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### **Foreword**



#### This is our Plan A, as there is no Planet B.

The Falkirk Council Area has played a key role in Scotland's development, from James Watt's first working, experimental steam engine developed in Bo'ness to Scotland's beating industrial heart in Grangemouth. As industry has changed over the years, so has society while our understanding of human impact on our planet and environment continues to expand – the time to act is now.

As an organisation, Falkirk Council became one of the first local authorities in Scotland to declare a Climate Emergency in 2019 focusing efforts and minds on our own impact, and what we can do to address the serious challenges we all face.

Since 2019 our response to the Climate Emergency has been the foundation to this Climate Change Strategy and Plan. We are making steady progress in reducing our carbon emissions, such as electrifying our fleet of council vehicles, upgrading street lighting to low-energy LEDs, while work on our Carbon Budgeting tool allows our services to calculate their impact on carbon emissions, and take action to reduce that impact.

There is much work still to do, however, in reducing our carbon emissions and continuing down the path of transformation towards becoming a net-zero Council. This Strategy and Plan makes it clear that we must accelerate our own efforts, leading the way for communities and businesses in our area playing a key role in the global effort to build and maintain a sustainable and clean environment for every living being on the planet to enjoy.

Our Strategy sets out what we will do to continue our journey to netzero, but we must also work in partnership with Governments to realise this, while working in tandem with communities, industry, and business right across the district to move forward as one. We have a long and proud history of innovation, technological advancement and achieving success together in The Falkirk Council Area – we take inspiration from what has gone before to ensure we continue our journey together, as one district working to play our part in the bigger picture.

Falkirk Council, through this Climate Change Strategy, are committed to acting to further reduce our impact on the environment, and we are just as committed to working in partnership to ensure that these ambitions are realised, and our commitments are delivered.

Councillor Cecil Meiklejohn Leader of Falkirk Council

### Vision for 2030



It is the year 2030.

The Falkirk Council Area is synonymous with Scotland's 'green industrial revolution'. The hub of this transition, Grangemouth, is booming as a result.

Heatwaves, extreme rainfall, and flooding are happening more often. However, various measures are helping to make the area resilient to these. For example, installation of water butts is reducing the impacts of water shortages, and commencement of the Grangemouth Flood Protection Scheme will help to reduce the impacts of flooding in future.

Reuse, repair, and recycling are the norm for businesses and households, and litter is rare.

Investment in micro-renewables and energy efficiency measures has seen these sectors to grow and is helping to reduce fuel poverty.

The Falkirk Council Area's network of high-quality active travel routes and infrastructure makes getting around by foot, bike, and other forms of active travel accessible and enjoyable for all. Indeed, more and more people are choosing active travel for short journeys and to spend time in beautiful green spaces, thriving town centres and to visit attractions such as the Falkirk Wheel, the Kelpies, and Rosebank Distillery.

For longer journeys: The Falkirk Council Area is well served by buses and trains and passenger numbers are increasing; the proportion of electric vehicles is increasing compared to those fuelled by petrol and diesel; and the use of digital solutions reduces the need to travel.

These changes to the way we travel have helped to reduce noise and air pollution and have improved the feel of places with more space allocated to pedestrians and other forms of active and sustainable transport.

The promise made to our young people to be accountable for climate change and to make Falkirk a fairer, healthier, more prosperous, and more resilient place has been kept by our Political and business leaders, and by citizens.

We are optimistic about the future.



### **Jargon Buster**

- The terms "carbon", "CO2e" (carbon dioxide equivalent), and "emissions" are used in this document as short-hand for greenhouse-gasses including, but not limited to, carbon dioxide.
- The term 'territorial emissions' refers to emissions from within a certain geographical area, excluding emissions which result from activity in that area, but which occur outside of it (e.g., the production of products abroad).
- "Carbon footprint" figures for the Council's emissions are derived from the standard methodology used in climate change reporting by public bodies in Scotland and council wide emissions are taken from the Department for Business, Energy, and Industrial Strategy (BEIS) statistics.
- "Sequestration" means removing greenhouse gas emissions from the atmosphere- either by natural process (plants 'breathe in' CO2) or via technological solutions.
- "Net Zero" means reaching zero greenhouse gas emissions through a combination of carbon reduction and sequestration.
- Scope 1, 2, and 3 emissions. Scope 1 and 2 emissions are those which an organisation can directly control. Scope 3 emissions are those which an organisation cannot directly control over but can influence.
- "Just transition" in the context of climate change, means that as we reduce our emissions and take action on climate change, we do so in a way that is fair and inclusive to everyone.

### Introduction





The impacts of climate change are being felt in Scotland and around the world. In years to come these impacts will be felt more often and with increasing severity.

In 2019, Falkirk Council declared a Climate Emergency - recognising the need to take urgent action to help avoid the worst impacts of climate change. Falkirk Council accompanied this with

- a target to achieve Net Zero emissions on energy used in Council buildings (excluding housing), street lighting, and vehicles used in Council service delivery by 2030 (known as 'scope 1 and 2 emissions'), and
- a target for Grangemouth to be The Falkirk Council Area's first net zero town.

Falkirk Council must also support Scotland's target to be Net Zero by 2045 on all territorial emissions and comply with other national climate change policies and targets.

Falkirk Council is committed to delivering on climate change in ways that support its other important commitments which reflect the priorities of people who live in The Falkirk Council Area- such as improving mental health and tackling poverty.

This document sets out Falkirk Council's strategy and planned actions to deliver on its climate change responsibilities. It is intended for a wide audience including other local authorities and public sector bodies; private businesses, third sector, and community organisations; and interested individuals.

Key actions are highlighted throughout this document, with a comprehensive list provided in the Action Plan (Appendix 1) and Project Register (Appendix 2)







# Stakeholder Engagement in the development of this strategy

This strategy has been informed by consultation with a range of stakeholders:

- Internal Consultation: Senior officers representing every area of the council and Elected Members representing each political party (proportionally to the vote share of each) have given feedback on draft versions of the strategy.
- Online Survey: An online survey was carried out in the summer of 2023. This asked Falkirk Council area residents about their level of concern about climate change and how they felt the Council's climate change policies might affect the cost of living, physical and mental health, and the natural environment. This received 81 responses.
- Stall at Events: The Council's Energy and Climate Change Team held a stall at several free community events over the summer of 2023 to share information and gather insights, particularly, but not limited to building energy. As well as supporting this strategy, attendance at these events supported the development of the Council's Local Heat and Energy Efficiency Strategy.

Key messages from these consultations and how these are addressed in this strategy are outlined below.

1. Climate change is a concern for the vast majority of the area's residents.

The strategy aims to address this through effective action with regards to climate change.

2. There is a mixture of pessimism, optimism, and uncertainty about the likely impact of climate change action on other important areas such as the cost of living and health. Views differ across each of the outcome areas set out in the strategy. In many cases these other issues are of greater concern than tackling climate change.

The strategy aims to addresses this through:

- Maximising benefit in terms of other important areas such as the cost of living and health through action on climate change.
- Not always maximising opportunities to reduce greenhouse gas emissions where these are judged to have an unacceptably negative impact on other important areas such as cost of living or health.
- 3. There is a strong desire to protect and enhance local green spaces.

Note: Trees and other living organisms sequester carbon but there is limited potential for this, particularly due to land availability. The natural world does however offer significant potential to increase resilience to the impacts of climate change- such as flooding- through "nature-based solutions", and less tangible potential benefits in terms of decarbonisation through activity related to the natural world such as in reducing emissions associated with food consumption through growing more produce at a household and community scale. Aside from climate change related benefits, the natural world has the potential to deliver a multitude of benefits in other important areas such supporting good mental and physical health.

The strategy aims to addresses this through:

- Supporting effective action to protect and enhancing the natural world which supports climate change adaptation and mitigation balanced by the requirement to support other outcomes (e.g., provision of sports facilities).
- Being clear that the scope for increasing carbon sequestration in Falkirk District (and beyond) is limited and therefore not a viable alternative to the often more challenging task of reducing greenhouse gas emissions.
- Recognising that aside from supporting the council's climate change strategy, protecting, and enhancing the natural world to support other outcomes is also a priority, as outlined more directly and comprehensively in other Falkirk Council strategy.



# Key enablers to deliver effective action on climate change

### **Upskilling**

Falkirk Council are working to ensure that the required skills to tackle and manage climate change are held throughout the Council as an organisation and to support relevant upskilling throughout partner organisations and within local communities. This includes both:

- Developing knowledge and understanding of climate change itself in terms of climate science, emissions sources, trends and projections, and impacts; potential co-benefits of action to tackle climate change; and improving capacity to for effective communication with regards to climate change and associated issues.
- Expertise required for taking specific actions which will help to tackle climate change, for example in micro-renewable installation, energy management, and skills for 'low carbon living' such as cycling proficiency and gardening.

As well as being a necessary component in delivering effective action on climate change, climate change related upskilling is key to ensuring a just transition and green economic recovery, particularly in terms of improving career prospects of young people.



#### **Action Highlights**

#### **Carbon Literacy Training**

Falkirk Council are rolling out an ongoing programme of Carbon Literacy Project accredited Carbon Literacy Training throughout the organisation to ensure a suitable baseline level of climate change knowledge is held by Council Officers and Elected Members. In June 2023 Falkirk Council received a bronze Carbon Literate Organisation Award and continue to work towards higher awards.

