
NORTH AYRSHIRE COUNCIL

25 May 2021

Cabinet

Title:	Environmental Sustainability & Climate Change Strategy (ESCCS) 2021-23
Purpose:	To seek Cabinet approval of the proposed Environmental Sustainability & Climate Change Strategy 2021-23.
Recommendation:	<p>That Cabinet:</p> <ul style="list-style-type: none">a) notes the positive climate impacts of the previous 2006 Carbon Management Plan and two previous Environmental Sustainability & Climate Change Strategies which have been in place since 2014 and 2017, and;b) approves the proposed third Environmental Sustainability & Climate Change Strategy 2021-23 attached at Appendix A.

1. Executive Summary

- 1.1 Following a report from the United Nations Intergovernmental Panel on Climate Change (IPCC) published in October 2018 which recommended immediate action be taken to reduce global warming, a number of governments and local authorities around the world (including North Ayrshire Council) have declared a 'Climate Emergency'.
- 1.2 North Ayrshire Council has been proactive in tackling climate change for some time, achieving a 45% emission reduction since the 2005 baseline year. This was achieved through actions aimed at reducing energy consumption from fossil fuels and producing less waste through a number of initiatives including energy conservation and increased use of renewable energy sources. A coordinated approach across all services has been key to the successful implementation of emission reduction projects.
- 1.3 In 2014 the Council published the first North Ayrshire Environmental Sustainability & Climate Change Strategy (2014-17), setting a vision for sustainability within the authority. The second Environmental Sustainability & Climate Change Strategy (2017-2020) continued to build on this work and set an ambitious target to reduce carbon emissions. A climate emergency declaration was made in June 2019 and consequently North Ayrshire Council has committed to achieve net-zero carbon emissions by 2030.
- 1.4 In developing the third iteration of the Council's Environmental Sustainability & Climate Change strategy, a series of consultation events have been held which

provided feedback and requests from stakeholders. Feedback received has confirmed the rising awareness of the need for positive action on climate change and has helped shape the vision of a sustainable, climate ready North Ayrshire - where we all play our part in tackling climate change.

- 1.5 The third Environmental Sustainability & Climate Change Strategy (ESCCS 3) (2021-2023) has been developed in line with the feedback received and also takes account of emerging intelligence and new technology opportunities. The draft Strategy provides a roadmap of actions to achieve net-zero carbon status across North Ayrshire by 2030 and is attached as Appendix A for consideration.

2. Background

- 2.1 In 2018 the Intergovernmental Panel on Climate Change (IPCC) published a report warning that we have until 2030 to prevent global temperatures from rising more than 1.5°C. In response, governments and local authorities around the world, including North Ayrshire Council, declared a 'Climate Emergency'.
- 2.2 North Ayrshire Council have been active in reducing carbon emissions since our first Carbon Management Plan in 2006. Through work to reduce fossil fuel usage, carbon emissions across the Council's estate have reduced by 45%. In 2014 the Council published the first North Ayrshire Environmental Sustainability & Climate Change Strategy (2014-17), setting a vision for sustainability within the authority. The second Environmental Sustainability & Climate Change Strategy (2017-2020) continued to build on this work and set an ambitious target to reduce carbon emissions. On 11th June 2019 North Ayrshire Council declared a Climate Emergency, committing to further act on Climate Change and aspire to achieve net-zero carbon emissions by 2030.
- 2.3 Some examples of achievements and successes delivered through the previous ESCCS and other strategies which have had a positive impact on climate change are given below:
 - Significant carbon emission reductions equating to 45% reduction since 2005.
 - Successfully securing approximately £10.5million of funding to provide external wall insulation to 2,231 homes through the Home Energy Efficiency Programme: Area Based Scheme to reduce heat loss and subsequent heating requirements.
 - Installing our first low carbon heat networks fuelled by biomass boilers during the redevelopment of two sheltered housing units in Dalry and Stevenston.
 - Installing solar PV panels on roofs of 290 Council houses, saving tenants on average £188 per year.
 - Investing nearly £1m in energy efficiency measures such as boiler replacement, LED lighting and enhanced controls to 14 non-domestic properties through the Non-Domestic Energy Efficiency framework.
 - The Council's operational vehicle fleet now incorporates a number of electric vehicles and a number of low emission vehicles
 - Our sustainable business travel arrangements and employee car-pool scheme have contributed to a reduction of 1,000,107 miles driven since the pilot began in October 2015. An increasing number of miles actually driven are now being facilitated by the pool of low emission and electric vehicles. This has contributed to a significant carbon emissions reduction.

- Installing a number of publicly accessible electric vehicle charge points to support and encourage the uptake of electric vehicles across North Ayrshire.
- The Council continues to be one of the highest performing for household waste recycling in Scotland with 56.3% achieved for 2019 (greater than the national rate of 44.9%) and have developed a Plastic Waste Prevention Plan to support North Ayrshire Council's ambition to become a 'Plastic Free Council' by 2022.
- Working as part of the Clyde Valley Residual Waste Partnership to establish a 25-year project, delivering a solution to divert waste from landfill following the closure of Shewalton landfill site in March 2018. The solution recovers additional recyclates with the remaining non-recyclable waste delivered to a new Energy Recovery Facility to recover heat and produce electricity from the waste.
- Working in partnership with third sector organisations on Arran and the mainland to progress Circular Economy opportunities on the island.

2.4 In recognising the need to continually tackle climate change, and to achieve the ambitious target of becoming net-zero carbon emissions by 2030, North Ayrshire Council dedicated an £8.8m Investment Fund at its budget setting meeting in 2020 to support climate change, sustainable infrastructure investment and Community Wealth Building. Part of this investment (£500,000) was specifically allocated to tree planting in order to remove carbon emissions from the atmosphere. The investment Fund was recently increased to £10.2m in total at the Council's budget setting meeting held in March 2021.

2.5 On 16th December 2020 the Council approved the HRA Capital Investment Programme of £109.756m for 2021/22, which includes £5m investment in regeneration projects and sustainability measures, to reduce fuel poverty.

2.6 Most recently, in January 2020, Cabinet approved the development of a solar PV farm on Nethermains former landfill site which will require an estimated total investment of £6.768m, with the anticipated annual reduction in CO2 emissions resulting from the solar PV farm being 501 tonnes per year. This project will be part funded utilising £4.5m of capital funding from the Council's Investment Fund, with additional borrowing of £2.268m required.

2.7 Our vision of a sustainable, climate ready North Ayrshire is one where we all play our part, as a local authority, business, school, community group or individual. As a local authority we seek to make effective use of our powers in areas such as procurement, planning, housing, education and transport to help drive reductions elsewhere in society in a way which tackles inequality and promotes fair work and makes a positive impact on climate change.

2.8 This strategy also recognises that to achieve this sustainability vision, North Ayrshire requires the Scottish Government to be a key enabler, empowering the Council to advance actions in tackling climate change such as reducing area wide carbon emissions; developing and retrofitting both domestic and non-domestic properties; eradicating fuel poverty; strengthening the green economy; and improving climate resilience of local communities and enhancing biodiversity.

2.9 There are a number of key international, national and local drivers that are relevant to the delivery of an effective strategy. These include the United Nations Climate Change Paris Agreement (COP21), the IPCC's Global Warming of 1.5°C Report 2018, the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, and

the North Ayrshire Council Plan 2019-24. This ESCCS 3 (2021-2023) has been developed to comply with this wide range of sustainable and climate change policies, ensuring emission reduction maximises economic and social opportunities, whilst enhancing biodiversity and building resilience to climate change. The ESCCS 3 (2021-2023) has also been created to help realise the Council's leading ambition of becoming net-zero carbon by 2030 and also deliver the Council's 'Aspiring Communities', 'Inspiring Place' and 'A Council for the Future' priorities.

2.10 Following a series of consultation, exercises and events held from August 2019 to March 2020, this third strategy details the vision and actions derived from stakeholder engagement. The ESCCS 3 (2021-2023) aims to:

- Inspire positive low carbon behaviour, raising awareness of the sustainability and climate change agenda
- Maximise access to affordable renewable energy technology
- Support sustainable transport
- Design and utilise our natural and built assets sustainably
- Support local businesses to deliver services sustainably through our Community Wealth Building Strategy

2.11 The coronavirus (COVID-19) pandemic has altered patterns of energy use across the globe, with records indicating a 7% temporary reduction in global emissions. It is likely that these emissions will rebound as economic stimulus is provided. Our Green Recovery from this crisis allows us to make changes now that once seemed onerous, to seek effective and long-term climate action, all the while bolstering resilient communities and services.

2.12 In December 2020, Scottish Government published its draft public engagement strategy for Climate Change, Net Zero Nation, which builds on the works already undertaken with Climate Week and the Big Climate Conversation. COP26 is a further opportunity to frame local action during the focus of a global summit. The Council will lead work with Community Planning Partners, the Locality Planning Partnerships, schools, young people and communities to raise public awareness of their role in meeting Scotland's climate targets and embracing zero-carbon living. Each North Ayrshire school is further developing its approach to Learning for Sustainability, 'ensuring children and young people have the knowledge, skills, values and world-views necessary for people to act in ways that contribute to more sustainable patterns of living.' This includes the improvement of school buildings and grounds and the development of the curriculum.

2.13 Net-zero emissions require a balance between emissions released and emissions absorbed from the atmosphere. Therefore, the Council must lead the way in reducing emissions from domestic, non-domestic, transport and waste sectors, and implement methods to remove carbon dioxide (CO₂) from the atmosphere. The strategy considers both the Council's property estate emissions and area wide emissions, reflecting the net-zero target relating to both areas. The ESCCS 3 (2021-2023) contains seven workstreams, each with actions which have been developed into a roadmap illustrating how net-zero carbon status will be achieved by 2030.

The workstreams are:

1. Affordable Warmth
2. A Green Economy
3. Transport & Travel
4. Natural Environment
5. Sustainable Operations
6. Emissions Absorption
7. Climate Change Adaptation

2.14 Key actions under each Workstream are detailed within the Strategy. In addition, a comprehensive implementation plan has been developed detailing key actions, services responsible for implementation and target delivery dates. However, given the pace of technological advances available it is proposed that the Council's approach be kept under constant review. The Environmental Sustainability & Climate Change Strategy will continue to evolve and will again be refreshed with a fourth Environmental Sustainability & Climate Change Strategy (ESCCS 4) being developed which will then cover the years 2024-2026 to build upon the successes of previous iterations as we continue our journey towards net-zero carbon emission by 2030.

2.15 To enhance governance and drive forward the climate change agenda across North Ayrshire a Climate Change Steering Group will be established. We acknowledge that achieving the ambitious net-zero carbon target will require working in partnership with our local businesses, organisations and communities and therefore key stakeholders will be invited to participate in the North Ayrshire Climate Change Steering Group.

3. Proposals

3.1 It is proposed that Cabinet:

- a) notes the positive climate impacts of the previous 2006 Carbon Management Plan and two previous Environmental Sustainability & Climate Change Strategies which have been in place since 2014 and 2017, and;
- b) approves the proposed third Environmental Sustainability & Climate Change Strategy 2021-23 attached at Appendix A.

4. Implications/Socio-economic Duty

Financial

4.1 Individual projects identified through the Net Zero Carbon Roadmap and Implementation Plan will be assessed individually, utilising existing capital and revenue budgets or external funding wherever possible. The Council recently approved the HRA Capital Investment Programme for 2021/22, with £5m investment dedicated to regeneration projects and sustainability measures, aiming to reduce fuel poverty. Most recently Council approved the development of a solar

PV farm installation at Nethermains former landfill site which will require an estimated total initial investment of £6.768m. This project will be part funded utilising £4.5m of capital funding from the Council's approved £8.8m Investment Fund with additional borrowing of £2.268m required. The financial implications of any new projects will be established through business cases as required.

