



Scotland's Changing Climate – Midlothian's Climate Change Strategy

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Foreword

Foreword by Councillor Russell Imrie:

"Mitigating the impacts of climate change, reducing the burden on the planets natural resources and creating an environment where people can live free from the damage of pollution is not just the responsibility of governments, business and individuals but also local government. And for the benefit of our environment and our communities Midlothian Council shall take the lead in setting an example in how it operates and delivers its services in a way that they do not cost the earth. We will work in partnership with local communities through the Community Planning Partnership Board who have also committed to the ambition of being carbon neutral by 2030. We acknowledge that in response to declaring a climate emergency we have to work and think differently - the Council has started this process by adopting the Midlothian Route Map, in response to the current public health crisis, at its meeting of June 2020 with the ambition of delivering a 'green' economic recovery. Together we can make a difference"

"Right now we are facing a man-made disaster of global scale. Our greatest threat in thousands of years, Climate change", *David Attenorough, Broadcaster and naturalist.*

"Our obligations to the next generation are the most important that we carry. A few weeks ago, I met some of the young climate change campaigners who've gone on strike from school to raise awareness of their cause. They want governments around the world to declare a climate emergency. They say that's what the science tells us. And they are right. So today, as First Minister of Scotland, I am declaring that there is a climate emergency. And Scotland will live up to our responsibility to tackle it". *Nicola Sturgeon, Scottish First Minister, SNP conference 28 April 2019*

"Scotland has declared a global climate emergency and now Scotland must act as one to safeguard our planet for future generations". *Roseanna Cunningham, Climate Change Secretary*

Executive Summary

The Council declared a climate emergency in December 2019 and stated its ambition to achieve Net Zero Carbon status by 2030. A key component of the declaration is the establishment of a Citizen's Assembly to engage the community and business sectors and forge a partnership for change. The strategy acknowledges the Councils intent, reinforces the urgency for action and emphasises the necessity for change to mitigate and adapt to the impacts of climate change and global warming.

The Covid-19 pandemic necessitated an emergency response form the Council. It has brought about substantial organisational change across the Council in a very short period of time. The Council's "Route Map" out of Covid-19 identifies "Digital by Default" as one of its key priorities. It supports continuing the practice of working from home (introduced because of Pandemic) and promotes a carbon neutral approach to the workplace. New Emissions legislation (October 2019) commits the Scottish Government to achieving Net Zero Carbon status by 2045. This puts into context the scale of the challenge facing the Council and the transformational nature of the change required to achieve our 2030 target.

The strategy sets out a clear vision and set of objectives, to highlight what we can, and must do to combat climate change and highlights some of the challenges to achieving this. It focuses on a number of themes including Energy Efficiency; Recycling & Waste; Sustainable Development; Sustainable Travel; Business Processes; Carbon Management; Governance & Management; and Risk. The themes provide a framework for action but also contain a number of commitments - some reflecting existing strategies and plans and others promoting best practice. They complement the targeted actions of the Action Plan and include a commitment to:

- establish a Climate Change Citizens' Assembly;
- raising awareness of climate change and promoting individual and collective action to combat it and make Midlothian "A Great, Green Place to Grow"
- using green energy to heat and light our estate buildings, making them as energy efficient as possible;
- increasing our recycling rates and reduce waste;
- expanding our electric and ultra low carbon vehicle fleet;
- adopting the Passivhuas building standard and incorporating "green" and "blue" infrastructure as standard design principles for new development;
- investiagte the feasibility of Zero Carbon Development Zones;
- delivering the Shawfair low carbon community heating system and investigating options to develop heat networks across the County;
- accelerating development of the Midlothian Active Travel network including cross-boundary connections for longer distance commuting and leisure routes; and
- accelerating organisational change to extend home working and reduce the need to travel to work.

For the first time the strategy is accompanied by an Action Plan. In addition to the commitments in the strategy, the Action Plan sets out a series of short term (2 - 3 years), cross service actions designed to kick-start change and build momentum towards our net zero goal by 2030. It is not an exhaustive list by any means but it is designed to be an iterative process and reviewed and updated annually. The newly constituted Climate Change Board will oversea this process, the preparation of a new Carbon Management Plan and the Public Bodies Climate Change Duties annual reports.

The strategy and Action Plan have been published together and should be read as one document. The strategy is an iterative process and will change over time. It sits alongside existing plans and strategies which in their own right contribute to combating climate change.

1. Introduction and Content

1.1 Governments and international organisations and institutions accept the science of climate change and the impact climate change is having across the world. The Kyoto Protocol of 1997 and Paris Agreement of 2016 introduced a commitment by Nations to reduce greenhouse gas emissions and restrict the rise in global average temperatures to well within 2.0°C (1.5°C if possible) above pre-industrial levels. Subsequent legislation at EU and national level in the UK and Scotland ⁽¹⁾ reinforce this commitment.

1.2 The declaration in April 2019 by the Scottish Government of a "Climate Emergency", based on the latest Intergovernmental Panel on Climate Change ⁽²⁾ report and the UK Committee on Climate Change ⁽³⁾ report (both 2019), brings into sharp focus the scale of the problem and the urgency for action. If there is no further action on climate change then we will reach the predicted 1.5°C increase in global temperature by 2040. Climate change is an international crisis that affects everyone. The success or otherwise of global action depends on changes made locally, not just by government but by businesses, schools, communities and individual members of the public, which cumulatively can make that essential difference. Urgent and immediate action is necessary within the next ten years if momentum for change is to be achieved and maintained.

1.3 In December 2019, Midlothian Council agreed to declare a "Climate Emergency" that requires urgent action. The declaration seeks to make the Council's activities net-zero carbon by 2030 and makes a commitment to support and work with others to achieve this. This includes the establishment of a Citizens Assembly and Climate Change Partnership, amongst other commitments, to promote an inclusive approach to engage the wider Midlothian community, particularly young people.

1.4 This strategy replaces the one prepared by the Council in 2014. It seeks to build on progress to date and co-ordinate effort and focus on actions and outcomes that make a direct and immediate impact on reducing our carbon footprint in the next five years and in subsequent years to reaching the target of becoming net-zero carbon by 2030. While it concentrates primarily on the Council's estate and operational activities it also seeks to lead by example and to encourage its employees and members of the public and business community to make a commitment to change and a commitment to stop contributing to climate change.

1.5 The scale of the challenge, the commitment required to change behaviours, practices and processes as well as the investment required to "stop contributing to climate change" cannot be underestimated and the necessary resources to make this happen also cannot be underestimated and must be prioritised if we are to be successful and ensure a bright future for generations to come.

1.6 The Covid-19 pandemic initiated an emergency response from the Council in terms of changes to its service delivery and working practices. As we emerge from the Covid-19 lockdown period one of the unintended consequences of the pandemic may be to accelerate the pace of organisational change necessary to achieve our target of Net Zero Carbon by 2030.

2. Profile of Midlothian

2.1 Midlothian is a relatively small local authority covering an area of 355 square kilometres or 35,500 Hectares and forms part of the Edinburgh City Region. The population is expected to rise from 92,460 ⁽⁴⁾ to 103,945 ⁽⁵⁾ by 2028 due to planned growth and it is currently the fastest growing

2 The IPCC was created by the World Meteorological Organisation to provide Governments at all levels with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation

- 4 National Records of Scotland Mid-2019 Population Estimates
- 5 National Records of Scotland Population Projections for Scottish Areas (2018-Based)

¹ European Climate Change Programme, Climate Change Act 2009, Climate Change (Scotland) Act 2009

³ The UK CCC is an independent, statutory body established under the Climate Change Act 2008

local authority area in Scotland. Approximately 7% of the area is urban and 93% is rural comprising countryside, green belt, agriculture land, forestry and protected environmental designations. The principal population centres are mostly located across the northern half of the County (except Penicuik) and all are within a 30 minute drive time from Edinburgh.

2.2 Midlothian borders Edinburgh to the north, East Lothian to the east and the Scottish Borders to the south. The Pentland Hills forms its boundary to the west. Road and rail connections (A702, A701, A7, A68, A720 and Borders Rail) provide direct links with Edinburgh City to the north and Scottish Borders and north east England to the south. The A720 Edinburgh City Bypass forms much of the boundary between Midlothian and Edinburgh and provides east/west connections with East Lothian, west Edinburgh and beyond. The close proximity of Edinburgh results in a strong employment and cultural attraction to the City resulting in a high level of out commuting.