#### **Learning for Sustainability**

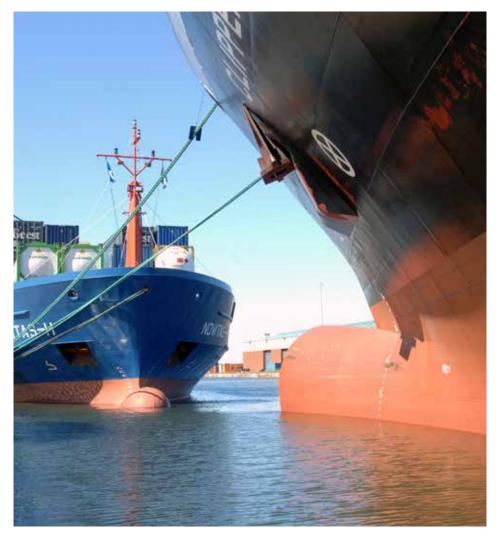
Falkirk Council is working in a connected way across services to raise staff awareness and understanding of issues and solutions relating to climate change. Falkirk Children's Services created a curriculum planning toolkit and resource called the Falkirk Learning for Sustainability Framework. This framework supports schools and centres with their planning and teaching of all elements of Learning for Sustainability, including those relating to climate change and sustainability. Our Scottish Curriculum for Excellence integrates the teaching of climate change, and the framework is designed to help schools and centres plan and teach this in a broad, deep and progressive way. The Falkirk Learning for Sustainability Framework also helps education establishments to ensure that children and young people's voices are influencing their education, Children's Services and, more widely, Council services. This policy, alongside a programme of professional learning for staff and effective partnership working, is fostering understanding of climate change and empowering young people to take action to help to reduce greenhouse gasses and adapt to climate impacts.

### Collaborative working

Pooling resources through effective and efficient collaborative working is especially important given increasing demands and constraints on local authority resources, and to ensure that the best expertise is applied.

To deliver on this strategy Falkirk Council will work as one cohesive organisation, with all service areas engaged in tackling climate change in ways that support delivery of their core functions.

Falkirk Council will work with local communities and organisations both within and beyond the local authority area to deliver effective climate change action. This includes both collaboration in specific sectors (for example transport, housing or education), and in overarching work around climate change (for example in national emissions reporting and climate change education).







#### **Action Highlights**

### Membership of the Public Sector Climate Adaptation Network (formerly the Adaptation Scotland Capability Framework Benchmarking Group)

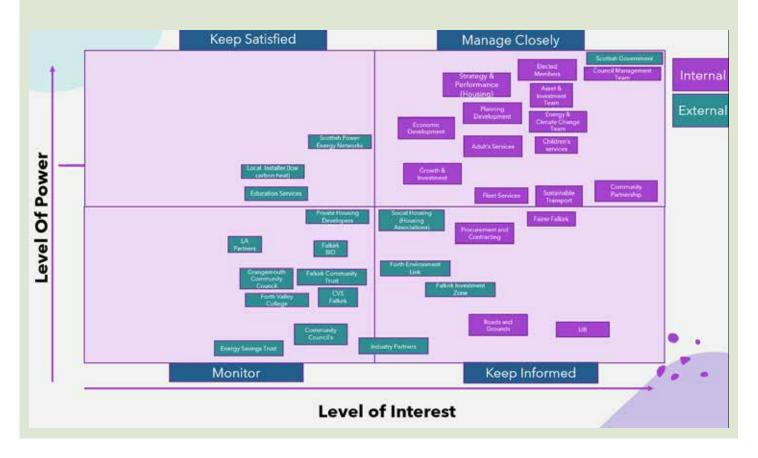
Falkirk Council are an active member of this group, supporting and benefiting from peer-to-peer learning on climate change adaptation with partners across the public sector in Scotland, which in turn feeds into the development of relevant national policy.

#### **Sustainable Scotland Network**

The Sustainable Scotland Network (SSN) are Scotland's public sector network on climate change and sustainability. Falkirk Council are an active member of the network, sharing learning and best practice to all members of the network. The SSN is also responsible for analysing all of the Public Bodies Duty Climate Change Reports which are reports on how the public bodies are tackling climate change and emissions data. This has been in force since 2014, detail on Falkirk's annual submissions from 2014/15 to 2021/22 can be found on SSN's website.

#### **Local Heat and Energy Efficiency Strategy Engagement**

Falkirk Council's Local Heat and Energy Efficiency Strategy is under development at the time of writing. This seeks to support greenhouse gas emissions reductions from energy used in buildings while supporting other important outcomes such as reducing the cost of energy to households. Development of this strategy is informed by extensive stakeholder engagement. The diagram below provides an overview of how this engagement is being carried out.



# The role of planning in climate change action

The planning system and the Council's role as a planning authority, is a key mechanism in facilitating action to tackle climate change.

Key areas where the planning system can drive change on climate change mitigation and adaptation include:

- Site and designing new development so that energy use and the need to travel by private car is minimised (20 minute neighbourhoods)
- Encouraging the recycling of vacant and derelict land and the reuse of buildings
- Requiring the installation of low and zero carbon energy technologies within new development, including the roll out of heat networks
- Managing land use and developing the green network so as to maximise carbon sequestration.

Scotland's National Planning Framework Four (NPF4) and Falkirk Council's Local Development Plan two (LDP2) are key planning policy drivers.



#### **National Planning Framework Four (NPF4)**

The National Planning Framework 4 (NPF4) places tackling the climate emergency at the forefront of the new National Spatial Strategy for Scotland and National Planning Policy. NPF4 is now part of the statutory Development Plan, along with the local development plan, and for the first time explicitly requires development proposals to be sited and designed to minimise greenhouse gas emissions and to adapt to current and future risks from climate change.

The NPF4 aims to support the delivery of:

- sustainable places, where we reduce emissions, restore and better connect biodiversity;
- liveable places, where we can all live better, healthier lives and
- productive places, where we have a greener, fairer and more inclusive wellbeing economy.

#### Falkirk Local Development Plan two (LDP2)

The Council's current local development plan (LDP2), adopted in 2020, contains a number of policies and proposals which support the creation of more climate ready places, and is supported by Supplementary Guidance such as SG14 on Renewable and Low Carbon Energy. Work on the Local Development Plan three (LDP3) is just commencing and provides an opportunity to further strengthen the approach in relation to the climate emergency, in line with NPF4.

- Ensuring that new development avoids areas which are likely to be at flood risk now or in the future.
- Planning for key infrastructure which will be needed including renewable energy development, flood management measures, active travel and other green infrastructure.

### **Sustainable Development Goals**

The Sustainable Development Goals were adopted in 2015 by all United Nations Member States. The purpose of these goals is to end poverty, protect the planet and ensure that by 2030 all people enjoy peace and prosperity.

There are 17 Sustainable Development Goals that recognise that development must balance social, economic, and environmental sustainability. You can find out more information on the goals on the United Nations Development Programme **website**.

Falkirk Council's Climate Change Strategy and Action Plan seeks to support the following goals:



**Goal 7** is about ensuring access to clean affordable energy. One of the outcomes of this strategy covers energy in buildings. We will seek to raise awareness on actions that can be taken to reduce emissions from energy in buildings and where to seek support.



**Goal 9** seeks to build resilient infrastructure, promote sustainable industrialisation and foster innovation. Falkirk Council seeks to work with industry, business and agriculture to support carbon reduction from these sectors. Falkirk's Growth Deal and the Forth Green Freeport will support this Sustainable Development Goal.



**Goal 11** is about making cities and human settlements inclusive, safe, resilient and sustainable. Falkirk's Climate Change Strategy and Climate Emergency Action Plan aims to support the decarbonisation across various areas including energy, transport and waste.



Goal 12 is about ensuring sustainable consumption and production patterns. An outcome of the Climate Change Strategy is to seek to reduce the climate impact of products purchased by Falkirk Council. An action detailed within the Climate Emergency Action Plan is to ensure the Scottish Government's Sustainable Procurement Tools are utilised in key contracts. This will mean that climate change impact is considered in the procurement and management of contracts.



**Goal 13** is about taking urgent action to tackle climate change. The Climate Change Strategy and Climate Emergency Action Plan aims to support area wide decarbonisation.



**Goal 15** focuses specifically on managing forests sustainably, restoring degraded lands and successfully combating desertification, reducing degraded natural habitats and ending biodiversity loss.



**Goal 17** is about partnership working for sustainable development. Falkirk Council seeks to work with stakeholders throughout the term of the Climate Change Strategy and Climate Emergency Action Plan.



### **Strategy Outcomes**



To ensure that Falkirk Council's Climate Change and Adaptation strategy contributes to the net zero transition and supports the Falkirk Council area becoming more resilient to the impacts of climate change, a series of outcomes have been identified.

#### **Outcome 1: Buildings and Energy**

Falkirk Council will reduce emissions from operational, Council owned, buildings and support residents to be net zero carbon emission ready and reduce their energy related emissions.

#### **Outcome 2a Transport**

Falkirk Council will endeavour to decarbonise Council owned fleet through transitioning to electric/hydrogen powered vehicles.

#### **Outcome 2b Transport**

We will encourage sustainable transport and active travel through providing a local transport system that supports individuals make more sustainable travel choices.

