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# NORTH AYRSHIRE COUNCIL

5 December 2023

## Cabinet

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**Title:** Sustainable North Ayrshire Strategy 2024-27

**Purpose:** To seek approval of the proposed Sustainable North Ayrshire Strategy 2024-27.

**Recommendation:** That Cabinet approves the proposed Sustainable North Ayrshire Strategy 2024-27 at Appendix 1.

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### 1. Executive Summary

- 1.1 It is widely recognised that the world is facing a climate and nature crisis. The Council declared a climate emergency in 2019 and has committed to achieve net zero carbon emissions by 2030. The Council's previous Environmental Sustainability & Climate Change Strategies (ESCCS) have helped to achieve a 69% reduction in emissions from the Council's estate, and 43% reduction area-wide (using a baseline year of 2005/06).
- 1.2 The proposed Sustainable North Ayrshire Strategy at Appendix 1 provides the next iteration of the ESCCS, covering the period 2024-2027. It provides an overview of work that has taken place to tackle climate change so far and sets out the journey ahead through implementation of nine strategic priorities, specific project actions across five workstreams and a proposed Carbon Footprint and Project Register.
- 1.3 Cabinet is invited to approve the proposed strategy at Appendix 1 for implementation.

### 2. Background

- 2.1 In 2018, the Intergovernmental Panel on Climate Change (IPCC) report warned that the world has until 2030 to keep global temperatures from rising more than 1.5°C above pre-industrial levels before damage to the planet is irreversible. In June 2019, the Council declared a Climate Emergency, and has set an area-wide ambition to achieve net zero carbon emissions by 2030, in line with the IPCC report.
- 2.2 In September 2023, the Scottish Government recognised that the country is now faced with a 'Nature Emergency' and are consulting on a draft Biodiversity Framework and five-year Delivery Plan for the Scottish Biodiversity Strategy.
- 2.3 The Council Plan 2023-28 sets out North Ayrshire Council's commitment to deliver on tackling climate change. The new Sustainable North Ayrshire Strategy has been developed to support this ambition alongside the continuing strategic aim of achieving net-zero carbon emissions by 2030 and to halt biodiversity loss and be Nature Positive by the same date.
- 2.4 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 and

again in 2021, setting an area wide target to achieve net zero carbon emissions by 2030 (based on a 2005 baseline year). We have already achieved a 69% reduction in emissions since 2005 across the Council's estate, and an almost 43% reduction area wide.

2.5 These emissions reductions are from various projects and actions across the local authority area. Some examples of achievements and successes delivered through the last ESCCS (2021-23) include:

- Further reduced our carbon emissions across the Council's estate by an estimated 14,600 tonnes.
- Entered into a design and build contract for the delivery of two solar farms to provide installed capacity of some 12MW of renewable energy.
- Operation of 7MW of installed capacity providing district heating to over 300 homes.
- Launch of a range of measures to address fuel poverty and alleviate the impacts of the cost-of-living crisis through Energy Smart and ECO 4 Flex.
- Launch of a new fund to support community energy generation.
- We continue to be one of the top performing local authorities for household recycling rates in Scotland, at 55.3%.
- Avoided 102,658 tonnes of municipal waste being sent to landfill by participation in the Clyde Valley Project, to recover energy from waste, generating enough electricity to power 32,000 homes.
- Roll-out of 31 electric vehicles across our fleet and installation of 32 publicly accessible Electric Vehicle (EV) charge points across North Ayrshire, and 29 workplace chargers to support the decarbonisation of the Council's fleet vehicles.
- Approved a partnership with East and South Ayrshire Councils to implement a £5m investment, subject to external funding, to provide over 300 new EV chargers across the three Council areas (including 106 in North Ayrshire).
- Nearly 80% of our streetlights have been upgraded to energy saving LEDs.
- Completion of the Upper Garnock Valley Flood Protection Scheme and progressing the Millport Flood Protection scheme to protect buildings and prevent coastal erosion, as we adapt to the impacts of climate change.
- Implementation of North Ayrshire's 2030 Woodland: A Tree Planting Strategy, part of the Council's £500k project to plant 108,000 trees to help remove carbon from the atmosphere, with over 35,000 trees planted to date.
- Supporting islands on the journey to net zero through the Carbon Neutral Islands project in Cumbrae.
- Creation of a Climate Change Steering Group, comprising of local businesses, Community Planning partners, Council and voluntary services to support the net zero journey in North Ayrshire.

2.6 In preparing the next iteration of the ESCCS, a key aim was to make our work around tackling climate change more accessible. The strategy has therefore been renamed to 'Sustainable North Ayrshire' and now includes five simplified workstreams to link climate change to everyday behaviour and activities. The workstreams are:

- Energy
- Nature
- Waste
- Transport
- Adaptation

2.6.1 A series of stakeholder engagement sessions across autumn 2023 were held to hear the views of local communities, young people and businesses on climate change. The mini-enquiry model was used to engage with each locality in North Ayrshire, as well as an online questionnaire, Primary 7 Council workshop, and a Climate Change Steering

Group online workshop. We have learned from these sessions that there needs to be a more persistent presence within communities to make the net zero conversation more accessible, and to better support communities in identifying their climate change priorities and enabling action. Carbon literacy training would also be beneficial, in order to support the language used and offer greater understanding of what climate change means at a local level. This is proposed as an action in the new strategy.

2.7 The strategy follows the nine strategic principles approved by Cabinet on 22 November 2022, to help set priorities and actions for the period of the strategy. These are:

- We will take a whole system approach (including through behaviour change) to tackling climate change as far as possible, including identification of optimal approaches to achieve social and economic benefits alongside environmental ones.
- We will continue to clarify and report transparently on our emissions so that the North Ayrshire emissions baseline is clearly understood.
- We will complete a Local Heat and Energy Efficiency Strategy to help understand where efforts to reducing emissions and reducing fuel poverty are best focused.
- We will prioritise actions in relation to two of the biggest emissions sources where we will have the most influence, commonly referred to as 'heat and fleet', including through project pathfinder approaches for decarbonisation of domestic and non-domestic buildings and vehicles to bring scale and pace to emissions reduction.
- We will work with stakeholders, including the Scottish Government, to articulate the potential costs and skills requirements to meet our net-zero aspirations.
- We will expand on the need for adaptation measures, recognising mitigation alone will not combat the impacts of climate changes on communities.
- We will identify opportunities for expansion of carbon sinks and other carbon capture technologies, which are expected to be an essential element of our net-zero strategy to mitigate residual emissions by 2030.
- We will seek to expand the remit and membership of the CCSG to enable us to work more closely with communities, taking account of outcomes from recent projects such as Climate Action Towns and Carbon Neutral Islands.
- We will explore the potential for carbon accounting, including carbon budgets for Council services, to support our journey to net-zero.