3. Legislation

3.1 Midlothian was an early signatory to the Scottish Government's Climate Change declaration in 2007. This was a voluntary agreement that committed the Council to working with the Scottish and UK Governments to help reduce greenhouse gas emissions, taking steps to adapt to the impact of climate change, and working with communities on the issue.

3.2 On 31 October 2019 The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 became law. It amends the legislative framework for climate change action in Scotland ⁽⁶⁾ by setting new mandatory targets to reduce Scotland's emissions of all greenhouse gases ⁽⁷⁾ to Net Zero by 2045. It also sets interim targets of at least 56% reduction in 2020, 75% by 2030 and 90% by 2040⁽⁸⁾ to support the transition to a sustainable low carbon economy. These new targets give Scotland some of the most stringent statutory targets in the world and if achieved, its contribution to climate change will end within a generation.

3.3 The legislation maintains an obligation on public bodies to exercise their functions "in a way that it considers is most sustainable", and in a way best calculated to contribute to delivering the emissions reduction targets and any statutory programme for adapting to a changing climate. Secondary legislation ⁽⁹⁾ requires local authorities and other major public bodies to report to Scottish Ministers each year (in November) on their estate and operational activities demonstrating compliance with their climate change duties.

3.4 In light of the climate emergency, the Single Midlothian Plan has adopted a new sustainable growth outcome to be an 'earth friendly' partnership, resource aware and committed to working to support Scotland's net zero carbon ambition by 2045 (2030 in Midlothian). and prioritises the following climate change specific actions:

- establish a Climate Emergency group in the Midlothian Community Planning Partnership;
- investigate a Sustainable Growth Agreement (SGA) between Midlothian Council and SEPA;
- investigate identifying tree coverage on community planning partners land using appropriate software.
- **3.5** Each of these actions seek to mitigate and adapt to climate change.

3.6 The principle of sustainable development underpins the Midlothian Local Development Plan 2017 (MLDP) which contains a number of policies and proposals designed to support and deliver a future land-use strategy for Midlothian. The accompanying MLDP Action Programme monitors the

⁶ The Climate Change (Scotland) Act 2009

Carbon Dioxide, methane, nitrous oxide, Hydrofluorocarbons, Perfluorocarbons and Sulphur hexafluoride
Targets are informed by the findings and advice of the UK Committee on Climate Change (CCC) and
calculated from a baseline year of 1990

⁹ The Climate Change (Duties of Public Bodies Reporting Requirements) (Scotland) Order 2015

progress and impact of implementing the plan. The MLDP was adopted in 2017 and should be reviewed before 2022 (although this will be subject to change following the adoption of the Planning (Scotland) Act 2019). The Single Midlothian Plan will be updated next year (2021). The new Planning (Scotland) Act 2019 seeks to align community planning and land use planning through the production of Local Place Plans.

Midlothian Council has complied with its reporting obligations since 2008/09 and remains committed to that obligation in future years. The review of the MLDP and introduction of Local Place Plans will provide a good opportunity to put climate change at the heart of land-use planning and policy and to work in partnership with local communities to this end.

4. Climate Change

4.1 Climate change is the outcome of greenhouse gases being released into the atmosphere, most notably from the burning of fossil fuels (such as coal, oil and gas) for energy generation, industry, transport and agriculture. The build-up of greenhouse gases in the atmosphere causes the Earth's temperature to rise, leading to climatic changes including less predictable weather patterns.

4.2 In Scotland climate change is likely to mean higher temperatures throughout the year, reduced rainfall in summer and increased winter rainfall, less snow and more unpredictable and extreme weather conditions, resulting in increased flooding, drought, wind damage and heatwaves. These effects are already becoming apparent, for example through increased incidence of flash flooding and changes in species distribution. As climate change impacts accelerate, risk of disruption to transport, energy and telecommunications services, as well as damage to buildings and other infrastructure, will also increase.

4.3 This general trend is currently effecting and will continue to impact on Midlothian residents. The latest Met Office climate projection data for Midlothian $(2018)^{(10)}$ estimates that under a mid-range carbon emissions scenario, summers will be 5% drier and winters 7% wetter compared to those in 1990. Both summer and winter days will, on average be 1°C hotter. Under a high carbon emissions scenario, summers will be 5% drier and winters 10% wetter compared to those in 1990. Both winter and summer days will on average be 1.5°C hotter.

4.4 Government data on greenhouse gas emissions by sector indicates that in 2018, Transport (including international aviation and shipping) was the largest source of emissions followed by business, agriculture and the energy supply sectors. The Land Use, Land Use Change and Forestry was the only sector in which emissions reduced (see table 1). The public sector represents a small fraction of overall emissions. Carbon dioxide was the main greenhouse gas emitted or removed in most sectors but there were emissions of methane, Nitrous oxide and Fluorinated gases recorded (albeit to a much reduced level in most cases) across most sectors. Only the public sector and industrial processes sectors recorded zero levels of these non-carbon dioxide greenhouse gases. It is Scotland's target to reduce all sector emissions to net zero by 2045.

Table 1 Scotland's Greenhouse Gas Emissions by Gas and Scottish Government Sector 2018 (values in metric tons of carbon dioxide equivalent (MtCO2e))e)

Sector	Total	% Share	Carbon Dioxide	Methane	Nitrous Oxide	Fluorinated Gases
Total	41.6	100%	30.9	6.3	3.2	1.2
Transport	14.8	35.6	14.7	0.0	0.1	0.0

10 The extent of future rise depends on the amount of greenhouse gasses the world emits. The low scenario is compatible with aims to limit global warming to below 2°C. The high scenario will likely require significant further adaptation

Sector	Total	% Share	Carbon Dioxide	Methane	Nitrous Oxide	Fluorinated Gases
Business	8.4	20.2	7.2	0.0	0.1	1.1
Agriculture	7.5	18.0	1.0	4.2	2.2	0.0
Energy Supply	6.8	16.4	6.3	0.4	0.1	0.0
Residential	6.2	14.9	6.0	0.1	0.0	0.1
Waste Management	1.7	4.1	0.0	1.6	0.1	0.0
Public Sector	1.1	2.6	1.1	0.0	0.0	0.0
Industrial Processes	0.5	1.2	0.5	0.0	0.0	0.0
Land Use, Land Use Change & Forestry	-5.4	-13.0	-6.0	0.0	0.5	0.0

Source - Scottish Greenhouse Gas Emissions 2018 - Estimates of greenhouse gas emissions in Scotland for the years 1990 to 2018, Scottish Government, an Official Statistics Publication for Scotland.

4.5 Emissions data for Midlothian indicates a similar trend to the national picture with transport being the largest source of CO₂ emissions followed by Industry and Commercial and domestic sectors (see table 2). Between 2005 and 2014 there has been a degree of fluctuation in total emissions but between 2015 and 2018 there has been a year on year reduction. However, Midlothian is the fastest growing local authority area in Scotland and much of that growth has come about in the last few years and principally as a result of major planned house building (Midlothian Local Development Plan 2017 (MLDP)) and inward migration. Over this period house completions have continued to rise and if this trend continues there is a chance that sectoral and/or total emissions may increase. The scale of housing and economic development identified in the MLDP up to 2027 will present a significant challenge in terms of reducing emissions given the consequential increase in population and associated energy, travel and consumption demands arising from this growth.