#### **Outcome 3 Waste Management**

Falkirk Council will encourage residents and businesses to make the correct choices when disposing and recycling of their waste and support a reduction in waste sent to landfill, in line with national policy.

#### **Outcome 4 Procurement**

We will seek to reduce the climate impact of products produced and purchased by Falkirk Council.

#### Outcome 5: Business sector, and non-commercial land use

We will work to support businesses, industry, and the agricultural sector to reduce emissions and seek ways to explore carbon sequestration to further reduce impact from emissions in the Falkirk area.

Running throughout the strategy are three key themes which the strategy and attached action plan seek to work towards.

- Reducing greenhouse gas emissions,
- Adapting to climate change, and
- Securing a just transition and Green Economic Recovery.

### Falkirk Council's Overall Strategy



### Reducing Greenhouse gas emissions

Falkirk Council is committed to:

- undertaking actions which make a practical and tangible difference to the level of emissions associated with our organisation and to facilitate area wide decarbonisation in line with both the Council's and Scotland's climate change targets and policies.
- doing so in ways which are consistent with delivery of each of its statutory duties, values and priorities- as set out in the Council Plan and the Falkirk Plan, not least through bold actions to deliver 'green economic recovery' and 'a just transition'.

Falkirk Council's strategy to deliver greenhouse gas emission reductions is:

- To continually build and embed relevant knowledge, understanding, and culture required to deliver suitable action throughout the organisation, in local communities and among other stakeholders,
- To develop formal decision-making processes to ensure that clear responsibilities and accountability to support and deliver greenhouse gas emission reductions are held by the most appropriate parties within the organisation across all sectors and specialisms.
- 3. To develop Falkirk Council's sequestration potential to ensure residual greenhouse gas emissions are 'offset' thereby supporting the net-zero transition.

#### Falkirk Council's Net Zero targets and historical organisational carbon footprint

As Part of the Public Duties which is set out in the Climate Change (Scotland) Act 2009 Falkirk Council is required to act in 'the best way calculated' to contribute to delivery of Scotland's climate change targets. These targets were amended in the Climate Change (Emissions Reductions Targets) (Scotland) Act 2019. This legislation sets out a series of interim targets alongside a target of net zero by 2045. The interim targets are:

- 56% reduction by 2020
- 75% reduction by 2030
- 90% reduction by 2040

The reduction targets set above (including net-zero by 2045) are from a 1990 baseline year (with some exceptions using a 1995 baseline). While Falkirk Council uses 2013/14 as the baseline year for tracking progress on emissions reductions, it is assumed that the Council have largely followed national emission reductions and, according to Scottish Greenhouse Gas Statistics 2021, this would give us an equivalent reduction in emissions of 49.9% in the 2021/22 reporting year. That figure of 49.9% is Scotland's emissions reduction since the baseline year. This would put our emissions at an estimated 79,432 tonnes CO2e in 1990, this equates to a reduction of 39,637 tonnes CO2e based on 2021/22 emissions which totalled 39,795 tonnes CO2e.

Following the Council's declaration of a climate emergency in August 2019, Falkirk Council set an ambition to achieve net zero on our organisational scope 1 and 2 emissions (energy consumption in operational Council buildings, fuel for Council owned fleet and electricity for streetlighting) by 2030. The baseline year for this target is 2018/19 In order for us to support these targets it is important for Falkirk Council to understand the current position in order to set out a pathway to net zero. The following graphs illustrates our emissions since 2013/14 for all reporting scopes and emissions since 2018/19 which is our organisational target baseline year.

#### Note on emissions reported:

- Emissions relating to Falkirk Council as an organisation are calculated using a standardised methodology for public sector bodies in Scotland (for more information see: <a href="https://sustainablescotlandnetwork.org/reports">https://sustainablescotlandnetwork.org/reports</a>). This methodology changes over time- including addition of activities to report on- and is simplified to make the process of calculating emissions practical. As such, emissions figures can never be entirely accurate, and year-on-year comparison is often flawed to varying degrees, but the figures are accurate enough to be instructive in terms of progress on decarbonisation and for comparison between organisations.
- Emissions relating to the Falkirk Council area are taken from UK-wide statistics (see: <a href="https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics">https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics</a>)

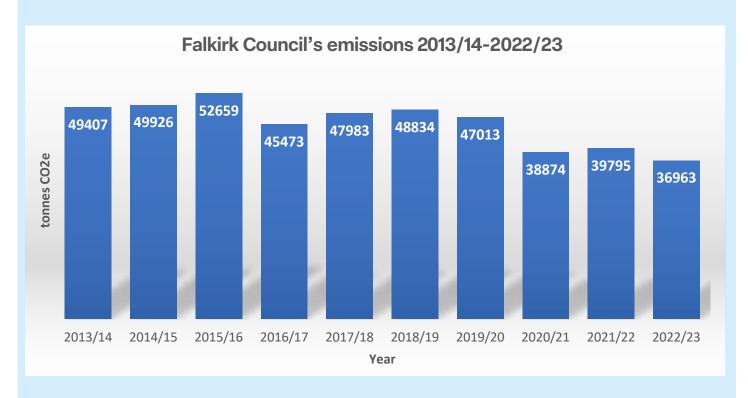


Figure 1: Council Emissions (all scopes) tonnes CO2e 2013/14 -2022/23

The scope of Falkirk Council's emissions includes energy consumption in Council Owned operational buildings, water supply and treatment for these buildings, streetlighting, vehicle fuel, staff business travel (car mileage only), waste (landfill, recycling, WEEE, food and garden waste), transmission and distribution loses on electricity and homeworking. Homeworking emissions were included in the scope of reporting from 2020/21.

In 2022/23 Falkirk Council's emissions were 36,963 tonnes CO2e which is a reduction of 12,444 tonnes CO2e (25%) since the Council started reporting emissions in 2013/14.

If Falkirk Council has followed national emissions reductions targets since Scotland's baseline year for emissions reporting, Falkirk Council's emissions need to be no more than 19,858 tonnes CO2e in 2030 in order to support the 2030 national interim emissions reduction target of 75%. This will require an emissions reduction of 17,127 tonnes CO2e to meet this target.

The graph below illustrates emissions reductions made since 2018/19 to support our 2030 net zero target.

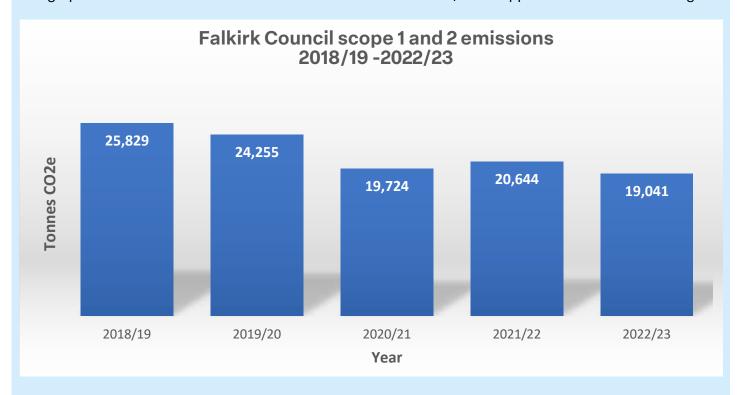


Figure 2: Council scope 1 and 2 Emissions tonnes CO2e 2018/19 -2022/23

The above scope of emissions includes energy consumption in operational Council buildings, fuel for Council fleet and electricity for streetlighting.

In 2022/23 Falkirk Council's scope 1 and 2 emissions were 19,041 tonnes CO2e which is a reduction of 6,788 tonnes CO2e (26%) since the 2018/19 baseline for the organisational target.

In order to achieve our organisational net zero target Falkirk Council's emissions should not exceed 4,628 tonnes CO2e in 2030. This 4,628 will then be offset by the current sequestration potential on Council owned land. This means that a further reduction of 14,413 tonnes CO2e between 2023/24 and 2029/30 is required. The project register in appendix 2 highlights the current projects the Council has in the pipeline to support emissions reduction.

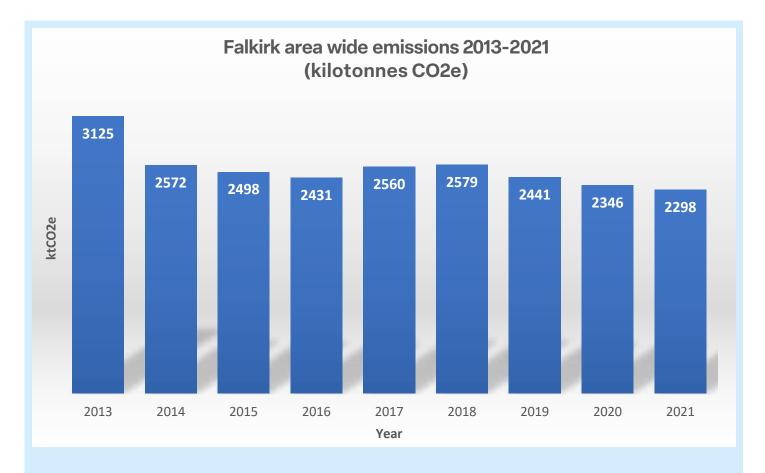


Figure 3: Falkirk area wide emissions 2013-2021 (emissions figures taken from Department for Net Zero and Energy Security UK local authority and regional greenhouse gas emissions national statistic)

The information in the above graph highlights Falkirk's area wide emissions, the scope of these includes the following: industry, commercial, public sector and domestic emissions (mainly energy related), road and rail transport, land use, land use change and forestry, agriculture and waste management.