2.8 It is acknowledged that 2030 is now only six years away. Outline calculations have been completed to understand the further emissions reduction work required across North Ayrshire. Based on our current emission reduction trend, we aim to reduce North Ayrshire area wide emissions by a further 269ktCO<sub>2e</sub> by 2030. For the Council's own estate emissions, we are aiming to reduce by a further 8,465tCO<sub>2e</sub> by 2030. The residual estimated emissions (533 ktCO<sub>2e</sub> area wide, and 12,431 tCO<sub>2e</sub> for the Council's estate) would then be sequestered. The emission reductions will be met through a range of actions which have been identified under each of the five workstreams. It is proposed that the Sustainable Scotland Network's Carbon Footprint and Project Register is used to consolidate carbon reduction projects across the Council in one platform. The register allows the calculation of carbon savings associated to each project to be recorded, which supports the mandatory Public Bodies Climate Change Reporting duty.

2.9 Some of the key actions proposed in the new strategy include:

- Development of new municipal renewable energy projects, including at i3, Irvine, subject to further feasibility work and available funding.
- Undertaking of community carbon literacy training and development of Community Climate Actions Plans for each locality and support action identified on islands.
- Exploration of the use of Sustainable Scotland Networks' Climate Change Impact

Assessment.

- Implementation of Nature Networks throughout North Ayrshire as far as possible.
- Progress the Ayrshire EVCI Pathfinder project to support a just transition to EVs.
- Investigate of the feasibility of a green hydrogen generation project using landfill gas, through the Energy Technology Partnership.
- Implement Adaptation Scotland's Framework for a Climate Ready Public Sector.

### **3 Proposals**

- 3.1 It is proposed that Cabinet approved the Sustainable North Ayrshire Strategy at Appendix 1 for implementation.

### **4 Implications/Socio-economic Duty\_**

#### **Financial**

- 4.1 Projects identified through the Carbon Footprint and Project Register will be assessed individually, utilising existing capital and revenue budgets or external funding wherever possible. The financial implications of any new projects will be established through business cases as required.

#### **Human Resources**

- 4.2 The Local Heat and Energy Efficiency Strategy (LHEES) funding form Scottish Government will be utilised to support a 1.0 FTE LHEES Officer post for a three-year period. All other works will be implemented from existing resources.

#### **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 contains actions to work towards reducing fuel poverty and supporting a just transition, in a way that is fair and inclusive, therefore contributing to our socio-economic duty.

#### **Climate Change and Carbon**

- 4.5 The strategy provides direct actions to deliver on the Council's aspirations to become net-zero carbon by 2030, halt biodiversity loss by 2030, and implement the key activities within the Council Plan 2023-28.

#### **Key Priorities**

- 4.6 The strategy has been developed to support the strategic aim 'To achieve net-zero by 2030' within the new Council Plan 2023-28.

#### **Community Wealth Building**

- 4.7 The delivery of the strategy will contribute across the Community Wealth Building pillars

and to achieving a wellbeing economy. Each Community Wealth Building pillar is considered throughout the workstreams within the strategy, and their actions. Opportunities to collaborate within localities and maximise the co-benefits of climate action are key to a successful and just transition. The strategy also continues to support the sixth pillar in the Community Wealth Building Anchor Charter, through the Climate Change Steering Group.

## **5 Consultation**

- 5.1 A series of stakeholder engagement sessions have taken place in order to develop this strategy and support future action on climate change. Six mini-enquiries entitled 'A Spotlight On...Climate Change' were also held during autumn 2023, together with an online consultation, Primary 7 workshops and a Climate Change Steering Group online workshop. Further consultation as part of the strategy implementation period is also proposed.

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Executive Director (Place)

For further information please contact **David W. Hammond, Head of Sustainability, Corporate Property & Transport**, on (01294) 324514.

## **Background Papers**

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# Sustainable North Ayrshire

2024-2027



North Ayrshire Council  
Comhairle Siorrachd Àir a Tuath

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## Introduction

This Sustainable North Ayrshire Strategy provides an overview of work that has taken place to tackle climate change and sets out the journey ahead through implementation of nine strategic priorities, specific project actions and a Carbon Footprint and Project Register.

The Council Plan 2023-28 sets out North Ayrshire Council's commitment to deliver on our communities' priorities over a five-year period. These priorities have been identified as:

- Wellbeing
- Communities and Local Democracy
- Climate Change
- A Sustainable Council

This 'Sustainable North Ayrshire' strategy has been developed to support the Climate Change priority and the continuing strategic aim of achieving net-zero carbon emissions by 2030.

### A climate and nature emergency

In 2018, the Intergovernmental Panel on Climate Change (IPCC) report warned that we have until 2030 to keep global temperatures from rising more than 1.5°C above pre-industrial levels before damage to the planet is irreversible. In response to this, governments and local authorities around the world have declared a 'Climate Emergency.'

Following advice from the Climate Change Committee, regulations were amended to the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, setting a net zero target year of 2045 in order to contribute to global efforts to limit warming to 1.5°C through emissions reduction.

In June 2019, the Council declared a Climate Emergency, and has set an area-wide ambition to achieve net zero carbon emissions by 2030, in line with the IPCC report.

In September 2023, the Scottish Government also recognised that the country is now faced with a 'Nature Emergency' and are consulting on a draft Biodiversity Framework and 5-year Delivery Plan for the Scottish Biodiversity Strategy.

The Sustainable North Ayrshire strategy aims to tackle both of these environmental challenges.

## Background

### What is climate change?

Since the industrial revolution, the earth's temperature has risen beyond the natural cycle. Scientists from across the globe agree that this is caused in the first instance by human activity in burning fossil fuels.

Burning fossil fuels such as gas, coal, oil, petrol and diesel produces carbon, which combines with oxygen in the atmosphere, produces carbon dioxide, a greenhouse gas. Other harmful greenhouse gasses are produced, but carbon dioxide is the most abundant. Greenhouse gases trap the sun's radiation, preventing heat from escaping, causing increased global temperatures.

Climate change is a long-term change in the average weather patterns caused by increased global temperatures. The impacts of climate change include more extreme weather events such as increased rainfall and flooding, high winds, drier and hotter summers. These are not the weather events we have grown to expect during our seasons, and this is also causing harm to our natural environment.

In order to reduce earth warming greenhouse gas emissions and keep global temperature increases to below 1.5°C, we must reduce the amount of carbon being emitted to the atmosphere.

## Vision

North Ayrshire Council's vision is to achieve net-zero emissions by 2030 and to halt biodiversity loss and be Nature Positive by 2030.

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

This strategy also recognises that to achieve this sustainability vision, the Scottish Government will 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 influence in areas such as procurement, planning, housing, education and transport to help drive area-wide emissions reductions in a way which tackles inequality, promotes fair work, supports Community Wealth Building and contributes to achieving a wellbeing economy.