Table 2 Carbon Dioxide Emissions for Midlothian 2005 - 2018(values in kilotonnes of carbon dioxide
(ktCO2))

Year	Industry & Commercial (ktCO ₂)*	Domestic (ktCO ₂)	Transport (ktCO ₂)	Land Use, Land Use Change & Forestry (LULUCF)	Total (ktCO₂)	Population (000's)	(ktCO₂)
2005	163.5	203.6	147.9	14.8	529.8	80.1	6.6
2006	185.7	204.0	148.7	17.1	555.4	80.0	6.9

Year	Industry & Commercial (ktCO ₂)*	Domestic (ktCO ₂)	Transport (ktCO ₂)	Land Use, Land Use Change & Forestry (LULUCF)	Total (ktCO₂)	Population (000's)	(ktCO ₂)
2007	166.2	201.8	151.4	3.5	522.9	80.4	6.5
2008	172.1	204.2	147.0	1.8	525.1	81.5	6.4
2009	154.1	183.4	143.6	5.1	486.1	81.9	5.9
2010	169.2	198.0	141.8	10.9	519.9	82.4	6.3
2011	137.7	173.4	139.2	5.2	455.5	83.5	5.5
2012	166.4	186.0	135.1	-1.2	486.3	84.2	5.8
2013	162.5	181.8	133.4	12.0	489.7	84.7	5.8
2014	140.2	154.1	137.5	8.6	440.3	86.2	5.1
2015	127.7	151.4	139.8	6.2	425.1	87.4	4.9
2016	121.1	145.9	143.6	5.2	415.7	88.6	4.7
2017	115.3	137.2	149.9	3.9	406.3	90.1	4.5
2018	111.3	137.6	147.5	5.0	401.3	91.3	4.4

* includes emissions from agriculture.

Source - Department for Business, Energy and Industrial Strategy (DBEIS), 2020

4.6 The Council's 2019 Public Sector Climate Change report also reflected a reduction in CO₂ emissions across its estate and operations highlighting that:

- the Council's total emissions for 2018/19 were 16,290 tCO₂ which represents a reduction of 5,894 tCO₂ or 11% reduction from the previous year;
- the breakdown of emissions sources included Grid Electricity, Natural Gas and Gas Oil, water supply and treatment, Diesel and Petrol fuel;
- the Council consumed 17,815 kWh electricity generated from Gore Glen, Bilston and Roslin Primary Schools (9.149 kWh, 5.080 kWh and 3.586 kWh respectively);
- the Council identified fourteen carbon savings projects in the reporting year including three leisure centres, nine primary schools, one sheltered housing scheme and one resource centre; and
- the total carbon savings from energy efficiency projects identified in the report year was 407tCO₂e
 328tCO₂e from electricity (12 energy efficiency projects) and 29tCO₂e from Natural Gas sources (2 boiler replacement and energy efficiency projects)

5. The Climate Change Strategy

Vision

To become an earth friendly Council, resource aware and committed to working in partnership with others to achieve our net zero carbon ambition by 2030 and ensure that our actions today assist future generations to create a resilient and more sustainable future in Midlothian.

Objectives

Objectives

To make the Council's activities net carbon zero by 2030;

To establish a Citizens Assembly and Climate Change Partnership Group to engage the wider population, business, education and scientific sectors in the climate change debate;

To raise awareness about the impacts and risks from a changing climate;

To take a 'One Council' approach to reducing carbon emissions and putting this objective at the heart of our organisational activities, processes and decisions;

To encourage people, businesses and communities to work alongside the Council and make their own climate change commitment;

To lead by example and provide climate change leadership to our partners, communities and businesses.

To develop our resilience and ability to adapt to the impacts and risks of a changing climate; and

To monitor and publicly report our climate change progress

What Can Midlothian Do

5.1 The Climate Emergency declared in December 2019 identified a number of commitments designed to achieve net-zero carbon status by 2030 which are reflected in the strategy and Action Plan. As a public body the Council owns and manages land and property and a fleet of service vehicles, it delivers a range of statutory and non-statutory services/functions, it is a housing provider, a regulator, a purchaser of goods and services, a policy maker and it publishes a range of plans, strategies and programmes.

5.2 In the exercise of its duties and functions the Council can:

- ensure all its operational properties and facilities are as energy efficient as possible;
- ensure business operations and activities are conducted in a manner which stops contributing to climate change;
- choose to source its energy from green energy suppliers and take measures to reduce its overall energy consumption;
- reduce the amount of waste it produces and increase recycling rates;
- engender a spirit of collective responsibility amongst all staff to support the Council's climate change objectives;
- raise awareness of climate change and the need to change individual behaviours;

- promote active travel;
- increase its electric vehicle fleet and increase investment in charging infrastructure; and
- promote the decarbonisation of domestic and commercial energy supply via community heating networks at Shawfair and elsewhere.

5.3 Since publication of the 2014 strategy, the Council has committed to a number of actions, developed policies and published plans, programmes and strategies and has participated in a number of projects, initiatives and campaigns all related to climate change and sustainable development. These actions are spread across Council services and include, but are not limited to:

- using building energy efficiency measures;
- implementing a low energy street/traffic light replacement programme;
- developing an anaerobic digestion programme (food waste recycling);
- developing a recycling and energy recovery programme;
- establishing an electric vehicle fleet and charging infrastructure;
- publishing a Council Travel Plan and Active Travel Strategy;
- introducing a mileage allowance for work trips by bike; and
- awareness raising events/initiatives walk/cycle to work weeks, "Earth Hour"/"Watts Going Down" campaigns, tax free bike purchase scheme and recycling promotions.

5.4 This strategy seeks to balance short-term actions with longer term/ongoing commitments to combat climate change and advocates a "One Council" cross service response to ensure the Council can make its activities net zero carbon by 2030. A number of existing plans and strategies have been published which, if successfully implemented will contribute to the objectives of the climate change strategy. Some of these policy documents are listed in the table below.

Strategy, Policy, Programme	Contribution to Climate Change	Availability
Capital Investment Strategy 2020 – 2030	Acknowledges the need to respond robustly to the challenges of mitigating climate change and adapting to its impacts - focus on sustainable development, travel and transport (MLDP 2017 - 2027, Midlothian Council Travel Plan 2017 – 2021).	Accessible online.
Single Midlothian Plan 2020 - 2021	Acknowledges the climate emergency and adopts a new sustainable growth outcome - to be an 'earth friendly' partnership, resource aware and committed to working to support Scotland's net zero carbon ambition by 2045 (2030 in Midlothian).	Accessible online.
MLDP 2017 (+ Action Programme & range of Supplementary and planning guidance)	Promotes sustainable development, long- term development strategy for	Accessible online & at Council HQ and libraries.

Table 3 Existing Council Policy Documents

Vidlothian Council Climate Change Strategy - August 2020

Strategy, Policy, Programme	Contribution to Climate Change	Availability
	Midlothian, mitigates impact of development, phased implementation of development.	
Midlothian Council Travel Plan 2017 - 2021	Raises awareness amongst staff of need to reduce travel by car, promotes active travel and public transport, promote behavioural change to travel choices	Accessible online & at Council HQ and libraries.
Midlothian Active Travel Strategy	Promotes an Active Travel culture where walking and cycling become the normal choice for everyday journeys	Accessible online.
Midlothian Transport Strategy 2007 (under review)	To promote sustainable travel and develop an infrastructure network to encourage and increase walking, cycling and use of public transport.	Accessible online.
Midlothian Local Biodiversity Action Plan 2019	Supports the protection and enhancement of existing habitat and creation of new habitat through development	Accessible online.
Flood Risk Management Plan	Supports mitigation and adaption measures and improves resilience to climate change	Accessible online.
Strategic Housing Investment Plan (SHIP) 2019 - 2024	Promotes energy efficiency in all homes and ensure they meet the energy efficient standard for Social Housing. The standards seek to reduce energy consumption and carbon emissions in line with targets in the 2009 Act. New homes will incorporate micro renewable technology such as photovoltaic panels and be designed to incorporate electric car charging.	Accessible online.
Local Housing Strategy 2017-2022	Current strategy under review. Promotes energy efficiency in all homes and reducing the number of households in fuel poverty.	Accessible online.

Strategy, Policy, Programme	Contribution to Climate Change	Availability
Procurement Strategy 2018 - 2023	Sustainable Procurement Duty – consider impact of purchases on climate change, waste production or scarce materials. Aim to improve air quality by reducing carbon, nitrogen and particle emissions, increasing energy efficiency, using sustainable energy sources and encouraging sustainable waste management and maximising recycling in the supply chain.	Accessible online.
Learning Estate Strategy	Energy efficient design of schools (includes community facilities)	Accessible online.
Property and Facilities Management Service Plan 2018/19	Sets target to reduce energy consumption by 3% in current year.	Accessible online.
Midlothian Local Heat and Energy Efficiency Strategy – Feasibility work in Progress	To decarbonise local heat networks. To investigate feasibility and develop Community Heating Networks.	Not publicly available (work in progress)
Open Space Strategy	Protects and promotes enhancement of green spaces including woodland	Accessible online/at Council Offices & Libraries.

