - Awareness)	Information has been circulated to all staff in Passport, Immigration and Nationality (PIN) Office on Climate Change and actions individuals can take to reduce CO2 emissions. (In-house training slides). PIN also has subscriptions to newsletters from the Carbon Literacy Trust which are circulated to staff to raise awareness of the latest information, initiatives and achievements in UK departments. All staff members of PIN made aware of: • The legislation that makes up the Climate Change Act • What Carbon Literacy is and, • The Isle of Man roadmap to net zero 2050 targets
Q-G2 (Governance and Behaviour - Awareness)	A member of PIN staff has qualified as Carbon Literate through the Carbon Trust and there is a programme for this staff member to train their peers, with the ultimate aim to contribute to the Cabinet Office becoming a carbon literate organisation.
Q-G4 (Governance and Behaviour - Other relevant documents)	Housing and Communities Board Action Plan
Q-G4 (Governance and Behaviour - Other relevant documents)	Cabinet Office Department Plan 2023

Supporting Documents

Built Environment Reform Programme
Cabinet Office 2023 Department Plan
Housing & Communities Board Action Plan 2022/23

Informative Overview of The Climate Change Act, Carbon Literacy and What You Can Do To Help

(Includes Climate Change Legal Obligations and Duties within the Isle of Man Government)

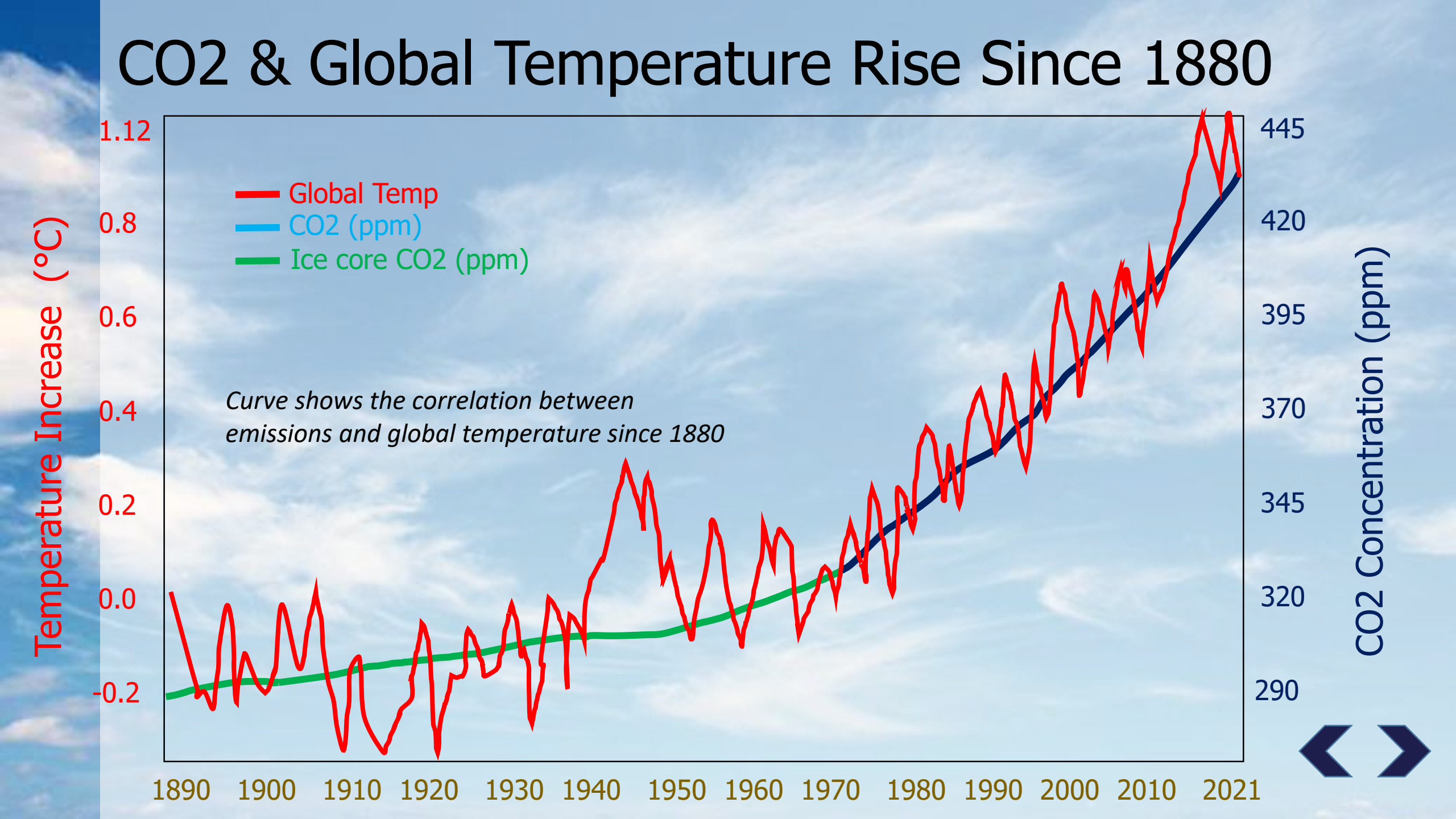
Carbon Literacy Project

NET ZERO ISLE OF MAN

Isle of Man Government

The Effects of Climate Change are Far Reaching

CO2 & Global Temperature Rise Since 1880

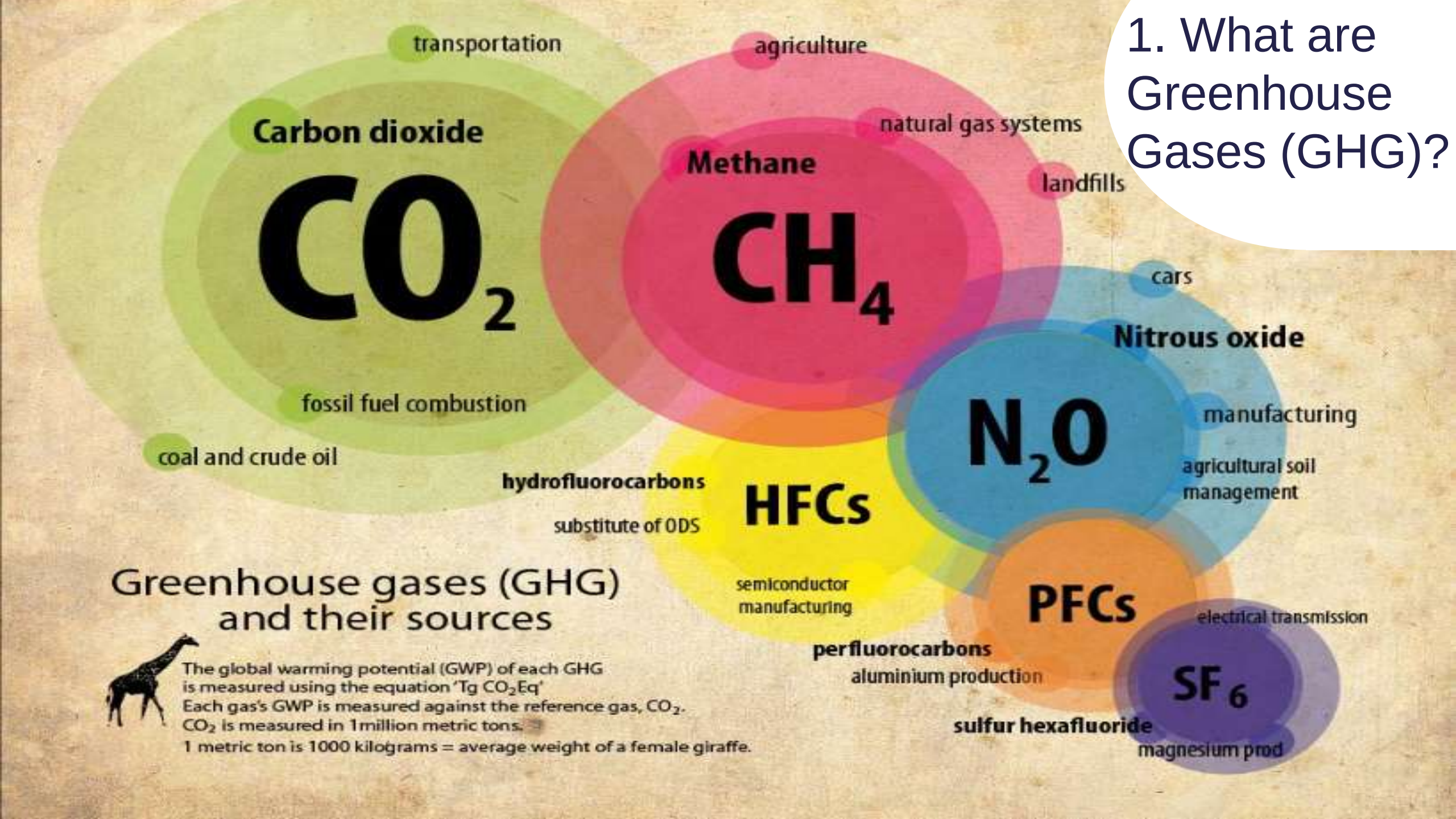


Objectives

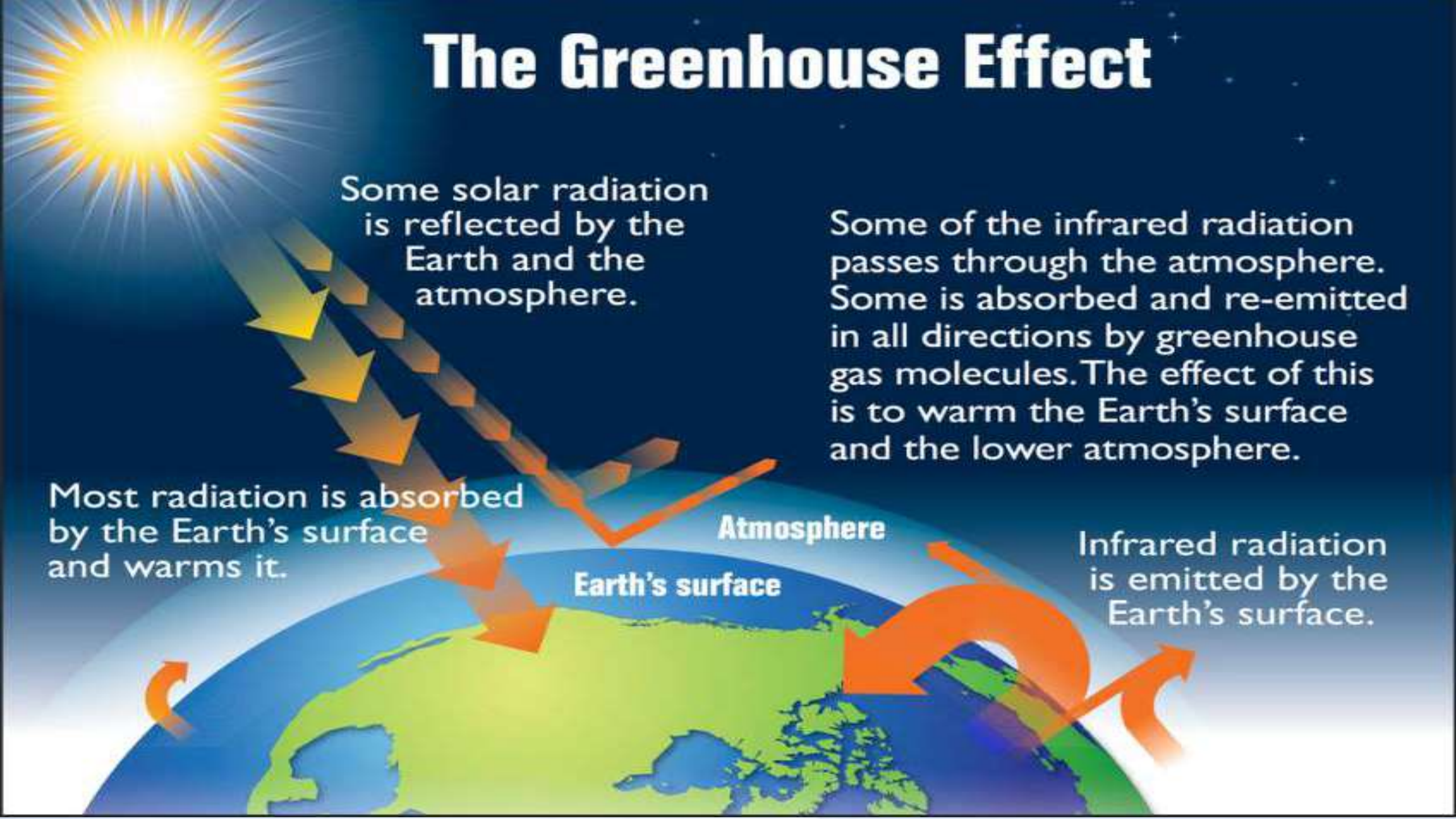
APPROACH:

1. What are Greenhouse Gases (GHG)?
2. Our Individual Actions and Behaviours
3. The Climate Change Act – summary
4. Short, Intermediate and Long-term Targets
5. Who are the Carbon Literacy Trust?
6. Knowledge, Values, Actions, Processes

1. What are Greenhouse Gases (GHG)?



The Greenhouse Effect



2. Our Individual Actions and Behaviours

INCLUDING:

- Use LED bulbs wherever possible
- Try a boiler-off day
- Walk or bike to somewhere that you would normally drive
- Plant something
- Reduce food waste, recycle, reuse
- Reduce use of plastics
- Wash clothes in cooler water
- Buy local, buy second hand, look after your clothes, donate them
- Insulate your home
- Fly less
- Regularly check your vehicle tyre pressures – big impact

3. The Climate Change Act – summary

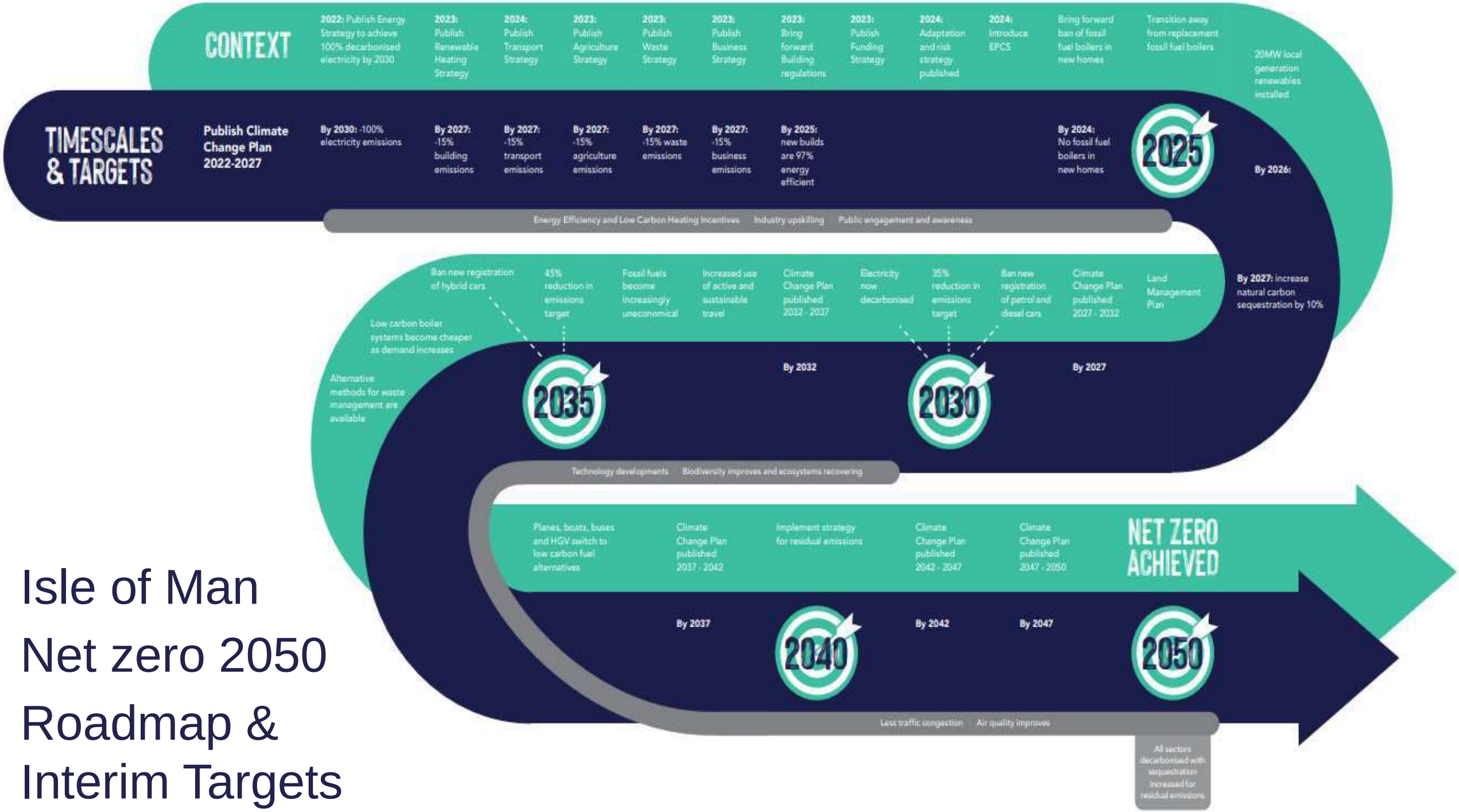
FOCUS:

- Net zero Emissions by 2050 is the long-term commitment
- Interim targets set locally – see next slide
- Each Gov department must submit an annual report
- Failure to reduce Co2 emissions triggers a non-compliance
- 5-yearly report to ministers
- Explains duties of public bodies
- Regulation, orders and fixed penalties and powers of entry to premises

4. Short, Intermediate and Long-term Targets

TASK FOCUS:

- Short - 35% reduction by 2030 (most from the new sea interconnector cable accessing a new carbon neutral electricity supply) Plus:
  - No fossil fuels in new homes' boilers from 2024
  - Diesel vehicles cease
  - Electricity decarbonised – new interconnector cable at sea
- Intermediate – 45% reduction by 2035
  - Planes, boats and HGVs change fuel to low carbon alternatives
  - Alternatives to waste management go live
- Long-term – Minimum 100% reduction by 2050
  - Net zero achieved – Sequestration offset to remaining sources



Isle of Man Net zero 2050 Roadmap & Interim Targets

5. Who are the Carbon Literacy Trust?

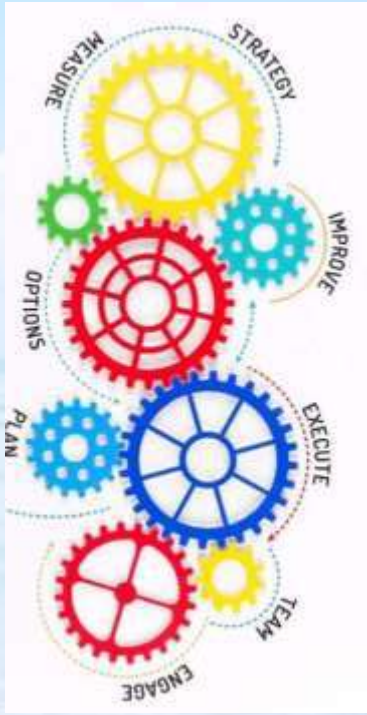
FOCUS:

- It is a registered charity that provides information on research, training on carbon literacy and centred around The Carbon Literacy Project that aimed to spread awareness and information.
- It has been going for 10 years and trained 25 000 people.
- It's goal is for each of us individually to try to reduce our carbon footprints by 5 to 15%.
- Carbon literacy is quality assessed and branded.
- This is their logo:
-

6. Government Knowledge, Values, Actions, Processes

FOCUS:

- We have to work together. Resist just transferring responsibility to other countries.
- Learn from best practices e.g. know your tyre pressures, use only LED light bulbs etc.
- Are there drafts in your building? Poor insulation?
- Remember why we're doing this, it's our responsibility so individuals need to take it
- Make the decisions you take consider the carbon footprint as a matter of routine
- Have this as a regular agenda item in staff meetings
- How does what we do per department, help the larger picture?



SUMMARY

GHG

OUR ACTIONS

CLIMATE CHANGE ACT

TARGETS

CARBON LITERACY TRUST

KNOWLEDGE

PROCESSES

VALUES

LINKS

Links – Further Reading

- What On Earth Is Carbon Literacy? - The Carbon Literacy Project
- NetZero
- Climate Change Act
- Microsoft Word - Appendices to the Isle of Man Climate Change Plan 2022.docx (netzero.im)

THANK YOU!

Isle of Man Government

Reiltys Ellan Vannin

Climate Resilience Appraisal: Draft Area Plan for the North and West

November 2022 - Updated February 2024

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1. Introduction

Planning policy provides the framework that sets out future opportunities for development on the Island. Those opportunities that are implemented in the longer term will be directly or indirectly affected by a changing climate, which could impact upon the functionality of a scheme, longevity or whole life costs.

It is important to consider the risks and effects of climate change as planning policy guides the development of future capital assets with long term lifetimes such as housing developments, schools, health centres, or other important facilities that are affected by the weather and effects of climate change. This includes variability and extremes. Future capital assets can also have an impact upon our natural assets such as soils, woodland, peatlands, freshwater or marine and coastal habitats.

The plan period in which our future capital assets are implemented extends in some instances for many years, during which time the change in climate could be significant. Failing to assess the implications of climate change within our planning policies could result in a future need for significant and unforeseen investment. Where the stakes are high and affect human life and wellbeing and biodiversity, this could result in significant operational or maintenance costs. Damage to strategic infrastructure assets, such as roads and sewage treatment plants causes disruption and is costly to repair.

Planning decisions arising from planning policy for housing and employment will result in 'lock-in' to a particular future. Poor decisions could result in irreversible damage, such as loss of life or communities, species' extinctions, and the permanent loss of natural capital that provides ecosystem services that currently support our Island communities. Where there are significant interdependencies with government activities or the wider economy, the risks and effects of climate change can have a detrimental impact upon the local economy.

Understanding the risks and responding to them enables adaptation measures to be built into planning policies. It is vitally important that future development decisions are 'no regret' or 'low regret' decisions, so that we can be confident that our Unesco Biosphere will remain resilient in the face of climate change.

2. The Climate Change Duty on Public Bodies

Part 5, Section 21 of the Climate Change Act 2021 sets out the 'Climate Change Duties' that apply to public bodies in the Isle of Man. Section 22(4) of the Act states that "A public body must have regard to any guidance given to it under this section."

The Publication entitled "Climate Change Duties Guidance for Public Bodies"[1] provides guidance to meet this statutory duty, and sets out proportionate duties relating to three different scoping categories. A further category is identified for public bodies that influence emissions through policy. The Guidance states that:

> *"Public bodies ….. influence emissions through the policies they make. These are not included in the scopes and are not produced directly or indirectly by the public body. For example, total emissions from travel on the Island could be reduced by government policies encouraging people to walk or cycle to work or to work from home, or schools could educate pupils on how to reduce their carbon footprints.* ***These types of changes can have a positive or a negative influence on emissions and should be considered during policy development."***

Paragraph 5.1.3 of the Guidance states that

> *"……. Public bodies ….. have a unique opportunity to influence emissions they do not control through the policies they set. This can be achieved by making decisions and designing policies with the climate change duties in mind. This guidance does not require public bodies to calculate policy-related emissions but recommends that the effect of decisions on emissions be considered as part of decision-making processes. The impact can be assessed by simply considering whether the policy will:*
>
> - ***increase any activity which causes emissions*** *(e.g. use of fossil fuels for transport or heating, consumption of high emissions materials such as concrete, etc.); or*
> - ***have an effect on carbon sequestration*** *(e.g. the disturbance of soil or loss of vegetation)."*

The guidance highlights the need for public bodies to:

- embed the consideration of biodiversity, ecosystems and ecosystem services into decision-making processes to ensure that the manner in which functions are undertaken has a positive effect in these areas, and
- any decisions that impact the current natural status of land need to carefully consider existing carbon sinks, and changes to land use need to be considered on a case-by-case basis.

Paragraph 7.1. of the guidance relates to governance and decision making, and sets out the need for information that demonstrates how public bodies have included the climate change duties in their governance and decision-making processes, for inclusion within climate change reports.