We aim to:

- Embed our net-zero ambition in all democratic decision-making.
- Reduce the carbon footprint of our estate through rationalisation utilising a locality-based approach and taking a fabric first and low carbon energy generation approach to homes and buildings.
- Improve resilience and reduce carbon by developing and supporting supply chains where materials and goods are sourced locally.
- Promote new woodland creation and protect our green spaces to provide a natural resource for carbon sequestration.
- Support local businesses as they meet their climate change obligations.
- Promote a circular economy in North Ayrshire to reduce consumption of raw materials and promote reuse, repair and recycling, and generate energy from residual waste.
- Develop local low carbon energy generation schemes and networks.
- Unlock the potential of community owned energy generation to bring new income streams into communities and help them take direct action to combat climate change.
- Learn for Sustainability, and work with communities to adopt low carbon behaviour change and encourage climate-based volunteering activities.
- Improve communities' preparedness to deal with the impacts of climate change already locked in.
- Work with communities to adopt low carbon behaviour change and encourage climate-based volunteering activities.
- Take a nature-based approach to protect our habitats and species.

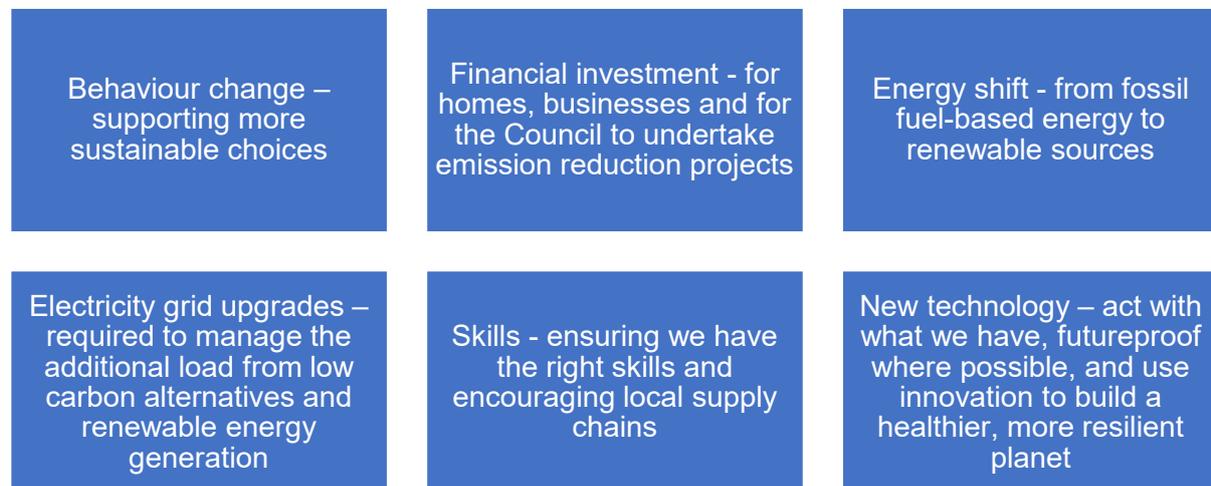
- Develop and promote active travel infrastructure. Transitioning to low and zero carbon travel.
- Embed a Community Wealth Building approach to delivery and support the transition to a wellbeing economy.

## Net zero

It is unrealistic to eradicate all carbon emissions. In order to achieve net zero, emissions need to be reduced to a point where carbon sinks (such as trees, peatlands, other natural resources and innovative carbon capture technology) can remove the residual amount of carbon emitted.

The way will aim to achieve this target is through collaboration across services, within communities and with partners, to maximise the co-benefits of action on climate change.

What will it take to get to net zero?



## Policy context

World leaders and local governments are responding to the call to act on the climate emergency, which has led to a number of international, national and local policies to be put in place. Some of these key drivers are listed below:

### International

- Paris Agreement 2015 - The Paris Agreement is a legally binding international treaty on climate change.
- United Nations Sustainable Development Goals (adopted in 2015) - A set of 17 global goals aiming to eradicate poverty, fight inequalities and tackle climate change. The goals are closely interconnected and have a direct link to climate change.
- Intergovernmental Panel on Climate Change (IPCC) - published the Global Warming of 1.5°C Report in 2018 and subsequent reports, providing guidance to world leaders on the status of global warming and climate change.

### National

- Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 - the Scottish Government has set a legally binding target achieve net zero emissions by 2045.

There are interim targets of 75% by 2030 and 90% by 2040, against 1990 baseline levels.

- Update to the Climate Change Plan 2018 – 2032 (Securing a Green Recovery on a Path to Net Zero) is the Scottish Government’s plan for a green recovery following COVID-19.
- Public Bodies’ Climate Change Duties require public bodies to contribute to climate change mitigation and to climate change adaptation, and to act sustainably.
- Guidance to adhere to the building (Scotland) Regulations 2004 is noted in Building Standards Technical Handbook 2022, to support energy efficiency in non-domestic and domestic buildings.
- The Heat in Buildings Strategy sets out the Scottish Government’s programme to deliver on climate targets by reducing dependence on gas and oil for heating homes and non-domestic buildings.
- The Heat Networks (Scotland) Act 2021 aims to contribute to increasing heat networks in Scotland.
- The Scottish Government published the draft Biodiversity strategy to 2045: tackling the nature emergency, in December 2022. This sets out the vision for halting biodiversity loss by 2030 and reversing declines by 2045.
- Climate Ready Scotland 2019-2024 is the second Scottish Climate Change Adaptation Programme which sets out policies and proposals to prepare Scotland for the challenges of adapting to a changing climate. The Programme is a requirement of the Climate Change (Scotland) Act 2009 Second Scottish Climate Change Adaptation Programme.
- National Planning Framework 4 (NPF4) is the national spatial strategy for Scotland. It sets out the spatial principles, regional priorities, national developments and national planning policy.

## Local

There are many Council-led strategies and plans which support the vision of the Sustainable North Ayrshire strategy, some of which are highlighted as follows:

- Council Plan 2023-28
- Electric Vehicle Strategy
- Zero Waste Strategy
- Local Development Plan
- North Ayrshire Partnership Plan
- Community Wealth Building Strategy
- Regeneration Delivery Plan
- 2030 Woodland: A tree planting strategy
- Digital North Ayrshire 2023-28
- Local Biodiversity Action Plan
- Fleet Decarbonisation Strategy
- Local Transport & Active Travel Strategy
- Sustainable Procurement Policy
- Local Housing Strategy
- Local Island Plans (Arran and Cumbrae)
- Food Growing Strategy
- Vacant and Derelict Land Strategy

## 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 and 2021, setting an area wide target to achieve net zero carbon emissions by 2030 (based on a 2005 baseline year). We have already achieved a 69% reduction in emissions since 2005 across the Council’s estate, and an almost 43% reduction area wide.