Challenges

5.5 As the Government begins to relax the restrictions imposed as a result of the Covid-19 pandemic, the Council's route map out of lockdown signals an opportunity to accelerate the transition to a different way of working and providing services to communities. A key element of the emergency lockdown and of future business transformation centres around "Digital by Default", the ability to work remotely from the office at home or elsewhere and in doing so cut down the need for staff to travel to work (at peak times of the day) and reducing carbon emissions at the same time.

5.6 Midlothian is the fastest growing local authority area in Scotland. An ambitious programme of house building will present challenges to meeting CO_2 reduction targets. It also presents an opportunity to affect change through the MLDP, planning application and building standards processes to improve the overall energy efficiency of new buildings, introduce micro renewable technologies into the design process, and drive down the energy requirements and consumption of buildings.

5.7 Growing communities also introduces challenges in terms of managing change and mitigating environmental impact - influencing how places look, function, connect and adapt to the impacts of climate change. To this end there needs to be an holistic approach to the provision of infrastructure needed to support development including "green" and "blue" elements and a stronger focus on Active Travel measures. Above all, it is an opportunity to encourage a collective and individual commitment to embrace change and support the transition of Midlothian to a low carbon county.

Mitigation and Adaptation Measures

Energy Efficiency

5.8 In order to meet the revised climate change targets proposed by the Climate Change (Scotland) Bill and be fit for the future, Scotland's homes, commercial properties and the public sector estate will need to be net zero carbon (where feasible) by 2045. In its Climate Change Emergency declaration (December 2019) the Council committed to a much more ambitious target of making its activities net-carbon zero by 2030. Investment in energy efficiency to reduce energy demand and low carbon heat networks can make one of the most significant contributions to reducing our greenhouse gas emissions and addressing fuel poverty but this will also present a significant challenge. That is why the Government has made energy efficiency a national infrastructure priority.

5.9 In 2018, the Government launched Scotland's Energy Efficiency Programme (SEEP), a 20-year programme to co-ordinate improvements to the energy efficiency of homes and buildings in the commercial, public and industrial sectors and to decarbonise their heat supply. To support the programme the Government has put in place a range of measures including a Low Carbon Infrastructure Transition Programme (LCITP)⁽¹¹⁾ which offers, amongst other things, financial support for low carbon projects covering a wide range of technologies, including low carbon and renewable heat.

5.10 The Council supports the Government's approach to energy efficiency and decarbonisation of heat networks. It is committed to an ongoing programme of rationalising its property and depot estate (EWIM) ⁽¹²⁾ and implementing energy efficiency projects to reduce its carbon emissions and operating costs. It has been successful in securing public funding for several energy reduction and efficiency projects. The most recent was £1.4m from the Government's energy efficiency programme (including part funding from Salix) ⁽¹³⁾ towards energy reduction measures in ten schools and two leisure centres. The energy reduction measures include the installation of LED lighting and controls, combined heat and power plants, solar and PV panels and pool upgrade. It is estimated the project will save £155,673 and 473 tonnes of CO2 each year. It has also been successful in securing funding from the same programme for improvements to Penicuik Town Hall and an energy efficiency project in Penicuik and a Midlothian wide Local Heat and Energy Efficiency Strategy Pilot (LHEES). The Council also has a rolling street light lamp replacement programme. To date it has replaced just over half of the existing lighting lamps (10,664 units) with low energy LED units and hopes to complete the programme over the next ten years. In terms of traffic lights the replacement rate is higher at 77% (of 105 sets). Emissions from older fluorescent lighting units are approximately five times that of LED units.

5.11 The Council has agreed a Sustainable Growth Agreement (SGA) for Shawfair (see paragraph 5.24). The proposed district heating system at Shawfair is a key feature of the SGA. It is encouraging that the landowner promoting Shawfair and the current house builders involved in developing the new town (MacTaggart & Mickel, Cala, Miller, Bellway, Stewart Milne and Dandara Homes) are willing partners to the delivery of more energy efficient homes and sustainable heat networks (in line with MLDP policies NRG5 and NRG6).

5.12 The Council has, and will continue to promote initiatives to save energy as well as monitoring and managing energy savings. The EEP introduced energy efficiency standards for social housing, which the Council has incorporated into the design of new homes as part of its social housing

¹¹ To date the LCITP has offered over £40 million of funding to 16 low carbon demonstrator projects supporting low carbon energy generation and supported the co-development of over 30 proof of concept and development proposals

¹² EWIM – Efficient Working in Midlothian

¹³ Salix Finance Ltd was established in 2004 as an independent, publicly funded company, dedicated to providing the public sector with interest free loans for energy efficiency projects that improve energy efficiency, reduce carbon emissions and lower energy bills

programme. The Learning Estate Strategy sets out the investment programme for the improvement and replacement of the school estate. All new schools and refurbishment programmes include energy efficiency as a key design element and many schools have registered with the Eco Schools Programme ⁽¹⁴⁾ with 12 currently holding Green Flag status. The Council also seeks to maximise energy efficiency measures in all building projects. To this end switching to a renewable energy provider would result in further efficiencies and reductions in our carbon emissions.

5.13 Reducing or stopping the use of natural gas as an energy source (if/where possible) would reduce emissions further and by switching to electricity only from a renewable energy supplier would provide an opportunity to set a net-zero carbon emissions target for all Council buildings.

5.14 The Scottish Government has indicated that it is committed to phasing out the purchase of petrol and diesel vehicles by 2032. The Council has initiated a replacement programme of its grey vehicle fleet with alternative Ultra Low Emissions Vehicles (ULEVs) and has been using grant funding from the Scottish Government to lease or purchase electric vehicles and fund charging infrastructure since 2012. The Council currently has 21 electric vehicles and 15 public access charging points (including two rapid chargers) across Midlothian. The Council has also installed non-public access chargers at Bonnyrigg and Stobhill Depots and in Midlothian House car park. The Council is also investigating the expansion of the existing fleet and ways to increase usage, primarily as a pool resource. Earlier this year the Council agreed to extend its ULEV fleet and charging infrastructure.

5.15 In conjunction with the energy related measures identified in the Action Plan the Council commits to:

Switching to a renewable energy supplier and reducing its use of natural gas as an energy source;

Adopting the Passivhaus design standard for all new housing and non residential buildings;

A biennial energy audit of Council buildings and depots to assess its performance and inform future actions to reduce its carbon emissions

Recycling and Waste Treatment

5.16 Landfill waste is a source of methane gas emissions. Reducing the amount of waste produced, by recycling more of the waste produced and reducing the amount of waste that ends up in landfill will make a significant contribution to lowering those greenhouse gas emissions.

5.17 The Council is preparing a Waste Management Strategy and is committed to achieving the targets set out by the Scottish Government in Scotland's Zero Waste Plan ⁽¹⁵⁾ and is signed up to the Household Recycling Charter (an initiative and commitment to promoting and improving household waste and recycling services).

5.18 The Council currently operates a kerb-side residual waste, recycling, food and garden waste (subject of additional charge) collection scheme. A joint Midlothian/City of Edinburgh Council Recycling and Energy Recovery Centre (RERC) at Millerhill was formally opened in September 2019. It will incinerate around 135,000 tonnes of household residual waste and a further 2,000 tonnes of commercial waste each year and will generate sufficient electricity to satisfy the energy demands of

¹⁴ Eco Schools is an international programme of sustainable development education and action. It encourages young people to engage in their environment by allowing them the opportunity to actively protect it. The programme is linked to the curriculum. It starts in the classroom and expands to the whole school, eventually fostering change in the community at large

¹⁵ By 2025 reduce total waste in Scotland by 15% against 2011 levels; reduce food waste by 33% against 2013 levels; recycle 70% of remaining waste and send no more than 5% of remaining waste to landfill

up to 32,000 homes. In conjunction with its energy supply company partner, Vattenfall, the Council is currently developing proposals for a District Heating Scheme to deliver this de-carbonised energy to households at Shawfair. In addition to the RERC a separate facility on an adjacent site processes all the food waste collected by the partner Councils. By treating food and non- recyclable waste and creating renewable energy in the process it will help the Council contribute to the national recycling target of 70% by 2025 and the national landfill diversion target of 95% by 2025. The Council has extended food waste recycling into the Council's main staff offices at Fairfield House and Midlothian House (2019).