[1] "Climate Change Duties Guidance for Public Bodies" issued by Net Zero Isle of Man, in collaboration with Eunomia

3. Supporting References

This Climate Resilience Appraisal for emerging planning policy is a first iteration, and over time, it is likely to evolve. As a first iteration, the methodology of the appraisal has been informed by the UK Government Publication entitled "*Accounting for the Effects of Climate Change: Supplementary Green Book Guidance"*[2], and the *UK Climate Change Risk Assessment 2022*[3].

The Supplementary Green Book Guidance identifies a number of key issues relating to climate change, when preparing policy, and it is worth re-iterating a summary of those key issues within this paper, as set out below:

- **Uncertainty**: there is uncertainty over the future impacts of climate change. This means it is important to both consider and potentially adapt to inevitable and known impacts and consider the risk of uncertain future climate risks. Flexibility in the face of potentially changing risks should be built into policy formulation, to enable a response to a range of climate scenarios.
- **Thresholds or Tipping points**: As a result of climate change, there is the potential for very large, abrupt and irreversible large-scale events that may 'tip' the climate or whole earth system beyond the scope of current adaptive capability. However, acting to improve the resilience of the natural and built environment before certain thresholds or tipping points are reached could lead to higher benefits, lower costs and avoidance of irreversible losses.
- **Long-term time horizons and Lock-in**: whilst the plan period of a planning policy is defined, the future development that arises from the planning policy has a long life span, typically extending beyond 2050. Planning decisions today 'lock-in' the potential for future climate risk which may be difficult or costly to reverse or change later. This could result in long-term implications and despite best efforts to mitigate them, the impacts of climate change are likely to escalate and become more uncertain over the longer term. It is important to take an adaptive approach in the design and planning stages, to consider long-term scenarios and to build in flexibility.
- **Interconnections**: climate risks may ripple out, meaning climate impacts in the built environment may impact on the natural environment, such as our natural and marine environments and expose national infrastructure to added risks.

The Draft Plan for the North and West aims to provide an area specific policy framework that allows for flexibility when determining planning applications as the emerging climate effects become known in greater detail and suitable technologies and solutions arise. This should ensure that appropriate adaptation measures are built into the decision making process at an early stage.

[2] Accounting for the Effects of Climate Change: Supplementary Green Book Guidance (November 2020).
[3] UK Climate Change Risk Assessment 2022, dated 17th January 2022 (HM Government Publication).

4. Methodology

The government guidance sets out proportional duties, including a category for public bodies that influence emissions through policy. For government policy makers, there is no requirement to undertake a whole life cycle carbon assessment to measure the direct emissions that are likely to arise, but there is a need to consider whether emerging policies have a positive or a negative influence on emissions, through an appraisal process. A methodology for undertaking a Climate Resilience Appraisal has been formulated, with a focus on adaptation measures to create greater resilience. The three stages of the Methodology are set out below.

Stage One: Identifying the Climate Risks

An assessment of the potential climate risks is considered at this stage. Information on all major climate change risks in the UK is provided in the UK Climate Change Risk Assessment 2022 (CCRA3). Within this report, the risks have been assessed against 3 different scenarios – 2050s with 2/4°C temperature increase, 2080s with 2°C temperature increase and 2080s with 4°C temperature increase. Table 6 of the CCRA sets out the eight priority risk areas that require the most urgent action over the next two years, and the Report also sets out other risk areas that require action over the next five years. Those risks most relevant to the natural and built environment on the Island are set out within the following appraisal tables. Having identified five key risks, the relevant policy areas can be isolated and appraised in terms of adaptation measures.

Stage Two: Review draft policies to support good adaptation principles

The climate change risks should be considered against existing policy provisions and, where required, policy adjustments should be identified that could better support the natural and built environment, together with its inhabitants, to become more resilient to the effects and impacts arising from the climate change risks.

Stage Three: Decision Making, Monitoring and Evaluation

Monitoring and evaluation of planning policy is achieved by assessing how intended plan outcomes have been met. As monitoring and evaluation clarifies the effectiveness of policies, policies can be adapted over the longer term according to changing information.

5. Key Findings

Having undertaken the Climate Change Resilience Appraisal, a number of policy interventions would help to strengthen the resilience of settlements within the North and West to Climate Change, as set out in Summary Appraisal Table 6.

In respect of Strategic policies that apply to the Island as a whole, a review of the Strategic Plan is envisaged in the near future, and the following policy areas would benefit from a review, with the benefit of the climate resilience lens:

- Biodiversity net gain;
- The incorporation of green travel policies within Transport policies;
- The sequencing of developments to support planned investment in infrastructure and utilities;
- A broadening of the scope of Design Statements to cover Net Zero Design Principles;
- Whole life cycle carbon assessments, and

A new policy will need to be inserted into the Strategic Plan to ensure that carbon sequestration sites are protected and enhanced, particularly in respect of the peatlands situated on Island.

Draft policy provision within the Draft Plan for the North and West should be amended to better support the following outcomes:

- The protection and enhancement of carbon sequestration sites, where relevant;
- The insertion of a new policy provision relating to property flood resilience, if a flood risk is identified.

Additional supporting evidence is also highlighted, as a result of undertaking the Climate Change Resilience Appraisal, with a strong case to be made for a Peatlands Register to be prepared for the Island, to better assess proposed allocations against, together with a Green Infrastructure Strategy that sets out a baseline study in respect of the existing quality of provision within the settlements of the North and West, and goes on to identify opportunities for enhancement and extension.

6. APPRAISAL TABLES

Appraisal Table 1

Stage 1: Identify the Climate Change Risk		
Priority Risk 1: Risks to the viability and diversity of terrestrial and freshwater habitats and species from multiple hazards.	Magnitude of Risk: High	Relevant Policy Areas • Biodiversity • Marine Nature Reserves and Water Quality • Carbon Sequestration
The Advice Report for the CCRA3 provides compelling evidence of the benefits to society of the natural environment. Increased temperatures and extreme events such as drought and wildfire pose the biggest threats while upland areas face particularly acute risks (75% of present-day upland species face a potential decline in climate suitability by 2100 under a medium level of warming). Significant tracts of land on the Island are categorised as upland. Biodiversity loss can be halted by improving and connecting habitats and species, and implementing this approach ensures that landscapes are more resilient to climate change through improved ecosystem function. Larger and less fragmented wildlife sites will improve the resilience of populations to fluctuating weather conditions and extreme events. Better connected habitat will also allow some species to spread across the landscape and colonise new areas that may be more suitable for them in a changing climate. Policy provision for regeneration has the potential to reduce the amount of greenfield land needed for future development needs, and avoiding development within or adjacent to areas of high value to nature can help to reduce this risk. Water quality also impacts upon freshwater habitats and species. Positive policy provision for ecosystem restoration, nature-based solutions and building resilience of species and habitats to climate change can also help to reduce this risk.		

Stage 2: Adapted Policy Provisions for Priority Risk 1
Biodiversity: General Policy Adjustments
Paragraph 5.3.5, sub para.6 identifies no net loss of biodiversity while moving towards and transitioning to a policy requirement for biodiversity net gain as a critical issue within our rural areas. The Plan Period for the Draft Area Plan for the North and West is to 2026, after which time it is intended that an All Island Area Plan will become operational for the longer term, with updated policies from the Review of the Strategic Plan Review providing clear

policy support to secure biodiversity net gain. **Paragraph 7.3** of Section 7 of the Draft Plan sets out clear Plan Objectives and outcomes relating to biodiversity:

Plan Objective 2: To identify specific locations (where known) within the North and West that are recognised for their existing contribution to biodiversity and to promote an approach of no 'net loss in biodiversity' in the assessment of planning applications as a minimum whilst promoting biodiversity net gain and the maintenance and restoration of ecosystems.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Para. 7.1.3 of the Draft Plan recognises the importance of Local, National and International designations to differentiate areas as having particular value, be it because of habitat, biodiversity, ecology etc. These are defined on the supporting Environmental Constraints Maps, offering instant recognition of the constraints that may apply to particular areas.

All proposed sites have been assessed against a graded scoring system within **Criteria 5** of the Site Assessment Framework, and a critical constraint has been applied where the site or adjacent area is a nationally or internationally designated site (RAMSAR or Area of Special Scientific Interest), Marine Nature Reserve, National Nature Reserve, Emerald Site, Bird Sanctuary or Area of Special Protection.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Para. 7.1.4 identifies the need to enhance the green infrastructure network within our urban centres to foster the multiple benefits of biodiversity, carbon storage and supporting wellbeing and a good quality of life. **Town Centre Proposal 9**, sub para. 5 strengthens the policy support for securing the delivery of green infrastructure, as set out below:

Town Centre Proposal 9: The Transition Zones

5. …… Car and cycle parking areas should incorporate green infrastructure elements within the transition zones, to positively contribute to …… biodiversity enhancement.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Paragraphy 14.11.2 states that housing yield calculations within this plan have factored in Biodiversity Net Gain with a discount on developable area dependant on the ecological quality to the land. This requirement is not yet in force but will do at some point within the plan period.

Influence on emissions	
Positive	✓
Neutral	
Negative	

<table>
<tr><th colspan="2">Biodiversity: Policy Adjustments for Allocated Sites</th></tr>
<tr><td>Site PE003</td><td>Transport and Utilities Proposal 6

All aspects of the design and siting, including …. the impacts on …… the environment and biodiversity, as well as all …. proposals for mitigation shall be considered alongside the potential benefits of a new Sewage Treatment Works and considered as part of a detailed planning application.

In addition, all planning applications must take into account a Development Brief, requiring that any application on this site should include details of how the development will address/mitigate for biodiversity issues which are recognised in an Environmental Impact Assessment, through a Biodiversity Enhancement Plan.

<table><tr><th colspan="2">Influence on emissions</th></tr><tr><td>Positive</td><td>✓</td></tr><tr><td>Neutral</td><td></td></tr><tr><td>Negative</td><td></td></tr></table></td></tr>
<tr><td>Site JE001</td><td>The accompanying Development Brief sets out a requirement that Development proposals which are likely to have a significant effect on the environment will need to be accompanied by suitable environmental information. Given that there is an ASSI adjacent to the site and residential development relatively close to the industrial estate, there may be a requirement for an Environmental Impact Assessment. Any exercises into the screening and scoping exercises associated with an EIA should be discussed with DEFA.

<table><tr><th colspan="2">Influence on emissions</th></tr><tr><td>Positive</td><td></td></tr><tr><td>Neutral</td><td>✓</td></tr><tr><td>Negative</td><td></td></tr></table></td></tr>
</table>

<table>
<tr><td>Site LO001</td><td>The accompanying Development Brief sets out a requirement that sufficient environmental information must be submitted to allow a full understanding of the impact of the development in line with the Strategic Plan, and that there must be no net loss of biodiversity as a result of the development of this site.

<table><tr><th colspan="2">Influence on emissions</th></tr><tr><td>Positive</td><td></td></tr><tr><td>Neutral</td><td>✓</td></tr><tr><td>Negative</td><td></td></tr></table></td></tr>
<tr><td>Site RR009</td><td>The accompanying Development Brief sets out a requirement that an Environmental Impact Assessment must be carried out on this site and included in the scoping assessment must be on the impact on trees, biodiversity and protected birds. Steps must be included in any subsequent Environmental Statement to mitigate any impact. An Arboricultural Method Statement (AMS) will be needed ahead of any commencement of works.

<table><tr><th colspan="2">Influence on emissions</th></tr><tr><td>Positive</td><td></td></tr><tr><td>Neutral</td><td>✓</td></tr><tr><td>Negative</td><td></td></tr></table></td></tr>
</table>

Marine Nature Reserves and Water Quality: General Policy Adjustments

Paragraph 7.19.1 recognises that biodiversity of both the land and the sea is becoming a greater focal point for protection and enhancement under new legislation. With regard to the latter, it is critical that an effective policy framework contains sufficient protections to be able to realise the social and economic benefits of marine resources, without negatively impacting the environmental aspect. There are physical limits to the extent of the Town and Country Planning Act but what happens on land can affect the watercourses which flow out to sea and can directly affect important coastline environments.

Paragraph 7.19.3 identifies 3 Marine Nature Reserves in the North and West (MNR's) which provide for the protection and enhancement of biodiversity to ensure that there is a healthy range of different habitats, food types and marine species.

