Douglas

Douglas Borough Council

DOUGLAS – A NET ZERO CARBON COUNCIL

STRATEGY & ACTION PLAN

Overarching Aim

For the Council to achieve net zero greenhouse gas emissions by 2050 and to be net zero ready by 2035.

The Council aims to achieve net zero emissions by 2050, a date that is generally supported globally and agreed as part of the Paris agreement 2015.

To achieve carbon net zero a number of significant changes will need to be in place across a broad spectrum of society, from the operational elements of big business through to individual citizens. It will also require significant investment, both financially and in terms of effort. This change will need to be prioritised in its own right, but also built into everything we do.

The Isle of Man is a very small piece of the overall problem; an investment in change here will not necessarily show a direct benefit to the Island. This is a global issue and as such we need to take a more global view of the solution. It is well documented that developing countries will suffer most from climate change, with evidence to suggest this is already happening. The Island itself will no doubt suffer in the longer term, but as much through the economic impact as the environmental. If nothing is done and we continue on the current trajectory we would be looking at a complete breakdown of the global economy, this will have a huge impact on how will live in our community.

The impacts of droughts or floods in other countries may seem too far away to concern our residents and the idea of warmer summers may even appeal, however, the Island has, and will, continue to experience extreme weather events. Whether this will be through more frequent and prolonged storms, warmer and/or wetter summers, rising sea levels affecting coastal communities and dwellings, rising insurance, rising food prices, rising fuel prices, greater pollution, even more inward migration by climate migrants, we do not know. However, it is highly likely that the most vulnerable and less affluent members of our community will be disproportionately affected by these changes. In summary, the Isle of Man and Douglas will also be affected by this global phenomenon, and failing to act on climate change will lead to more action needed to deal with the consequences of climate change.

It is therefore important that as a Council, we look beyond our own smaller scale issues and align to the much larger global challenge.

The Council needs to focus on how it manages its supply chain and delivering its services for its customers. The Council must continually look to incorporate carbon neutral thinking into everything it does. The Council must align itself to the Isle of Man Government and indeed with world governments on how it operates, adapting its standards to assist in achieving its overarching aim.

Our community is at the heart of everything that we do as a Council. We have an obligation to make sure the services we offer meet the needs of our community and that we invest in the future of our town, making it a place that future generations can be proud of. However, we must also look to the continued health of our own planet, making our contribution to the lives of future generations of people.

What is the problem?

What is Climate Change?

Very simply put, the sun's radiation reaches earth through our atmosphere. About half of it is absorbed by the earth while the remaining half is reflected off the earth as infrared radiation and back into space. However, the accumulation of Greenhouse Gases has formed a 'blanket' in the earth's atmosphere which means not as much of this infrared radiation can escape, therefore warming the planet. This is known as the Greenhouse Effect.

Over time, the Greenhouse Effect is leading to an overall increase in global heating which in turn is impacting the climate. These climatic change events take the form of storm surges, warmer winters, wetter summers and extreme weather events which lead to flash flooding, tsunamis and wild fires. In addition, the ice caps are melting, which is leading not only to increased sea levels but to rising sea temperatures. In addition, pollution is contributing to increases in the acidity of sea water. This has a direct impact on land availability and the land and ocean's ability to support life including food sources.

Climate changes are cyclical and over time, flora and fauna can adapt. However, the rate of climate change being currently experienced is so great that complex ecosystems cannot adapt leading to the extinction of species, some of which humans rely on for food cultivation. Land masses are lost for food production, land becomes sterile and cannot sustain food cultivation, and biodiversity is reduced. This rapid change has been caused by human activity and stems from the industrial era. Furthermore, man's tampering with the ecosystem through activities such as deforestation is reducing the earth's ability to absorb carbon dioxide, which is further exacerbating the Greenhouse Effect.

The Intergovernmental Panel on Climate Change (IPCC) is a United Nations body for assessing the science related to climate change and produces assessment reports every 5-7 years. The IPCC has concluded that Climate Change is happening and is a credible threat, albeit, it will manifest differently in different areas.