Human Resources

- 4.2 The Environmental Sustainability & Climate Change (ESCCS 3) 2021-2023 may have resource implications. Some of the actions outlined in the strategy will be met from within existing resources from a wide range of different teams within the Council, however a number of new initiatives emerging from the strategy will require significant step change. In order to deliver the climate change agenda effectively an increase in officer resource may be required and new roles may emerge to ensure there is capacity to drive forward the issue. These will be progressed in accordance with Council policy and process.

Legal

- 4.3 Under the Climate Change (Scotland) Act 2009, as a public body, North Ayrshire Council is required to lead by example in reducing carbon emissions, contributing to climate change adaptation and acting sustainably.

Equality/Socio-economic

- 4.4 The strategy supports the eradication of fuel poverty across North Ayrshire through actions in Workstream 1 – Affordable Warmth.

Environmental and Sustainability

- 4.5 The strategy wholly supports the Council's sustainability aspirations to become net-zero carbon by 2030, become a climate resilient local authority and support enhanced biodiversity across North Ayrshire.

Key Priorities

- 4.6 This ESCCS 3 (2021-2023) will support the Council's 'Aspiring Communities' and 'Inspiring Place' priorities and continue to work towards a sustainable environment.

Community Wealth Building

- 4.7 There is a particular focus on the five pillars of Community Wealth Building within the ESCCS 3 (2021-2023), in Workstream 2 – A Green Economy, to pursue opportunities to support sustainable and renewable technologies and the national move to low carbon energy provision through the decarbonisation of electricity, heat and transport.

5. Consultation

- 5.1 A series of public consultation events took place in 2019/20, with results showing that 93% of consultees believe that Climate Change is a serious issue. Many Stakeholders have also been consulted using the online platform CONSUL, and views sought from North Ayrshire schools and participants in the Annual Youth Conference. A range of stakeholders engaged in the Council's first Climate Change Convention in March 2020, including community groups, local businesses, Council Members, schools and the NHS. The proposed strategy was also considered by the Policy Advisory Panel on 1 April 2021.

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Background Papers

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Environmental Sustainability & Climate Change Strategy

2021-2023



North Ayrshire Council
Comhairle Siorrachd Àir a Tuath

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Environmental Sustainability & Climate Change Strategy 2021-23

INTRODUCTION

The Council Plan 2019-2024 sets out North Ayrshire Council's mission to work together to improve well-being, prosperity and equity in North Ayrshire and aims to achieve this through three strategic priorities: 'Aspiring Communities'; 'Inspiring Place' and 'A Council for the Future'. This Environmental Sustainability & Climate Change Strategy (ESCCS) has been developed to support the delivery of the Council's priorities and continue to work towards a sustainable environment.

A CLIMATE EMERGENCY

In 2018 the Intergovernmental Panel on Climate Change (IPCC) report warned that we have just 12 years to keep global temperatures from rising more than 1.5°C.

In response to this, governments and local authorities around the world have declared a 'Climate Emergency' and on 11th June 2019 North Ayrshire Council declared its own Climate Emergency, committing to act on climate change.

CORONAVIRUS (COVID-19)

The coronavirus (COVID-19) pandemic has altered patterns of energy use across the globe, with records indicating a 7% temporary reduction in global emissions¹. It is likely that these emissions will rebound as economic stimulus is provided. Our Green Recovery from this crisis allows us to make changes now that once seemed onerous, to seek effective and long-term climate action, all the while bolstering resilient communities and services.

BACKGROUND

SUSTAINABILITY

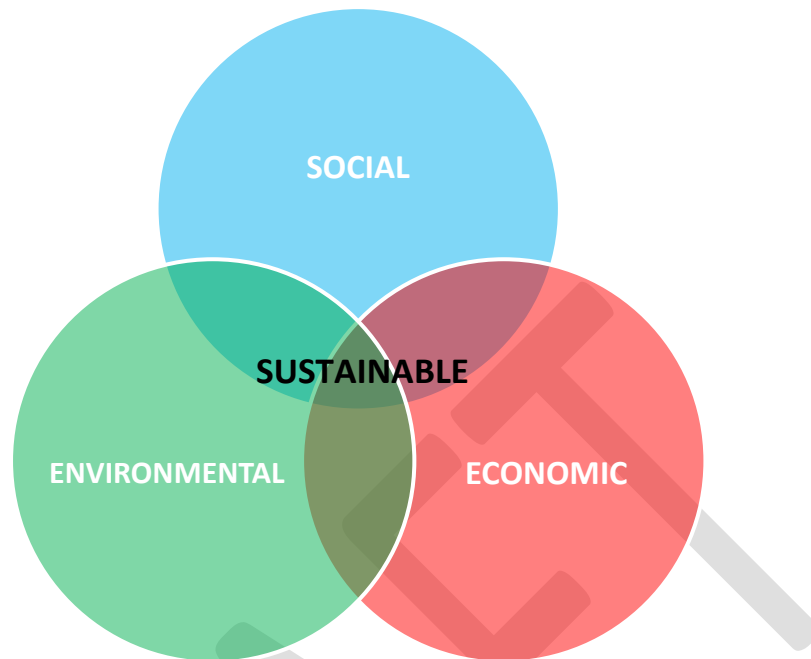
The Brundtland Report definition of sustainability was published in 1987, and yet remains relevant today:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

North Ayrshire aims to be a council that is 'Fair for All', now and for generations to come. This vision extends to the environmental, economic and social pillars of sustainability and is considered in every decision taken relating to our actions.

¹ <https://www.carbonbrief.org>

Figure 1. Sustainability Venn Diagram



GLOBAL WARMING

Naturally occurring gases in the Earth's atmosphere allow some of the sun's radiation to be trapped, warming the Earth's surface and maintaining a stable environment. This is the Greenhouse Effect and is depicted in Figure 2 below. However, as more greenhouse gases (GHG's) are emitted into the atmosphere, the more heat becomes trapped, increasing the Earth's temperature. There is a strong scientific consensus that the GHGs emissions from human activities, especially burning fossil fuels, are the key cause of this global warming.

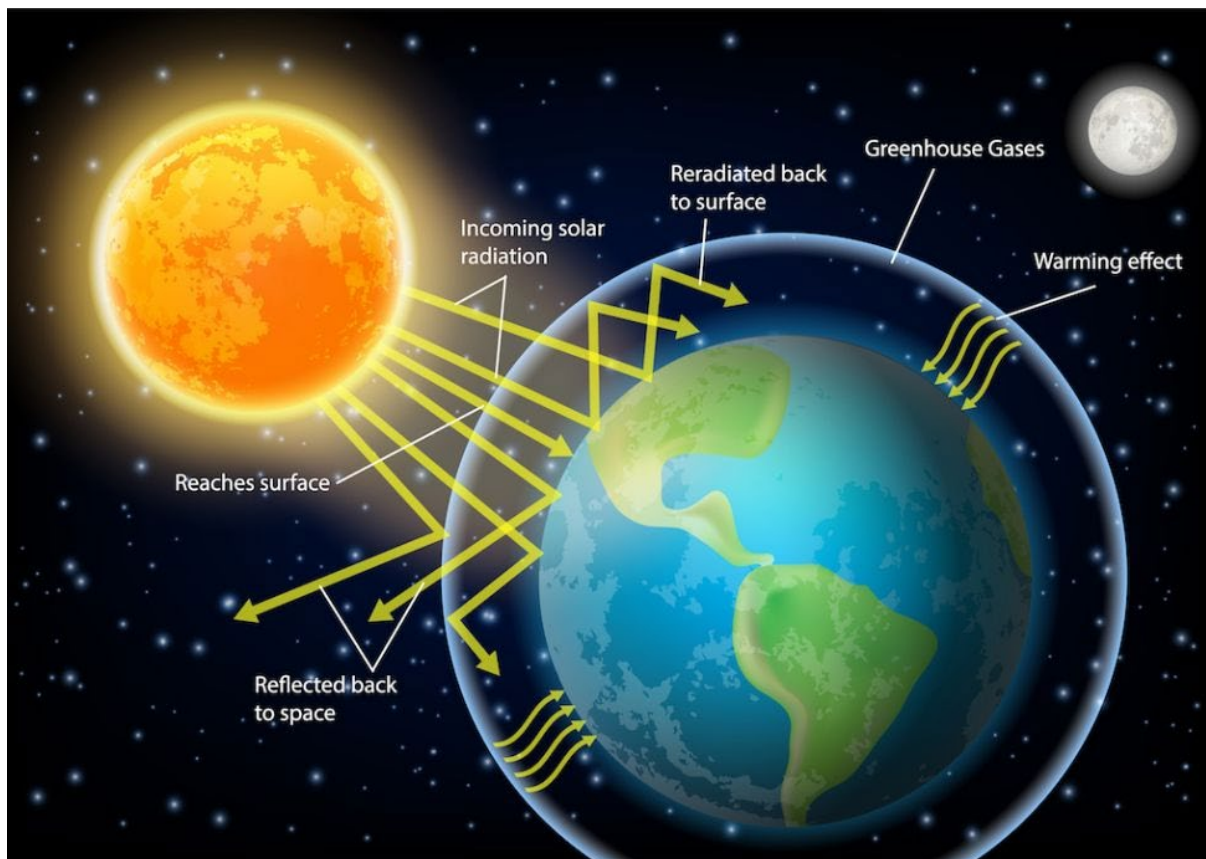
There are five groups of greenhouse gases (GHG's), each with varying degrees of global warming potential:

- Water vapour (H₂O)
- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous oxide (N₂O)
- Fluorinated gases (F-gases)

UK's biggest GHG emission sectors are transport (28%), energy supply (23%), business (18%) and residential (15%) (2018 UK greenhouse gas emissions: final figures; July 2020, BEIS).

The latest report from Scottish Government indicates 73% of Scotland's net greenhouse gas emissions in 2017 (in MtCO₂e) are attributed to carbon dioxide (CO₂).

Figure 2. The Greenhouse Effect



(Image: Shutterstock)

CLIMATE CHANGE

Whilst **weather** is viewed as the short-term changes in the atmosphere in the here and now, **climate** describes the trends in weather patterns over a long period of time, normally over 30 years.

Scientists have recorded that global temperatures are increasing, with the last four out five years being the warmest ever recorded (as seen in Figure 3). Global increase in temperature is changing our climate, bringing about instances of more frequent and extreme weather events, such as increased rainfall, flooding, droughts, heat waves, wildfires and intense hurricanes.

There is also a clear link between global warming and sea level rise as the rising temperatures cause expansion of seawater and melting of mountain glaciers.