These emissions reductions are from various works across the local authority area. Some examples of achievements and successes delivered through the last ESCCS (2021-23) are:

- Further reduced our carbon emissions within the Council's estate by an estimated 14,600 tonnes.
- Entered into a design and build contract for the delivery of two solar farms to provide installed capacity of some 12MW of renewable energy.
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- Supporting islands on the journey to net zero through the Carbon Neutral Islands project in Cumbrae.
- Creation of a Climate Change Steering Group, comprising of local businesses, emergency services, Council and voluntary services to support the net zero journey in North Ayrshire.

Carbon emissions are measured in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) and are calculated from fossil fuel usage across non-domestic buildings, transport, street lighting, transport and from waste. Figure 1 shows a 69% decrease to 2022/23 – from 67,719 tCO<sub>2</sub>e to 20,940 tCO<sub>2</sub>e.

Figure 2 below shows the area-wide emissions and the breakdown of those emissions by sector (Industry, Commercial, Domestic, Transport, and Land Use, Land Use Change and Forestry). In 2022/23, Council emissions were approximately 3% of the most recently reported area-wide emissions by the Department for Energy Security and Net Zero.

Our aim is to support various sectors within North Ayrshire on their journey to decarbonisation, through collaboration and partnership working.

Figure 1 – Council estate emissions reduction

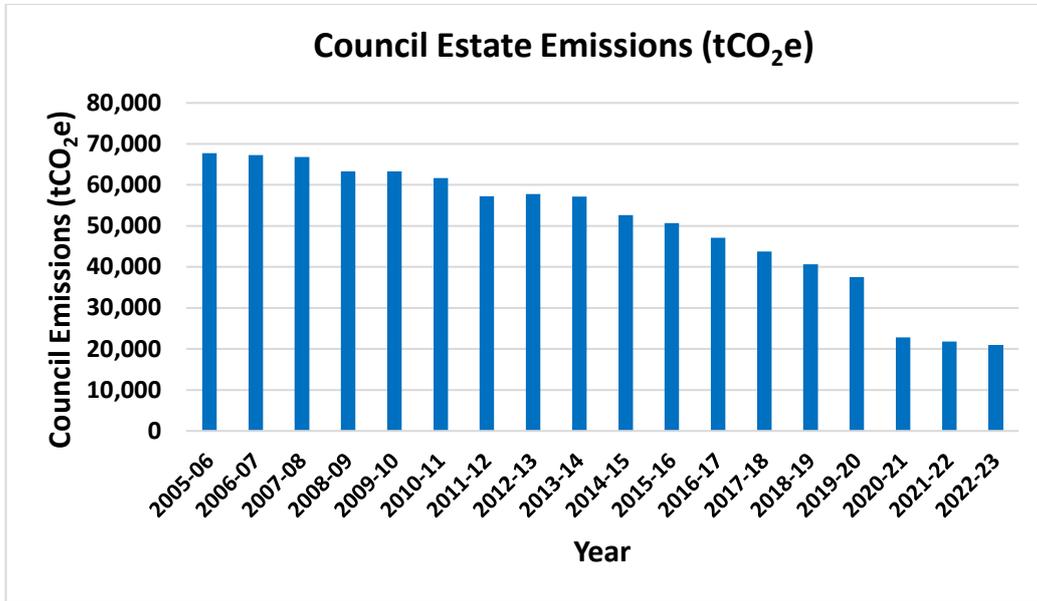
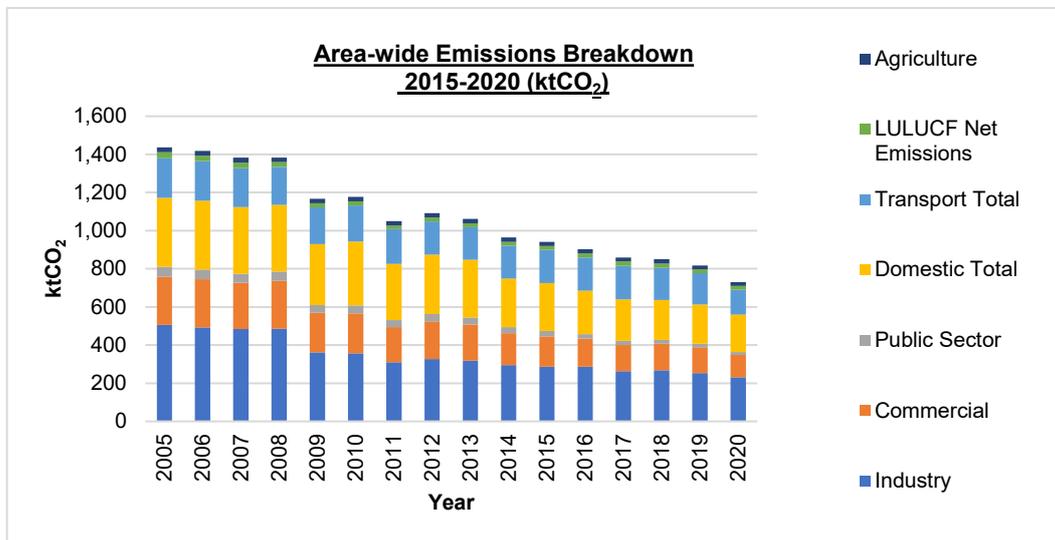


Figure 2 – Area-wide emissions by sector



## Engagement

A series of stakeholder engagement sessions have been held to hear the views of local communities, young people and businesses on climate change. We used the mini-enquiry model to engage with each locality in North Ayrshire, as well as an online questionnaire, Primary 7 Council workshop, and a Climate Change Steering Group online workshop. Views were sought in the main on the following questions:

1. What does climate change mean to you?



## Where do we want to be?

We aim to achieve net-zero carbon emissions and halt biodiversity loss 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
- Implementing methods to remove carbon dioxide (CO<sub>2</sub>) from the atmosphere, and
- Following the draft Scottish Biodiversity Strategy targets and milestones.

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.

The yearly milestones below provide an indication of the level of area wide emission reduction required in order to achieve our 2030 target.