If no action is taken to reduce the amount of greenhouse gases produced or to reduce the amount of greenhouse gases currently in the atmosphere, the planet will reach a tipping point from which climate change cannot be stopped. This is known as the climate crisis where damage to ecosystems will be irreversible, land masses will disappear beneath rising sea levels or become uninhabitable and this will lead to resource (food, water) scarcity and mass human migration. This tipping point is scientifically estimated to be when the overall global temperature rises by 5°C and the science is predicting that if no action is taken, rises in global temperature of up to 5°C are inevitable.

You can read more about the work of the IPCC by visiting: https://www.ipcc.ch/

What does being net zero or carbon neutral mean?

Greenhouse gases are those gases that contribute toward the Greenhouse effect. Carbon dioxide (CO2) is the main gas discussed but there are other gases contributing toward the greenhouse gas effect. Each of the other gases (for example, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen tetrafluoride and sulphur hexafluoride) are measured in CO2 equivalent units. One tonne of methane, for example, is the equivalent of 28 tonnes of CO2.

Becoming net zero means producing no carbon in your undertaking, or offsetting or sequesting whatever carbon you do produce so that overall you are carbon zero. This will often mean changing what you do or how you do it by finding less carbon intensive methods.

What is everyone else doing about this?

The Paris Climate Agreement (now on version 26, known as COP26), agreed to keep global temperatures to below 2°C above pre-industrial times and limit them further to 1.5°C. It also agreed that countries should reach a peak of greenhouse emissions as soon as possible, and ultimately achieve a balance between output of man-made greenhouse gases and absorption by forests or the oceans by the second half of the 21st century. Every country which signed up to the agreement is to review their success in cutting emissions every five years to ensure they are scaling up to the challenge. The Agreement also encourages richer countries to help poorer countries by providing climate finance to adapt to climate change and switch to renewable non-fossil fuel energy.

You can read more about the Paris Climate Agreement by visiting: https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

In October 2018, the IPCC reported the following:

- Global warming was on a clear trajectory to be 5°C or higher, therefore, global warming needed to be limited to 1.5°C to avoid a climate crisis;
- CO2 emissions needed to be halved by 2030 to reach net zero by 2050;
- Rapid and deep emissions cuts were needed in all sectors;
- A wide portfolio of mitigation options and a major upscaling of investment was needed;
- The global economy needed to be decarbonised.

Fundamentally, the 2018 report linked lifestyle choices with global warming and therefore rapid changes are needed in specific sectors in society:

- Land use;
- Energy;
- Industry;
- Buildings;
- Transport;
- Cities.

A further IPCC report published in August 2021 states that climate change is widespread, rapid, and intensifying, and some trends are now irreversible, at least during the present time frame. Global surface temperatures will continue to increase until at least the mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO2 and other greenhouse gas emissions occur in the coming decades. There is still time to limit climate change.

What are the IoM Government doing about this?

In May 2019, the Chief Minister declared a Climate Change Emergency and announced that a Climate Change Bill would be introduced. The Bill would commit his administration and future administrations to reach net zero carbon emissions by 2050 in line with the United Nations IPCC report.

In June 2019, Tynwald unanimously voted for the establishment of a dedicated Climate Change Transformation Team (CCTT) led by an independent Chair and for a Climate Change Action Plan to be laid before Tynwald by January 2020. In July 2019, Professor James Curran was appointed as the independent Chair and was supported by a team made up of representatives from across Government Departments, Boards and Offices. The Cabinet Office now co-ordinates the activities of the CCTT.

The Climate Change Act 2021 received Royal Assent in December 2021. The Act places duties upon public bodies to measure, reduce and report on its emissions.

You can read more about the Isle of Man Government's actions on Climate Change here and about Net Zero Isle of Man by visiting: https://www.netzero.im/.

'Island records hottest day of the year – hottest day since July 2nd 2018'

25th June, 2020, 3FM

'Spectacular' lightning storm lights up Isle of Man sky'

26th June 2020, BBC

'Isle of Man records its wettest July in 33 years'

3rd August 2020, BBC

'Weather forces more Douglas prom closures

26th June 2020, BBC

The average temperature in the Isle of Man from 1971-2000 was 9.8°C. the Island's climate has become warmer by 0.9°C over the past 73 years.