Area wide emissions have decreased 26% since 2013, industry, unsurprisingly makes up a large proportion (63% as of 2021) of area wide emissions. If we assume that the Falkirk area has followed Scotland's emissions reduction pathway (as of 2021 that was a 49.2% reduction from 1990 levels) emissions in 1990 would have been around 4,522 kilo tonnes CO2e. To achieve the 2030 interim target of 75% reduction in emissions from 1990, Falkirk area emissions should be around 1,130 kilo tonnes CO2e in 2030. This requires emissions to reduce by just over 1,000 kilo tonnes CO2e between 2021 and 2030.

#### Pathway to emissions reduction targets

As mentioned previously in the strategy there are two emissions reduction targets that Falkirk Council is working towards. These are the national interim reduction target of 75% reduction in emissions (from baseline) by 2030 and the organisational net zero by 2030 target. The following graphs set out the pathway to achieving these and illustrates the scale of the challenge.

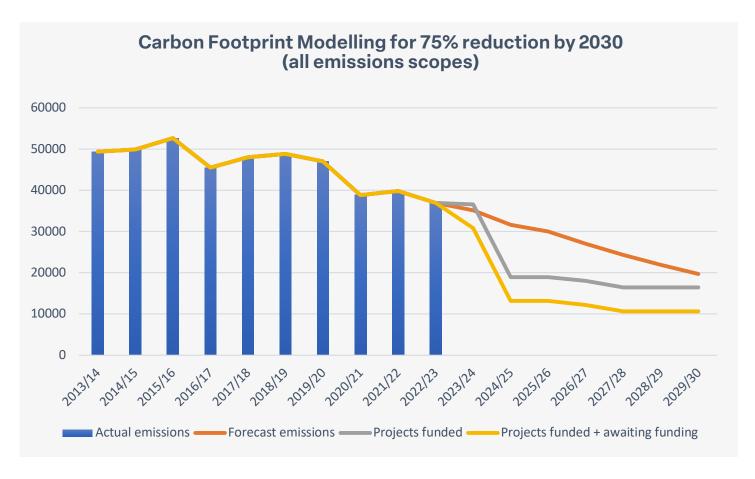


Figure 4: Emissions reduction pathway for 2030 75% interim reduction target for all Falkirk Council emissions sources

The forecast emissions (orange line on the graph) highlights where the Council need to be in terms of emissions to meet the 2030 national interim emissions reduction target. This will require a 5% annual reduction until 2025/26 and thereafter a 10% annual reduction until 2029/30. This will ensure our emissions are under 19,858 tonnes CO2e, which is the maximum emissions for the 75% reduction target.

The grey line on the graph shows the emissions reduction pathway with the projects that are currently funded within the Council (see Council's Project Register in Appendix 2). The project with the largest reduction in emissions will be the Energy from Waste project. Waste currently makes up the largest proportion of the Council's emissions. The emissions savings from all projects that are funded will see the Council meet the 75% interim emissions reduction target by 2030.



Figure 5: Emissions reduction pathway for 2030 interim target.

The forecast emissions (again represented by the orange line) highlights where we need to be in terms of the Council's organisational 2030 net zero target. This is on scope 1 & 2 emissions only so building energy, fuel for Council owned vehicles and electricity for streetlighting. On average this will require an 18% reduction per year to get us to under 4,628 tonnes CO2e in 2030. This 4,628 tonnes CO2e will then be offset through nature-based solutions to get that net zero balance.

The yellow line represents the pathway with emissions reduction projects that are currently funded within the Council. This shows that there are not enough funded projects to support the organisational net zero target. Additionally taking into account projects that are funded and awaiting funding (represented by the purple line) the Council will still fall short of the net zero target by 6,316 tonnes CO2e. It is important to note that the financial landscape is challenging and does make meeting targets difficult.

More funding streams are becoming available which Falkirk Council will capitalise on to support driving our emissions down to net zero.

## Emissions per sector Falkirk Council

The graph highlights Falkirk Council's operational emissions sources from 2013/14 (baseline) to 2022/23. Falkirk Council did not calculate electricity transmission and distribution losses until 2015 and homeworking emissions until 2020.

The subsequent sections, addressing each of the strategy outcomes, breakdown the percentage that these emissions made up in 2022/23 and highlights progress made since the baseline year(s).

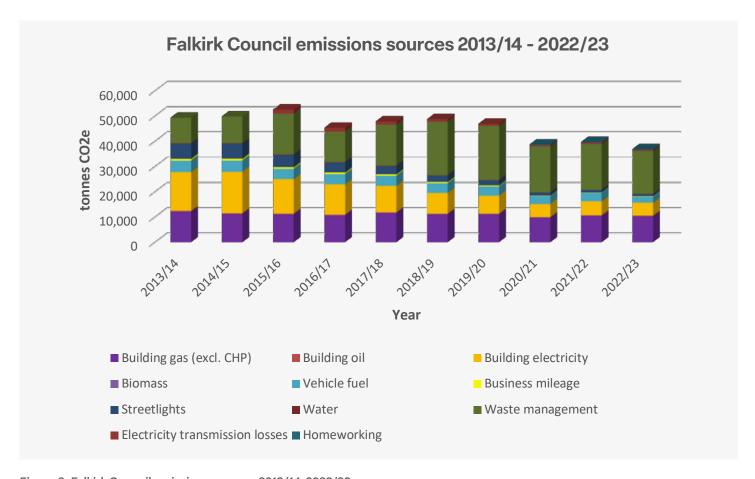


Figure 6: Falkirk Council emissions sources 2013/14-2022/23

#### Area wide

The following chart shows the area wide emissions per sector. As well as recognising Falkirk Council's emissions it is important that we also consider emissions that happen outside of the Council's scope for example domestic energy related emissions.

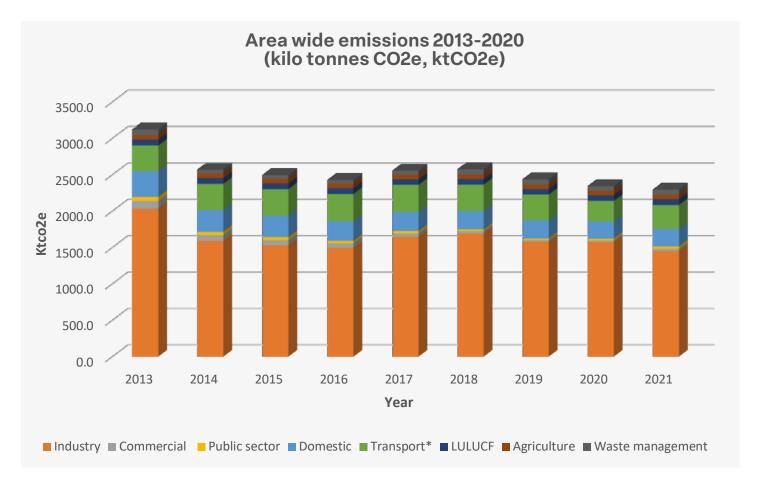


Figure 7: Falkirk area wide emissions 2013-2021 (emissions figures taken from Department for Net Zero and Energy Security UK local authority and regional greenhouse gas emissions national statistic)

Note that LULUCF stands for land use, land use change and forestry, this is emissions/removal carbon dioxide from a number of natural sources e.g., forestry.

Transport emissions include road (major, minor and motorways) and rail transport.

### Adaptation to climate change

For the Council, communities and other stakeholders, adaptation to climate change is a means by which to directly maintain and improve delivery of all Council services, outcomes, and priorities as the climate changes over time. Our strategy to deliver successful adaptation to climate change is:

- To continually improve understanding of climate change trends and projections, associated risks and opportunities and actions which can be taken- throughout the Council as an organisation and throughout The Falkirk Council Area.
- 2. To continue to develop formal monitoring and decision-making processes to ensure that management of climate impacts in future is given sufficient consideration in decision making.

Falkirk Council's work on adaptation to climate change supports and is informed by the **Scottish Climate Change Adaptation Programmes** (SCCAP).



#### **Climate impacts**

The issues that are already being experienced locally and can expected to increase in frequency and intensity in years to come are:

- Summers becoming hotter and drier on average
- Autumns and winters becoming milder and wetter on average
- Increased frequency and severity of heatwaves
- Increased frequency and severity of extreme rainfall events including during summers- resulting in flash flooding
- Sea level rise

The impacts of climate change elsewhere in the world also have ramifications in The Falkirk Council Area.

Our <u>2020 Local Climate Impacts Profile</u> provides details of how Falkirk Council is adapting and supporting others to adapt to climate change.

#### **Action Highlights**

#### **Grangemouth Flood Protection Scheme**

Grangemouth was identified as a vulnerable area and in 2015 the Scottish Government put the GFPS as the highest priority scheme. The GFPS will develop in accordance with measures set out in the Forth Estuary Flood Risk Management Strategy and Local Flood Risk Management Plan to reduce flood risk at Grangemouth and will be promoted under the Flood Risk Management (Scotland) 2009 Act.

# A just transition and Green Economic Recovery

Falkirk Council aims to deliver action on climate change in ways which are consistent with the Council and Falkirk Community Planning Partnership's values and priorities.