Natural Environment Proposal 7 has been added to the Draft Plan, as detailed below, to provide additional policy protection:

Natural Environment Proposal 7
Applications which would have a detrimental effect on the water quality flowing into an identified Marine Nature Reserve (MNR) off the coast of the Plan Area will not be supported.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Residential Proposal 2 makes general provision for a policy requirement relating to any further development applications on land in Peel, and states that **"applications will be judged taking into account the level of additional discharge into the public sewerage system and any added harm on biodiversity, ecosystem health and human health. Applications which would add to the current level of discharge into Peel Bay will also take account of Strategic Policy 4 (c), Environment Policy 22 in the Strategic Plan."**

Influence on emissions	
Positive	
Neutral	✓

Negative	

Carbon Sequestration: General Policy Adjustments

Paragraph 7.17.2 recognises the role that the Uplands serve to provide a variety of 'ecosystem services' which include the provision of drinking water and carbon storage. 99% of the Island's drinking water comes from these areas, whilst it is estimated that the peat and soil in the area contains millions of tonnes of carbon. It is therefore essential that we prevent contamination of the water, the loss of any carbon storage and deterioration of sphagnum moss which goes hand in hand with creating peatland areas. **Natural Environment Proposal 3** has been added to the Draft Plan, as detailed below, to provide additional policy protection:

Natural Environment Proposal 3

Applications for development must not adversely affect any peatland area whether known (as a result of being mapped) or suspected. Applications will be expected to demonstrate that the proposed development will not affect the ground conditions even if some distance from the application site, which are associated with peat maintenance, restoration and production.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Paragraph 7.17.3 sets out the different types and values associated with peatland - Peatlands which can range on Island from shallow to deep peat, contain irreplaceable archaeological records, huge amounts of stored carbon and are a globally important habitat. Valuable areas of peatland are currently designated as ASSI's, and the Climate Change Act 2021 sets out a requirement to amend the Forestry Act 1984, to include a requirement for the Department (DEFA) to prepare a Peatland Register, to provide a legislative mechanism to protect our peatlands from undue disturbance. Cabinet Office will review any proposed allocated sites against the Peatland Register, once this reference source becomes available.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Policy provision for regeneration has also been strengthened within Section 8 of the Area Plan for the North and West, to deliver quality and vibrancy in urban living and to reduce the amount of greenfield land needed for future development needs and make best use of land within our town centres. A Comprehensive Treatment Area for West Quay and the Sulby River in Ramsey has also been proposed (refer to **Built Environment Proposal 2**). **Built Environment Proposal 1** has been drafted as follows:

Built Environment Proposal 1: Urban Regeneration

The Area Plan supports regeneration within our urban settlements generally but particularly supports regeneration in the following locations:

1. The Fire Station, Shoprite Supermarket and West Quay, Ramsey …….

2. The area around Water Street and Tower Street, Ramsey ……..

3. St. Paul's Square, Ramsey ……

4. Albert Road, Ramsey …..

5. Peel Harbour and Waterfront …….

6. Site known as Empire Garages, Peel Promenade ……..

Influence on emissions	
Positive	✓
Neutral	
Negative	

Future Strategic Policy Actions Required	
Biodiversity	Amend Strategic Plan to make provision for biodiversity net gain.
Marine Nature Reserves and Water Quality	None.
Carbon Sequestration	Amend Environment Policy 7 of the Strategic Plan to clarify the protection afforded to peatlands.

Stage 3: Monitoring and Evaluation for Priority Risk 1

With regard to the effectiveness of adjusted policy provisions, the Draft Plan sets out a number of plan outcomes for the Natural Environment, and are intended to serve as a tool for future monitoring and evaluation.

Biodiversity: Plan Outcomes

Plan Outcome 1a: Future development will be directed away from those areas within the North and West that have species and habitats of national and international importance.

Plan Outcome 1b: Our UNESCO Biosphere status will be retained for future generations.

Plan Outcome 2a: Future development will be directed away from areas which are recognised as particularly biodiverse.

Plan Outcome 2b: Biodiversity is recognised as a key climate change policy approach during the transition to a strategic planning policy change to 'biodiversity net gain' in all development proposals.

Plan Outcome 3c: The broad scale of green infrastructure, which may be as part of public realm improvements increases and such change is measurable.

Plan Outcome 5a: The water quality within our territorial rivers and seas will be improved.

Marine Nature Reserves and Water Quality Outcomes

Plan Outcome 1b: Our UNESCO Biosphere status will be retained for future generations.

Plan Outcome 5a: The water quality within our territorial rivers and seas will be improved.

Carbon Sequestration Outcomes

There are no identified Plan Outcomes set out in the Draft Plan for the north and West, but planning policy will refer to categorised areas of carbon sequestration value, as identified on carbon sequestration maps (in draft or final form) peatland areas. There will be a presumption against future development in areas of value for carbon sequestration.

Planning policy have assessed the allocated sites against the Carbon Sequestration Mapping.

Appraisal Table 2

Stage 1: Identify the Climate Change Risk		
Priority Risk 2: Risks to natural carbon stores and sequestration from multiple hazards leading to increased emissions.	Magnitude of Risk: Medium but will increase to high by 2050.	Relevant Policy Areas: • Woodland and Registered Trees • Marine Nature Reserves and Water Quality • Carbon Sequestration
The Advice Report for CCRA3 identifies UK peatlands as one of the most important terrestrial natural stores for carbon. While trees will be an important part of our efforts to reduce emissions, trees themselves are vulnerable to the impacts of climate change. Carbon stored in coastal and marine habitats, referred to as "blue carbon" is also thought to be a critical store. These blue carbon habitats such as saltmarsh and seagrass habitats also play an important role in preventing biodiversity loss and supporting adaptation and resilience to climate change, alongside carbon sequestration benefits.		

Stage 2: Adapted Policy Provisions for Priority Risk 2
Woodland and Registered Trees: General Policy Adjustments
Areas of Woodland and Registered Trees are shown on the Environmental Constraints Maps 1a. All proposed sites have been assessed against a graded scoring system within **Criteria 13** of the Site Assessment Framework, relating to protected trees.

Influence on emissions	
Positive	

Neutral	✓
Negative	

Paragraph 7.16.2 states that Environment Policy 3 in the Strategic Plan protects woodland areas from unacceptable loss or damage, therefore it is unnecessary to add to this policy approach. **Natural Environment Proposal 1** sets clear policy provision for the protection and enhancement of woodland and the creation of green infrastructure.

Natural Environment Proposal 1

Development proposals must protect, enhance, and create new, green infrastructure within the North and West, particularly in existing settlements. As part of the Island-wide environmental goal of strengthening the green infrastructure network, planning applications in the North and West are expected to demonstrate both their alignment with any approved Green Infrastructure Strategy, and explanation about how development schemes would contribute to an improved network of connected green spaces.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Paragraph 9.9.5 of the Draft Plan sets out clear policy protection for existing tree cover within the Civic Quarter, as detailed below

Town Centre Proposal 8: The Civic Quarter

1. …….

2. …….

3. The open space adjacent to Lyndale Avenue and the grounds of the Cathedral shall be retained as an important green space with mature trees, to preserve the setting to the Cathedral.

4. ……..

Influence on emissions

Positive	
Neutral	✓
Negative	

Woodland and Registered Trees: Policy Adjustments for Allocated Sites	
Site PE003	**Transport and Utilities Proposal 6** **All aspects of the design and siting, including …. the impacts on …… the environment and biodiversity, as well as all …. proposals for mitigation shall be considered alongside the potential benefits of a new Sewage Treatment Works and considered as part of a detailed planning application.** In addition, all planning applications must take into account a Development Brief, requiring that any application on this site should include details of how the development will address/mitigate for issues relating to trees. Should there be any identified impact on trees within Registered Tree Area RA0531, an arboricultural method statement must be submitted with the application or prepared and agreed as part of any conditions of approval. **Influence on emissions** Positive: Neutral: ✓ Negative:
Site RR009	The accompanying Development Brief sets out a requirement that an Environmental Impact Assessment must be carried out on this site and included in the scoping assessment must be on the impact on trees, biodiversity and protected birds. Steps must be included in any subsequent Environmental Statement to mitigate any impact. An Arboricultural Method Statement (AMS) will be needed ahead of any commencement of works.

	Influence on emissions
	Positive:
	Neutral: ✓
	Negative:

Marine Nature Reserves and Water Quality: General Policy Adjustments

Paragraph 7.19.3 identifies 3 Marine Nature Reserves in the North and West (MNR's) which provide for the protection and enhancement of biodiversity to ensure that there is a healthy range of different habitats, food types and marine species. **Natural Environment Proposal 6** has been added to the Draft Plan, as detailed below, to provide additional policy protection:

Natural Environment Proposal 7

Applications which would have a detrimental effect on the water quality flowing into an identified Marine Nature Reserve (MNR) off the coast of the Plan Area will not be supported.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Carbon Sequestration: General Policy Adjustments

Paragraph 7.17.2 recognises the role that the Uplands serve to provide a variety of 'ecosystem services' which include the provision of drinking water and carbon storage. 99% of the Island's drinking water comes from these areas, whilst it is estimated that the peat and soil in the area contains millions of tonnes of carbon. It is therefore essential that we prevent contamination of the water, the loss of any carbon storage and deterioration of sphagnum moss which goes hand in hand with creating peatland areas. **Natural Environment Proposal 3** has been added to the Draft Plan, as detailed below, to provide additional policy protection:

Natural Environment Proposal 3

Applications for development must not adversely affect any peatland area whether known (as a result of being mapped) or suspected. Applications will be expected to demonstrate that the proposed development will not affect the ground conditions even if some distance from the application site, which are associated with peat maintenance, restoration and production.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Paragraph 7.17.3 sets out the different types and values associated with peatland - Peatlands which can range on Island from shallow to deep peat, contain irreplaceable archaeological records, huge amounts of stored carbon and are a globally important habitat. Valuable areas of peatland are currently designated as ASSI's, and the Climate Change Act 2021 sets out a requirement to amend the Forestry Act 1984, to include a requirement for the Department (DEFA) to prepare a Peatland Register, to provide a legislative mechanism to protect our peatlands from undue disturbance. Cabinet Office will review any proposed allocated sites against the Peatland Register, once this reference source becomes available.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Policy provision for regeneration has also been strengthened within Section 8 of the Area Plan for the North and West, to deliver quality and vibrancy in urban living and to reduce the amount of greenfield land needed for future development needs. A Comprehensive Treatment Area for West Quay and the Sulby River in Ramsey has also been proposed (refer to **Built Environment Proposal 2**). **Built Environment Proposal 1** has been drafted as follows:

Built Environment Proposal 1: Urban Regeneration

The Area Plan supports regeneration within our urban settlements generally but particularly supports regeneration in the following locations:

1. The Fire Station, Shoprite Supermarket and West Quay, Ramsey …….

2. The area around Water Street and Tower Street, Ramsey ……..

3. St. Paul's Square, Ramsey ……

4. Albert Road, Ramsey …..

5. Peel Harbour and Waterfront …….

6. Site known as Empire Garages, Peel Promenade ……

Influence on emissions	
Positive	
Neutral	✓
Negative	

Future Strategic Policy Actions Required

Woodlands and Registered Trees	None.
Marine Nature Reserves and Water Quality	None.
Carbon Sequestration	Amend Environment Policy 7 of the Strategic Plan to clarify the protection afforded to peatlands.

	Insert a carbon sequestration outcome into the Draft Plan.

Stage 3: Monitoring and Evaluation for Priority Risk 2

With regard to the effectiveness of adjusted policy provisions, the Draft Plan sets out a number of plan outcomes for the Natural and Built Environment, and are intended to serve as a tool for future monitoring and evaluation.

Woodland and Registered Trees: Plan Outcomes

Plan Outcome 1a: Future development will be directed away from those areas within the North and West that have species and habitats of national and international importance.

Plan Outcome 1b: Our UNESCO Biosphere status will be retained for future generations.

Plan Outcome 3c: The broad scale of green infrastructure, which may be as part of public realm improvements increases and such change is measurable.

Marine Nature Reserves and Water Quality Outcomes

Plan Outcome 1b: Our UNESCO Biosphere status will be retained for future generations.

Plan Outcome 5a: The water quality within our territorial rivers and seas will be improved.

Carbon Sequestration Outcomes

There are no identified Plan Outcomes set out in the Draft Plan for the north and West, but planning policy have been able to refer to categorised peatland areas, as follows:

- low/no concern,
- medium concern/requiring EIA, and

- high concern/no development permitted…

When the Peatland Register and accompanying maps are completed, planning policy will be able to assess the allocated sites against the Register, and amend the Site Assessment Framework, if required.