Net Zero IoM, November 2021

What are Douglas Borough Council going to do about this?

Douglas Borough Council is a public service provider, a social landlord, the largest local authority on the Island, one of the biggest employers on the Island, an asset holder and has statutory responsibilities. Therefore as a responsible public body and household name, the Council has a duty of leadership as a democratically elected local body to do whatever it can to reduce its own emissions, to encourage its residents and tenants to do likewise and to lead its community by example.

The Council has already undertaken some action such as:

- investing in LED lanterns to all its street lights, reducing energy usage significantly;
- Introducing schemes to reduce the usage of carbon fuelled vehicles, including :-
    - installing bike nests and encouraging active travel for the public
    - investing in low carbon vehicles
    - launching a cycle to work scheme;
- rainwater harvesting reducing our need of metered water;
- installing air source heat pumps in its nurseries reducing the need to use carbon based fuel sources;
- investing in technology to reduce paper usage;
- having recycling in all of its buildings and reducing its environmental impact;
- agreeing environmentally friendly policies such as not allowing balloons to be released during its events or from its land and banning single use plastics both within its buildings and at its events, reducing its environmental impact;
- Retrofitting existing Council Housing stock with additional insulation to improve their thermal properties and reduce carbon usage;
- Building quality affordable new housing stock to high building standards and moving away from traditional carbon based heating sources;
- Air tightness testing of commercial buildings.

In July 2019, the Council agreed to align itself fully with the Isle of Man Government's approach on Climate Change. The Council recognised that it needed to understand its own behaviour and how that translated into its carbon footprint – a carbon footprint is a measure of the amount of greenhouse gases released to the atmosphere as a result of the Council's direct and indirect activities. The Council will be expected to monitor, measure, reduce and report on its emissions annually and to reassess its carbon reduction journey every five years, in line with the Climate Change Act 2021. The Council will also be set targets and potentially interim targets to meet on this journey by the IOM Government.

Several carbon calculators are available. During 2019/2020, the Council chose to work with the very respected and independent Carbon Trust in the UK, to calculate the Council's carbon footprint of its activities, housing stock and where it procured its goods and services. Knowing this and which of its activities produced the most greenhouse gases was a first step in considering what it needed to do. The Council considered its own direct emissions through its operations (known as Scope 1 and 2) and also those over which it has influence (but not direct control) such as the suppliers it uses and the contracts it awards (known as Scope 3).

In the 2018/2019 financial year, the activities of the Council and its building assets produced an estimated 15,245 tonnes of carbon or carbon equivalent greenhouses gases. The following diagrams illustrate the total emissions by source and the main emissions contributors:

Total Emissions by Scope in FY 18/19

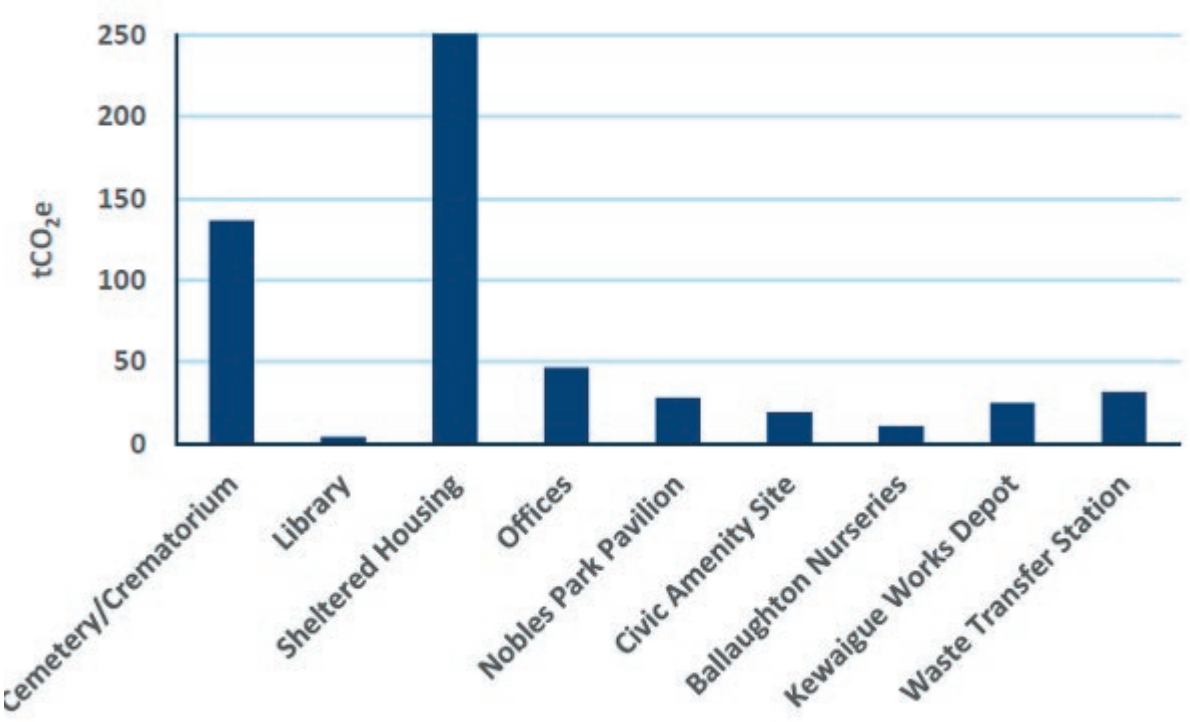
Total Emissions by Source FY18/19

Source	Scope 1 (tCO2e)	Scope 2(tCO2e)	Scope 3 (tCO2e)	Total (tCO2e)
Housing Stock	-	-	6,923.7	6,923.7
Procurement	-	-	5,610.7	5,610.7
Fleet	468.4	-	109.7	578.1
Non-Residential Leased Buildings	-	-	548.1	548.1
Gas	458.1	-	63.7	521.8
Electricity	-	376.0	92.6	468.6
Waste	-	-	351.3	351.3
Staff Commuting	-	-	148.8	148.8
Oil	49.2	-	10.4	59.6
Water	-	-	25.7	25.7
Business Travel	-	-	9.7	9.7
	975.6	**376.0**	**13,894.3**	**15,245.9**

The information presented by the Carbon Trust provided the Council with a roadmap for areas of carbon production that need to be concentrated upon in the first instance to drastically reduce the Council's Carbon Footprint.

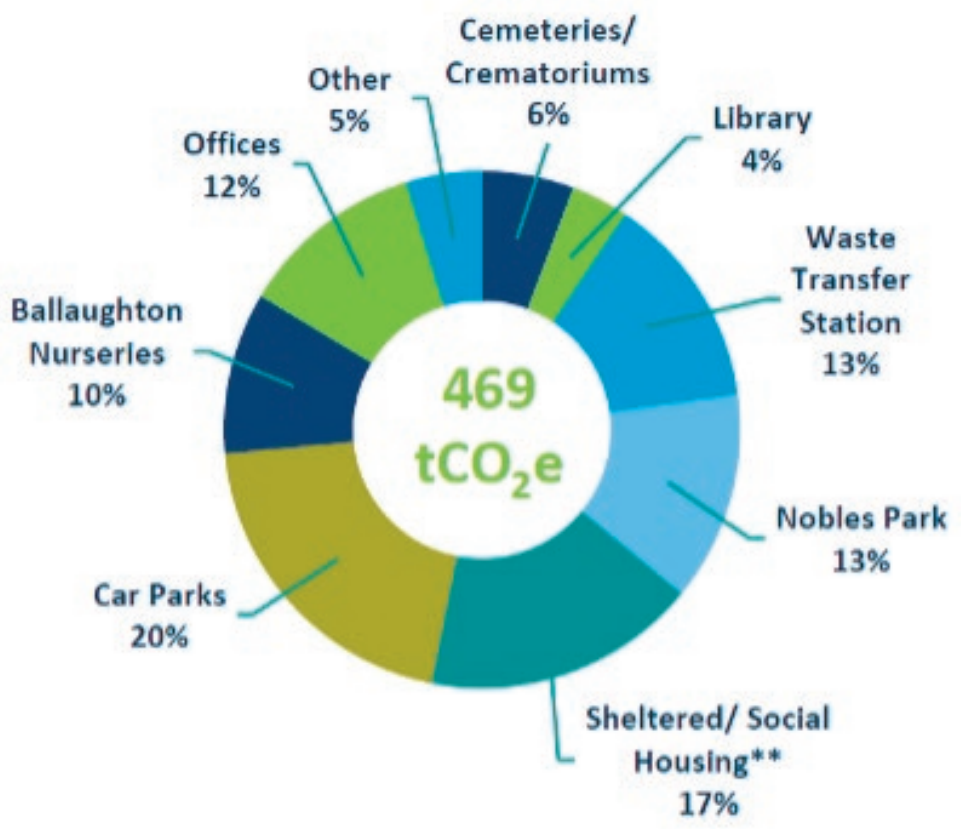
The biggest contributor to the Council's gas and oil consumption is sheltered housing, followed by the Crematorium:

Natural Gas & Oil Emissions by Source in FY 18/19



The biggest contributor to the Council's electricity consumption is Car Parks followed by Sheltered Housing:

Electricity Emissions by Source in FY 18/19



At a meeting of the Council's Executive Committee in February 2021, the Carbon Trust presented its findings and the Council thereafter reaffirmed its intention to reach carbon neutrality by 2050 in line with the Isle of Man Government's declaration and also to be carbon ready by 2035, which essentially means it will have a series of costed action plans in place by 2035 to ensure it can achieve its overall goal.

The Council also has a duty to adapt to local changes in weather events and this in turn will impact upon which services it delivers and how it delivers those services. The Covid-19 global pandemic highlighted that the Council and its communities are vulnerable to big shocks. It also showed, however, that we can make rapid changes and change behaviour to meet those shocks. There were many long lasting benefits from the Covid-19 pandemic and taking action on climate change will also bring other benefits to the Council and its citizens.

One such benefit is that the Council and its town citizens can build climate resilience through improving and increasing green space (to reduce the impact of flooding) and working to ensure the environment is less polluted. This will lead to better health outcomes for all and green jobs will be created. Another such benefit is improving the thermal efficiency of homes to reduce fuel bills which will directly benefit the residents of those homes. The IPCC defines co-benefits as the positive benefits related to the reduction of greenhouses gases.

Action Plan(s)

This strategy proposes six, four-year action plans to span the timeframe of each elected administration of the Council. Toward the end of each Action Plan period, future Action Plans will need to be finalised and costed. This Strategy and Action Plan is therefore very long term and the Council is mindful that over the lifespan of this strategy, things will change, and new and improved technologies will emerge which will need to be taken into account. It is important the Council's approach to its carbon reduction matures and develops over time – as the Council learns, plans will need to change. The Council will also need to work with other key stakeholders within Government to ensure our objectives are aligned and to lobby for adequate support for local authorities in terms of policy change and financial support where necessary is available.

Breaking the action plans down in this way also makes each Administration accountable for the actions assigned to its timeframe, for taking stock and reviewing the Council's position, for agreeing and implementing actions for that administration and agreeing the most appropriate community engagement methods for that time and administration.

Action Plan One, 2022 - 2025 - attached

Action Plan Two, 2026 - 2029

Action Plan Three, 2030 - 2033

Action Plan Four, 2034 - 2037

Action Plan Five, 2038 - 2041

Action Plan Six, 2042 - 2045

Action Plan Seven, 2046 - 2050

In tackling climate change the Council needs to ensure that its actions now do no harm to future generations. Climate change issues will arise in this generation's lifetime and therefore tackling climate change will be a defining policy issue for the Council for at least the next two decades. The Council's response needs to be immediate with a long term strategy and action plans that will span several administrations and at least a new generation.