Figure 5: Forward projection of area wide emissions

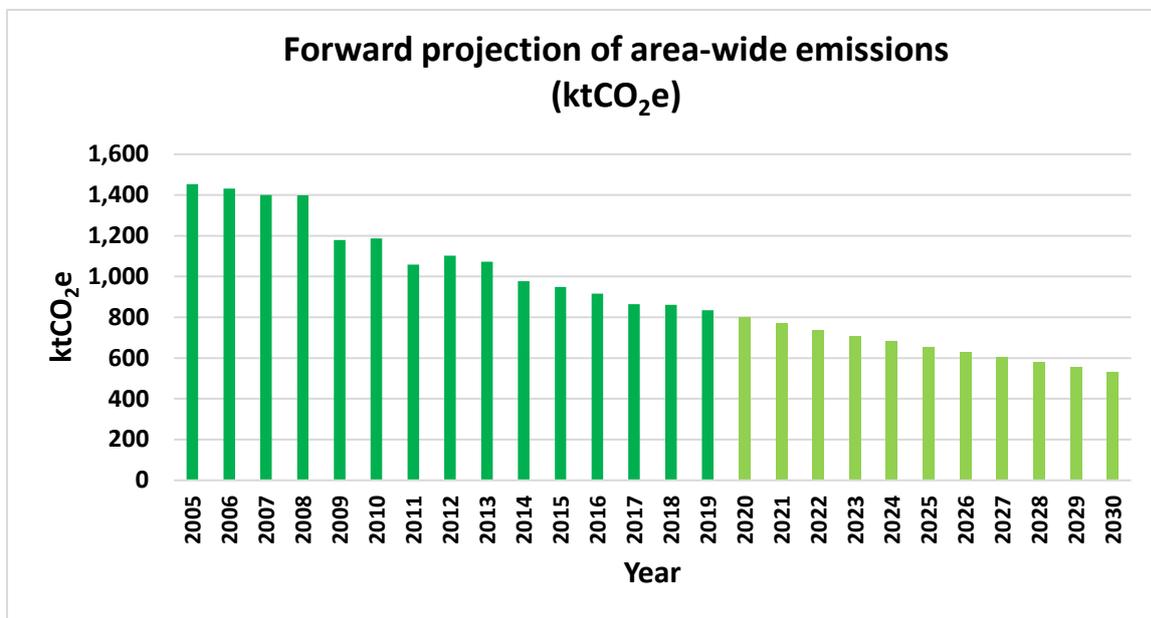
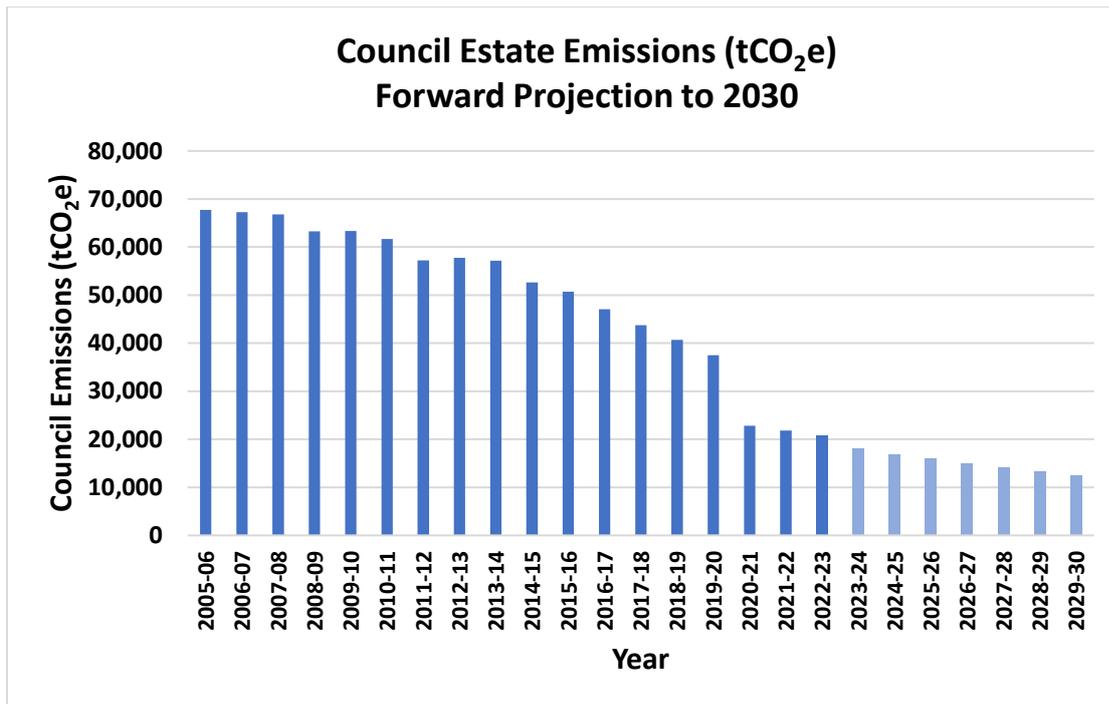


Figure 6 below shows the forward projection for Council estate emissions, based on a 6% reduction each year until 2030.

Figure 6: Forward projection of Council estate emissions



## How do we get there?

Working together to maximise access to resources, best practice and co-benefits of action on climate change is our best chance of achieving net zero emissions and halting biodiversity loss across North Ayrshire. We will use the following nine strategic principles to guide this next stage of the journey to net zero:

### The nine strategic principles.

1. We will take a whole system approach (including behaviour change) to tackling climate change as far as possible, including identification of optimal approaches to achieve social and economic benefits alongside environmental ones.
2. We will continue to clarify and report transparently on our emissions so that the North Ayrshire emissions baseline is clearly understood.
3. We will complete a Local Heat and Energy Efficiency Strategy to help understand where efforts to reducing emissions and reducing fuel poverty are best focused.
4. We will prioritise actions in relation to two of the biggest emissions sources where have the most influence, commonly referred to as 'heat and fleet', including through project pathfinder approaches for decarbonisation of domestic and non-domestic buildings and vehicles to bring scale and pace to emissions reduction.
5. We will work with stakeholders, including the Scottish Government, to articulate the potential costs and skills requirements to meet our net-zero aspirations.
6. We will expand on the need for adaptation measures, recognising mitigation alone will not combat the impacts of climate changes on communities.
7. We will identify opportunities for expansion of carbon sinks and other carbon capture technologies, which are expected to be an essential element of our net-zero strategy to mitigate residual emissions by 2030.
8. We will seek to expand the remit and membership of the CCSG to enable us to work more closely with communities, taking account of outcomes from recent projects such as Climate Action Towns and Carbon Neutral Islands.
9. We will explore the potential for carbon accounting, including carbon budgets for Council services, to support our journey to net-zero.

Based on our current emission reduction trend data, we aim to reduce North Ayrshire area wide emissions by a further **269 ktCO<sub>2</sub>e** by 2030. For the Council's own estate emissions, we are aiming to reduce by a further **8,465t CO<sub>2</sub>e** by 2030. The residual emissions (533 ktCO<sub>2</sub>e area wide, and 12,431 tCO<sub>2</sub>e for the Council's estate) would then be sequestered.

There are key actions listed under each workstream later in this strategy document to achieve the carbon reduction needed. Figure 7 provides an overview of the highest contributing projects:

Figure 7: Summary of main carbon reduction actions

<b>Area-wide</b>	<b>Anticipated CO<sub>2</sub> reduction</b>
The Local Heat and Energy Efficiency Strategy looks to reduce emissions through the transition to heat pumps in suitable properties, and installing energy efficiency measures.	Estimated potential: 168ktCO <sub>2</sub> e/year
<b>Council Estate</b>	
Developing two solar PV farms with a total installed capacity of 12MW	859tCO <sub>2</sub> e/year
Decarbonisation of Council fleet by replacing fossil fuelled vehicles with electric passenger vehicles and small vans	TBC
Decarbonisation of heavier fleet through the introduction of Hydrotreated Vegetable Oil	TBC
Decarbonisation of buildings by 2038 using the Green Growth Accelerator study.	Up to 4,500tCO <sub>2</sub> e/year

There is also an action recorded to undertake a study to understand the sequestration capacity and future requirements to meet net zero on our area wide emissions.