Appraisal Table 3

Stage 1: Identify the Climate Change Risk		
Priority Risk 3: Risks to people and the economy from climate-related failure of the power system	Magnitude of Risk: High	Relevant Policy Areas: • Transport • Utilities, and • Spatial Strategy
Low carbon power, mostly from intermittent renewable generation, is expected to become the predominant form of energy in 2050, as electricity usage extends to include light transport vehicles and domestic heating. As the Island becomes more dependent on electricity as our dominant energy source, people and the economy will be increasingly exposed and vulnerable to electricity system failures. Guaranteeing that homes and businesses have the certainty of secure energy supplies they can rely on now and in the future is of paramount importance. Large-scale, long-duration electricity storage needs to be factored in to facilitate a net zero grid system and its role in the efficient and cost-effective delivery of security of supply. The location of new development close to existing settlement centres can help to reduce travel distances. Active travel can help to reduce electricity consumption further, and thereby reduce the demands on the grid, but the infrastructure to support active travel needs to be available.		

Stage 2: Adapted Policy Provisions for Priority Risk 3
Transport: Policy Adjustments
The Draft Plan recognises the benefits of a multimodal transport system in the north and west, to support green travel, as detailed in Plan Objective 4 below and **Transport and Utilities Proposal 1**: **Plan Objective 4:** There is a coordinated transport system in the north and west.

Paragraph 10.6.4 states that "*Under the Active Travel Strategy, 'Active Travel' routes only relate to routes within settlements. In reality of course, the aim is to create a network of active travel routes which safely connect to the normal roadways and which connect well with leisure trails/routes that are fit for purpose and well maintained. This Plan supports the strengthening of investment in active travel and supports measures to improve and reinstate (or potentially re-route) where necessary long distance leisure routes, for example public access along former railway lines. There is a long-term aspiration to re-establish an uninterrupted public route following the old railway line between Ramsey and Peel.*"

Transport and Utilities Proposal 1

Planning applications must take into account the Active Travel Strategy and any specific actions set out in any Investment Plans relevant to the North and West which flow from it.

Transport and Utilities Proposal 2

This Plan supports proposals to improve connectivity across settlements for pedestrians and bicycles including users of electrically assisted pedal cycles (EAPCs). Planning applications will be seen as opportunities to improve links between designated active travel and leisure routes, areas of public open space as well as sports, leisure and community facilities. Options to create or enhance such links must be fully explored as part of the planning application process.

Transport and Utilities Proposal 3

Applications that seek to re-establish or improve the route of the former railway line (Ramsey to Peel, St Johns and Foxdale) for public access and use, whether for active travel or leisure purposes will be supported provided that such proposals comply with other proposals in this Plan. Surface treatment must be appropriate for all users.

Transport and Utilities Proposal 4

All numbered sites identified on the Maps involving development must include a Travel Plan as part of the planning application which sets out a strategy and practical approaches to deliver of the transport objectives set out in this plan. Travel Plans must demonstrate how delivery is to be achieved and how it is to be updated over time. Consideration must be given to the provision of cycle parking and changing facilities as part of development proposals.

Influence on emissions

Positive	✓
Neutral	
Negative	

Stage 2: Adapted Policy Provisions for Priority Risk 3

Utilities: Policy Adjustments

The Draft Plan recognises the benefits of sequencing future development in the north and west to align with planned network expansion. This will enable future investment in green utilities infrastructure to be costed and rolled out in a co-ordinated manner, as detailed in Plan Objective 8 below:

Plan Objective 8: To ensure phasing of all service and utility provision is considered as part of planning applications supported by suitable development briefs setting out sequencing requirements where appropriate to facilitate network expansion.

In addition to this, **Paragraph 10.9.7** states that *"In terms of identifying and addressing network capacity, new development places different demands on water and sewer services, electricity demand, telecommunications and of course legal connections to the road network. The sites specifically allocated in this plan can in principle be adequately serviced but where appropriate development will be phased or be conditional on services being operational. The onus will remain on all applicants to demonstrate that sites can be adequately serviced and that Infrastructure providers have all the information required to assess network impacts and requirements properly."*

Influence on emissions	
Positive	✓
Neutral	
Negative	

The Draft Plan recognises the benefits of an integrated telecommunications infrastructure in the north and west. This will support homeworking and reduce travel journeys, as detailed in Plan Objective 4 below, and the policy intent of **Telecommunications Proposal 1** supports Plan Objective 5

Plan Objective 5: To ensure that telecommunications infrastructure is integrated into design schemes from the start.

Telecommunications Proposal 1

For new development in the North and West, planning applications must demonstrate where practical and appropriate to do so, that:
a. fibre optic cables can be directly provided to any new dwelling or premises.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Spatial Strategy: General Policy Adjustments

Area specific planning policies are informed by key strategic objectives set out in a number of Strategic Documents, as approved by Tynwald, and this is reflected in Plan Objective 2, detailed below:

Plan Objective 2: To identify and address any relevant matters at the local level in the Plan Area referred to in key Strategy Documents including: ……., The National Infrastructure Strategy 2017, ….., The Active Travel Strategy 2018 and any updates thereto.

Paragraph 10.4.2 states that "Strategic Transport Policies remain relevant and recognise the importance of new development being:

- located close to existing public transport facilities and routes including pedestrian, cycle and rail routes;
- integrated into existing systems in terms of making provision for new bus, walking and cycle routes;
- planned with the needs of pedestrians having similar weight to the needs of other road users.

Influence on emissions	
Positive	✓

Neutral	
Negative	

Paragraph 5.2.7 states that "In terms of the Island Spatial Strategy for the North and West, the key elements of the ISS for the **North** are:

- most housing focused on Ramsey in line with the current allocations in the Ramsey Local Plan;
- regeneration of Jurby in line with the Jurby Study;
- continued regeneration of Ramsey Town Centre; and
- employment opportunities focused on Ramsey Town Centre and Poylldooey/Ballachrink in accordance with the development framework.

Paragraph 5.2.8 states that "In terms of the Island Spatial Strategy - key elements for the **West** - are:

- continued regeneration in Peel to create further housing, employment and leisure opportunities;
- exploiting the potential of the quayside and harbour for further housing and leisure opportunities; and
- limited development in the other villages in line with the current Local Plans.

Locating new development within existing settlements or within urban extensions to existing settlements will reduce travel distances. This in turn will reduce energy consumption levels, particularly during peak times.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Future Strategic Policy Actions Required	
Transport	Review Transport Policies 1 – 6 of the Strategic Plan to strengthen the concept of 'green travel'.
Utilities	Insert new policy provision within the Strategic Plan to ensure appropriate sequencing of development where appropriate to align with planned grid network expansion, under the Heading Electricity Supply. Review Infrastructure Policy 3 of the SP, to ensure compatibility with the CCA 2021.
Spatial Strategy	Review Spatial Policies 1 – 4 of the SP, to align with future capacity in respect of infrastructure and services provision.

Stage 3: Monitoring and Evaluation for Priority Risk 3

With regard to the effectiveness of adjusted policy provisions, the Draft Plan sets out a number of plan outcomes for the Natural and Built Environment, and are intended to serve as a tool for future monitoring and evaluation.

Transport: Plan Outcomes

Plan Outcome 4b: New footpaths and active travel routes and the connections between them are practical, safe options for users.

Utilities: Plan Outcomes

Plan Outcome 2a: Proposals reflect any Strategies approved by Tynwald, whilst being in general conformity with the Strategic Plan.

Plan Outcome 8a: Provision of all service and utility provision is timely, well planned, coordinated and sustainable.

Spatial Strategy: Outcomes

No Plan Outcomes are set out within Chapter 5 of the Draft Plan relating to the Spatial Vision. Subsequent Chapters look at a number of topics in detail and set out key Area Plan Objectives and Outcomes, and these should be referred to, for monitoring purposes.

Appraisal Table 4

Stage 1: Identify the Climate Change Risk		
Priority Risk 4: Risks to human health, wellbeing and productivity from increased exposure to heat in homes and other buildings.	Magnitude of Risk: High	Relevant Policy Areas: • Net Zero Design • Green Infrastructure
The Advice Report for CCRA3 outlines the significant risks of overheating in buildings as UK temperatures increase and heatwaves become more common. High temperatures will lead to productivity losses for workers, exposure to heat in homes for homeworkers, implications for the future delivery of home-based care and risk to life. New homes should be planned and built to address overheating alongside energy efficiency and low-carbon heating. Building designs and technology are available that can greatly reduce occupant exposure to heat while ensuring high levels of thermal efficiency, and Building Regulations capture much of the technical requirements for new buildings, but the importance of passive cooling measures like better shading, reflective surfaces and green cover needs to be highlighted within design guidance for new buildings and public realm. The inclusion of new landscape features generally provide habitats that support shading and cooling, as well as being a vital component of attractive places, and supporting biodiversity, air quality improvements and carbon sequestration. Tree cover within the wider urban environment provides shade and reduces the urban heat island. Urban planning policies should make protective policy provision for the retention of existing trees and strengthen the concept of green infrastructure, to ensure that positive policy provision is available to support additional tree planting within new developments and public realm improvements, with long term maintenance plans for newly-planted trees in place. This is particularly relevant for existing town centres that provide a focus for economic activity, and support tourism.		

Stage 2: Adapted Policy Provisions for Priority Risk 4
Net Zero Design: Policy Adjustments
There is no policy provision within the Draft Area Plan to support the principles of Net Zero Design. A Net Zero Design Policy should be inserted into a revised Strategic Plan that states:

Climate Change and Sustainability Proposal 1
Any future planning applications for new development within allocated sites and existing settlement boundaries of the North and West should demonstrate - through a Design and Access Statement - how the development incorporates the principles set out below:

a) **Green Buildings**
b) **Green Spaces**
c) **Green Power**
d) **Green Travel**

The Design and Access Statement should address the three Net Zero Hierarchies set out below:

- **The Energy Hierarchy;**
- **The Transport Hierarchy**
- **The Waste Hierarchy**

Influence on emissions	
Positive	✓
Neutral	
Negative	

Green Infrastructure: Policy Adjustments

Section 7 of the Draft Plan that relates to the Natural Environment sets out **Plan Objective 3**: To protect and enhance the existing network of multi-functional green spaces in the plan area which serve to deliver a wide range of environmental, social and leisure assets for the benefit of local communities.

Paragraph 7.16.2 of the Draft Plan recognises that new development must consider its relationship with existing trees and should attempt to optimise tree planting where possible. Landscaping schemes and planting schedules should be used where appropriate. **Natural Environment Proposal 1** sets out policy provision to achieve this.

Natural Environment Proposal 1
Development proposals must protect, enhance, and create new, green infrastructure within the North and West, particularly in existing settlements. As part of the Island-wide environmental goal of strengthening the green infrastructure network, planning applications in the North and West are expected to demonstrate both their alignment with any approved Green Infrastructure Strategy, and explanation about how development schemes would contribute to an improved network of connected green spaces.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Section 8 of the Draft Plan, relating to the Built Environment and Regeneration contains **Plan Objective 5**: To support proposals for public realm improvements and good design. Opportunities for strengthening existing green infrastructure within the town centres are identified within **Town Centre Proposal 9**, detailed below.

Town Centre Proposal 9: The Transition Zones
5. …... Car and cycle parking areas should incorporate green infrastructure elements within the transition zones, to positively contribute to townscape quality and biodiversity enhancement.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Section 12 of the Draft Plan, relating to Tourism and Leisure contains **Plan Objective 4: To** identify opportunities to increase green infrastructure within settlement boundaries. Policy provision is made elsewhere to achieve this.

Future Area Specific Policy Actions Required	
Net Zero Design	Insert a new Net Zero Design Policy into the Draft Plan, as drafted.
Green Infrastructure	None.

Future Strategic Policy Actions Required	
Net Zero Design	Review current strategic policy provisions for Design Statements within the Strategic Plan, and include net zero design within the remit of a Design Statement. Insert a new strategic policy into a revised Strategic Plan to enable planning officers to request a Whole Life Cycle Carbon Assessment to be submitted as part of a planning application. The RICS Carbon Assessment provides baseline guidance and useful template formats.
Green Infrastructure	Prepare a Green Infrastructure Strategy.

Stage 3: Monitoring and Evaluation for Priority Risk 4

With regard to the effectiveness of adjusted policy provisions, the Draft Plan sets out a number of plan outcomes for the Natural and Built Environment, and are intended to serve as a tool for future monitoring and evaluation.