The Falkirk Plan (2021-2030) sets out the Falkirk Community Planning Partnership's six priority themes. These are:

- working in partnership with communities,
- poverty,
- mental health and wellbeing,
- substance use,
- gender-based violence, and
- economic recovery (including a focus on a green recovery)

The Council Plan (2022-2027) sets out the Council's values: to be:

- responsive,
- innovative,
- trusted, and
- ambitious

#### and priorities:

- supporting stronger and healthier communities,
- promoting opportunities and educational attainment and reducing inequalities, and
- supporting a thriving economy and green transition







This approach can be described as pursuing a 'Just Transition', where the ways we change how we do things to be more sustainable and resilient in terms of climate change also deliver positive outcomes and avoid unintended negative consequences for people- particularly those most vulnerable.

This includes action which:

- tackles the cost-of-living crisis
- increases resilience against the impacts of climate change,
- involves effective engagement with communities and stakeholders,
- balances priorities in ways that are acceptable to communities and other stakeholders, and
- improves the quality of local environments

The state of the economy is key to delivering on all these things- both in terms of money available to deliver projects and in terms of the wider benefits of economic activity. While as of 2023, the economic situation both locally and nationally is challenging, there are great opportunities for economic growth in areas which help to tackle climate change and at the same time meet customer demands. Supporting 'Green Economic Recovery' is central to Falkirk Council's approach to both delivering on climate change through 'a just transition' and delivering on all priorities set out in the Falkirk Plan and Council Plan.

### **Outcome 1: Buildings and Energy**



### Strategy

Falkirk Council seek to reduce emissions associated with buildings, energy- and support others to do so- through measures to

- Reduce energy consumption
- Support the decarbonisation of heat and electricity supply, including through renewable and low carbon energy generation
- Reduce the lifecycle emissions of building materials, construction, and maintenance
- Provide suitable facilities in and around buildings to support active travel
- Manage the wider impacts of buildings with regards to climate change adaptation and mitigation through Development Planning (for example in the impacts that new buildings have in terms of increasing or decreasing different sorts of transport demand).
- Limit the increase in greenhouse gas emissions resulting from street lighting as the number of streetlights in The Falkirk Council Area increases to serve new building and transport developments following the complete replacement of all street lighting in the District with efficient LED systems.

Falkirk Council seek to adapt to the changing climate in terms of impacts to buildings and their occupants and support communities and other stakeholders to do so. Key climate impacts for buildings in The Falkirk Council Area and their occupants include:

- Increased risk of flooding and water damage
- Increased risk of overheating during summer heatwaves
- Increased humidity affecting comfort and contributing to the growth of moss and algae
- Increased frequency of gutters becoming clogged
- Reduced average demand for heating during winter months

The following are co-benefits of reducing energy related emissions from the Council's operational buildings.

- Reduce costs of energy in our buildings
- Keep down longer-term costs associated with ongoing maintenance and repair of buildings
- Support the delivery of council services through financial savings associated with operational council buildings
- Improve the experience of buildings for occupants and visitors
- Improve the local environment around buildings
- Support active and healthy lifestyles through amenities provided by buildings.

#### **Action Highlights**

The Council is developing a Local Heat and Energy Efficiency Strategy (LHEES). This is intended to support emissions reductions from buildings across The Falkirk Council Area, including the Council's operational buildings.

A <u>Decarbonise Falkirk</u> website has been created to highlight actions that can be taken by householders, landlords, community groups and businesses to reduce energy related emissions and also where to access support to do so.

### **Emissions figures**

#### Falkirk Council's organisational energy use

#### **Electricity, Natural Gas and Oil used in buildings**

In financial year 2022-23 the following emissions resulted from energy use in operational council buildings:

- 10,458 tCO23 from natural gas (excluding combined heat and power),
- 5 tCO2e from biomass
- 197 tCO2e from oil, and
- 5,096 tCO2e from electricity,

These emissions total 15,757 tCO2e. This represents a 20% reduction since the organisational 2030 net zero target baseline year of 2018/19 and a 44% reduction since the 2013/14 baseline year.

In financial year 2022-23 these emissions accounted for

- 82.8% of Falkirk Council's scope 1 and 2 emissions- which are subject to the Council's 2030 Net Zero target, and
- 42.6% of the Council's overall emissions

#### Other emissions relating to energy used in Council buildings

In 2022/23 the following were emitted through Council operations:

- 93 tCO2e from water supply and treatment
- 546 tCO2e from electricity transmission and distribution
- 117 tCO2e from home working

#### Street lighting

In financial year 2022/23, 877 tCO2e was emitted as a result of street lighting. This represents

- 4.6% of Falkirk Council's scope 1 and 2 emissions- which are subject to the Council's 2030 Net Zero target.
- 2.4% of the Council's overall emissions

### Area-wide emissions relating to energy used in buildings.

#### Domestic building energy use

An estimated total of 242,800 tCO2e in territorial emissions was emitted in this area within The Falkirk Council Area in 2021.

In 2021 these emissions accounted for 10.6% of The Falkirk Council Area's territorial carbon footprint.

#### **Action highlight**

The Housing investment Programme 2022-2027 includes work to retrofit existing properties over the next 5 years, this includes:

- Replacement windows and doors to improve energy efficiency of the property.
- Heating system upgrades including the provision of Air Source Heat Pumps to around 170 homes within 3 high rise blocks.
- Providing more efficient heating systems for tenants within offgas grid areas.

#### Public sector building energy use

An estimated total of34,721 tCO2e in territorial emissions was emitted from the public sector (including Falkirk Council, the NHS and other public sector bodies) within The Falkirk Council Area in 2021.

In 2021 these emissions accounted for 1.5% of The Falkirk Council Area's territorial carbon footprint.

#### Other emissions relating to buildings

Emissions from commercial, industrial, and agricultural building energy use are included in the overall figures for those sectors (see 'Businesses and non-commercial land use').

Emissions from the production, delivery, use/installation, and disposal of building materials and features are not available but represent a proportion of emissions relating to waste, and transport are considered in procurement processes.

#### Other emissions relating to energy

Energy use in addition to that which is used in buildings is also reflected in other sections of this strategy, for example in charging electric vehicles or in industrial applications.

# National Buildings and Energy policy for Scotland

(sources: Update to the Climate Change Plan 2018-2032; Heat in Buildings Strategy; Energy Efficient Scotland; Scotland's Energy Efficiency Programme)

#### **All sectors**

- Emissions from all buildings to be near zero by 2050
- Local authorities to regulate the development of district heating in their areas
- 50% of homes and non-domestic buildings to convert to low or zero carbon heating systems by 2030
- New heat networks consented from 2023 to use heat from low or zero emissions sources
- 20% of gas in the grid to been 'green' by 2030
- Phase out of fossil fuel heating systems
- 15% reduction in heat demand by 2032
- A total of between 8 and 11 GW of offshore wind capacity in Scotland by 2030
- Scotland's electricity grid intensity to be below 50 gCO2e/kWh from 2020 onwards

#### **Domestic Buildings**

The following national policy influences how carbon footprint reductions will be achieved in this area in addition to that which may be relevant to buildings in all sectors:

- 35% or domestic buildings to be supplied by low carbon technologies by 2032
- 64,000 homes fitted with low or zero emissions heating by 2025
- 1 million homes converted to zero or low emissions heating systems
- New homes to use zero direct emissions heating and feature high levels of fabric energy efficiency by 2024
- All homes to achieve an EPC of C where technically feasible and cost effective by 2035
- All social housing to meet or be treated as meeting EPC B or be as energy efficient as practically possible by 2023
- Private rented homes to achieve equivalent of EPC C by 2038
- Private rented homes to EPC E by 2022, to EPC D by 2025, and to EPC C by 2030 (where technically feasible and cost effective)
- All owner occupied homes to reach equivalent of EPC C
- All owner occupied homes to reach EPC C by 2040 (where technically feasible and cost effective)
- All homes with households in fuel poverty to reach EPC C by 2030 and EPC B by 2040 (where technically feasible and cost effective)
- Local authorities to regulate the development of district heating in their areas

#### **Non-domestic Buildings**

The following national policy influences how carbon footprint reductions will be achieved in this area in addition to that which may be relevant to buildings in all sectors:

- 70% of non-domestic buildings heat to be supplied by low carbon technologies by 2032
- 20% reduction in emissions from heat in non-domestic buildings by 2032
- 50,000 non domestic buildings to convert to zero or low emissions heating systems by 2030
- non-domestic buildings to be assessed and improved to the extent this is technically feasible and cost effective by 2040.

#### More information

The Council's Local Heat and Energy Efficiency Strategy (LHEES) and Delivery Plan are due to be published in December 2023. These will cover the Council's building energy strategy with regards to both its own estate and buildings throughout the Local Authority.

The Council's <u>Local Development Plan</u> (LDP 2) sets out planning policies guiding future building development across the Council area. LDP 3 is currently under development and engagement with the public and stakeholders has been taking place throughout 2023.