Whilst these and the actions identified under each workstream aim to support the objectives of the strategy, there are other actions to be managed through the use of Sustainable Scotland Networks' Carbon Footprint and Project Register Tool. The tool acts as a dynamic delivery plan that can be added to at any point throughout the period of this strategy. The project register will help to quantify carbon savings from projects and monitor their progress and impact.

In addition, the Council will consider the use of SSN's recently published Climate Change Impact Assessment (CCIA) to ensure climate change is at the heart of decision-making process.

## Workstreams

We have established five workstreams to drive our action on climate change and the nature emergency, using the momentum of the previous ESCCS 3, and consolidating to make the climate change conversation more accessible. Each of these workstreams will be used when engaging with our communities so that we can be clear about the links between climate change and day-to-day living.

In addition, Community Wealth Building feeds through each of these workstreams, which is essential to maximise the opportunities that are presented by investment and to achieve a just and fair energy transition and a wellbeing economy. This approach will contribute to creating an economy that works for people and the planet and delivers social, economic and environmental justice for all.

Each workstream also has a behaviour change lens, as significant reductions in emissions can come from simple changes, for example using a reusable water bottle or committing to engaging in active travel one day per week as opposed to using a car.

The workstreams are as follows:

- Energy
- Nature
- Transport
- Waste
- Adaptation

## Workstream 1 – Energy

This workstream will focus on reducing emissions and encouraging low carbon behaviours in relation to energy use.

It is vital that we consider energy in a new way and reduce our reliance on fossil fuels. Generating energy from renewable sources, be that electricity or heat, will produce less carbon emissions and help limit global temperature increases.

Utilising assets to maximise renewable energy generation, from using roof space on a building to generate renewable energy, to the heating choice for a home, is part of the solution to tackle climate change. We will consider the use of emerging smart technology to maximise the deployment of renewable energy, for example the potential of battery storage and intelligent management systems in homes, where renewable energy can be generated and optimised.

We must also consider the role of distributed energy, to maximise the environmental benefits of generating energy closer to where it is being used, for example, using heat that would otherwise be wasted, or reducing the losses from electricity as it travels to the point of use. Supporting community organisations to generate renewable energy is a key action that we wish to support.

The available capacity of the existing electricity network is limited, which presents challenges in terms of connection capacity, cost and timescales. We wish to continue to work closely with our local distribution network operators to support the transition to local renewable energy.

The cost-of-living crisis has exacerbated the major challenges of fuel poverty and access to affordable warmth across North Ayrshire. It is essential we access all funding streams available to support residents and increase energy efficiency in homes, to make heating them more affordable. Such action links directly to promoting wellbeing, a key priority within our Council Plan.

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. The Net Zero Accelerator programme delivered by the Council's Business development team is an example of this. We want to ensure that we maximise the opportunities to build a green economy in North Ayrshire.

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 continues to be made to advance the Climate Emergency agenda and move closer to achieving net-zero emissions.

## Achievements so far

- We are developing our first solar PV farms on Nethermains and Shewalton former landfill sites. This aims to generate over 12MW of new clean, green electricity to support the local grid and reduce carbon emissions.
- The Energy Smart programme is supporting households through the cost-of-living crisis with emergency support payments, energy efficiency advice in partnership with the Energy Agency, and low-cost energy efficiency measures for households.
- In 2022, 26,380 tonnes of kerbside residual waste was diverted from landfill and converted into low carbon energy.
- Our first Local Heat and Energy Efficiency Strategy and Delivery Plan is being developed, identifying areas suitable for heat networks and improved energy efficiency.
- Development of a pan Ayrshire Energy Masterplan, providing insight into the energy demand and investment needed to achieve region wide net zero.
- Primary School Energy Lessons have been delivered to 19 classes, furthering the role out of carbon literacy and engaging young people in the climate conversation.
- The Community Net Zero Fund has been launched, providing financial support to charitable organisations considering renewable energy technology.
- The Green Jobs Fund has supported over £1.14m of investment into 65 businesses to enable a range of sustainability related measures. This includes a North Ayrshire cohort of the Net Zero Accelerator programme for 17 businesses.

## Future Actions

Action Ref	Action	Lead
E.1	Commissioning of two new solar farms at Shewalton, Irvine, and Nethermains, Kilwinning.	Sustainability
E.2	Development of other municipal renewable energy projects, including at i3, Irvine.	Sustainability
E.3	Publish and implement the Local Heat and Energy Efficiency Strategy and Delivery Plan.	Sustainability
E.4	Completion of the Energy Masterplan for Ayrshire, in partnership with East Ayrshire Council, South Ayrshire Council and Scottish Enterprise.	Sustainability
E.5	Administration of the Community Net Zero Fund to support community energy regeneration.	Sustainability/Connected Communities
E.6	Administration and further development of the Energy Smart programme to provide low carbon advice and physical measures to reduce emissions and improve affordable warmth.	Sustainability
E.7	Develop Community Climate Actions Plans for each locality, building on the Climate Action Town Stevenston project.	Sustainability/Connected Communities
E.8	Support the delivery of the Carbon Neutral Islands project, and wider Arran Local Island Plan and Cumbrae Local Island Plan.	Sustainability
E.9	Develop a programme of Carbon Literacy Training for communities.	Sustainability
E.10	Completion of programme of energy lessons within schools.	Sustainability

E.11	Implementation of decarbonisation measures within our building estate as identified through the Green Growth Accelerator report.	Sustainability
E.12	Implement a range of energy efficiency and decarbonisation measures across Council housing stock to meet EESSH2 requirements.	Sustainability
E.13	Prepare proposals for external funding, e.g., Scottish Public Sector Heat Decarbonisation Fund.	Sustainability
E.14	Support local businesses on their journey to net zero and continue the implementation of the Net Zero Accelerator.	Business Development
E.15	Prepare a new Carbon Footprint and Project Register to manage carbon emission reduction and sequestration projects, embedding a data driven approach to the journey to our net-zero 2030 target (see Appendix 1).	Sustainability
E.16	Explore the use of Sustainable Scotland Networks' Climate Change Impact Assessment tool.	Sustainability

## Workstream 2 – Nature

It is widely recognised that we are also experiencing a nature crisis.

Biodiversity refers to the variability among living organisms within terrestrial, marine and aquatic ecosystems and the ecological complexes they are part of.