Net Zero Design: Outcomes

Plan Outcome 4b: A whole lifecycle carbon assessment can demonstrate how net zero design principles have been woven into the design of new development. It is likely that this will be assessed at the planning application stage.

Green Infrastructure: Plan Outcomes

Plan Outcome 3c: The broad scale of green infrastructure, which may be as part of public realm improvements increases and such change is measurable (Section 7).

Plan Outcome 5a: A greater sense of civic pride and community well-being, enhanced townscape quality, sensitive to the local context, and a measurable increase in green infrastructure (Section 8).

Appraisal Table 5

Stage 1: Identify the Climate Change Risk		
Priority Risk 5: Flooding and Coastal Erosion	Magnitude of Risk: High	Relevant Policy Areas: • Flooding and Coastal Erosion
It is fully recognised that flood risk to people from rivers, surface water and coastal flooding remains high both now and in the future. This includes future flood risk from rivers and the sea, surface water and ground water flood risk. The National Strategy on Sea Defences, Flooding and Coastal Erosion 2016 identifies a number of areas on the Island that are most prone to flood risk, and careful consideration needs to be given to allocating sites in these areas. Rising sea levels can cause both coastal flooding and coastal erosion. Coastal erosion is a significant risk within the North and West, due to the sandy coastline. The government is committed to defending the coastline where this is sustainable and affordable to do so, and to let it function naturally in areas where it is not. In high risk areas, flood alleviation measures may be necessary. Flood risk assessment and flood management will become a critical issue in the future. A holistic approach to flood risk management includes nature based solutions, where appropriate, alongside engineered defences, to further reduce flood and coastal erosion risk. This approach also has the added advantage of securing multiple benefits including carbon sequestration and biodiversity net gain in addition to flood risk management.		

Stage 2: Adapted Policy Provisions for Priority Risk 5
Flooding and Coastal Erosion: Policy Adjustments
When considering critical policy issues relating to the Town Centres of Ramsey and Peel, **Paragraph 5.3.3** recognises the need to deal with flood risk in coastal locations which are seeing more regular and severe storm events as a result of climate change, and when addressing the critical issues affecting the wider settlement catchment areas of Ramsey and Peel**, Paragraph 5.3.4** extends the scope of this issue to include coastal erosion issues. The sources of flood risk in the North and West arise from a range of sources, including coastal, fluvial, tidal, or surface water flood risk. **Paragraph 5.3.5** identifies the need to manage development so as to reduce the vulnerability of smaller settlements to flood risk and coastal erosion.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Paragraph 7.18.5 of the Draft Plan states that *"The ecosystem services provided by the Island's watercourses and wetlands are vital to the environment and us, as humans; these services obviously include drinking water, but also important carbon storage and natural flood mitigation. Development close to these areas must be closely monitored to ensure they are not negatively impacted."*

Paragraph 7.20.7 and **7.20.8** states that "*The Independent Review of the Laxey Flood of 1st October 2019 made 10 Recommendations. Of particular note is the following recommendation:*
Recommendation 8 *- "Greater attention and more urgency is given to existing plans to deal with surface water flooding."*
Consideration of these flood risk factors was an integral part of site assessment in the plan area and flood data must continue to influence planning decisions taken on proposals within the plan area."

Paragraph 7.21.1 states that *"To aid with planning and mitigation, flood maps provide good guidance on flood risk when it comes to rivers, the sea and surface water. They are relevant to both site allocations in Area Plans and in the determination of planning applications. The risk areas shown relate to Tidal Flooding, Fluvial Flooding and Pluvial Flooding (surface water). The published maps illustrate 100 year return period for fluvial flooding, and a 200 year return period for tidal flooding. Surface water flooding – which occurs as a result of intense rainfall, where drainage systems are overwhelmed – is recorded in terms of low, medium and high risk."*

Each proposed site has been assessed against **Criteria 8** of the Site Assessment Framework, that relates to Flooding and Coastal Erosion. Criteria 8 of the Site Assessment Framework has been amended to ensure that proposed sites located within an area at high risk of flooding or coastal erosion are not allocated for vulnerable land uses in the longer term. As sites come forward for future development, flood risk assessment is an essential tool to better manage surface water flooding, as required under Environment Policy 10 of the Strategic Plan.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Paragraph 7.20.3 of the Draft Plan states that *"Flood management/alleviation schemes are being pursued in Ramsey Harbour and in Peel Harbour but it is recognised that flood alleviation schemes can often appear intrusive in the natural and built environment and need careful assessment."* **Paragraph 7.20.5** states that "*The general policy stance for flood alleviation schemes in the North and West will be to support those schemes for flood defence proposals that set out a clear justification for the need for such measures, assess the likely environmental impacts and set out clear mitigation proposals to minimise those impacts."* **Natural Environment Proposal 7** responds to these issues, as detailed below.

Natural Environment Proposal 7

Flood alleviation measures will be supported in principle for the Ramsey Harbour area and the Peel Harbour area. The schemes must demonstrate the known flood risk and assess heritage and landscape and visual impacts. There must be clear demonstration that the final design and finishes have been prepared with the findings in mind with clear mitigation proposals where necessary to minimise those impacts.

Influence on emissions	
Positive	✓
Neutral	
Negative	

The Draft Plan includes a clear objective for SUDS to become integral elements within new development proposals, as detailed below:
Plan Objective 4: To support the integration of greener drainage initiatives such as Sustainable Drainage Systems (SuDS) into development schemes as part of the wider approach to manage flood risk as part of the transition to a strategic planning policy change to the provision of SuDS unless it can be demonstrated that it is not a practicable option.

The policy provision to support SUDS within new development is found within **Transport and Utilities Proposal 6**, detailed below:

Transport and Utilities Proposal 7

In order to respond to the increasing risk of flooding in terms of stormwater and overland flow on new developments, neighbouring properties and surrounding catchments, applications shall, where the scale of development warrants, demonstrate that consideration has been given to the use of Sustainable Drainage Systems (SuDS) in the development design. Benefits of SuDS include being able to:

a. Protect and enhance natural water systems while controlling and minimising effect on neighbouring properties;
b. Integrate stormwater treatment into the landscape;
c. Protect the quality of water;
d. Reduce run-off and peak flows; and
e. Minimise drainage and infrastructure costs.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Paragraph 9.3.4 of the Draft Plan recognises that the town centre in Ramsey is vulnerable to flood risk, particularly along the East Quay. Town Centre Policies 1a, 1b and 2a, relating to the Quayside and Ramsey High Street East have been drafted to provide specific policy provision to support future flood management within the town centre. Common policy provisions for these areas require that:

- sympathetic modifications to quayside buildings that help to minimise flood risk and promote inclusive access will be supported, and
- the future design of such schemes must be resilient to flood risk.

Town centre Proposal 1a also supports sympathetically designed flood alleviation measures along the harbour side.

Influence on emissions	
Positive	✓
Neutral	
Negative	

Paragraph 7.22.1 recognises that the coastal land on the north western side of the Island is particularly prone to erosion, inundation or coastal subsidence, and **Paragraph 7.22.2** states that "*Both the Strategic Plan 2016 and the National Strategy Evidence Report (2016) highlight Kirk Michael as an area particularly at risk from coastal erosion. The 2016 Report states that there is no immediate risk to property in this area, although from 2060 onwards there is a high risk to three residential properties and the former fish farm. Such risk has been recognised for some time and a Coastline Management*

Zone29 was designated in 2007 (under the Coastline Management Act 2005) between the Glen Balleira stream and the Glen Wyllin stream (see Constraint Map 1b). This zone allows for the sustainable management of the coastline that falls within the zone and ensures planning policy (including the Area Plan process) makes informed decisions about land use taking into account coastline issues. The data available for coastal erosion has informed the site assessment process, especially in relation to Kirk Michael."

Paragraph 7.22.3 states that "The draft Area Plan for the North and West has not allocated any additional sites for permanent land uses where land falls within this Zone. Future applications in the Zone will be determined taking account of the following Proposal.

Natural Environment Proposal 8

Planning applications which would inhibit or prevent the sustainable management of coastal land within or adjacent to the Kirk Michael Coastal Management Zone designation, will not be supported.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Currently, there is no policy provision to ensure that future properties are more resilient to flooding, through appropriate design measures, and whilst having no detrimental impact upon carbon emissions, this represents the loss of an adaptation opportunity. There is still an opportunity to incorporate a suitably worded policy within the Draft Plan, to enhance the resilience of new properties, if they are at risk of flooding.

Influence on emissions	
Positive	
Neutral	✓
Negative	

Future Area Specific Policy Actions Required	
Flooding and Coastal Erosion	Insert new policy provision re. property flood resilience, if a flood risk is identified.

Stage 3: Monitoring and Evaluation for Priority Risk 5

With regard to the effectiveness of adjusted policy provisions, the Draft Plan sets out a number of plan outcomes for the Natural and Built Environment, and are intended to serve as a tool for future monitoring and evaluation.

Flooding and Coastal Erosion: Outcomes

Plan Outcome 4a: There will be an increase in the number of new developments incorporating SuDS (green drains) in the north and west adopted by an approved body.

Plan Outcome 6a: Number of properties at risk of flooding based on the flood data available, does not increase as a result of the Plan.

Plan Outcome 6b: Adoption of Sustainable Drainage Systems (SuDS) is fully explored as part of every development application where relevant and the number of SuDS schemes being used to address surface water issues increases.

Appraisal Summary Table 6

Relevant Policy Areas	Further Action Required
Biodiversity	• Amend Strategic Plan to make provision for biodiversity net gain.
Marine Nature Reserves and Water Quality	None required.
Carbon Sequestration	• Amend Environment Policy 7 of the Strategic Plan to clarify the protection afforded to areas of high carbon sequestration value, as detailed in carbon sequestration maps (currently in draft form). • Review proposed allocations within the Draft Plan against any future areas of value for carbon sequestration, as detailed in carbon sequestration maps (currently in draft form). • Amend any future iteration of the Site Assessment Framework, to include an assessment of proposed sites against future Carbon Sequestration Maps. • Insert a carbon sequestration outcome into the Draft Plan.
Woodlands and Registered Trees	None required.
Transport	• Review Transport Policies 1 – 6 of the Strategic Plan with a view to situating these policies under the umbrella of 'green travel'.
Utilities	• Insert new policy provision within the Strategic Plan to ensure appropriate sequencing of development to align with planned grid network expansion, under the Heading 'Electricity Supply'. • Review Infrastructure Policy 3 of the Strategic Plan, to ensure compatibility with the CCA 2021.

Spatial Strategy	• Review Spatial Policies 1 – 4 of the Strategic Plan, to align with future planned capacity in respect of infrastructure and services provision.
Net Zero Design	• Review current strategic policy provisions for Design Statements within the Strategic Plan, and include net zero design within the remit of a Design Statement. • Insert a new strategic policy into a revised Strategic Plan to enable planning officers to request a Whole Life Cycle Carbon Assessment to be submitted as part of a planning application. Note - the RICS Whole Life Cycle Carbon Assessment provides baseline guidance and useful template formats.
Green Infrastructure	• Prepare a Green Infrastructure Strategy to provide an evidence base to inform future planning discussions about extending existing green infrastructure into new development.
Flooding and Coastal Erosion	• Insert new policy provision into the Draft Area Plan in respect of property flood resilience, if a flood risk is identified.