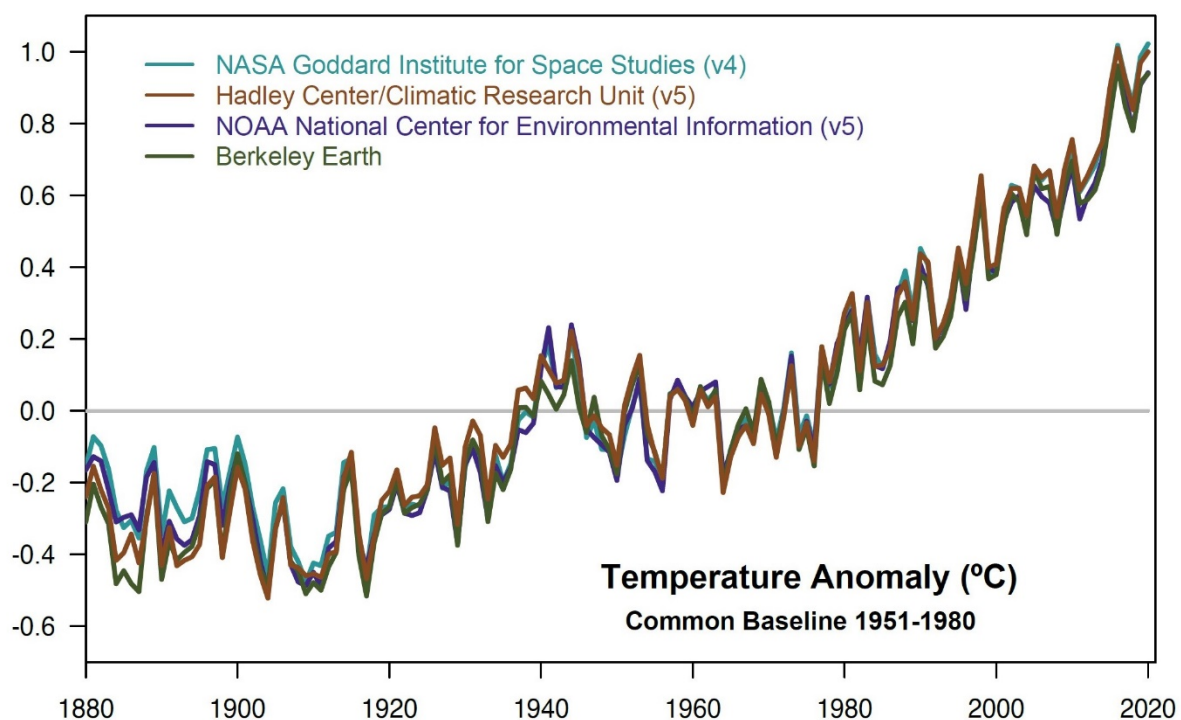
THE CLIMATE EMERGENCY

Following a report stating the average global temperature increase for 2018 was approximately 1.1°C, the Intergovernmental Panel for Climate Change (IPCC) has advised that the world has until 2030 to reduce emissions before climate change impacts become irreversible.

North Ayrshire Council acknowledges that rapid and far-reaching actions are required at the international, national, regional and local levels to limit global warming to 1.5°C. The Council declared a Climate Emergency on 11th June 2019 and consequently committed to achieving net-zero carbon emissions by 2030.

In order to accomplish this, we must make a real shift in operational culture and social behaviours, lead the way in reducing emissions from buildings, transport and waste, whilst increasing the use of renewable technology and implementing methods to remove carbon dioxide from the atmosphere. The need for the development of new sustainable buildings should be informed by the Scottish Government's Investment Hierarchy. This is focused in order of: determine future need; maximise the useful life of existing assets; repurpose and co-locate; replace, create or build new assets.

Figure 3. The graph shows yearly temperature anomalies from 1880 to 2019 recorded by NASA, NOAA, Berkeley Earth, and the Met Office Hadley Centre (UK).



(Source: NASA: Climate Change and Global Warming, climate.nasa.gov)

OUR VISION

This document is the third Environmental Sustainability & Climate Change Strategy, building on the carbon reduction success of its predecessors. It establishes a new target: to reduce and remove emissions for North Ayrshire to achieve net-zero carbon status by 2030.

This target applies to both the Council's own estate, and North Ayrshire as a whole.

Whilst this Strategy covers a three-year period, actions identified here will play their part towards the 2030 target in the medium to long term.

Our vision of a sustainable, climate ready North Ayrshire is one where we all play our part, as a local authority, business, school, community group or individual.

This strategy also recognises that to achieve this sustainability vision, North Ayrshire requires the Scottish Government to be a key enabler, empowering the Council to advance actions in tackling climate change such as reducing area wide carbon emissions; developing and retrofitting both domestic and non-domestic properties; eradicating fuel poverty; strengthening the green economy; and improving climate resilience of local communities and enhancing biodiversity.

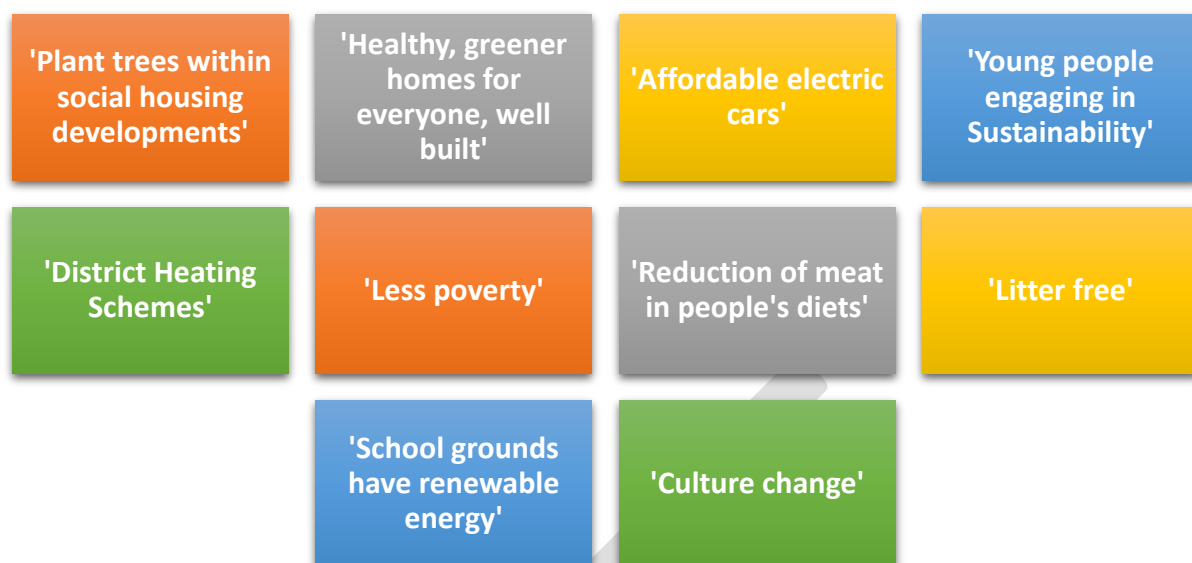
As a local authority we seek to make effective use of our powers in areas such as procurement, planning, housing, education and transport to help drive reductions elsewhere in society in a way which tackles inequality and promotes fair work.

We aim to:

- Inspire positive low carbon behaviour, raising awareness of the sustainability and climate change agenda
- Maximise access to affordable renewable energy technology
- Support sustainable transport
- Utilise our natural and built assets sustainably
- Build new assets sustainably in accordance with the Scottish Government's investment hierarchy
- Deliver an inclusive and green economy based on the principles of Community Wealth Building and our local Green New Deal

A series of public consultation events took place in 2019/20 (held from August 2019 – March 2020), with results showing that 93% of consultees believe that Climate Change is a serious issue. Many views and opinions were gathered from stakeholders online, from school and Youth Conference representatives, and during North Ayrshire Council's first Climate Change Convention. These have been used to develop this strategy and will feature in the Net Zero Carbon Roadmap and forthcoming Implementation Plan. A drive to increase tree planting and create a Climate Change Steering Group to provide representation on decision making platforms across the Council, are just two examples of public requests which feature in the Net Zero Carbon Roadmap on Appendix 1.

Some other responses from North Ayrshire's first Climate Change Convention are as follows:



North Ayrshire Council has developed this Strategy to act on the public's vision of a sustainable North Ayrshire.

WHAT HAVE WE ACHIEVED SO FAR?

Since our first Carbon Management Plan in 2005, North Ayrshire Council has been proactive in reducing carbon emissions. Our first Environmental Sustainability & Climate Change Strategy (ESCCS) was published in 2014 and updated in 2017, setting an area wide target to reduce carbon emissions by 40% by 2030 (based on a 2005 baseline year). We have already achieved a 45% reduction in emissions since 2005 across the Council's estate, and a 41% reduction area wide.

In order to accomplish this, a series of priorities were identified within five workstreams: Affordable Warmth; A Green Economy; Transport & Travel; Natural & Built Environment; and Sustainable Operations.

Some examples of achievements and successes delivered are:

- Installing our first low carbon heat networks fuelled by biomass boilers during the redevelopment of two sheltered housing units in Dalry and Stevenston
- Installing solar PV panels on roofs of 290 Council houses, saving tenants on average £188 per year
- The incorporation of 10 electric vehicles and a number of low emission vehicles within the Council's operational vehicle fleet

- Our sustainable business travel arrangements and employee carpool scheme's contribution to a reduction of 1,000,107 miles driven on CarClub since the pilot began in October 2015
- The Council continuing to be one of the highest performing for household waste recycling in Scotland, with 56.3% achieved for 2019 (greater than the national rate of 44.9%) and the development of a Plastic Waste Prevention Plan to support North Ayrshire Council's ambition to become a 'Plastic Free Council' by 2022
- Investing nearly £1m in energy efficiency measures such as boiler replacement, LED lighting and enhanced controls to 14 non-domestic properties through the Non-Domestic Energy Efficiency framework
- Working in partnership with the University of Glasgow, for 4th year engineering students to base their final year project on identifying sustainable solutions for local businesses in North Ayrshire
- Installing 24 publicly accessible electric vehicle charge points (8 Rapid and 16 Fast chargers) to support and encourage the uptake of electric vehicles across North Ayrshire

CONTEXT

We aim to reduce emissions whilst maximising economic and social opportunities and considering a wide range of sustainable and climate change policies.

There are a number of key international and national drivers that are relevant to our Environmental Sustainability & Climate Change Strategy.

These drivers for change can be grouped into three key categories as outlined below:

POLICY CONTEXT: DRIVERS FOR CHANGE

INTERNATIONAL	Paris Agreement 2015 The United Nations Climate Change (UNCC) Paris Agreement's goal is to keep the increase in global average temperature to well below 2°C above pre-industrial levels, and to limit the increase to 1.5 °C. The UK has ratified the Paris Agreement and has committed to reducing its Greenhouse Gas Emissions (GHGs).			United Nations Sustainable Development Goals Agenda 2030 The United Nations (UN) 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). SDGs are a set of 17 ambitious global goals aiming to eradicate poverty, fight inequalities and tackle climate change (United Nations, 2016). The goals are closely interconnected and have a direct link to climate change.			Intergovernmental Panel on Climate Change (IPCC) Global Warming of 1.5°C Report 2018 Intergovernmental Panel on Climate Change (IPCC) Global Warming of 1.5°C Report 2018- emphasized the importance of limiting global warming to 1.5°C to avoid a climate crisis.		
	Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 September 2019: the Scottish Government has set itself a legally binding target to cut greenhouse gas	Public Bodies' Climate Change Duties: The 2009 Climate Change Act set out the Duties of Public Bodies in relation to climate change: - to contribute to the delivery of the carbon emission reduction	Building Regulations/ Building Standards Building regulations contain the technical requirements to protect the public interest. A review of energy standards is underway.	National Outcomes & National Performance Framework 'Greener' Strategic Objective under Scotland's National Performance Framework: "To improve Scotland's natural and built	Heat Networks (Scotland) Bill makes provision for regulating the supply of thermal energy by a heat network, and for regulating the construction and operation of a heat network	Climate Change Plan - Third Report on Proposals and Policies 2018-2032 provides an overview of the Scottish Government plan	Climate Ready Scotland - Second Scottish Climate Change Adaptation Programme 2019-2024	National Planning Framework 4 As part of a review of the Scottish planning system, Government are updating the National Planning Framework and Scottish Planning Policy which will provide the basis for assessing proposals for	

	emissions to net zero by 2045. The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amends the Climate Change (Scotland) Act 2009.	targets set out in the Act; - to help deliver Scotland’s Climate Change Adaptation programme; and - to act in a way that it considers is most sustainable.		environment and the sustainable use and enjoyment of it and facilitate the transition to a low carbon economy”.								new development.	
LOCAL CONTEXT	North Ayrshire Council Plan 2019-24 The commonality that links these international, national and regional policies is a desire to achieve a sustainable environment for future generations – a priority made clear in the NAC Council Plan 2019-2024												
	Local Biodiversity Action Plan	Renewable Energy Strategy	Electric Vehicle Strategy	Zero Waste Strategy	Local Transport Strategy	Local Development Plan	Sustainable Procurement Policy	Local Housing Strategy	Low Carbon Behaviour Strategy	Community Wealth Building Strategy	Economic Recovery and Renewal Approach (local Green New Deal)	Regeneration Delivery Plan	Food Growing Strategy

Note: The drivers are correct at the time of publication and will be a subject to regular review.