Nature includes biodiversity, the relationship between humanity and nature, and the natural elements of our landscapes and seascapes.

Nature and biodiversity loss speeds up climate change and the changing climate feeds biodiversity loss. Scotland now only has half the biodiversity it had in the 1940s. We must take action now.

The Scottish Government are consulting on the new Scottish Biodiversity Strategy which sets out a nature positive vision for Scotland, with a target of halting biodiversity loss by 2030 and reversing declines by 2045.

Figure 6 shows a timeline from 1970 to 2045. It starts with images of how land and sea was used in the 1970s. It is the aim the new strategy that by 2045, Scotland will have restored and regenerated biodiversity across our land, freshwater and seas.

Figure 6: A nature positive Scotland



The National Planning Framework (NPF4) aims to tackle the global climate emergency. This will involve reducing greenhouse gas emissions and adapting to the future impacts of climate change. NPF4 acknowledges the links between the climate change and the biodiversity crisis:

“Proposals for local development will include appropriate measures to conserve, restore and enhance biodiversity, in accordance with national and local guidance”.

NPF4 directs our next Local Development Plan (LDP3) to protect, conserve, restore and enhance biodiversity which means that any new development should secure positive effects for biodiversity. LDP3 will also facilitate the creation and strengthening of nature networks, improving connections between them to support improved ecological connectivity and promote nature recovery and nature restoration across the development plan area.

North Ayrshire has outstanding coastal and rural landscapes, and quality urban green spaces. There is an important role in supporting sustainable, nature based tourism to support our shift to a green economy.

#### Achievements so far

- The North Ayrshire Biodiversity Partnership has been strengthened, meeting regularly to participate in North Ayrshire’s response to the climate and nature crisis. The partnership enables members to share information, support each other and participate in the shaping and delivering of biodiversity actions in their own communities.
- The initial stages of a Local Nature Conservation Sites review has been completed for mainland North Ayrshire. The review of sites has been subject to public consultation and feedback from the Biodiversity Partnership is being used to inform and improve the delivery of the second phase of the LNCS review which will involve sites on the Isle of Arran.
- A Biodiversity i-Learn module has been created, for use by Council employees, and members of the Biodiversity Partnership. The module focusses on raising awareness and compliance of our Biodiversity Duty, and to mainstream awareness of the Climate and Nature crisis across all services. The module has been created in

collaboration with other local authorities, to share resource and promote best practice.

- Work has begun on delivering the Scottish Government’s Nature Network strategy. Delivery of the North Ayrshire Nature Network has been highlighted as a priority by the Scottish Government and is the primary focus of Nature Restoration Fund spending.
- The Local Biodiversity Action Plan 2019-2031 continues to be implemented however will require to be updated following the outcome of the Scottish Biodiversity Strategy consultation.
- The Council’s large-scale woodland tree planting programme aims to plant 108,000 trees, providing a range of social, economic, and environmental benefits, including the carbon sequestration required to meet our net zero ambition by 2030. So far over 20,000 trees have been planted, with a particular focus on a woodland area at Lochshore Park as part of the wider regeneration masterplan.
- North Ayrshire’s 2030 Woodland Grant Fund has been developed to assist constituted groups to deliver tree planting projects at grass roots community level.

#### Future Actions

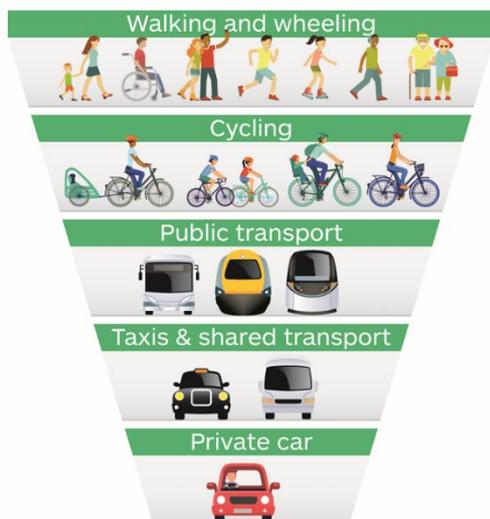
Action Ref	Action	Lead
N.1	Complete the Local Biodiversity Action Plan review to align with forthcoming Scottish Biodiversity Strategy targets,	Sustainability
N.2	Identify and complete Nature Restoration Fund projects to support the Nature Network strategy.	Sustainability
N.3	Complete a biodiversity audit for North Ayrshire.	Sustainability
N.4	Undertake a Local Nature Conservation Sites review for Arran.	Sustainability
N.5	Implement Nature Networks throughout North Ayrshire as far as possible.	Sustainability
N.6	Implement the 2030 Woodlands: A tree planting strategy, and engage with Scottish Forestry as part of our climate change work.	Streetscene/Sustainability
N.7	Complete a comprehensive study to understand the carbon sequestration capacity and future potential of our natural assets.	Sustainability
N.8	Support the Local Development Plan to align with the positive biodiversity ambition of the National Planning Framework 4 (NPF4).	Planning
N.9	Continue to support the increase in local food production.	Connected Communities
N.10	Continue to support food provenance and maximise the use of locally grown food through the actions within the North Ayrshire Food Growing Strategy.	Connected Communities
N.11	Support the repurposing of vacant and derelict sites through the Repurposing Property Grant Fund and Communities and Place Fund.	Regeneration
N.12	Maximise the potential for sustainable regenerative and nature based tourism opportunities as part of the Ayrshire Regional & Visitor Economy Strategy and the Council’s annual Visitor Management Plans.	Sustainability/Growth & Investment

## Workstream 3 – Transport

Transport is the largest contributor to harmful climate emissions in Scotland and so we must consider ways to support more active and low carbon methods of travel.

Scotland’s National Transport Strategy promotes walking and wheeling, cycling, public transport, car and ride sharing in preference to single occupancy car use.

### Prioritising Sustainable Transport



We are keen to support the decarbonisation of transport, whilst promoting the environmental and health benefits of alternative methods of transportation.

Prioritisation of Active Travel is one key element. There are many benefits of walking and cycling other than the reduction of carbon emissions, and reduced traffic. The co-benefits of physical and mental health are widely recognised and championed through our Green Health Partnership.

The Scottish Government has also set targets to phase out the need for any new petrol and diesel light commercial vehicles by 2025.

The Council’s fleet currently consists of over 500 vehicles and plant and a key part of our

decarbonisation journey will be to assess the need for travel, rationalise our current fleet, and switch to low carbon alternatives.

The Transport theme also includes the transportation of goods, therefore consideration of the procurement of goods and services will be an increasing focus.