5.19 In conjunction with the recycling related measures identified in the Action Plan the Council commits to:

Publish a Waste Management Strategy and Monitor Progress

Deliver on the targets set out in Scotland's Zero Waste Plan and its obligations under the Household Recycling Charter.

Sustainable Development

5.20 Sustainable Development balances social, economic and environmental considerations with a view to meeting our needs today and into the future (within environmental limits). Legislation requires local authorities to contribute to the achievement of sustainable development and to demonstrate how they intend to do that. Given the climate change emergency announced by the Government there is a greater urgency for action and for transparency surrounding our progress in this matter.

5.21 Planning - The planning system has a key role to play in delivering sustainable development and making a significant contribution to reducing greenhouse gas emissions. The development plan provides a spatial strategy and policy framework to manage the development and change of use of land over a ten-year period whereas the development management process regulates development and change through the planning application and appeals process. Together both processes have the opportunity to enhance and protect the natural and built environments, mitigate the impact of planned development and adapt to climate change through delivery of appropriate infrastructure such as Sustainable Urban Drainage Systems (SUDS) and implementing robust flood prevention measures.

5.22 The Planning (Scotland) Act 2019 became law in July 2019. It introduces a number of changes to the planning system in Scotland, principally in respect of the development plan process and makes the National Planning Framework (NPF) (prepared by Government), part of the statutory development plan and replaces Strategic Development Plans with a requirement to prepare Regional Spatial Strategies (RSS).

5.23 As part of the new development plan process, the Government has confirmed that the next NPF will include measures that will help to accelerate a reduction in greenhouse gas emissions. . In addition it has also signalled its intention to introduce "Green City Deals" to support its climate change agenda and align with existing City Region Deal Partnerships. The current Edinburgh and South East Scotland City Region Deal partners are collaborating with the relevant planning authorities in the area to input to the NPF process and prepare a draft Regional Spatial Strategy. This partnership establishes an ideal opportunity to bring together sectoral interests and prepare a land use framework which could, amongst other things, identify where resource can have the biggest climate impact. ⁽¹⁶⁾

¹⁶ The Government's Programme for Scotland 2019/2020 identifies the creation of a Green Growth Accelerator or "Green City Deal"

5.24 In preparing the Midlothian Local Development Plan (MLDP) and determining planning applications, the Council works in close partnership with Key Agencies, particularly those with environmental remits ⁽¹⁷⁾ to develop policy, assess the impact of planned development and identify infrastructure requirements that will deliver sustainable development. As part of the ongoing monitoring and review of the MLDP the Council has established a regular dialogue with Key Agencies to engage with and support the preparation of the new plan and to ensure it is Climate Change ready.

5.25 Sustainable Growth – The Council has agreed a Sustainable Growth Agreement (SGA) for Shawfair new town (estimated population of approximately 13,000 once built out, comparable with the size of Dalkeith). The SGA is a commitment between the Council, Shawfair LLP and the Scottish Environment Protection Agency (SEPA) to work collaboratively to deliver a world-class exemplar development within One Planet limits ⁽¹⁸⁾. Central to this vision is the design and development of low carbon buildings and the delivery of low carbon heat as standard to create a well-designed place for people to live and prosper and, connecting people to their environment in a positive way now and in the future.

5.26 Design - New homes and buildings are already built with high standards of energy efficiency but more action will be required if the target of all new buildings being zero carbon by 2045 is to be achieved. To this end, the Government will be consulting on new Building Standards (to be introduced in 2021) to reduce energy demand and associated carbon emissions in all new buildings and to require that from 2024 all new homes use renewable or low carbon heat. Since 2008 the Council has included a requirement in its development plan that new buildings and building conversions minimise carbon emissions as much as possible. The current MLDP continues this support for greater building energy efficiency and extends this requirement to meet the minimum carbon dioxide emissions reduction target of the then 2015 Building Regulations, and any subsequent revisions to these Regulations. The current plan will be subject of a review and will incorporate whatever measures arise from the Government's proposed new Building Standards.

5.27 Transport Infrastructure – The relationship between land use and transport planning is key to delivering sustainable development. The transport sector produces the highest greenhouse gas emissions and it is increasing. The provision of transport infrastructure, which connects people with places and enables people to make sustainable transport choices and, in turn, more sustainable journeys, could make a significant contribution to lowering emissions. The MLDP supports development in locations where infrastructure capacity exists or which can be reasonably provided over the life of the plan. It also seeks to develop a sustainable transport network in tandem with planned development and identifies a range of transport related interventions designed to deliver this outcome.

5.28 The Council's Active Travel Strategy 2019/2024 also includes a programme of development to extend and improve the network of walking and cycling routes across Midlothian. This includes making links and connections with and to the Borders Rail Stations at Shawfair, Eskbank, Newtongrange and Gorebridge. For many, the vagaries of the weather combined with the convenience of the car act as a disincentive to making that personal commitment switching to a more sustainable form of transport. A land use and transport hierarchy, which prioritises walking and cycling and public transport above car use, is essential if that mind set and personal travel choices are to change. The settlement pattern in Midlothian is quite compact and located across the northern boundary therefore, developing a network of clearly defined, visible and safe walking and cycling routes, which are well connected with and related to the places people want to go, is essential if we are to encourage a shift in travel choices and have any chance of significantly reducing transport emissions.

¹⁷ including the Scottish Environmental Protection Agency (SEPA), Scottish Water (SW) and Scottish Natural Heritage (SNH)

¹⁸ Managing, using and sharing natural resources within the planet's limits to ensure food, water and energy security for all

5.29 Paragraph 5.3 of the strategy identifies the various actions the Council has taken in respect of climate change and sustainable development since the 2014 climate change strategy. Included in this list is the establishment of a low and ultra low emissions vehicle fleet and associated charging infrastructure. This currently comprises of 21 electric vehicles and 15 public access charging points including two rapid chargers. In August 2019 the Council agreed to use available grant funding to extend its vehicle fleet.

5.30 Midlothian Green Network - The Midlothian Green Network is the connected areas of green and blue features within, around and between towns and villages that provide useable open space, routes for walking, cycling and horse riding, habitats for wildlife and plants, and natural surface water and flood water management opportunities. The Green Network plays an important role in responding to climate change. Different components of the green network make different contributions, which can combine to have a significant local effect in terms of mitigation. The Midlothian Green Network is promoted and protected through the MLDP. Further development of the network, particularly in terms of habitat creation and connectivity will make an important contribution to the Council's action on climate change.

5.31 Trees, Woodland and Forestry - Tree planting, woodland and forestry planting are an essential activity for tackling climate change. Trees help to mitigate the impact of climate change by absorbing substantial amounts of carbon. Many wood products also contribute to climate change mitigation by continuing to store captured carbon. Midlothian Council therefore supports commercial forestry in the right locations, in support of the Scottish Government's commitment to increase forest and woodland cover to 21% of the total area of Scotland by 2032, including planting 3000-5000ha of new native woodland per year. Midlothian currently estimated to have around 13% canopy cover. Significantly increasing this is a key land use target of the Council's Climate Change Strategy. (Also refer here to the relevant items in the action plan).

5.32 Biodiversity - Conserving and expanding habitats, making them better connected and increasing their biodiversity have interlocking benefits in terms of climate change, in addition to helping to reduce net emissions by taking up CO2 from the atmosphere. Midlothian Council is committed to protecting and enhancing biodiversity, as shown in the MLDP and Midlothian Local Biodiversity Action Plan 2019. Improving habitat availability and connectivity is an important part of this, in part because it will support nature as it attempts to adapt to the changing climate.

5.33 Sustainable Drainage – The provision, maintenance and development of green and blue infrastructure networks is central to achieving sustainable development and adapting to the impacts of climate change. As part of ongoing monitoring of the MLDP and, looking ahead to the next review of the MLDP, the Council has established a regular joint Key Agency liaison meeting with Scottish Water and the Scottish Environment Protection Agency (SEPA). SEPA has recently published revised guidance on flooding and enhanced SUDS standards in response to the climate change emergency. Scottish Water has established the Edinburgh and Lothians Drainage Partnership ⁽¹⁹⁾, which is seeking to demonstrate and promote the innovative application of SUDS in existing urban areas and in new developments to manage rainfall and storm water in a more sustainable way and provide greater resilience to the impacts of climate change. Scottish Water is also undertaking network capacity modelling to facilitate, amongst other things, a more proactive and predictive response to assessing future water supply and drainage requirements arising from planned development. The Council will work closely with SEPA and Scottish Water as part of the next review of the MLDP to ensure the policy framework and infrastructure requirements reflect the agencies revised guidance and standards.