Reducing emissions, acting on climate change and enhancing sustainable behaviours will support all the priorities within the Council Plan, from us all contributing and playing our part, to children and young people having the best start in life, growing an enterprising economy, being well connected and ultimately achieving a sustainable environment whilst ensuring a fair and equitable North Ayrshire.

WHERE ARE WE NOW?

NORTH AYRSHIRE COUNCIL AREA-WIDE EMISSIONS

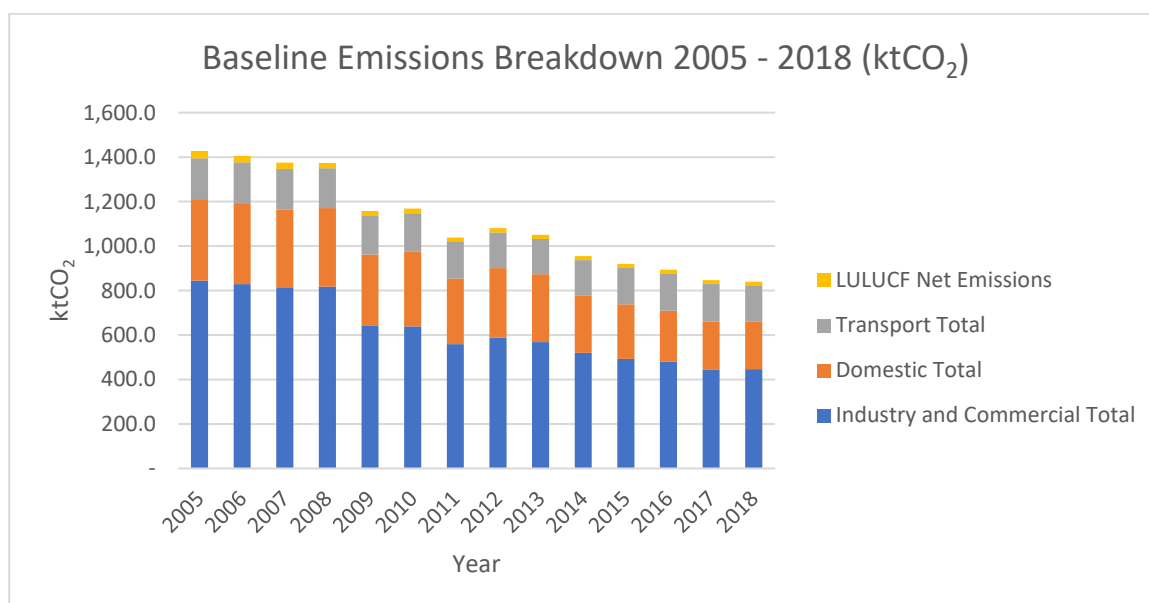
The Council established a Baseline Emissions Inventory, quantifying the amount of carbon emitted within the geographic boundaries of the Council. The UK Government's Department for Business, Energy and Industrial Strategy publish national carbon dioxide (CO₂) statistic each year, detailing emissions from domestic, industrial, transport and agriculture sectors. This data is used to monitor North Ayrshire wide emissions, using 2005 as the baseline year. Table 1 shows the volume of emissions each year since this baseline year, in kilo tonnes of CO₂, together with tonnes of CO₂ per capita and kilo tonnes of CO₂ per km². The latest available data ranges from 2005-2018.

Table 1. North Ayrshire Council area wide emissions

Year	Total CO ₂ (ktCO ₂)	Emissions Per Capita (t)	Emissions Per km ² (kt)
2005	1,427.6	10.4	1.6
2006	1405.1	10.3	1.6
2007	1375.3	10.0	1.5
2008	1,373.9	10.0	1.5
2009	1,157.7	8.4	1.3
2010	1,168.7	8.5	1.3
2011	1,038.5	7.5	1.1
2012	1,080.7	7.9	1.2
2013	1,050.5	7.7	1.2
2014	954.7	7.0	1.1
2015	919.5	6.8	1.0
2016	893.6	6.6	1.0
2017	846.6	6.2	0.9
2018	839.4	6.2	0.9

Figure 4 below shows the breakdown of emissions each year, by the sector they were produced from (Industry and Commercial, Domestic, Transport, and Land Use, Land Use Change and Forestry).

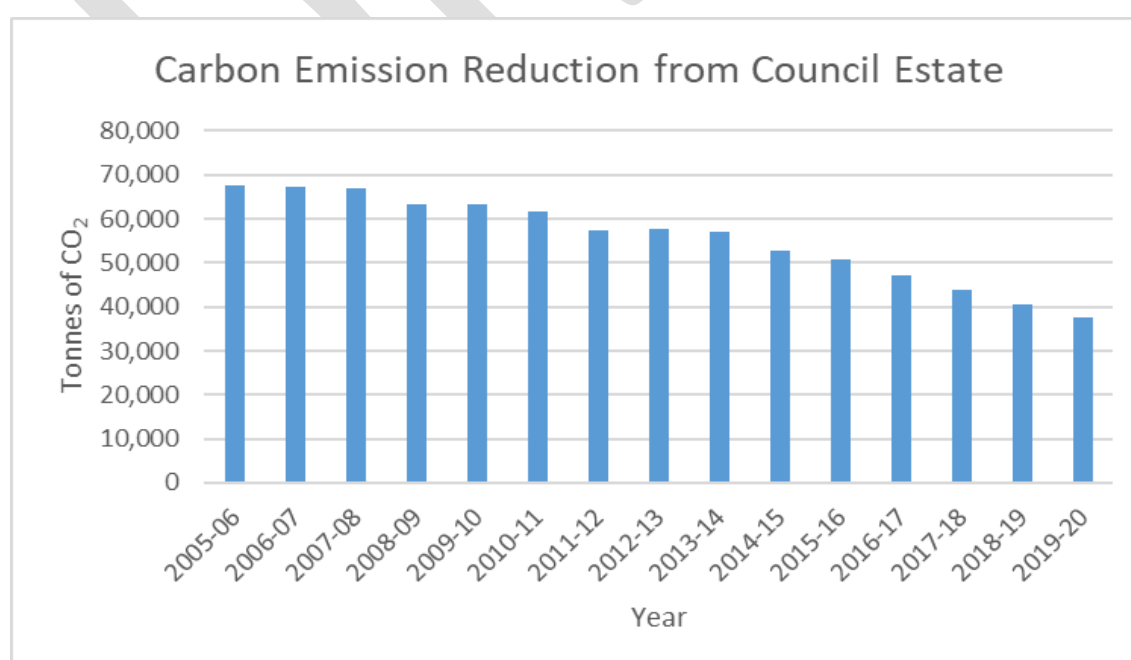
Figure 4. Baseline emissions by sector



NORTH AYRSHIRE COUNCIL ESTATE EMISSIONS

We are proactive in our approach to reducing carbon emissions from our own estate and have been doing so since the first Carbon Management Plan in 2005/06. We continue to calculate emissions associated with energy usage, water, waste and transport, aiming to drive down the environmental impact of our services. Figure 5. Shows the progress we have made, even surpassing our previous target of 40% reduction in emissions by 2030.

Figure 5. Carbon emissions from Council Estate



WHERE DO WE WANT TO BE?

We aim to achieve net-zero carbon emissions by 2030.

Net-zero emissions requires a balance between emissions released and emissions absorbed from the environment. Therefore, the Council must lead the way in:

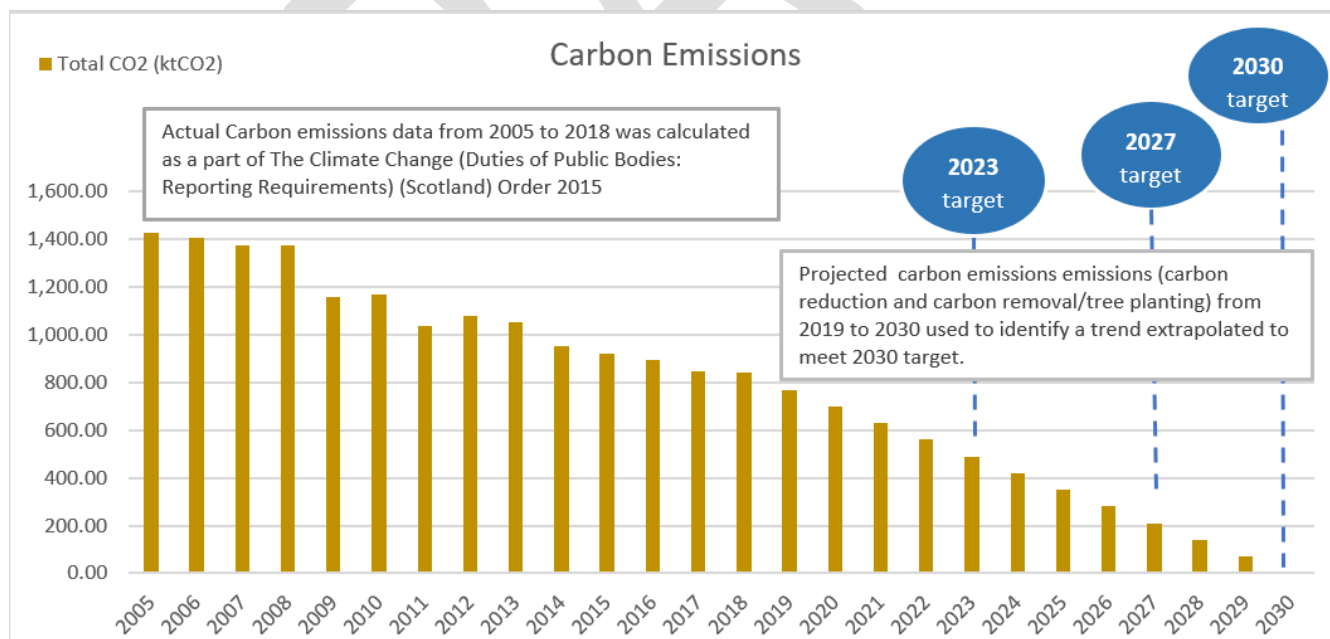
- Reducing emissions from buildings (domestic and non-domestic), transport and waste, and
- Implementing methods to remove carbon dioxide (CO₂) from the atmosphere

This is an ambitious goal based on emission data available and is within the 10-year timeframe set by the IPCC to prevent irreversible damage caused by climate change.