### **Outcome 2: Transport**



#### Strategy

Falkirk Council seek to reduce emissions associated with transport - and support others to do so- through measures to

- Reduce emissions from Council owned fleet through switching to electric vehicles or other alternatives.
- Reduce emissions per miles travelled,
- Reduce miles travelled, and
- Reduce the lifecycle emissions of transport infrastructure and vehicles

Falkirk Council seek to adapt to the changing climate in terms of impacts to transport networks, services, vehicles and those who use them, and support communities and other stakeholders to do so. Key climate impacts for transport in The Falkirk Council Area include:

- Increased risk of disruption to networks due to flooding
- Decreased frequency of risk of disruption to networks due to snow and ice
- Increased risk of damage to transport infrastructure and vehicles due to extreme temperature and precipitation
- Increased health risks while travelling in extreme heat and intense precipitation
- Weather more attractive for walking and cycling during summer months

In the process, Falkirk Council seeks to:

- Improve accessibility and mobility
- Reduce air pollution
- Reduce traffic and congestion
- Improve people's experience of places and of travel between them
- Enhance physical and mental health and wellbeing
- Increase safety, particularly of the most vulnerable

### **Emissions figures**

### Falkirk Council's organisational emissions relating to fuelling and powering vehicles

#### Vehicle fuel used for council operations

2,413 tCO2e was emitted through vehicle fuel used for council operations in financial year 2022-23. This represents a 28% reduction on the previous year, a 38% reduction since the organisational target baseline year of 2018/19 and a 47% reduction since the 2013/14 baseline year.

In financial year 2022-23 these emissions accounted for

- 12.7% of Falkirk Council's scope 1 and 2 emissions- which are subject to the Council's 2030 Net Zero target
- 6.5% of the Council's overall emissions

#### **Action highlight**

#### **Council fleet upgrades**

Falkirk Council trialled hydrogenated vegetable oil (HVO) in several of its HGV fleet in 2022/23.

This has resulted in a 28% reduction in fleet emissions in comparison with 2021/22. HVO will continue to be rolled out in 2023/24 in the refuse fleet, this is likely to save an estimated 254 tonnes CO2e.

Falkirk Council, now have 124 electric vehicles in its fleet which is up from 50. This is estimated to result in an emissions saving of 212 tonnes CO2e.

#### Council staff using their own vehicles for council business

193 tCO2e was emitted from council staff using their own vehicles for council business in financial year 2022-23. These emissions increased by 9% from previous year.

In 2022-23 these emissions accounted for 0.5% of Falkirk Council's overall organisational carbon footprint.

### Area wide emissions relating to fuelling and powering vehicles

An estimated total of 327,400 tCO2e was emitted from transport (including road and rail) within The Falkirk Council Area in 2021.

In 2021 these emissions accounted for 14.2% of The Falkirk Council Area's carbon footprint.

#### **Action highlight**

#### **Electric Vehicle charging infrastructure**

Falkirk Council is playing a leading role in partnership work to deliver electric vehicle charging infrastructure across The Falkirk Council Area to support the transition from vehicles fossil fuel derived vehicles to electric Vehicles. In February 2023 there were 57 electric vehicle charging points across 28 locations in the Falkirk Council Area, with an additional 32 over 10 locations due to be installed by March 2024. See **Zap Map** for locations and details of electric vehicle chagrining points.

#### **Active Travel Strategy**

The Council are in the process of developing an Active Travel Strategy to support walking, cycling and wheeling in The Falkirk Council Area. Among its aims will be encouraging 'modal shift' away from driving.

#### Partnership working

Falkirk Council works closely with Forth Environment Link's Active Travel Hub and other organisations which support active and sustainable transport.

#### Other emissions relating to transport

Emissions relating to the production, delivery, use/installation, and disposal of materials and features relating to installation and maintenance of transport infrastructure are not available but represent a proportion of emissions relating to waste, and are considered in procurement processes.

# National transport decarbonisation policy for Scotland

(source: Update to the Climate Change Plan 2018-2032)

#### **All sectors**

The following national policy influences how carbon footprint reductions will be achieved in this area:

- Phase out sale of new petrol and diesel vehicles by 2030
- 100% of new cars to be electric by 2032
- 20% reduction in kilometres travelled by car by 2030
- Decarbonisation of the rail network by 2035

### **Public Sector**

 Public bodies to phase out the need for new petrol and diesel light commercial vehicles by 2025.

#### More information

The Council's Local Transport Strategy is due to be published in 2023.



# **Outcome 3: Waste Management**

# Strategy

Falkirk Council seek to work with communities and local organisations to

- Reduce waste produced overall
- Increase rates of recycling and reuse
- Decrease waste sent to landfill and
- reduce emissions associated with waste management processes.

Falkirk Council seek to adapt to the changing climate in terms of impacts to waste management processes and facilities.

In the process Falkirk Council seeks to:

- improve local environments by reducing litter
- help to supply items for reuse as part of the 'circular economy' (reducing costs and environmental impact associated with procurement)
- Implement a 'waste to energy' plant which will reduce residual waste.



### **Action highlight**

#### **Landfill Ban Compliance**

Falkirk Council will be one of the first local authorities in Scotland to comply with the biodegradable land fill ban which comes into force on 31st December 2025.

#### Waste to Energy

Falkirk Council has entered into a partnership with Cireco to deal with the Council's residual waste, which is any waste not recycled. This waste will be turned into energy instead of going to landfill. It is anticipated that the energy created will provide heat to 20,000 homes.

The Council also has a partnership with Levenseat to ensure all waste from bulky uplifts, that previously ended up in landfill is instead recycled or turned into energy.

Both of these projects will achieve significant CO2e savings for Falkirk Council, the project register in appendix two highlights the potential CO2e savings that could be achieved.

# **Emissions figures**

# Falkirk Council's emissions relating to Waste Management

16,967 tCO2e was emitted in this area in financial year 2022/23 which is a decrease of 7% from previous year.

This represents a 69% increase since the 2013/14 baseline year\*.

\*Note: While comparison with 2013/14 baseline figures is required as part of standardised emissions reporting duties, in this case the extent to which reporting methodology has changed makes the comparison unhelpful. Comparison between 2018/19 figures is more meaningful, as changes in methodology in this area have been far less significant since then; we see a 20% decrease in emissions from 2018/19 to 2022/23.

In financial year 2022-23 these emissions accounted for 45.9% of the Council's overall emissions.

#### Area wide emissions relating to Waste Management

An estimated total of 68,500 tCO2e in territorial emissions came from waste management within The Falkirk Council Area in 2021. In 2021 waste management accounted for 3% of The Falkirk Council Area's territorial carbon footprint. This represents a 8% reduction since 2013.

# National waste policy for Scotland

(source: Update to the Climate Change Plan 2018-2032)

Falkirk Council adapt and implement local strategy with regards to waste as required to recognise national legislation and regulation amendments. The following national policy influences how carbon footprint reductions will be achieved in this area:

- End landfilling of biodegradable municipal waste by 2025
- 33% reduction in food waste by 2025
- Reduce all waste sent to landfill to 5%
- Recycle 70% of all waste
- Embed circular economy practices
- Reduce emissions from closed landfill sites
- Phased introduction of Deposit Return Scheme from August 2023

# More information

For more information on waste strategy see the **Council's Litter Strategy**.

# **Outcome 4: Procurement**



# Strategy

Falkirk Council seek to

- Reduce the lifecycle emissions products produced, purchased, and used
- Embed responsibility and accountability for lifecycle emissions associated with goods and services procured throughout the organisation
- Support Council service areas to make informed decisions regarding procurement decisions with regards to the lifecycle carbon footprints of goods and services procured
- Support our partner organisations to reduce the carbon footprint associated with their procurement and increase the resilience of supply chains to the impacts of climate change

Central to achieving these outcomes is the principle of 'circular economy', where continued use of existing products and materials through repair and recycling is favoured over purchase of new products.

Falkirk Council consider the implications of the changing climate in procurement decision making and support communities and other stakeholders to do so.

In the process Falkirk Council seek to

- Help to ensure value for money in items procured by the Council, individuals, communities, and organisations
- Improve health outcomes through consumption of quality nutritious food
- Support local producers and reuse and repair industry

# **Emissions figures**

Emissions figures are not available but procurement decisions impact:

- Business emissions- from materials and processes used to make products
- Transport emissions- from moving materials and parts to produce a product, and in the delivery of the final product
- Waste emissions- from disposal and/or recycling of the product

# National procurement policy for Scotland

(sources: Update to the Climate Change Plan 2018-2032; Procurement Reform (Scotland) Act 2014)

- Embedding circular economy practices is referenced in national policy.
- Sustainable Procurement Duty requires climate impacts to be considered by local authorities

# More information

More information can be obtained from the Council's Corporate Procurement Unit webpage at <u>Corporate Procurement Unit | Falkirk Council</u>.

# Outcome 5: Industry, Business sector, and non-commercial land use

# Strategy

Falkirk Council works to support businesses and industry to

- adapt to the impacts of climate change
- reduce their emissions and
- to develop and market solutions which help others to adapt to the impacts of climate change and deliver wider carbon reduction.

This includes the development of negative emissions technologies in the industrial sector and realisation of carbon sequestration potential in the agricultural and forestry sectors which may offset residual emissions.

Sequestration potential also exists in land which is not used for commercial purposes.

Falkirk Council pursues and promotes the approach of prioritising use of assets owned before considering proximate sources for carbon offsetting to avoid unintended negative consequences of carbon offsetting schemes.