5.34 Sustainable Energy – The drive to reduce our consumption of energy and for greater energy efficiency plays an important part in reducing carbon emissions. However, combined with the ability to decarbonise that energy supply can make one of the most significant contributions to reducing our greenhouse gas emissions and reaching a net zero position. To this end the Government is promoting

¹⁹ A collaboration between, Scottish Water, SEPA, City of Edinburgh Council, Midlothian Council and East Lothian Council

and supporting the development of Local Heat and Energy Supply Strategies (LHEES) and funding demonstration pilot projects across the public estate. The Council has secured government funding to undertake feasibility work into potential local heat networks in Midlothian and has commissioned consultants to prepare baseline data and provide guidance to inform the preparation of a LHEES for Midlothian. The Council is also developing Community Heating project at Shawfair using the Recycling and Energy Recovery Centre at Millerhill as the principal heat source. The Council has secured a joint venture partner, Vattenfall, to create an Energy Services Company (ESCO) and deliver the initial network connection to homes, businesses and schools planned for Shawfair new town. The ESCO will also consider the feasibility of extending the network to adjoining locations and heat sources at the Edinburgh Bio-Quarter and Queen Margaret University.

5.35 In the transition to a net zero carbon economy the Scottish Government propose to establish the Scottish National Investment Bank and extend the Growth Accelerator to become "Green City Deals". Working across public and private sectors the initiatives will enable the necessary investment in emissions reducing infrastructure to secure Scotland's net zero commitment.

5.36 In conjunction with the measures identified in the Action Plan the Council commits to:

Working with Key Agencies and other partners to develop Climate Change resilient policies for the next MLDP.

Extending and improving the walking, cycling and Public Transport network across Midlothian;

Developing the Midlothian Green Network;

Promoting the Shawfair Sustainable Growth Agreement and working with its energy services company to deliver the Shawfair Community Heat Network.

Expand the Council's electric vehicle fleet and charging infrastructure;

Extend and support the development of a network of electric vehicle public charging points across Midlothian;

Publishing Planning Guidance on Community Heating

Sustainable Travel

5.37 Government data ⁽²⁰⁾ indicates that the transport sector (including international aviation and shipping) remains the largest source, and an increasing source of greenhouse gas emissions. This puts the challenge of reducing emissions into perspective, particularly given that Midlothian is the fastest growing local authority in Scotland.

5.38 Travel is an essential part of modern life but if we are to support Scotland's carbon reduction targets we need to reconsider the need to make journeys and our choices of how to travel. As previously mentioned (paragraph 5.14) the Scottish Government has indicated that it is committed to phasing out the purchase of petrol and diesel vehicles by 2032.

5.39 The MLDP, the Council's Travel Plan and the Active Travel Plan all seek to promote sustainable travel by providing policy support, establishing objectives and identifying actions which:

- Reduce the need to travel;
- Reduce journeys by car;

²⁰ Source-Scottish Greenhouse Gas Emissions 2017 – Estimates of greenhouse gas emissions in Scotland for the years 1990 to 2017, Scottish Government, an Official Statistics Publication for Scotland

- Promote walking, cycling and public transport as climate friendly alternatives;
- Improve walking, cycling and public transport infrastructure;
- Develop cycle/footpaths as part of the wider Midlothian Green Network;
- Develop links and connections with Borders Rail stations and other places of interest; and
- Identify developer contributions towards sustainable transport infrastructure.

5.40 The Council's sustainable staff travel initiative encourages staff to change their commute to work by car to bicycle. Under the initiative, staff get the loan of a bicycle for up to two months to commute to work after which the bike will go to another member of staff. The Council hopes that the initiative will encourage staff to buy their own bike and change their travel behaviour after the loan period. Route planning and support is also available as part of the initiative. In terms of travel choices at work, the Council has introduced a bike based business mileage allowance, pool bikes and supports and regularly promotes a bike purchase scheme ⁽²¹⁾ at roadshows hosted by Cycle Solutions.

5.41 The Council acknowledges that in order to achieve sustained modal shift in travel choices this has to be matched by a commitment to:

- upgrade and develop the walking, cycling and public transport infrastructure and develop a network that is accessible for everyday journeys;
- make logical connections between rail and bus stations/stops and cycle paths/footpaths; and
- prioritise active travel and public transport modes over the car to make them more attractive.

5.42 While the majority of public transport journeys to and from Midlothian are by bus, the re-introduction of Borders Rail has expanded the Midlothian transport network to include the train as another sustainable travel choice for commuters and visitors to the area. The four stations at Shawfair, Eskbank, Newtongrange and Gorebridge are all well located to serve existing communities as well as planned development, particularly at Shawfair where the station is at the heart of the proposed new town. The proposed urbanisation of the A7 (MLDP policy Tran2) will introduce traffic calming, active travel and bus based public transport improvements on a 2.25 km stretch of the A7 from the Dobbies Roundabout (A7/A772/B6392) to Dalhousie roundabout (A7/B6392). Likewise the proposed A701 relief road and A702 link road will relieve traffic congestion on the A701 and provide an opportunity to deliver active travel and bus based public transport improvements between A701/A720 Straiton Junction and Gowkley Moss Roundabout/Midlothian Science Zone. In addition the Government is currently developing proposals to redevelop Sheriffhall roundabout to provide grade separated dedicated walking and cycling routes across this busy junction on the City Bypass.

5.43 These transport interventions are associated with major planned housing and economic developments and provide the opportunity to make sustainable connections with and between town centres and edge of centre services, out of town destinations and visitor attractions. The Council will continue to work with SEStran and other partners to secure funding to promote and deliver active travel and public transport enhancements across the local road, cycle path and footpath networks in Midlothian.

5.44 To reduce emissions levels and improve air quality the Scottish Government's programme for government (2019/2020) includes a commitment to introduce Low Emissions Zones (LEZ) in all of Scotland's cities, setting environmental limits on certain road spaces and restricting access to only the cleanest vehicles. The Government has also set aside a support fund to assist commercial and private vehicle owners who face the greatest difficulties in preparing for LEZs. The Council received support funding from the Government to carry out a feasibility study into the operation and potential extension of the Park and Ride network and facilities to mitigate any adverse impact the LEZ may have on Midlothian businesses.

5.45 In conjunction with the measures identified in the Action Plan the Council commits to:

Delivering the MLDP commitment to provide Active Travel and Public Transport improvements along the A7 and A701;

Investigating feasibility of establishing a system of discounted transport season tickets for staff;

Working with SESTRAN and neighbouring Councils to connect and develop cross boundary walking/cycling routes;

Working with SESTRAN and other partners to secure funding for or participate in sustainable travel projects and pilot schemes (i.e. SESTRAN e-bikes pilot);

Review workplace car parking policy; and

Establishing links between the Travel Plan Working Group and the Council's Climate Change Board.

Business Processes

5.46 The climate change emergency declarations announced by Government, the Council and other local authorities and public bodies and organisations all express the urgency for climate change action. The strategy seeks to reinforce this message but acknowledges that it will take effort and commitment on everyone's part to achieve and sustain momentum. The strategy acknowledges that the Covid-19 pandemic has accelerated elements of organisational change which will contribute to that momentum for change.

5.47 Raising awareness about climate change amongst staff and members of the public and what the Council is doing to combat and adapt to the impact of climate change is an important part of the strategy. The establishment of the Citizens Assembly and Climate Change Partnership Group will play an important role in this respect. It is proposed to resurrect the role of service champions for climate change so that every part of the Council has a nominated climate change contact. The service champions will promote the Strategy and Action Plan, encourage staff to contribute ideas as to how we can reduce our emissions and carbon footprint, and support the work of the Climate Change Board.