Our interim targets to achieve this area-wide ambitious goal are 489 ktCO₂ by 2023 and 210 ktCO₂ by 2027, as shown in Figure 6 below.

The yearly milestones below provide an indication of the level of emission reduction required in order to achieve our 2030 target. An implementation plan (known as the Carbon Project Register) will be developed to identify all the specific carbon reduction and absorption projects to be undertaken to achieve net-zero carbon emissions by 2030. The implementation plan will include carbon abatement values and targets, and will be a live document, updated as low/zero carbon technology continues to develop.

Figure 6. Area-wide Carbon Emission Interim Targets to 2030



HOW DO WE GET THERE?

In order to achieve the net-zero target, significant reductions in area-wide and Council estate emissions are required. Progress towards this and interim targets will be monitored and managed closely using the following methodology.

GOVERNANCE

North Ayrshire Council takes action on climate change very seriously. Having declared a Climate Emergency, it is recommended that a Climate Change Working Group be established to help deliver on this commitment. The Physical Environment Service, within the Place Directorate, has the remit for sustainability through the Corporate Sustainability team. The Service leads on driving forward the sustainability agenda, implementing energy efficiency and renewable projects for both the domestic and non-domestic estate, and managing the energy consumption data. However, the Council takes a collective responsibility to ensure sustainability is considered in all our decisions, and across all services.

PRINCIPAL ACTIONS

The following action will be undertaken on a corporate level to progress towards net-zero carbon:

- Progress and monitor the Net Zero Carbon Roadmap, with milestones to be reported quarterly to the Head of Service and to Cabinet every six months Council's through the corporate performance monitoring framework
- Develop a detailed implementation plan supporting our Net Zero Carbon Roadmap, including targets, timescales and CO₂ reduction
- Implement a cross service strategic Climate Change Steering Group

WORKSTREAMS

This document contains new actions within the pre-existing workstreams (for example, initiating a carbon budget for North Ayrshire by utilising the Tyndall Centre's expertise) to instigate the necessary longer-term actions, support the decarbonisation of the heat and transport networks, further economic opportunities and eradicate fuel poverty. Two additional workstreams have been included, to reflect the need for North Ayrshire to absorb carbon dioxide (CO₂) from the atmosphere, and to be climate ready. Therefore, the workstreams being considered in this strategy are:



This document provides highlights of progress made so far in each of the workstreams together with a Net Zero Carbon Roadmap identifying priority action for each, to achieve a net zero carbon and climate resilient North Ayrshire.

COMMUNITIES, SCHOOLS, YOUNG PEOPLE AND RAISING AWARENESS

In December 2020, Scottish Government published its draft public engagement strategy for Climate Change, Net Zero Nation, which builds on the works already undertaken with Climate Week and the Big Climate Conversation. COP26 is a further opportunity to frame local action during the focus of a global summit.

The Council will lead work with Community Planning Partners, the Locality Partnerships, schools, young people and communities to raise public awareness of their role in meeting Scotland's climate targets and embracing zero-carbon living. Each North Ayrshire school is further developing its approach to Learning for Sustainability, 'ensuring children and young people have the knowledge, skills, values and world-views necessary for people to act in ways that contribute to more sustainable patterns of living.' This includes the improvement of school buildings and grounds and the development of the curriculum.

Learning for Sustainability

Learning for Sustainability is a curricular approach and the key mechanism for promoting and working towards the UN's Sustainable Development Goals within education settings. It is an important component of Curriculum for Excellence. Putting the development of knowledge, skills and values at its heart of the curriculum four capacities, Learning for Sustainability is an entitlement for learners and a core part of teachers' professional standards.

Each North Ayrshire school is further developing its approach to Learning for Sustainability. The Council will work with our schools and young people in educational community settings through the STEM Working Group, Eco-Schools and our Youth Participation and Citizenship Strategy to deliver Learning for Sustainability, involving young people in COP26 and developing COP26 legacy actions.

Community Planning and Locality Partnerships

Over the past decade North Ayrshire Council has been building its approach to community empowerment, strengthening communities and supporting community organisations. Local people know their communities better than anyone, and working in partnership allows them to control their own decisions and shape their future. The Locality Partnership approach encourages planning with communities and partners, that is co-defined, co-designed and co-delivered by all who can be involved in empowering communities. An empowered community is one where individuals and communities have the confidence, skills and ability to influence decisions, take action and make change happen in their lives and communities. Locality Partnerships are key community partners in achieving net zero carbon and contributing to addressing climate change. Our approach is based on partnership between our communities, our community planning partners and local government.

The Council will actively encourage the development of leadership on responses to climate change from communities and community planning partners as well as from across the public sector. Scottish Government is currently consulting on Climate Change - Net Zero Nation and its public engagement strategy to raise awareness, support participation and

encourage action. We will work with our communities and young people in through our Locality Partnerships and our Youth Participation and Citizenship Strategy to raise awareness and involve communities and young people addressing climate change interventions.

PERFORMANCE MANAGEMENT

Progress towards completing each of the actions will be monitored and reported through the Council's corporate performance monitoring framework, with updates provided to Cabinet every six months.

North Ayrshire Council also complies with the Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Order 2015 which requires Public Sector Bodies to publish annual climate change reports. This was intended to demonstrate compliance with Public Sector Bodies' climate change duties, to engage leaders and encourage action.

In addition, the Council will continue to complete the annual Climate Change Assessment Tool, to facilitate discussion on corporate climate change performance, seeking continuous improvement in this area.

Furthermore, the Council will peruse Adaptation Scotland's Capability Framework, in order to improve resilience to the impacts of climate change.

WORKSTREAMS

WORKSTREAM 1 – AFFORDABLE WARMTH

The Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act 2019 has changed the definition of fuel poverty. The Act defines a household to be in fuel poverty if more than 10% of its net income (after housing costs) is required to heat the home and pay for other fuel costs – with not enough money left for a decent standard of living.

The Act also sets a target of no more than 5% of Scottish Households in fuel poverty by 2040. The most recent Scottish House Condition Survey Local Authority Analysis report (published in February 2019) states that for 2016-18, 28% of households in North Ayrshire were suffering from fuel poverty, and although this is great improvement on the previous ESCCS period, there is room for more to be done.

Fuel poverty occurs through a combination of poor energy efficiency of households, high fuel costs and low household income. We continue to invest in energy efficiency measures for housing, raising awareness of fuel switching support and income maximisation.

ACHIEVEMENTS SO FAR

North Ayrshire Council has successfully installed two large-scale district heating schemes, at Glencairn House in Stevenston and Watt Court in Dalry. These are providing affordable, renewable heat to residents and have established a requirement for heat networks to be considered as part of the housing development process on an ongoing basis.

North Ayrshire Council has successfully secured approximately £10.5million of external funding to provide external wall insulation to 2,231 homes, to help provide warmer homes

and reduce heating bills. We also continue to deliver replacement and top up loft insulation and cavity wall insulation for Council properties, supporting Energy Efficiency Standard for Social Housing (EESH) compliance and other housing programmes.

All housing development programmes now seek the 'Greener standard' specification to future proof new homes, and in order to support innovation and test new technology for future housing developments, two 'sustainable house' demonstrator homes have successfully been completed in Dickson Drive, Irvine. Measurement of effective use of the installed technology will be monitored over during the period of this ESCCS, in the hope of rolling out innovative technology to future developments.

We have also implemented our first solar PV installation programme for domestic properties, installing solar PV panels on the roofs of 290 Council houses, helping to reduce fuel bills and change to renewable sources of energy.

Furthermore, the Council's Private Sector Team have developed a referral process for landlords and homeowners to Home Energy Scotland and Citrus Energy, to improve the efficiency of their properties and offer support with utility companies.

PRIORITY ACTIONS

Affordable Warmth	
1.	Implement additional phases of domestic solar PV installations
2.a	Implement external wall insulation for domestic properties, to reduce carbon emissions and provide energy savings
2.b	Investigate the potential for and funding sources to develop our approach to affordable net zero energy retrofits
3.	Develop and implement an overarching Local Heat and Energy Efficiency Strategy (LHEES) for North Ayrshire, to remove energy efficiency as a driver for fuel poverty
4.a	Develop heat networks where appropriate)
4.b	Work towards renewable / zero carbon heat networks
5.	Investigate potential use of battery storage for homes
6.	Identify fuel poverty alleviation projects through partnership working
7.a	Develop EV charging programme to facilitate domestic infrastructure, in both new and existing properties
7.b	Incorporate in the programme: bike storage, eBike charge points and low carbon transport infrastructure which encourage reducing car use
8.	Raise awareness of low carbon behaviours at home
9.a	Ensure that affordable, energy efficiency homes built under the Council's housing development programme are built to the Greener Standard or equivalent, maximising renewable energy and heat network capability
9.b	Establish minimum standard for heating and local renewable supply where possible

WORKSTREAM 2 – A GREEN ECONOMY

The current health and economic crisis has highlighted the importance of creating a new economic model, focused on wellbeing and inclusion. A focus solely on enhancing Gross Domestic Product (GDP) as an output at a national level is not sufficient to recognise the wider levels of economic, social and environmental wellbeing across our communities. Nor will it provide the basis to tackle climate change.

The United Nations Environment Program defines a green economy as being ‘low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services’.

We must ensure a just transition to a green economy in North Ayrshire, so that existing inequalities are not exacerbated and we learn the lessons from previous industrial change, making sure no place or community is left behind. Accelerating action to tackle climate change is a critical part of our economic recovery and renewal through publishing a Green New Deal for North Ayrshire, so that the economy, environment and fairness are mutually reinforcing and not competing priorities – our economy should work for people, place and planet.

Even before COVID-19, North Ayrshire had one of the most fragile economies within Scotland and had struggled to adapt to previous industrial changes including deindustrialisation. In recent analysis conducted by the Scottish Government and highlighted by the Advisory Group on Economic Recovery (AGER), North Ayrshire ranked as the least resilient local authority in Scotland (Source: Scottish Government). It is evident that North Ayrshire’s economy takes longer to recover from economic shocks than other areas and that levels of regional inequality are stark in Scotland. Creating a more resilient local economy that can deal with future economic change and transitions will be crucial.

North Ayrshire’s local business base – including social and community enterprises – will need to play a key role in achieving a net zero carbon target, including through reducing emissions and waste, and testing new innovative technologies and processes to support this.

ACHIEVEMENTS SO FAR

Community Wealth Building Strategy

In May 2020, North Ayrshire Council launched Scotland’s first Community Wealth Building Strategy. The strategy sets out the CWB mission of ‘Enhancing local wealth and the creation of fair jobs, and maximising the potential of all our places through working in partnership with our communities and businesses’. The strategy includes a comprehensive 55-point action plan and sets out six objectives to deliver CWB:

- Community Wealth Building Council: We will work across all our services and wider local and regional partners to implement Scotland's first approach to Community Wealth Building.
- Procurement: We will use our spend to actively encourage and support a growing, diverse and resilient local business base, and to support our net zero carbon ambitions.
- Fair Employment: We will encourage the creation of fair and meaningful jobs with progression opportunities to unlock the potential of our residents.
- Land and Assets: We will support the wider regeneration of our communities by maximising all our land and assets including through alternative uses for community and business benefit.
- Financial Power: We will invest locally and encourage regional and national institutions to invest in our communities.
- Plural Ownership of the Economy: We will support the creation and sustainability of a range of business models including SMEs, social enterprise, employee ownership, cooperatives, municipal activity and community enterprises.

The Community Wealth Building strategy was highlighted as a place-based climate action example as part of the Scottish Government's Climate Change Plan Update published in December 2020.