Isle of Man Government

Reiltys Ellan Vannin

GD Number / link/ other / leave blank

Government Tecnology Services CO2 reduction 2022/23

Laptops In place of PCs

262 Tonnes

Green Power Data Center

52 Tonnes

Hardware Recycling

97* Tonnes

Saved Car Journeys

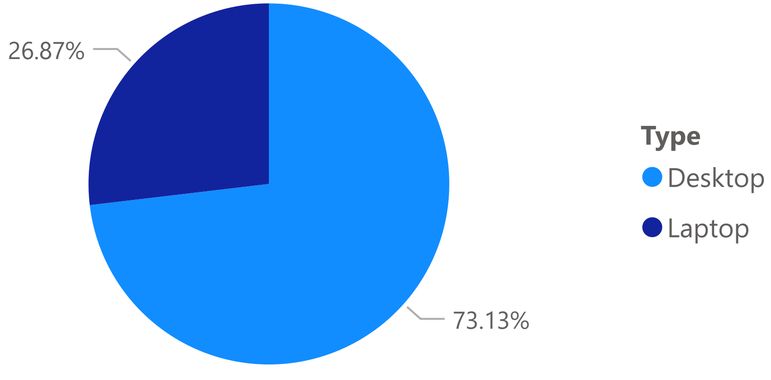
40 Tonnes

Total Reduction of 451 Tonnes

Could fly around the world 100 times

GTS HARDWARE 2021

Hardware Estate Split 2021



Total Number of Desktop Computers

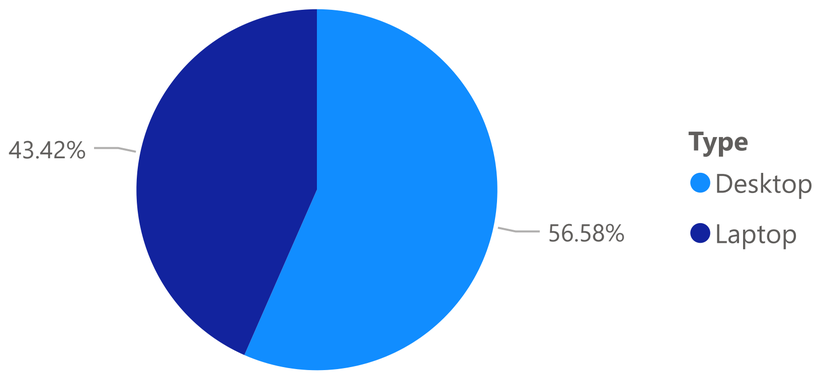
5342

Total Number of Laptop Computers

1963

GTS HARDWARE 2022/23

Hardware Estate Split June 2023



Total Number of Desktop Computers

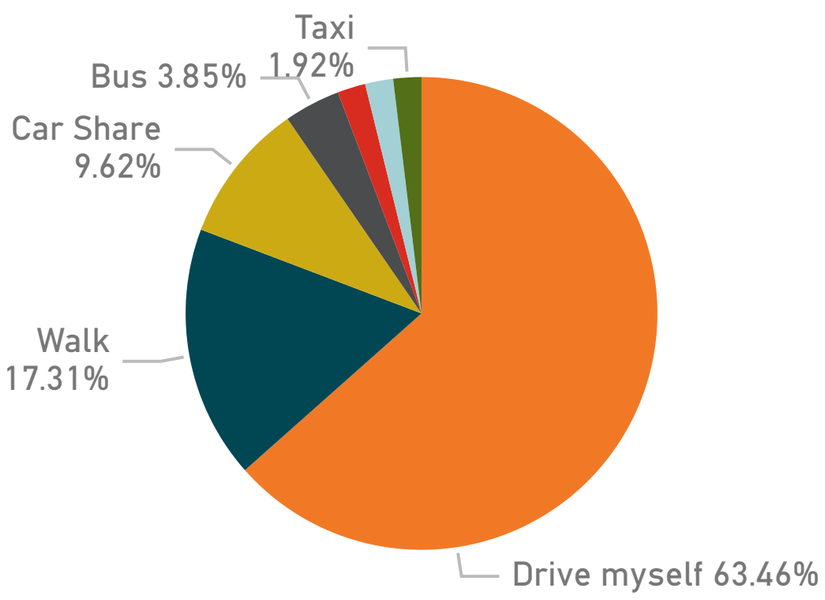
4469

Total Number of Laptop Computers

3429

GTS Travel Survey 2022

How do normally Travel to the Office?

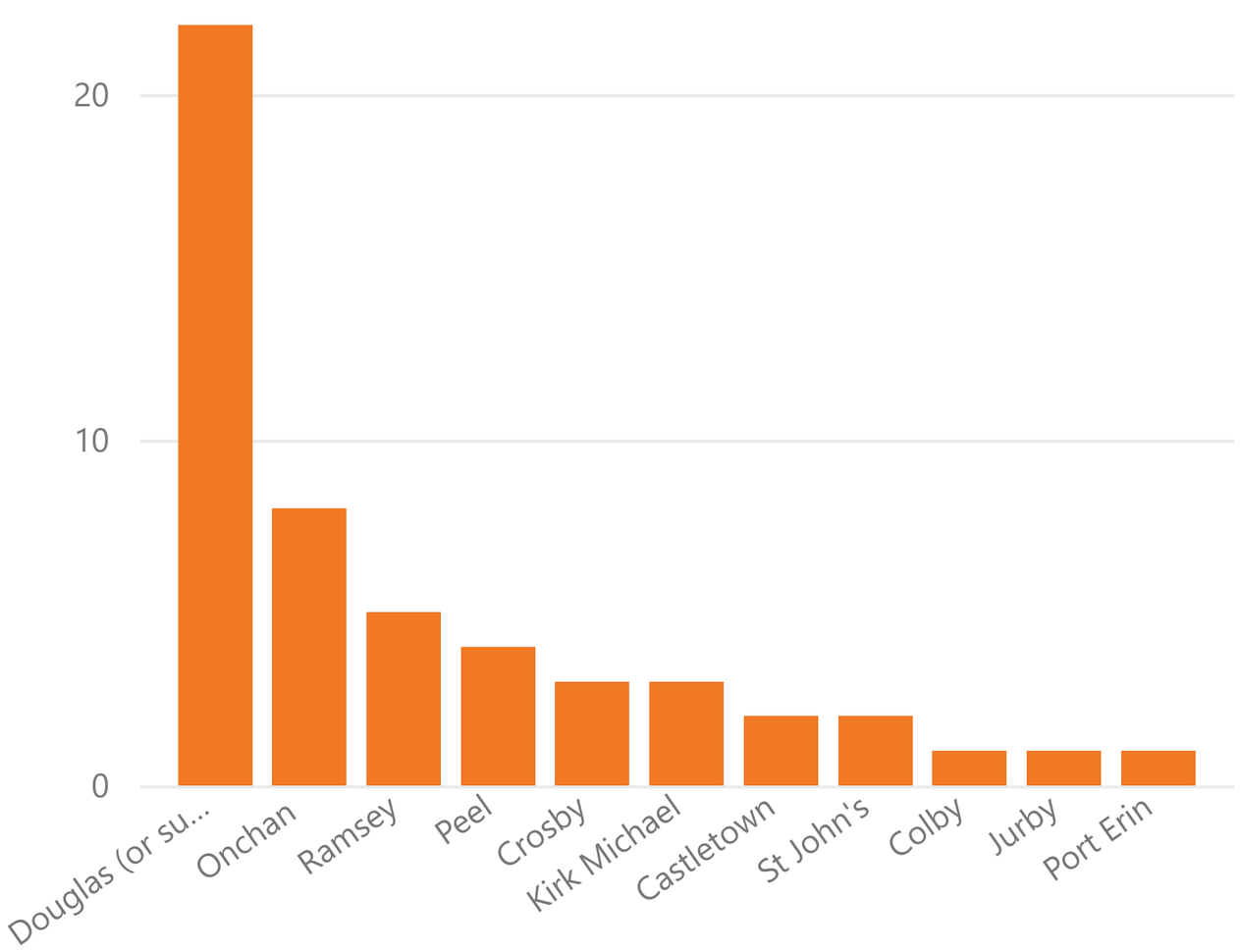


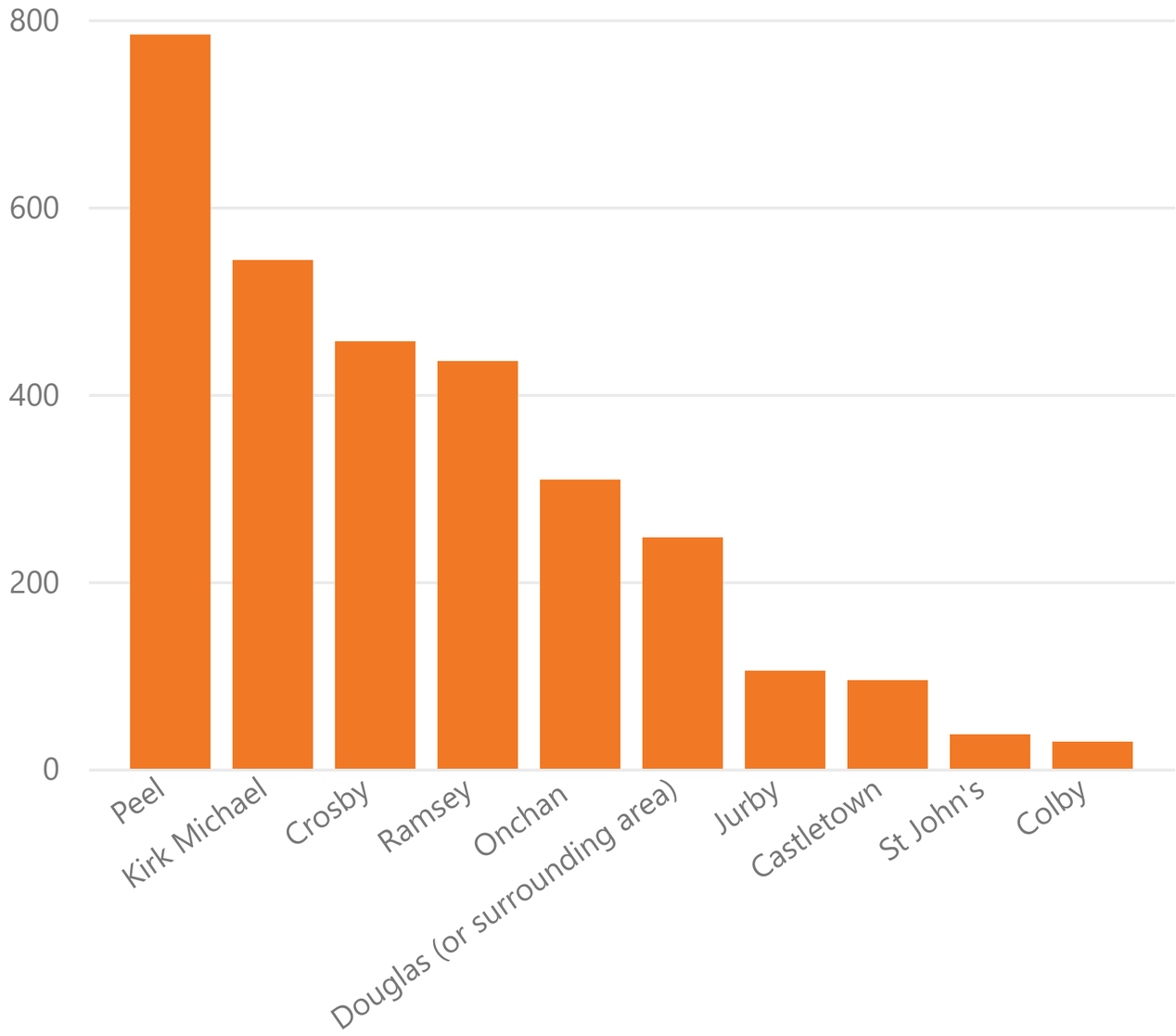
Total C02 per Year in Tonnes for individual Car Journeys made by GTS staff to attend the office

3.04

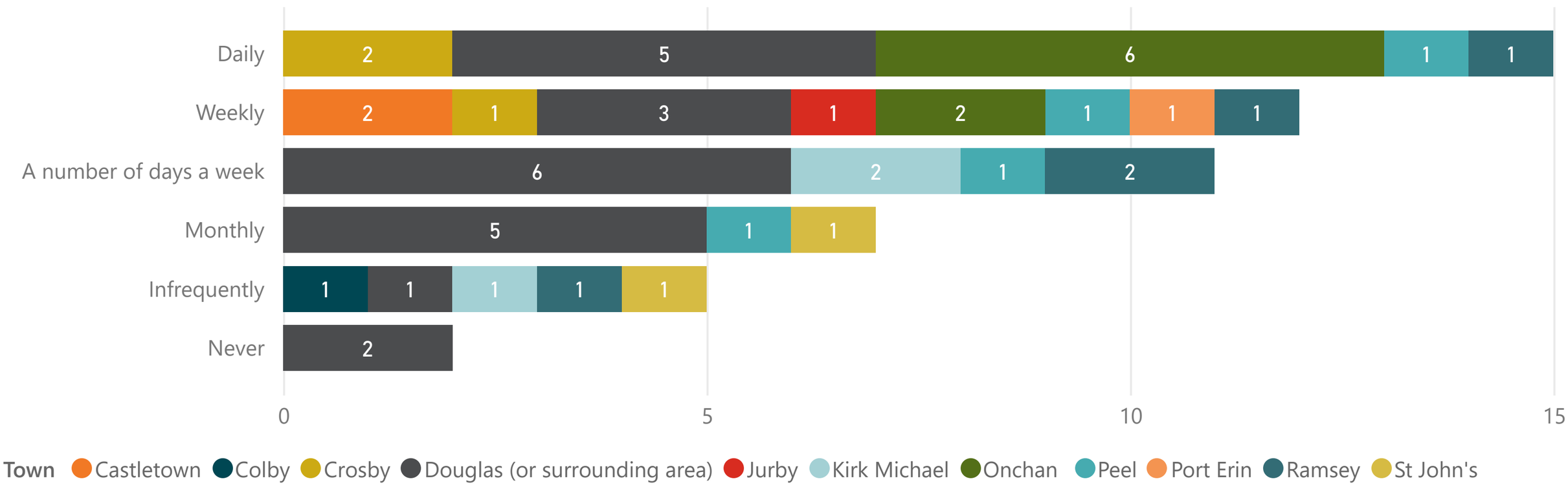
KG of CO2 per town generated in a year for single occupant cars

Where do you normally Travel from





How often do you attend the Office and where you travel from?