5.48 Online access to information about climate change and sustainable development via the Council's web site, staff intranet, Facebook and Twitter accounts is also an efficient way to reach out to staff and customers alike. The Council's Intranet provides a dedicated back-office resource for staff. The web and social media presents the opportunity for the Council to convey its climate change message and encourage individuals and communities to make their own commitments and take action against climate change. Behavioural change amongst staff is also critical to making a difference and is at the heart of the strategy.

5.49 The Council and its committees regularly consider reports on a wide range of issues and topics and include recommendations for action. All reports contain a section on report implications. In order to place climate change at the centre of the Council's decision-making process it is proposed to subsume the existing sustainable development implications into a new section - "Supporting Climate Change". All reports would therefore need to give sufficient consideration to the impact of proposals on climate change and have to demonstrate how the recommendation(s) would contribute to the mitigation and/or adaption to the impacts of climate change and global warming, including sustainable development. It would also provide a degree of transparency and accountability into our actions on climate change.

5.50 The way we conduct business can also make a difference to our emissions. The Efficient Working In Midlothian (EWIM) programme deployed digital technology to enable some staff to be work from home. The Covid-19 pandemic has accelerated this digital transition to many more employees and the Council's road map out of Covid-19 lockdown has "Digital by Default" embedded as one of its nine core principles for developing new working practices. The ability to support a large proportion of staff to work from home greatly reduces the need for staff to travel to work and meetings which in turn reduces emissions. The introduction of the "virtual office" allied with electronic back office management systems provides an opportunity to reduce the amount of paper consumed and energy consumed by printing and photocopying. It will play an increasingly important role in helping to achieve our Net Zero objectives.

5.51 The strategy also seeks to support and assist with knowledge and understanding about climate change amongst its staff. Providing information and practical tips or suggestions about what individuals can do to help tackle climate change is important and will help to reinforce the collective responsibility we all have to take action to make a difference. To this end, it is proposed to develop a "Learn-Pro" learning module(s) surrounding issues and actions related to climate change.

5.52 In conjunction with the measures identified in the Action Plan the Council commits to:

Adopt Digital by Default as the key driver for organisational change and transition to Net Zero Carbon working practices.

Review and update web site, staff Intranet and social media accounts to ensure the currency of Climate Change content and validity of external web links.

Agree the composition, remits and meeting schedules of the new Climate Change Board and Working Group.

Developing a climate change "Learn-Pro" learning module for all Council staff.

Asking staff to make a personal climate change commitment.

Asking the Council's customers to make a personal climate change commitment.

Carbon Management Planning

5.53 Carbon dioxide is one of the most damaging greenhouse gases contributing to climate change and global warming. Therefore it is understandable that much of the debate and activity on climate change is focused on reducing our carbon emissions.

5.54 As a signatory to Scotland's Climate Change Declaration, the Council has a commitment to prepare a Climate Change Action Plan setting out targets and timescales to achieve a significant reduction in Carbon emissions. The Council has prepared two Carbon Management Plans (CMPs) since signing the declaration, one in 2008 and the other in 2013/2014. The second CMP expired in 2016 and since then the carbon reduction target has been included in the Property and Facilities Management Service Plan set at 3% of the previous years' level. The lack of an up to date CMP and reporting framework was identified as a priority action in the 2018 audit report in order to uphold the Council's commitment under the Climate Change Declaration and to ensure ongoing compliance with our statutory reporting duties.

5.55 In conjunction with the measures identified in the Action Plan the Council commits to:

Prepare a new Carbon Management Plan which will be reviewed by the Climate Change Board at regular intervals and align with the timeframe of the new strategy

Action Plan

5.56 The attached Action Plan sets out a number of cross service actions, which support the key commitments identified in the strategy and are either ongoing activities or new actions which contribute to reducing our greenhouse gas emissions. The Action Plan will be updated annually and reported to the Corporate Management Team (CMT) and will help to inform and support the Council's climate change reporting duties.

Monitoring and Review

5.57 In the context of the current "Climate Change Emergency", it is important that the strategy can deliver actions quickly. Regular monitoring and reporting is necessary if we are to achieve change. Annual progress reports will be submitted to the CMT for information and will supplement the statutory annual reporting duties. A full review of the strategy will take place every two years (or sooner if circumstances require).

Governance, Management and Resources

5.58 Good governance and management are key to effective cross service working and achieving the climate change objectives set out in this strategy. Currently, the Council's Cabinet provides political leadership and has overall responsibility for climate change activity. The CMT is responsible for the Climate Change Strategy, action planning and performance monitoring. To date, Planning and Property & Facilities Management have been the lead services in terms of the climate change strategy and Carbon Management Planning respectively.

5.59 It is proposed to establish a new Climate Change Board to oversee and co-ordinate day to day activity on climate change matters (including, amongst other things, the preparation and review of the strategy and carbon management plan, implementing the action plan and ensuring compliance with the statutory annual Public Bodies reporting duties set out in the Climate Change (Scotland) Act 2009) and reporting to CMT, Cabinet, and/or Council when required. The board would be supported by a cross service Climate Change Working Group (which will comprise the climate change champions from across the Council).

5.60 In order to meet our commitment to achieving net-zero carbon status by 2030 and to successfully implement this strategy, the Council acknowledges the importance of allocating sufficient resources to this end. Not all the actions in the strategy or action plan will require or incur additional capital or revenue spend but this will be a significant issue going forward. Some of the actions and commitments are ongoing work streams that can, and will be consumed within the current budgets, particularly those actions which relate to procedural and behavioural change. However it will be necessary to commit a dedicated staff resource to ensure that climate change activity is coordinated across the Council and that momentum is reached and maintained to the 2030 target date.

5.61 In its Climate Change Emergency the Council acknowledges the importance of establishing partnerships and proactively working with partners to shape thinking, generate ideas and to spread the cost. The recent announcement that the Council had secured an energy services company partner (Vattenfall) to deliver the proposed District Heating scheme at Shawfair (and investigate the feasibility of other community heating schemes and heat networks) is an example of this partnership

approach and one which could signal a significant step towards our net-zero carbon target. Collaboration of this nature and others will be crucial to the success of this current and future strategies.

5.62 In conjunction with the measures identified in the Action Plan the Council commits to:

Establishing new operational governance arrangements at Management and Officer level including a:

Climate Change Board; and

Climate Change Working Group

5.63 Climate Change Risk Assessment

5.64 Assessing the risk from current and predicted impacts of climate change is crucial to understanding how we can best respond to a changing climate, a changing environment, and how we may need to shape our services in future. As a Council there is an obvious need to include consideration, in everything we do, of how our current policies, practices and business decisions contribute to climate change or not.

5.65 A number of approaches have been developed to assist organisations develop appropriate risk assessments. In 2011 the Council prepared a Local Climate Impact Profile (LCLIP) based on an approach developed by Oxford University as part of the UK Climate Impacts Programme (UKCIP). More recently the Adaptation Scotland Programme (a programme funded by the Scottish Government and delivered by the sustainability charity Sniffer) ⁽²²⁾ developed the Climate Change Assessment Tool (CCAT) specifically to assist public sector organisations comply with their climate change reporting duties and contribute to the carbon emissions reduction targets.