Economic Recovery and Renewal Approach – building back better, fairer and greener

In September 2020 the Council launched its Economic Recovery and Renewal Approach to build back better, fairer and greener. The approach is based on the foundation of the Council's Community Wealth Building approach and sets out a Local Green New Deal. The twin priorities of a North Ayrshire Green New Deal for an inclusive and green economic recovery are to:

- Ensure an inclusive economic recovery by delivering our Community Wealth Building mission; and
- Ensure a green economic recovery focused on achieving our net zero carbon ambitions through the creation of sustainable infrastructure and regeneration projects and creating fair jobs.

At the heart of the approach to economic recovery and renewal is the £10.2m Investment Fund which is being utilised to deliver on climate change, sustainable infrastructure investment and Community Wealth Building.

We will use our capital investment to accelerate our recovery and wider regeneration of our area, at the same time as tackling climate change. We will support our existing businesses and social enterprises to rebuild, diversify and become more resilient, green and inclusive. We will support our communities who have lost their jobs or are in insecure work, support our young people, and encourage community entrepreneurship.

The Council will prioritise capital and climate investment projects that will create fair and green jobs, as well as supporting a local supply chain.

Regeneration Delivery Plan

North Ayrshire Council has published an ambitious five-year Regeneration Delivery Plan which sets out the Council's plans to deliver physical regeneration and regenerate strategic regeneration sites and places by working together with our communities. The Regeneration Delivery Plan will drive and enable the delivery of major regeneration and infrastructure projects that will support the achievement of the Council's net zero target.

Green Jobs Fund

The Council's Economic Recovery and Renewal Approach outlined that we will offer support and specialist expertise to businesses and wider community organisations to adopt a green action plans to support industrial decarbonisation and reduce carbon footprints, including through circular economy approaches. North Ayrshire contains several intensive businesses, with cost of energy also playing a key consideration here.

In February 2021, the Council agreed plans for a £500,000 Green Jobs Fund. This innovative Fund has been set up to support economic recovery and tackle climate change as part of the Council's Green New Deal. The Fund will support the creation of local fair and green jobs whilst supporting businesses in becoming 'greener' through reducing carbon emissions and developing new innovative processes and technologies. This will support businesses and community organisations to adopt new innovative practices and models including circular economy approaches and renewable energy, reduce business energy costs, upskill and reskill business and their employees, as well as securing further investment into the area. The Green Jobs Fund will use a Community Wealth Building approach to improve the resilience of the local business base and create local supply chain opportunities.

The Hunterston Strategic Development Area

The Hunterston Strategic Development Area, North Ayrshire, is one of the UK and Scotland's most important strategic energy locations and is identified in the Scottish National Planning Framework. Historically, Hunterston has played a critical role in the UK's energy security through nuclear power production and being a site for importation of coal from around the globe for now closed coal fired power stations. The imminent decommissioning of all nuclear stations at Hunterston alongside a cessation of handling of carbon fuels within Hunterston means it is at a crossroads in its transition from an energy hub with a significant environmental footprint to a UK centre for clean energy production, supporting clean/blue/circular economy uses and the development of a net zero industrial location.

The UK Government recognises the strategic importance of Hunterston and £18m has been secured through Ayrshire Growth Deal to develop centres of excellence in innovation, advanced technologies and applied research with a focus on the blue and green economies including: low carbon energy /circular economy/aquaculture/advanced manufacture and the servicing of assets for the offshore wind and renewable energy sector.

There is a major opportunity to bring economic transformation to the region, by linking the challenges facing the nuclear decommissioning with the range of new industry sectors capable of being realised at Hunterston. This would support North Ayrshire's Economic

Recovery and Renewal Approach, which sets out a Green New Deal ensuring that green jobs are central to our plans to build a greener and fairer economy. Within the initial Ayrshire Growth Deal investment, private and public partners will develop proposals for early enabling investment and a delivery programme for wider site proposals for the future development of the Hunterston port.

The future of wind is in floating wind on the west and north UK. Hunterston is optimally placed to capitalise on this and presents a stand-out opportunity to deliver the national levelling-up agenda, by supporting the diversification of the footprint of the clean energy sector within the UK, providing an anchor on the UK western coast in a region that will experience significant benefit from the investment in high value technology, R&D, skills development and manufacturing processes as a consequence of the proposals.

PRIORITY ACTIONS

A Green Economy	
1.	Deliver the innovative £500,000 Green Jobs Fund to support a just transition in North Ayrshire.
2.	Through the Green Jobs Fund and wider Community Wealth Building approach, support green local supply chain initiatives and supplier development to improve the resilience of the local business base.
3.	Deliver the £10.2 million Investment Fund to support Community Wealth Building, infrastructure investment and tackle climate change including utilising our land and property assets to help develop low carbon and renewable energy schemes and environmental activity to support our green transition.
4.	Deliver the Community Wealth Building Procurement Objective of using our spend to 'actively encourage and support a growing, diverse and resilient local business base, and to support our net zero carbon ambitions'.
5.	Position North Ayrshire and the wider Ayrshire region as region for investment in circular economy and renewable energy net zero technologies, including through participation in the Ayrshire Regional Economic Partnership 'Clean Growth' workstream.
6.	Progress the Ayrshire Regional Skills Investment Plan and Ayrshire Growth Deal Regional Skills Fund to identify the 'green skills' required as we move to net zero and support communities to upskill and reskill.
7.	Undertake a feasibility study to outline options and recommendations for the potential scope of a repair economy and 'remakery' project(s) in North Ayrshire that aligns to the principles of Community Wealth Building and builds on existing community and business remake and reuse activity.
8.	Building on the Zero Waste strategy, develop a circular economy approach to enhance innovation and reduce waste through working with partners including Zero Waste Scotland.
9.	Promote the Hunterston Strategic Development Area as a site of national significance which includes £18 million of Ayrshire Growth Deal investment from the UK Government.
10.	Deliver the ambitious Regeneration Delivery Plan, including a specific focus on environmental priorities and effective digital connectivity, recognising changes in the way we live and work.

11. Continue to participate in the Centre for Local Economic Strategies (CLES) research project exploring the use of Community Wealth Building Strategy techniques for local energy transition and developing practical guidance to support this.
12. Use the forthcoming Local Heat and Energy Efficiency Strategy (LHEES) to identify projects to support local businesses.
13. Continue to implement the Ayrshire CWB Anchor Charter which includes a 'sixth CWB pillar' of 'Environment and Climate Action' to ensure commitment and action from Anchor Institutions in the region to achieving net zero and delivering a more inclusive economy.
14. Work with Highlands and Island Enterprise, Scottish Government and island communities and businesses to deliver the Island Recovery and Renewal Pilot, including the development of ambitious 10 year plans for Arran and Cumbrae that support an inclusive and green economic recovery.
15. Publish an Inclusive Economy Dashboard learning from the Doughnut Economics tool which proposes an economy with a social foundation we cannot fall below and environmental limits that should not be exceeded.

WORKSTREAM 3 – TRANSPORT AND TRAVEL

Transport is currently the largest contributor to Scottish emissions.

The National Transport Strategy sets out the vision for the transport system over the next 20 years. Its vision of a sustainable inclusive, safe and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors is underpinned by four priorities: Reduces inequalities; Tackles climate action; Helps deliver inclusive economic growth; and Improves our health and wellbeing.

It promotes walking, cycling, public transport and bike, car and ride sharing in preference to single occupancy car use. It also includes a commitment to phase out the need for new petrol and diesel cars and vans by 2032 and promote the uptake of electric and low-emission vehicles. The second Strategic Transport Projects Review (STPR2) will inform transport investment for the next 20 years across Scotland. It will help to deliver the vision, priorities and outcomes for transport set out in the NTS.

North Ayrshire's Local Transport Strategy translates these documents into a local perspective. The review of our strategy in 2021 will identify our priorities for active and sustainable travel until 2026. The updated strategy will reflect the changes in travel post COVID including the impact on the public transport network. It will also reflect the Council's commitment to promoting the uptake of electric vehicles and developing a robust charging infrastructure for residents, businesses and visitors.

As part of the learning from COVID-19, the North Ayrshire Council Digital Strategy is being reviewed and updated to reflect future priorities and actions. During the pandemic citizens made better use of digital technology such as on-line meetings and on-line forms and continued use of this will help reduce carbon emissions through less travel to offices and meetings.

Effective use of technology, through restrictions imposed from the pandemic, resulted in staff working remotely which delivered, and will continue to deliver, a positive environmental impact through less travel. A Project has been formed on 'Our Future Working Environment' which aims to take the learning and good practice from the pandemic and ensure its embedded in our future way of working. Remote working is a significant part of this project.

ACHIEVEMENTS SO FAR

The Council has successfully established a Car Share scheme to reduce business miles travelled and associated emissions. The scheme currently has 1,124 members accessing electric and low emission vehicles at various locations across the area. In 2019/20 275,868 miles were travelled using this initiative.

Further grant funding was received during 2019/20 from the Switched on Fleet initiative, allowing for three additional electric cars and five vans to be leased to further increase our electric vehicle fleet to 19.

Significant levels of funding is secured annually to implement active travel and sustainable transport projects including Irvine High Street Public Realm, Bus Corridor Improvements; and Irvine Cycle Friendly Town Implementation. In June 2019, the Trinity Active Travel Hub, funded by the ERDF Low Carbon Travel and Transport (LCTT) Challenge Fund, was launched to provide support and promote active and sustainable travel choices by members of the public. The Hub and the Travel Smart campaign, funded by Smarter Choices Smarter Places, provide a range of advice, support, activities and training to the local community to support sustainable everyday journeys.

A Low Carbon Hub is currently being developed in Ardrossan through the LCTT. This includes new active travel links, active travel infrastructure, Electric Vehicle Charging Hubs and e-bike charging hubs. This will be delivered across two key sites, Ardrossan Harbour and North Shore to support everyday journeys across the town and neighbouring settlements.

In addition, the Council has developed an Electric Vehicle Strategy to support and encourage the uptake of EVs throughout North Ayrshire. In July 2019, North Ayrshire Council successfully secured funding from Transport Scotland to commission the Energy Saving Trust's Electric Vehicle feasibility report for Irvine. This report provides recommendations for electric vehicle charging points for the town and will be progressed as part of this ESCCS.

PRIORITY ACTIONS

Transport and Travel	
1.	Develop solar charging hubs in North Ayrshire
2.	Apply for Switched on Towns and Cities Funding to install 36 charge points in Irvine* (*identified in the Energy Saving Trust's EV feasibility report)
3.a	Install Workplace Chargers to further electrify the Council's fleet to ensure transition of fleet to EV (strategic positioning of charging facilities)

3.b	Review transition of services where possible to lower carbon emissions e.g. light commercial vehicles for deliveries etc.
4.	Implement actions from the Electric Vehicle (EV) Strategy
5.	Work with government agencies and external partners to increase the number of publicly available charging points in North Ayrshire Review transition of services where possible to lower carbon emissions e.g. light commercial vehicles for deliveries etc.
6.a	Deliver the Trinity Active Travel Hub and Travel Smart Campaign to encourage more sustainable travel choices
6.b	Deliver the Ardrossan Low Carbon Hub
6.c	Identify the ways to utilise assets to support active and low carbon local travel networks e.g. all school pupils and community to have an easily accessible active travel routes to schools, health services, shopping, leisure etc.
7.	Implement actions from the Fleet Sustainability Review
8.a	Embed better use of technology in the new North Ayrshire Council Digital Strategy to help reduce travel and carbon emissions.
8.b	Develop new ways of working through the 'Our Future Working Environment' project to help reduce travel and carbon emissions.