CO2 calculations are based on 122.1 g CO2/KM: [New car carbon dioxide emissions - GOV.UK (www.gov.uk)]

Confidential

Paper No. 2023/ [Obtainable from councilpapers@gov.im]

Council of Ministers Submission Paper

Department/Board/Office	
Chief Officer	
Responsible Officer	
Minute point to be sent to	
Date of Council Meeting	
Title	
Business	
Purpose of the Paper:	
What is the aim of this paper?	Choose an item.
Collective Responsibility: **(Mandatory field, please choose an option)**[1]	Choose an item.
Compliance:	
Please indicate whether the below have been considered. If applicable, please append or detail in paper. • **Legislative Impact Assessment** for major primary legislation. • **Public Sector Equality Duty**[2] • **Public Sector Climate Change Duty**[3]	 Choose an item. Choose an item. Choose an item.
Are there any resource/personnel implications?	Choose an item
Is Treasury concurrence required? Will the proposal have any effect on public revenue or capital spending? Please provide details in the paper.	Choose an item
Please specify the date at which Treasury concurrence was approved.[4]	
Please provide the Treasury minute reference at which Treasury concurrence was approved.	
Is the Department acting within its legal powers (vires)? (Please provide details in the paper, including reference to any advice received).	Choose an item.
Are there any cross Government implications?	Choose an item
If yes, which other Departments are involved? Have you consulted with these Departments? [5]	Choose an item
Has your Department Communications Partner been advised of this proposal, where a communications plan is applicable?	Choose an item.

[1] Please see Section 1.26-1.34 of the Government Code for Guidance
[2] Equality Act 2017 Section 143 [Public Sector Equality Duty]
[3] Clauses 21 & 34, Climate Change Bill 2020 [Duties of Public Bodies] [Exercise of Duties by Council]
[4] Treasury concurrence must be in place, if required, prior to the item being submitted to Council
[5] Please include the Dept's views in the consultation section

[Departments are invited to consider the following headings for structure. These are not compulsory. Please appraise the issues, options, and provide recommendations]

Examples might include:

- Introduction and Background:
- Issue and Options:
- Financial and resources implications: (E.g compliance with Financial Regulations and the Treasury Act 1985 Section 10). E.g. increase or reduction in Government expenditure or income, Treasury concurrence, staffing and resource implications.
- Legal Position: (Is the Department acting within legal powers, and if so provide information and evidence, consulting with HM Attorney General's Chambers where necessary)
- Consultation and Stakeholder Engagement: (Including cross-Government)
- Monitoring/Evaluation:
- Recommendation: (Unless the paper is for information only)
- Appendicies: Please ensure any appendices are attached to the document in full, and not included as links

Name of Chief Officer (who has approved content of paper)

Name of Department/Board/Office

Date dd/mm/yyyy

Isle of Man Government
Cabinet Office
Oik Coonceil ny Shirveishee

Passport, Immigration and Nationality Office - Heat Loss Report (Feeder to Annual Climate Change Report)

(14th April 2023)

First Published 14th April 2023

Contents

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Calculations 4
Conclusion 5
Recommendation 5
Reference data 6
Version Control 7

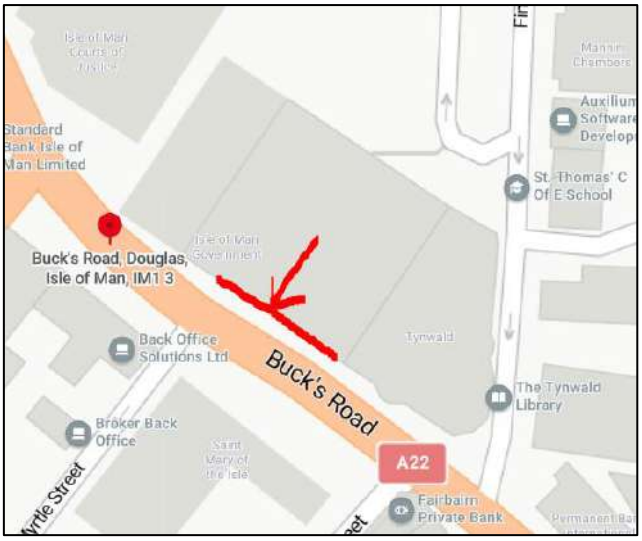
Summary

Calculations indicate PIN, together with DOI, can **save £10,000** per year in heating losses by replacing the existing draughty, wooden-framed, single glazing on the high street side of the ground floor of central government offices.

This report calculates wasted heating costs due to the presence of 1970's style windows to the street-side façade. Additional significant heat losses from infiltration and ventilation are not included but are significant contributors to the waste.

Location:

Isle of Man Passport, Immigration and Nationality Office
Ground Floor
Government Office
Buck's Road
Douglas
IM1 3PN



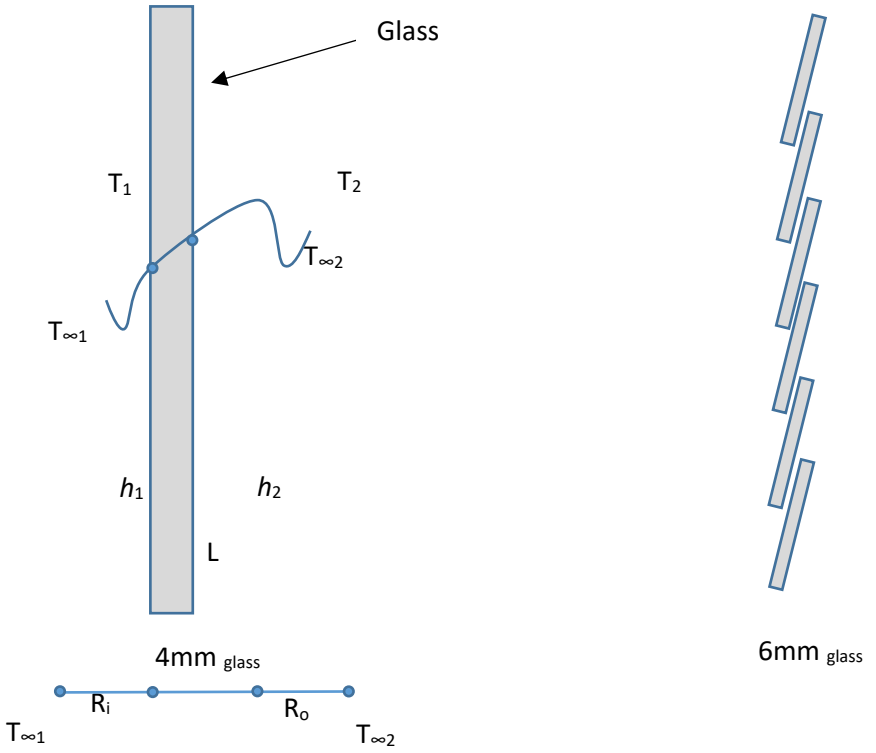
(Figure 1.0)

Existing Window configuration and construction materials.

The existing window frames are wooden-framed. Glazing is a combination of loose slatted single glazed uncoated glass panels approximately 150mm x 150mm grouped in vertical hinged assemblies 1.75 metres high. These panels are 6mm thick and porous at all joints.

Adjacent window panes comprise single glazing of 6mm float glass uncoated panels of 4mm thick glass panes.

This glazing runs along the street side of the PIN office and comprises an area of approximately 75 square metres. (Highlighted in red in the map above in Figure 1.0).



(Figure 2.0)

Calculations

1. Measure the area of single glazed panels in the PIN Office. (Excluding double glazing on the courtyard facing side – which itself will have further heat losses).
2. Determine or assess the cost per unit of heating from heating bill as a cost per kilowatt hour (kWh) or oil per gallon of gas per cubic metre.
3. Every material has a 'U' value associated with heat loss and insulation – the lower the U value the better the insulation. It is measured in W/m2K (Watts per metre squared Kelvin)
4. An R-value id the opposite of U and is a measure of how resistive a specific material is to heat conduction measured I m2K/W (meter squared kelvin per watt).
5. The thermal conductivity coefficient is unique for any given material – sometimes given the symbol 'Lambda' or lower case 'k'.
6. U value = 1/R value W/m2K
7. Inside comfortable office temperature is 21 degrees Celsius.
8. Outside seasonal winter average temperature for the Isle of Man is 4 to 5 degrees Celsius but min is zero say so the difference is what causes the heat loss i.e. 21 – 4 = 17 degrees C.
9. The U value of 4mm glass per square meter is given in tables as: 5.8 Watts per M^2Kelvin.
10. Minimum outside design temperature to be -3. The heat transfer rate becomes 24. For the purposes of conservative averaging, we used 4 degrees here to get 17°C
11. This calculation doesn't include the outside air infiltration and ventilation through loose glass panels which would exacerbate the calculation.

Standard Heat Loss Formula: $Q = (U \times A) \times \Delta t$

Where Q = Total heat loss in Watts
U = the overall coefficient of heat transmission (based on material)
A = Area in metres squared
Δt = the temperature difference between inside and outside temperatures

The heat loss through the single glazed 4mm glass is close to 5.9 – the maximum value i.e the most inefficient medium possible. The delta T is taken as average lowest winter design temperature of -2 degrees Celsius and comfortable inside room temperature of 21 degrees Celsius i.e. 23 degrees net.

Therefore the heat loss per metre squared Q = (5.8 x 1) x 23 = 133.4 Watts per square metre per hour.

PIN outside window area is 3m x 25m = 75m. (Estimated).

75 x 133.4 = Watts per hour x 9 hour day say = 90,045 x 5 day week = 150,225 x 48 weeks = 21,610,800 watts per year. Or 21,610.8kW lost heat to the outside through the windows.

Add onto this the additional portable heating units at 2kW each required to compensate for the heat loss. This is based on the current cost of electricity at 18 pence per Kilowatt hour. £2:52 per device per day. Per year assuming 7/12 months per year = £2:52 x 8 x 5 x 30 per year = £3,024/year

Total wasted energy costs due to current single glazing window design excluding gradients to bring office temperature back from weekend cooling in the PIN office and associated supplementary daily ad-hoc personal heating costs: £3,024 plus 21,610.8 x 0.18 £ 3,890 = £ 6,914 pa.

Note that factoring draughts (infiltration), wooden window frame and air changes, the wasted energy is in the region of **£10,000 pa.**

Conclusion

Save £10,000 per year by replacing the existing single glazed and 1970's style louvered glass panels with efficient Aluminium/PVC triple glazing at an estimated cost of £30,000 giving an ROI of less than 3 years and a reduced carbon footprint of 35% for PIN Office.

Recommendation

Communicate the findings within this report to DOI with a view to agreeing action. Include heat loss report, cost saving and CO_2 reduction figures in the Climate Change Annual report for Cabinet Office.

Reference data

Glass-Data_v4-Low-Res.pdf (nationalglass.com.au)

For U values of float glass.

BR443 U-values (2006) (bre.co.uk)

Version Control

Version #	Created by	Revision date	Approve/ Checked by	Approval Date	Reason for Change
V1	L Boyle	13/04/2023	n/a	n/a	First Draft