5.66 In 2018 a Council audit report recommended that the Council undertake a Climate Change Risk Assessment and to consider using the Climate Change Assessment Tool. The guidance identifies five steps to managing climate risks –

- 1. Define the Challenge
- 2. Assess climate threats & Opportunities
- 3. Assess climate risks & identify Actions
- 4. Report & Implement
- 5. Monitor & Review

5.67 Sufficient resource will have to be allocated to conducting a risk assessment using the CCAT but in doing so it would better align with the reporting framework and introduce more consistency into the process

²² Sniffer is an independent charity dedicated to commissioning scientific research on the protection and enhancement of the natural environment

Action Plan

Table 4

	Action	Manager/Service Responsible	Timetable	Outcome
	Commit a dedicated staff resource to promote and coordinate climate change activities across the Council.	Corporate Management Team	2020	To prioritise the climate change agenda across the Council.
	Identify Climate Change Champions for each service to promote action across the Council.			
N	Establish a Midlothian Citizen's Assembly.	Community Planning Partnership.	2020	To assist the Council identify measures to help it achieve its Net Zero Carbon target
		Alasdair Mathers , Communities and Performance Manager		by 2030.
σ	Set a clear expectation that travel for work shall be done using public transport, the use of the Council's electric cars or by active travel (within 2 miles of the office).	Corporate Management Team	2021	Reduction in the Council's carbon footprint

	Action	Manager/Service Responsible	Timetable	Outcome
4	Incorporate a climate change statement and policies in the Midlothian Local Development Plan 2 (MLDP2).	Peter Arnsdorf Planning Manager	2022 2024	Identify the Council's climate change ambitions in its Evidence Report, which is the vehicle for public engagement.
	Set the ambition that new development sites shall be carbon neutral.			Include climate change policies in the MLDP2 Proposed Plan.
2	Through the MLDP2 process i) promote the concept of developing an 'urban forest' in Midlothian, ii) securing 21% tree canopy cover in new development sites, iii) set a presumption against the loss of mature trees; iv) replacement tree planting for all unavoidable tree loss; and v)securing biodiversity net gain on all development sites.	Peter Arnsdorf Planning Manager	2024	Climate change mitigation and adaptation – promotion and protection of mature trees to enhance carbon, sequestration, reduce flood risks, enhance mental health, provide localised temperature regulation and enhance biodiversity.
Q	Through MLDP2 process investigate the feasibility of developing a Zero Carbon Development Zone	Peter Arnsdorf Planning Manager	2021	To promote a site/area to support and promote low and zero carbon energy sector developments
7	Promote climate change adaptation through the planning application process	Peter Arnsdorf Planning Manager	Ongoing	Sustainable development. Implementation of the Council's Green Networks

	Action	Manager/Service Responsible	Timetable	Outcome
				Supplementary Guidance. Promotion of biodiversity friendly landscaping.
				Compliance with SUDS best practice
8	Award and promote new developments with the highest standards in sustainability and climate change adaptation	Peter Arnsdorf Planning Manager	First Awards in 2021	Promotion of best practice.
6	Develop a carbon offsetting scheme to mitigate the carbon impact of development	Peter Arnsdorf Planning Manager	2024	Securing carbon neutral development.
10	Identify and adopt accredited methodology and application to record and place financial value on trees and open space	Peter Arnsdorf Planning Manager	2021	Education of the wider value of trees and open space
1	Develop a Learn-Pro module on the Climate Change Strategy and Energy Efficiency.	Peter Arnsdorf Planning Manager	Ready for adoption of the Climate Change Strategy.	To communicate to all Council staff about the climate change Strategy and how they can help achieve its aims

	Action	Manager/Service Responsible	Timetable	Outcome
12	Review other Council's climate change work as part of annual emissions reporting	Peter Arnsdorf Planning Manager	From the 2020 annual reporting submission.	Become aware of best practice and learn from other Councils. Adapt Midlothian's Strategy as a result
13	Implementation of the adopted Midlothian Local Biodiversity Action Plan (LBAP)	Peter Arnsdorf Planning Manager	By 2024	Protection and enhancement of biodiversity and climate change adaptation.
14	ldentify <i>Community Climate</i> <i>Change Champions</i> from the Midlothian Community Planning Partnership	Alasdair Mathers, Communities and Performance Manager	2020	Promoting climate change actions across Midlothian. To hold the Council to account for its climate change commitments.
15	Secure 'Green Flag' status for 15 of Midlothian's schools under the Eco-Schools programme (10 schools are currently green flagged).	Justin Venton, Land and Countryside Manager Sandra Banks, Resource Manager	2024	15 schools securing 'Green Flag' status demonstrating an improved environmental awareness.
16	Implement a Council Waste Strategy across all its services.	Chris Lawson, Waste Risk & Resilience Manager	2024	Reduce waste.
17	Increasing weighting in Council procurement to favour firms who can	Alan Turpie, Legal Services Manager	2021	Contribute to climate change adaptation.

	Action	Manager/Service Responsible	Timetable	Outcome
	demonstrate services that contain positive climate change adaption measures			
18	Use energy suppliers that only use renewable sources of energy	Gareth Davies, Property Manager	2021	Reduce use of fossil fuels.
19	Introduce, where appropriate, green roofs and green walls into new Council development	Gareth Davies, Property Manager	2021	Increasing habitat for biodiversity.
20	Install electric vehicle charging points on all Council owned non-residential properties and car parks	Lindsay Haddow, Policy Planning Manager	2024	Promote and encourage the use of electric vehicles.
21	Draft and implement an annual communications strategy to promote 'Earth Hour'.	David Russell Communications	2020	Implementation of an annual communications strategy to promote 'Earth Hour', raising climate change awareness.
22	Promotion of 'meat free days' in Council buildings/facilities	David Russell Communications	2020	Raising awareness that unsustainable agricultural practice/food consumption contributes towards climate change.
23	Draft and implement an up to date Carbon Management Plan	Gareth Davies, Property and Facilities Manager.	2021	Reduce the Council's carbon footprint.

	Action	Manager/Service Responsible	Timetable	Outcome
24	Draft and implement a Local Heat and Energy Efficiency Strategy.	Gareth Davies, Property and Facilities Manager.	2021	Reduce the Council's carbon footprint.
25	Reduce energy consumption in non-domestic operational property stock by 3% per annum.	Gareth Davies, Property and Facilities Manager.	Annual	Reduction in carbon footprint from energy use.
26	Replace 75% of street lighting lamps to low energy LED lamps.	Keith Slight Lighting Manager	2024	Reduction in the Council's carbon footprint and promotion of healthy lifestyles.
22	Continue to promote an active travel to work strategy – encourage leaving the car at home at least one day a week and encourage car sharing through the Council's identified organisation https://liftshare.com/uk	Lindsay Haddow Policy Planning Manager.	2020	Reduction in the Council's carbon footprint and promotion of healthy lifestyles.
28	Increase Midlothian's cycle path network by 10k.	Lindsay Haddow Policy Planning Manager	2024	Promotion of healthy lifestyles and reduce Midlothian's residents dependency on the car.
29	Explore the possibility of a public transport discount scheme for Council employees.	Lindsay Haddow Policy Planning Manager.	2020	Increased use of public transport and reduced carbon footprint.

	Action	Manager/Service Responsible	Timetable	Outcome
30	Investigate the use of recycled plastic surface materials for the repair and resurfacing roads.	Lindsay Haddow Policy Planning Manager.	2021	Increasing use of recycled material.
31	Develop a strategy to promote local food production.	Ann Marie Macaskill Economic Development Manager	2021	Increased awareness of local products and reduced food miles in purchased food.
32	Use native bio-diverse rich planting species in Council parks and controlled land to promote biodiversity.	Justin Venton, Land and Countryside Manager.	2020	Protection and enhancement of biodiversity and climate change adaptation.
33	Only use organic fertilisers and plant bedding.	Justin Venton, Land and Countryside Manager.	2020	Protection and enhancement of biodiversity and climate change adaptation.
34	Create a wildlife friendly pond in the garden of Fairfield House.	Justin Venton, Land and Countryside Manager.	2024	Promote biodiversity by implementing an exemplar project on Council land.
35	Aim to make the Dalkeith Penicuik Walkway Scotland's first Green Flag Awarded cycle path to promote sustainable travel in Midlothian	Justin Venton, Land and Countryside Manager.	2021	To promote Active Travel across Midlothian.

	Action	Manager/Service Responsible	Timetable	Outcome
36	Promote Active Travel and staff travel plans amongst businesses and and Third Sector organisations via Business Gateway.	Ann-Marie McCasgill, Economic Development Manager	2021/Ongoing	To influence sustainable travel choices and increase use of staff travel plans in the private and voluntary sectors.

Appendix

Climate Change web links

Midlothian Council Sustainable Development and Climate change web site:

https://www.midlothian.gov.uk/info/1231/environment/445/sustainable_development_and_climate_change

Greener Scotland: http://www.greenerscotland.org/

Adaptation Scotland - https://www.adaptationscotland.org.uk/

Energy Saving Trust Scotland: https://www.energysavingtrust.org.uk/scotland

Keep Scotland Beautiful: https://www.keepscotlandbeautiful.org/

Zero Waste Scotland: https://energy.zerowastescotland.org.uk/

Includes online staff engagement toolkit and "green champions" training modules/could substitute for Learn-Pro module?

Scottish Government: https://www.gov.scot/policies/climate-change/