### Achievements so far

- In May 2023, Cabinet approved our first Decarbonisation of Fleet route map and a working group has been established to manage the direction of the decarbonisation work.
- The new Local Transport and Active Travel Strategy aims to promote social inclusion by connecting communities to facilities and services, and to minimise the environmental footprint of transport services. The new strategy refers to all types of transport, including walking, wheeling, cycling, bus, rail, ferry and car and considers how to integrate these types of transport to make travel by several modes easier for all.
- In order to support the uptake of electric vehicles (EVs), we have installed 32 public EV charging stations across the authority, while there are 33 privately installed chargers, in public places.
- We are participating in Transport Scotland’s EV Charging Infrastructure Investment pathfinder project in conjunction with Scottish Futures Trust, East Ayrshire Council and South Ayrshire Council. The aim is to install an additional 307 EV charge points throughout Ayrshire, utilising private sector investment. It is important to us that the EV Infrastructure network is equitable – it should work for everyone.

### Future Actions

Action Ref	Action	Lead
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T.1	Progress the Council's fleet decarbonisation route map	Transport
T.2	Install additional workplace chargers to further electrify the Council's fleet	Sustainability
T.3	Consider use of Hydrotreated Vegetable Oil (HVO) in heavy fleet to reduce emissions	Transport
T.4	Progress Ayrshire EVCI Pathfinder project to support a just transition to EVs.	Sustainability
T.5	Undertake a review of EV Strategy with reference to the Ayrshire EVCI pathfinder.	Sustainability
T.6	Progress Community Transport pathfinder proposals.	
T.7	Achieve 2km (2,000 metres) of active travel infrastructure per year in North Ayrshire.	Regeneration
T.8	Consider the ongoing role of digital technology in contributing to the avoidance of travel journeys.	Sustainability

## Workstream 4 – Waste

Scotland's Zero Waste Plan aims to make the most efficient use of resources by minimising our demand on primary resources, and maximising the reuse, recycling and recovery of resources instead of treating them as waste.

The Plan sets a target to achieve an overall recycling and composting level of 70% and a maximum 5% to landfill for the total Scottish waste arisings by 2025. The Council's current Zero Waste Strategy has been successfully working towards supporting this national target.

The draft Circular Economy (Scotland) Bill has been developed to make steps towards creating a circular economy in Scotland. A circular economy aims to turn all wastes into a resource by reintroducing them into the production cycle. The draft Bill includes the ability for Scottish Government to set statutory targets for Scottish local authorities. This coupled with the implementation of the national Deposit Return Scheme, will impact the next iteration of North Ayrshire's Zero Waste Strategy.

We currently operate four household waste recycling centres, in Kilbirnie, Largs, Irvine and Brodick, and we also operate a waste transfer station in Irvine and Brodick. We have two closed landfill sites that are monitored at Shewalton and Nethermains in Irvine.

Our Waste Awareness Team provides guidance to households, businesses, schools and community groups, encouraging recycling and sharing information about the environmental impacts of waste, resource efficiency, and the Zero Waste challenge.

As with all aspects of tackling climate change, community participation is key. The Council's Streetscene department provides litter picking equipment under the 'Adopt-a-Spot' initiative, for community organisations to arrange voluntary litter picking sessions in their local area.

### Achievements so far

- We continue to be one of the top performing local authorities for household recycling rates in Scotland, at 55.3%.
- We established a 25-year contract for the 'energy from waste' treatment of our non-recyclable waste as part of the Clyde Valley Residual Waste Partnership via Viridor.
- Development and implementation of a corporate Single Use Plastic strategy, in order to minimise the use of single use plastics across the organisation.
- In partnership with Streetscene, the volunteer group 'Irvine Clean Up Crew' have won Keep Scotland Beautiful's 'Beach Award' status for Irvine Beach. This is largely down to the litter management strategy in effect.

- In June 2023, Climate Change Ambassadors have worked with the Three Towns Clean-Up crew to host their first community litter-picking session of the season at Ardrossan South Beach where over 21 bags of litter were collected.

#### Future Actions

Action Ref	Action	Lead
W.1	Develop the new Zero Waste Strategy in line with Scottish Government route map.	Waste
W.2	Building on the new Zero Waste strategy, support businesses to enhance innovation and reduce waste through working with partners to develop a circular economy approach.	Business Development
W.3	Implement actions within new Waste strategy.	Sustainability
W.4	Continue to implement the Single Use Plastic Strategy	Waste
W.5	Investigate the feasibility of a green hydrogen generation project using landfill gas, through the Energy Technology Partnership.	Sustainability

### Workstream 5 – Adaptation

Adaptation is actions that reduce our vulnerability to the effects of climate change by managing the impacts. These effects can be from flooding or heavy rainfall, coastal erosion due to sea level rise, disruption to building use, energy supply, transportation and communication. These extreme weather events can also impact our health and well-being.

It means preparing for the impacts on climate change which cannot be avoided. Adapting to climate change will still be required, even if we manage to cut our carbon emissions. This is because historic emissions have already changed our climate and will continue to do so. The change in climate affects us all.

Adaptation gives us the ability to anticipate and prepare how we will respond to harmful climate change events. By improving our resilience this will allow us to take steps to cope better with climate related risks. By putting in place solutions now, they will have a positive effect on our climate today and in the future.

#### Achievements so far

- The Flood Risk Management Plan is an example of the importance of adaptation actions. The development of the dam in Upper Garnock and Coastal Flood Protection improvements in Millport will help avoid or reduce flood risks in these vulnerable areas and allow communities to prepare for flooding. We are also progressing the Largs Seawall Replacement Project.
- The Ayrshire Shoreline Management Plan helps the Council oversee the erosion and flooding of North Ayrshire coasts. It helps us manage the risks to people and the natural environment.
- The Council has been supporting the Climate Action Town, Stevenston project, which is being led by Architectural and Design Scotland. Stevenston is one of nine Scottish towns taking part. The project looks at the challenges and opportunities for communities to tackle climate change by implementing adaptation actions.
- We have also undertaken our first internal Adaptation Assessment with support Adaptation Scotland. The Assessment has provided a baseline for improvement, which will be acted on throughout the period of this strategy.

## Future Actions

Action Ref	Action	Lead
A.1	Implement Adaptation Scotland's Framework for a Climate Ready Public Sector.	Sustainability
A.2	Undertake actions identified through annual assessments.	Sustainability
A.3	Develop and deliver the Flood Protection Scheme for Great Cumbrae.	Roads
A.4	Develop and deliver the Mill Burn Flood Alleviation Scheme in Millport.	Roads
A.5	Undertake coastal studies for Stevenston and Irvine beaches, to identify soft engineering methods to manage coastal erosion as promoted by the Shoreline Management Plan.	Roads

## Governance

The Council's Climate Change Steering Group (CCSG) comprises a range of representatives from the Council, wider public sector partners and local businesses.

The CCSG will continue to receive updates on SNA implementation regularly, and act as a sounding board for new projects to be added to the Carbon Footprint and Project Register (see Appendix 1).

In addition, reporting on emissions performance will be included as part of six-monthly Council Plan updates, alongside annual submission of our Public Bodies Climate Change Reporting Duty return.