WORKSTREAM 4 – NATURAL ENVIRONMENT

Biodiversity is essential for life on Earth but is under threat from pollution, habitat loss and climate change.

The fifth edition of the UN's Global Biodiversity Outlook report (September 2020) highlights continued biodiversity loss and ongoing degradation of ecosystems.

The sixth mass extinction of wildlife on Earth is accelerating and more than 500 species of animal could become extinct within 20 years.

It is important to note that while some species are going extinct, some tend to survive and flourish, such as rats and bats. This has severe consequences and pathogens transmission can occur more frequently between them and humans.

There is therefore a strong scientific consensus that biodiversity loss can lead to pandemics. Pandemic like COVID-19.

The Nobel laureate Paul Crutzen popularised the Anthropocene term in 2000 and a growing number of scientists use this term informally to name the current epoch in which we are living.

Anthropocene is a geological epoch in which human influence is the dominant source of change to the world's ecosystems and requires us to be globally responsible and protect our natural environment.

Any amount of increase to global temperatures could be detrimental to ecosystems, however an increase of 1.5°C may trigger one of nine tipping points in the world. A tipping point is where a small change could trigger a dramatic or irreversible change in a system, for example the irreversible meltdown of Greenland ice sheets; permafrost loss and abrupt increase in emissions of CO₂ and CH₄; and coral reef die-off. The risk of tipping points compels us to act on reducing emissions, and on a local scale show leadership in the protection and enhancement of our natural environment.

North Ayrshire's Local Biodiversity Action Plan is our response to the local challenges and details the actions that the North Ayrshire Biodiversity Partnership intends to achieve between 2019-2031.

Furthermore, the adopted Local Development Plan for North Ayrshire sets out guidance for sustainable development over a 20-year period. It supports the provision of a Low Carbon North Ayrshire by supporting energy infrastructure and heat network development, minerals safeguarding and extraction, waste management and the protection of valuable carbon rich soils.

ACHIEVEMENTS SO FAR

Garnock Connections is a Landscape Partnership Scheme led by RSPB Scotland in partnership with North Ayrshire Council, Scottish Environment Protection Agency, Scottish Natural Heritage, and the Scottish Wildlife Trust. A range of projects have been delivered across the Landscape Partnership area by the partner organisations.

The Garnock's Buzzing project led by Garnock Connections, has created wildflower meadows, planted pollinator friendly trees and established bee banks at community sites. This project continues to successfully involve the community through pollinator identification events, ecological surveys, and raising awareness of the importance of supporting and enhancing biodiversity in North Ayrshire.

Other projects include the formation of a Green Network Training Programme to deliver environmental improvements. This has provided 6-month placements and vocational and practical training to local young unemployed people whilst delivering a range of projects including new paths, woodland management and wildflower planting.

PRIORITY ACTIONS

Natural Environment	
1.	Support supplementary guidance to enhance the adopted Local Development Plan for North Ayrshire
2.	Undertake a Local Nature Conservation Site review to ensure decisions which may have an impact on local habitats are based on an up-to-date understanding of the value of such sites to North Ayrshire's biodiversity
3.	Deliver biodiversity awareness to schools and young people
4.	Implement the Local Biodiversity Action Plan

5.	Continue to support the increase in local food production (including community and school gardens and allotments; local businesses and plural forms of ownership including social enterprises, cooperatives, community enterprises)
6.	Continue to support food provenance and maximise the use of locally grown food through the actions within the North Ayrshire Food Growing Strategy

WORKSTREAM 5 – SUSTAINABLE OPERATIONS

North Ayrshire Council's challenging net-zero target will be met by first understanding the costs and impacts of our activities, and then acting on reducing carbon emissions from across all sectors, utilising renewable energy, removing carbon dioxide (CO₂) as previously noted from the atmosphere, and maintaining low carbon behaviours amongst staff, residents, visitors and businesses in North Ayrshire. This workstream will focus on reducing emissions and encouraging low carbon behaviours.

The Council understands that emissions from services, buildings, transport and homes, all add to the global climate impact. We are therefore engaging with the Tyndall Centre for Climate Change Research to establish a carbon budget. The IPCC have identified carbon budgets for all countries; the Tyndall Centre have used this data to allocate budgets to local authority areas, identifying our share of carbon emissions allowed for the world to stay within the 1.5°C temperature increase.

North Ayrshire Council employs approximately 6,500 staff and is home to a population of 134,740, therefore we are well placed to listen to the needs of individuals, groups and businesses and support low carbon behaviours throughout. We value the importance of education and will continue to teach young people about how our actions impact the planet through energy use, food choices, travel options and waste management. We are well placed to support climate change awareness amongst communities, local businesses and decision makers. We also recognise the opportunities in upskilling existing services and promoting jobs in renewable and low carbon technology sectors

Small cuts in emissions now can be worth as much as larger cuts in the future, therefore we must continue to reduce emissions in all scales. Progress has already been made to forward the Climate Emergency agenda and move closer to achieving net-zero emissions; some achievements in this regard are provided below:

ACHIEVEMENTS SO FAR

The Council has successfully delivered an enhanced waste and recycling service, allowing for 61.2% of all household waste to be recycled, and realising 6.22% recovery of energy from waste collected in 2019/20.

North Ayrshire Council has established a 25-year project to divert waste from landfill and generate energy, through the Clyde Valley Residual Waste Project. Partnering with four other local authorities up to 190,000 tonnes of municipal waste will be diverted from landfill and converted to low carbon energy on an annual basis.

Furthermore, the Plastic Waste Prevention Action Plan has been established to progress the Council to move towards becoming a Plastic Free Council by 2022.

The Non-Domestic Energy Efficiency framework has successfully implemented nearly £1million of retrofit energy efficiency measures to 15 non-domestic properties, reducing carbon emissions and operational costs on an annual basis. A series of annual awareness raising events have taken place, encouraging sustainable behaviours amongst staff, young people and communities. The Primary School's Energy Challenge has continued to highlight the wealth of creativity and eagerness to act on climate change amongst pupils and teaching staff.

Furthermore, the Council has retrofitted 14,378 street lights with energy efficient LED fittings, reducing carbon emission from over 58% of street lights across North Ayrshire.

PRIORITY ACTIONS

Sustainable Operations	
1.	Design and install our first solar photovoltaic farm in North Ayrshire
2.	Establish a North Ayrshire Council Climate Change Steering Group
3.	Produce a carbon budget for North Ayrshire and use the SCATTER tool to plan carbon reduction works and scenarios
4.	Develop an Energy Systems models for North Ayrshire
5	Review the Corporate Performance Framework data set to reflect the journey to net-zero carbon
6.	Utilise academic partnerships to identify, explore and enhance large scale low carbon projects, for example the North Shore, I3 and new housing development
7.	Develop and implement an operational plan to: <ul style="list-style-type: none">• improve energy efficiency of non-domestic buildings within the Council's estate• ensure best practice buildings and systems so that the energy efficiency performance gap is eliminated
8.	Investigate potential use of battery storage for non-domestic buildings
9.	Deliver a consistent and effective Low Carbon Behaviour campaign
10.	Investigate feasibility for islands becoming net zero carbon communities
11.	Implement the Zero Waste Strategy

WORKSTREAM 6 – CARBON ABSORPTION

Carbon emissions can be absorbed naturally through trees (during photosynthesis) or by using technical solutions such as carbon capture and storage (CCS), where carbon dioxide (CO₂) from electricity generation and industrial processes is prevented from entering the atmosphere. CO₂ is collected, transported and stored securely in depleted oil and gas fields. The Council will not be able to achieve net-zero emission status without absorbing emissions; therefore a range of actions must be investigated during the period of this ESCCS.

The North Ayrshire Council Climate Change: Just Cool It consultation questioned the opportunities and barriers of planting trees in the area. 98% of feedback was positive towards moving ahead with this project, with respondents identifying opportunities to work

with communities, young people and landowners, and highlighting additional benefits of improving mental health, encouraging biodiversity and supporting natural drainage.

ACHIEVEMENTS SO FAR

Recognising the vitally important role of trees in tackling climate change, in March 2020 North Ayrshire Council dedicated £500,000 of resource to tree planting. This project will be led by Commercial Services, identifying available land with suitable soil types, the most appropriate tree species to plant, and partnership opportunities. This is another example of North Ayrshire Council creating a strong legacy and sustainable place for existing and future generations.

PRIORITY ACTIONS

Carbon Absorption	
1.	Develop a strategic options appraisal for delivery of a tree planting initiative
2.	Implement a tree planting initiative
3.	Identify opportunities to support carbon capture and storage technology
4.	Maintain up to date knowledge and awareness of carbon capture opportunities and technologies for application in North Ayrshire

WORKSTREAM 7 – CLIMATE CHANGE ADAPTATION

Climate change is happening now, globally, regionally and locally. It is vital that consideration is given not only to mitigation methods (as in the previous workstreams), but to how we adapt and build resilience to climate change we are witnessing now and will experience in the future.

Climate Change projections for Scotland suggest increases in mean annual temperature by the 2080s in the range from 1.6°C to 4.5°C, with central estimates between 2.6°C and 3.0°C; drier summers and wetter winters (source: Scottish climate change adaptation programme 2019-2024: strategic environmental assessment).

Increased frequency and intensity of extreme weather events such as flooding, storms and heat waves are becoming more common across Scotland, impacting our natural and built environment, land assets, transport, communities and services.

Some of the key consequences have been identified by Adaptation Scotland as:

- The health and well-being of people, and the health of our natural environment
- The increased risk of flooding
- The increased frequency of summer droughts
- The change in our coast
- The security and efficiency of our energy supply
- Infrastructure network connectivity and interdependencies

- The performance and resilience of our business

The Climate Change Convention asked delegates to consider what the main climate change impacts and risks for North Ayrshire would be. The responses were similar to those recognised nationally, for example flooding, surface water on roads, warmer weather impacting agriculture, food production and housing, rising sea and river water levels, and the danger to infrastructure and island communities through increase wind speed.

ACHIEVEMENTS SO FAR

The Ayrshire Local Flood Risk Management Plan details how and when the actions to deliver the goals set in the Flood Risk Management Strategy are to be delivered in the first 6-year planning cycle (2016 to 2022). North Ayrshire is the lead local authority for the Ayrshire Local Plan District. Furthermore, the Ayrshire Shoreline Management Plan is a large-scale assessment of the risks associated with coastal tides and was adopted by North Ayrshire Council in September 2018. The requirement for an SMP covering the Ayrshire coastline was identified by SEPA through the development of the Ayrshire Local Flood Risk Management Strategy.

In October 2019, an Elected Member's event was held to highlight the value of adapting to the impacts of climate change. The event, facilitated by Adaptation Scotland, focussed on how climate impacts are affecting North Ayrshire communities, and how to identify local priorities. It was recognised that by taking a strong, proactive approach we will ensure that vital public assets, infrastructure and services are fit for current and future generations and able to deliver positive outcomes across North Ayrshire.