Key impacts of climate change for business sectors include:

- Risk of damage to and temporary closure of buildings and infrastructure
- Risk of reduced productivity of works during heatwaves
- Changing patterns of demand
- Impacts on supply chains
- Risk of increased cost of insurance
- Implications for processes

For land-based industries and land not used for commercial purposes, impacts on the natural world are particularly pertinent; Falkirk Council seeks to deliver and support adaptation solutions which take these into account. These include:

- Longer growing seasons
- Increase of pests and diseases
- Risk to crops resulting from flood, drought, and high temperature
- Changes to eco-systems
- Increased risk of fire
- Health risks associated with exposure to extreme heat
- Increasing instance of conditions which are appealing for outdoor recreation



Falkirk Council also seeks to deliver and support solutions involving the natural world (known as 'nature-based solutions') which help with broader efforts to deal with the impacts of climate change. These include:

- earth and vegetation both reducing flood risk and reducing risks associated with drought
- vegetation providing shade and cooling to reduce the impact of heatwayes
- alternative habitat for plants and animals being made available where their current habitats are under threat due to climate change.

In the process, Falkirk Council seeks to help businesses to

- realise opportunities associated with markets in the emerging 'green economy', supporting broader 'green recovery'
- realise new opportunities associated with the changing climate and adapting to it
- deliver positive outcomes for their employees, suppliers, customers and local communities

And support positive outcomes for people in terms of their interaction with the natural world by:

- Protecting, enhancing, and increasing opportunities to spend quality time in natural and semi-natural environments
- Improving the feel of the urban environment in terms of aesthetics, providing shade and shelter, reducing noise, and reducing air pollution

## **Action highlight**

#### Second sequestration study

In 2020, Land Use Change consultancy conducted a phase one sequestration study for Falkirk Council and found that an estimated 4,628 tCO2e could be sequestered via Council-owned land. This is the current potential without doing anything. This study also estimated the sequestration potential for Council owned land based on habitat type, for example mixed woodland, grassland and wetland. This study found a further 2,006 tCO2e and 4,082 tCO2e could be offset depending on habitat type.

In 2023 Falkirk Council will seek to update the first phase of this study and develop a plan to the sequestration potential, of Council owned land, to support the offset of organisational and area wide emissions.

#### **Energy Efficiency Fund**

Falkirk Council are administering the <u>Energy Efficiency Fund</u> which grants small to medium sized enterprises up to 50% grant support up to a value of  $\mathfrak{L}10,000$  to install micro-renewable technologies and improve building energy efficiency. Since launching in October five businesses have received support from the fund from projects such as installing Air Source Heat Pumps to installing solar PV panels. This will help drive down emissions from the business sector.

#### **Forth Green Freeport**

This initiative comprises of both private and public sector organisations, with Falkirk Council taking a leading role in the development of the Forth Green Freeport.

The For the Green Freeport will act as a catalyst for new green technology, alternative fuels and renewable energy manufacturing. The area around the Forth Green Freeport generates 40% of Scotland's industrial greenhouse gas emissions. This initiative will address this issue and support the transition to net zero by 2045.

## Case Study: INEOS site at Grangemouth

The INEOS site at Grangemouth is of national economic significance but is also a major contributor of greenhouse gas emissions. INEOS have set a target to achieve Net Zero emissions in 2045 at their Grangemouth site and are working towards achieving this, for example through investment in more efficient plant and diversification into sustainable hydrogen production and carbon capture and storage. Since they took ownership of the site in 2005 emissions have fallen by 37%. INEOS is also an organisation within the Forth Green Freeport. For more information see INEOS' website: Sustainability | INEOS Grangemouth

Falkirk Council supports INEOS' work to decarbonise the Grangemouth site while retaining the economic benefits that it provides.

# **Grangemouth Investment Zone**

The Scottish Government's National Planning Framework Four recognises the importance of industry in the transition to net zero. Grangemouth is included as part of National Development 15 (Industrial Green Transition Zones) which seeks to decarbonise nationally important industrial sites as part of a just transition to net zero.

Grangemouth Investment Zone will be a focus for transitioning industry and provide an exemplar of industrial decarbonisation. This will be helped by the coordination of activities of the Scottish Government's Grangemouth Future Industry Board<sup>1</sup>.



# **Emissions figures**

#### Industrial sector

An estimated total of 1,453,825.4 tCO2e in territorial emissions came from industry within The Falkirk Council Area in 2021.

In 2021 these emissions accounted for 63.3% of The Falkirk Council Area's territorial carbon footprint.

#### Commercial sector

An estimated total of 30,300 tCO2e in territorial emissions came from commercial sector within The Falkirk Council Area in 2021.

In 2021 these emissions accounted for 1.3% of The Falkirk Council Area's territorial carbon footprint.

## Land use, land use change and forestry (LULCF)

An estimated net total of 78,600 tCO2e in territorial emissions came from 'LULUCF' within The Falkirk Council Area in 2021.

In 2021 these emissions accounted for 3.4% of The Falkirk Council Area's territorial carbon footprint.

## **Other Agriculture emissions**

An estimated total of 61,400 tCO2e in territorial emissions came from agriculture in addition to agricultural emissions recorded under 'LULUCF' in The Falkirk Council Area in 2020.

In 2021 these emissions accounted for 2.7% of The Falkirk Council Area's territorial carbon footprint.

<sup>&</sup>lt;sup>1</sup> Scottish Government (2023) National Planning Framework 4. Available at <u>National</u> Planning Framework 4 - gov.scot (www.gov.scot)

# National business and noncommercial land use policy for Scotland

(source: Update to the Climate Change Plan 2018-2032)

The following national policy influences how carbon footprint reductions will be achieved in these areas in addition to relevant policy outlined elsewhere in this document:

- 21% reduction on 2018 industrial emissions by 2032
- 9% reduction on 2018 agricultural emissions by 2032
- Carbon sink of 2.3MTCO2e through land use by 2032
- 18,000 ha of tree planting per year planted from 2024/25 (up from 12,000 ha per year 2021/22)
- 21% of land covered by forests by 2032
- Restore 40% (250'000 ha) of Scotland's peatland by 2030
- Increase the use of sustainably sourced wood fibre and encourage the construction industry to use timber
- Increase woodland carbon market by at least 50% by 2025

# **More Information**

For more information, see our Economic Strategy: <u>Falkirk Economic Strategy 2015-2025</u>.

# Monitoring progress on the strategy

The scale of the challenge to achieving the ambitious emissions reductions targets set is significant. Falkirk Council requires significant financial investment to achieve the 2030 organisational net-zero target and the Scottish Government's 2030 interim emissions reduction target of 75% reduction in emissions from the baseline.

Due to the challenging budget position that the Council is facing, it is likely that several emission reduction projects will require funding from external sources.

This position is not unique to Falkirk Council and it is a challenge facing all Scottish Local Authorities.

Progress on Falkirk Council's Climate Change Strategy shall be monitored on a regular basis and reported via:

- Corporate Sustainability Working Group this group is responsible for ensuring Falkirk Council meets its legal duties under the Climate Change (Scotland) Act 2009.
- Falkirk Council Executive update reports on Falkirk Council's response top climate change are submitted on an annual basis to the Executive. This will now include progress on the climate change strategy and appended action plan.
- Public Bodies Climate Change Duty Report this is submitted annually to the Sustainable Scotland Network acting on behalf of the Scottish Government. This report includes a breakdown of annual emissions along with details on projects supporting both adaptation and mitigation.

# **Appendix 1: Action Plan**

Please contact Falkirk Council's Energy and Climate Change Team by emailing <u>climatechange@falkirk.gov.uk</u> if you require a version of this plan in a format which is accessible to screen-reading software.

# Section 1: Building organisational capacity

Task 1.1:

Cross-cutting: Embed robust understanding, responsibility and accountability for the Council associated with climate change throughout all Council Services

Actions	Timescale	Resources	Progress update 2023	Additional comments
Reflect climate change in all committee reports, including quantification of carbon impact	Ongoing	All council staff / Elected members Existing revenue budget and capital programme. Carbon Budgeting tool	In progress  A Climate Change Impacts section is now included in all reports going to Full Council and Executive.  A standardised approach to section 3 is in development. This will be an online form for Officers to complete when preparing Committee reports.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Adapt Council policies to ensure these acknowledge the imperative of a just transition to carbon reduction and adaptation including in social impacts of Green Recovery	Ongoing	Energy and Climate Change Team / All report leads Existing revenue budget and capital programme	Complete The Falkirk Council Plan 2022- 2027 includes 'supporting a green transition' as a top 3 priority.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Introducing Carbon Budgeting	Q122/23		In progress - See above  The 22/23 trial is complete. The aim was a 5% reduction from the 2018/19 baseline year and the Council have achieved a 26% reduction. Note that this is only on scope 1 and 2 emissions (building energy, streetlighting and fuel for Council owned vehicles)  The carbon budgeting process will continue to be utilised to monitor quarterly progress on emissions and make behavioural interventions as appropriate.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Deliver organisational Carbon Literacy Training	Ongoing - 2023	Energy and Climate Change Team Existing revenue	In progress Falkirk Council achieved Bronze Carbon Literate Organisation status in June 2023. We will continue to progress training and work towards silver status. As of August 2023, a total of 86 current Council Officers (including 37 of 106 most senior) and 24 of 30 current Elected Members had completed the training. Continue to progress this in 2023.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.