PRIORITY ACTIONS

Climate Change Adaptation	
1.	<p>Implement Adaptation Scotland's Framework for a Climate Ready Public Sector with specific focus given to the following:</p> <ul style="list-style-type: none"> ▪ Understand what the future climate means for North Ayrshire ▪ Identify what can be done to build resilience to cope with this change ▪ Increase the resilience of our buildings, services and infrastructure ▪ Understand the vulnerabilities of our community and our businesses in relation to climate change and helping our community and business to build climate resilience
2.	Develop and deliver required flood protection scheme for the Upper Garnock Valley
3.	Develop and deliver required flood protection schemes for Millport

4.	Complete studies of areas identified as potentially vulnerable to flooding in line with the approved Flood Risk Management Strategy and Action Plan
5.	Strengthen scientific evidence and awareness building of current and future coastal change along Ayrshire's coast through the actions within the Ayrshire Shoreline Management Plan

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APPENDIX 1 – NET ZERO CARBON ROADMAP

Objective <i>What we would like to achieve?</i>		Action <i>How we will achieve this objective?</i>	Timescale <i>When the action should be completed by?</i>	Lead <i>Who is the Project Owner?</i>	Progress Update <i>Status for an activity or other element of the action/project</i>
Workstream 1 – Affordable Warmth	Reduced number of households in Fuel Poverty	Implement additional phases of domestic solar PV installations	March 2022	Physical Environment	
		a) Implement external wall insulation for domestic properties, to reduce carbon emissions and provide energy savings b) Investigate the potential for and funding sources to develop our approach to affordable net zero energy retrofits	Annually until March 2023	Physical Environment	
		Develop and implement an overarching Local Heat and Energy Efficiency Strategy (LHEES) for North Ayrshire, to remove energy efficiency as a driver for fuel poverty	Annually until March 2023	Physical Environment	
		a) Develop heat networks where appropriate b) Work towards renewable / zero carbon heat networks	March 2023	Physical Environment	
		Investigate potential use of battery storage for homes	March 2023	Physical Environment	
		Identify fuel poverty alleviation projects through partnership working	March 2023	Physical Environment	
		a) Develop EV charging programme to facilitate domestic infrastructure, in both new and existing properties b) Incorporate in the programme: bike storage, eBike charge points and low carbon transport infrastructure which encourage reducing car use	March 2023	Physical Environment	

		Raise awareness of low carbon behaviours at home	Ongoing	Physical Environment	
		a) Ensure that affordable, energy efficiency homes built under the Council's housing development programme are built to the Greener Standard or equivalent, maximising renewable energy and heat network capability b) Establish minimum standard for heating and local renewable supply where possible c) Seek to prioritise building new properties to a high energy efficiency (e.g. Passivhaus and EnerPHit Standards)	Ongoing	Physical Environment	

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Workstream 2 – A Green Economy	Reduced area wide carbon emissions (by percentage)	Deliver the innovative £500,000 Green Jobs Fund to support a just transition in North Ayrshire.	March 2023	Economic Development and Regeneration	
		Through the Green Jobs Fund and wider Community Wealth Building approach, support green local supply chain initiatives and supplier development to improve the resilience of the local business base.	March 2023	Economic Development and Regeneration	
		Deliver the £10.2 million Investment Fund to support Community Wealth Building, infrastructure investment and tackle climate change including utilising our land and property assets to help develop low carbon and renewable energy schemes and environmental activity to support our green transition.	March 2023	Economic Development and Regeneration Physical Environment	
		Deliver the Community Wealth Building Procurement Objective of using our spend to 'actively encourage and support a growing, diverse and resilient local business base, and to support our net zero carbon ambitions'.	March 2023	Economic Development and Regeneration	
		Position North Ayrshire and the wider Ayrshire region as region for investment in circular economy and renewable energy net zero technologies, including through participation in the Ayrshire Regional Economic Partnership 'Clean Growth' workstream.	March 2023	Economic Development and Regeneration	
		Progress the Ayrshire Regional Skills Investment Plan and Ayrshire Growth Deal Regional Skills Fund to identify the 'green skills' required as we move to net zero and support communities to upskill and reskill.	March 2023	Economic Development and Regeneration	

		Undertake a feasibility study to outline options and recommendations for the potential scope of a repair economy and 'remakery' project(s) in North Ayrshire that aligns to the principles of Community Wealth Building and builds on existing community and business remake and reuse activity.	March 2023	Economic Development and Regeneration	
		Building on the Zero Waste strategy, develop a circular economy approach to enhance innovation and reduce waste through working with partners including Zero Waste Scotland.	March 2023	Economic Development and Regeneration Waste Resources	
		Promote the Hunterston Strategic Development Area as a site of national significance which includes £18 million of Ayrshire Growth Deal investment from the UK Government.	March 2023	Economic Development and Regeneration	
		Deliver the ambitious Regeneration Delivery Plan, including a specific focus on environmental priorities and effective digital connectivity, recognising changes in the way we live and work.	March 2023	Economic Development and Regeneration	
		Continue to participate in the Centre for Local Economic Strategies (CLES) research project exploring the use of Community Wealth Building Strategy techniques for local energy transition and developing practical guidance to support this.	March 2023	Economic Development and Regeneration Physical Environment	
		Use the forthcoming Local Heat and Energy Efficiency Strategy (LHEES) to identify projects to support local businesses.	March 2023	Economic Development and Regeneration Physical Environment	
		Continue to implement the Ayrshire CWB Anchor Charter which includes a 'sixth CWB pillar' of 'Environment and Climate Action' to ensure commitment and action from Anchor Institutions in the region to achieving net zero and delivering a more inclusive economy.	March 2023	Economic Development and Regeneration Physical Environment	
		Work with Highlands and Island Enterprise, Scottish Government and island communities and businesses to deliver the Island Recovery and Renewal Pilot, including the development of ambitious 10 year plans for Arran and Cumbrae that support an inclusive and green economic recovery.	March 2023	Economic Development and Regeneration	
		Publish an Inclusive Economy Dashboard learning from the Doughnut Economics tool which proposes an economy with a social foundation we cannot fall below and environmental limits that should not be exceeded.	March 2023	Economic Development and Regeneration	

Objective <i>What we would like to achieve?</i>		Action <i>How we will achieve this objective?</i>	Timescale <i>When the action should be completed by?</i>	Lead <i>Who is the Project Owner?</i>	Progress Update <i>Status for an activity or other element of the action/project</i>
Workstream 3 – Transport & Travel	Increased number of electric charge points in North Ayrshire	Apply for Switched on Towns and Cities Funding to install 36 charge points in Irvine* (*identified in the Energy Saving Trust's EV feasibility report)	March 2022	Physical Environment Economic Development and Regeneration	
		Develop solar charging hubs in North Ayrshire	March 2023	Physical Environment Commercial Services Economic Development and Regeneration	
		a) Install Workplace Chargers to further electrify the Council's fleet to ensure transition of fleet to EV (strategic positioning of charging facilities) b) Review transition of services where possible to lower carbon emissions e.g. light commercial vehicles for deliveries etc.	March 2023	Physical Environment Economic Development and Regeneration	
		Implement actions from the Electric Vehicle (EV) Strategy	March 2023	Physical Environment	
		Work with government agencies and external partners to increase the number of publicly available charging points in North Ayrshire	March 2023	Commercial Services	
	Reduced miles driven (by percentage)	a) Deliver the Trinity Active Travel Hub and Travel Smart Campaign to encourage more sustainable travel choices b) Deliver the Ardrossan Low Carbon Hub c) Identify the ways to utilise assets to support active and low carbon local travel networks e.g. all school pupils and community to have an easily accessible active travel routes to schools, health services, shopping, leisure etc.	Annually until March 2023	Economic Development and Regeneration	

		Implement actions from the Fleet Sustainability Review	March 2023	Commercial Services	
		a) Embed better use of technology in the new North Ayrshire Council Digital Strategy to help reduce travel and carbon emissions. b) Develop new ways of working through the 'Our Future Working Environment' project to help reduce travel and carbon emissions.	Ongoing	Recovery & Renewal	

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Workstream 4 – Natural Environment	Secure, clean and biologically diverse natural environment monitored through Scottish performance indicators* *Scotland's biodiversity strategy indicators: 1) state indicators measure changes in biodiversity for species, habitats and ecosystems selected as typical of Scotland; 2) engagement indicators monitor how Scotland's people	Support supplementary guidance to enhance the adopted Local Development Plan for North Ayrshire	March 2022	Economic Development and Regeneration	
		Undertake a Local Nature Conservation Site review to ensure decisions which may have an impact on local habitats are based on an up-to-date understanding of the value of such sites to North Ayrshire's biodiversity	March 2022	Physical Environment	
		Deliver biodiversity awareness to schools and young people	March 2023	Physical Environment	
		Implement the Local Biodiversity Action Plan	Ongoing	Physical Environment	

	interact with biodiversity through awareness, engagement or activity	Continue to support the increase in local food production (including community and school gardens and allotments; local businesses and plural forms of ownership including social enterprises, cooperatives, community enterprises)	Ongoing	Connected Communities	
		Continue to support food provenance and maximise the use of locally grown food through the actions within the North Ayrshire Food Growing Strategy	Ongoing	Connected Communities	

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Workstream 5 - Sustainable Operations	Reduced Council estate and area wide emissions (by percentage)	Design and install our first solar photovoltaic farm in North Ayrshire	March 2022	Physical Environment	
		Establish a North Ayrshire Council Climate Change Steering Group	March 2022	Physical Environment	
		Produce a carbon budget for North Ayrshire and use the SCATTER tool to plan carbon reduction works and scenarios	March 2022	Physical Environment	
		Develop an Energy Systems model for North Ayrshire	March 2022	Physical Environment	
		Review the Corporate Performance Framework data set to reflect the journey to net-zero carbon	March 2022	Physical Environment	

		Utilise academic partnerships to identify, explore and enhance large scale low carbon projects, for example the North Shore, I3 and new housing development	March 2023	Physical Environment	
		Develop and implement an operational plan to: <ul style="list-style-type: none"> improve energy efficiency of non-domestic buildings within the Council's estate ensure best practice buildings and systems so that the energy efficiency performance gap is eliminated 	March 2023	Physical Environment	
		Investigate potential use of battery storage for non-domestic buildings	March 2023	Physical Environment	
		Deliver a consistent and effective Low Carbon Behaviour campaign	March 2023	Physical Environment	
		Investigate feasibility for islands becoming net zero carbon communities	March 2023	Physical Environment	
		Implement the Zero Waste Strategy	Ongoing	Commercial Services	

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Workstream 6 – Carbon Absorption	Increased number of trees planted in North Ayrshire	Develop a strategic options appraisal for delivery of a tree planting initiative	March 2022	Commercial Services	
		Implement a tree planting initiative	March 2023	Commercial Services	
	Reduced area wide carbon emissions (by percentage)	Identify opportunities to support carbon capture and storage technology	Ongoing	Physical Environment	
		Maintain up to date knowledge and awareness of carbon capture opportunities and technologies for application in North Ayrshire	Ongoing	Physical Environment	

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Workstream 7 – Climate Change Adaptation	Completed Adaptation Scotland's Framework for a Climate Ready Public Sector	Implement Adaptation Scotland's Framework for a Climate Ready Public Sector with specific focus given to the following: a) Understand what the future climate means for North Ayrshire b) Identify what can be done to build resilience to cope with this change c) Increase the resilience of our buildings, services and infrastructure d) Understand the vulnerabilities of our community and our businesses in relation to climate change and helping our community and business to build climate resilience	March 2023	Physical Environment	
	Enhanced flood and coastal resilience monitored through the Local Flood Risk Management Plan Indicators	Develop and deliver required flood protection scheme for the Upper Garnock Valley	March 2023	Commercial Services	
		Develop and deliver required flood protection schemes for Millport	March 2023	Commercial Services	
		Complete studies of areas identified as potentially vulnerable to flooding in line with the approved Flood Risk Management Strategy and Action Plan	Ongoing	Commercial Services	
		Strengthen scientific evidence and awareness building of current and future coastal change along Ayrshire's coast through the actions within the Ayrshire Shoreline Management Plan	Ongoing	Commercial Services	