Actions	Timescale	Resources	Progress update 2023	Additional comments
Climate Change induction module	Nov 2022	Energy and Climate Change Team	Complete  This is now live on Falkirk Council's organisational training system OLLE.	
Embed climate change adaptation considerations, and potential responses such as habitat networks and green networwinto wider land use planning decisions using Forestry and Woodland Strategies, regional land use strategies, and Strategic and Local Development Plans and development masterplans	Ongoing	Energy and Climate Change Team / Environmental team	In progress  The Local development Plan three (LDP3) is currently being developed and will include creation of green networks.  The fourth iteration of the National Planning Framework also builds in green networks with one of the priorities being enhancing green infrastructure.	
Develop Climate Change Strategy	Ongoing	Energy and Climate Change Team / Corporate Sustainability Working Group	In progress  The draft strategy has been developed with a final version being brought to members in Autumn. This will include information on the public engagement carried out in relation to the strategy.	Progress monitored annually.

Targets (not including interim targets): Net Zero on scope 1 and 2 emissions by 2030; Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019); Requirement to support the Scottish Climate Change Adaptation Programme

Task 1.2: Community: Partnership working and engagement to help people and organisations help to reduce the carbon footprint of The Falkirk Council Area and to adapt to climate change

Actions	Timescale	Resources	Progress update 2023	Additional comments
Local Heat and Energy Efficiency Strategy (LHEES) engagement tool – development of interactive engagement resource to effectively communicate requirements to achieve decarbonisation targets to external stakeholders.	Ongoing – 2022-2023	Energy and Climate Change Team / Local Heat and Energy Efficiency Strategy Stakeholder group	Complete The Energy and Climate Change Team worked with Crunchy Carrots and the interactive LHEES Tool and website (Decarbonise Falkirk) is now live.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.

Targets (not including interim targets): Net Zero on scope 1 and 2 emissions by 2030: Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019)

# Section 2: Meeting the Council's 2030 Net Zero Target

Transport emissions; (council fleet)

Actions	Timescale	Resources	Progress update 2023	Additional comments
Review Vehicle Replacement Programme – to move towards a greener more sustainable council fleet including electric vehicle (EV) and Hydrogen potential	2021-2026	Fleet Services	In progress Significant capital investment has been committed for electric vehicles over next 3 years. The Council now has 124 electric vehicles in its fleet.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Installing electric vehicle (EV) charging points / infrastructure	Ongoing	Transport Planning / Fleet Services	In progress In February 2023 there were 57 electric vehicle charging points across 28 locations in the Falkirk Council Area, with an additional 32 over 10 locations due to be installed by March 2024.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Hydrogenated Vegetable Oil (HVO) fuel trial for Heavy Goods Vehicles (HGVs)	Ongoing	Fleet Services	In progress An HVO trial was carried out in 2022/23 which resulted in a 28% decrease in emissions from fleet compared to 2021/22. Further funding has been committed for 2023/24 with an estimated saving of 253 tCO2e.	

Targets (not including interim targets): Net Zero on scope 1 and 2 emissions by 2030; Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019); all fleet < 3.5t Ultra Low Emissions Vehicles by 2025 (Climate Change Plan Update)

Task 2.2:
Public sector buildings; Significantly reduce emissions arising from energy use within operational council buildings

Actions	Timescale	Resources	Progress update 2023	Additional comments
Strategic Property Review	Ongoing	Existing revenue budget and capital programme.	In progress  A Council meeting was held on 29th March 2023 to discuss outputs of the strategic property review. There are a number of properties identified that are suitable for a community asset transfer or alternative delivery model and/or partnership arrangements may result in them remaining open.  A capital fund was also approved in principle to support community asset transfers and alternative delivery models.  Falkirk Council have closed its HQ, and Town Hall. These buildings were inefficient in terms of energy consumption. A new HQ and arts centre will be built in the next few years which will be much more efficient and in line with our net zero ambition.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Non-domestic building upgrades to comply with Local Heat and Energy Efficiency Strategy (LHEES)/Net Zero goal.  Some delivery through Non-Domestic Energy Efficiency Framework (partnership approach)	Ongoing	Energy and Climate Change Team / Building Design unit staff resource required.  Energy and Climate Change Team / Local Heat and Energy Efficiency Strategy (LHEES) Stakeholder group Energy Efficiency Loan Fund (EELF) and capital are only existing funds available£62 MILLION Capital required for 70 worst preforming building to meet targets. £10.5 million capital awarded until 25/26. Future bid required to secure remaining funds. £1 million ringfenced energy loan fund, called the Energy Efficiency Loan Fund (EELF) will contribute to this for the projects that fall within the parameters of this fund.	In progress  Non-Domestic Energy Efficiency Framework projects for 10 sights, LED lighting for Falkirk, Grangemouth, Deny and St Mungo's HS. Solar PV for Denny, Falkirk, Grangemouth, Larbert, Braes, Graeme High Schools and Bo'ness Academy. This would have a potential saving of up to 724 tCO2e.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.

Actions	Timescale	Resources	Progress update 2023	Additional comments
Install solar PV in Denny, Falkirk, and Grangemouth High Schools	Ongoing - 2023	Energy and Climate Change Team Gateway funds – awaiting final agreements from lenders	In progress Funding approved for this, mentioned in above action. Savings from this element alone is estimated at 262 tCO2e per year. It is anticipated this project will take place in the 2023/24 financial year.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Install LED lighting in Grangemouth, Denny, St Mungo's and Falkirk High Schools.	- 21/22 and 22/23	Energy and Climate Change Team/ Children's services/ Building Design Unit Gateway funds – awaiting final agreements from lenders	In progress Funding approved for this, mentioned in above action. Savings from this element alone is estimated at 176 tCO2e per year. It is anticipated this project will take place in the 2023/24 financial year.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.

Targets (not including interim targets): Net Zero on scope 1 and 2 emissions by 2030; Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019); Scotland's buildings near net zero by 2050 (Energy Efficiency Scotland); 50,000 non-domestic buildings to convert to zero or low emissions heating systems by 2030 (Heat in Buildings Strategy); improve Energy Performance Certificate (EPC) as much as is feasible by 2040 (Scotland's Energy Efficiency Programme); all buildings insulated to maximum feasible level by 2032 (Climate Change Plan)

Task 2.3: Street lighting: Direct emissions associated with street lighting will be significantly reduced

Actions	Timescale	Resources	Progress update 2023	Additional comments
Replacement of streetlights with LED lanterns.	By March '22	Street lighting team £1.4m capital funding	Complete 100% installed, 80% reduction in emissions since project started in 2015/16.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.

Targets (not including interim targets): Council target: Net Zero on scope 1 and 2 emissions by 2030.

Task 2.4:
Offsetting/NET: Offset residual emissions required to meet this target via the Council's estate

Actions	Timescale	Resources	Progress update 2023	Additional comments
Undertake Carbon Sequestration quantification study: identifying how much carbon we need to sequester and how much land we have available to do so	Ongoing - 2030	Energy and Climate Change Team / Environmental team £15k revenue (phase 1)	In progress  Phase 1 study carried out in 2020, update to this required including identification of sites that have the highest sequestration potential.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Increase Carbon Sequestration opportunities through providing partial to the Forth Climate Forest	April 21 / ongoing	Energy and Climate Change Team / Environmental team £30k for implementation of Forth Valley Forest £1.5m (external)	In progress Funding from Woodland Trust Approved. Falkirk Council have committed £15k per year over next 2 years. The funding is provided by Woodland Trust, Stirling, Clackmannanshire and Falkirk Councils.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.

Targets (not including interim targets): Council target: Net Zero on scope 1 and 2 emissions by 2030; 56% waste compared to 2020, 52% reduction in Greenhouse Gas emissions from waste compared to 2018, end landfilling of biodegradable municipal waste by 2021, 33% reduction in food waste, reduce all waste sent to landfill by 5% by 2025, recycle 70% of waste by 2025, establish a more circular economy, reduce emissions from closed landfill sites (Climate Change Plan update)

# Section 3: Section 3: Decarbonisation of Falkirk Council assets and service delivery in areas not included in the 2030 Net Zero Target

Task 3.1:
Local Authority-domestic properties: Reduce emissions associated with Local Authority Housing

Actions	Timescale	Resources	Progress update 2023	Additional comments
Energy saving support for Council housing tenants only	2023 - 2025	Energy and Climate Change Officer post for housing.	In progress  Due to recruitment challenges, not being able to find a suitable candidate this has not progressed.	
5-year Housing Investment Programme including: Window/door and heating replacement plus renewables a proportion of external fabric works which contribute to insulation improvement			In progress  Several homes have been provided with upgrades which is improving the energy efficiency of these properties.	

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019)); Scotland's buildings near net zero by 2050 Energy Efficiency Scotland (EES); 15% heat demand reduction by 2032, 35% heat from low carbon sources by 2032, all Scottish homes Energy Performance Certificate (EPC) C by 2040 where feasible Energy Efficiency Scotland (EES); all buildings insulated to maximum feasible level by 2032, 60% of walls will be insulated and 70% of lofts in homes to have at least 200mm of insulation where technically feasible by 2020 (Climate Change Plan Update); New homes to use zero direct emissions heating and feature high levels of fabric energy efficiency from 2024 (Heat in Buildings Strategy); All social housing to meet or be treated as meeting Energy Performance Certificate (EPC) B or be as energy efficient as practically possible (Heat in Buildings Strategy); Maximise the number of social rented homes achieving Energy Performance Certificate (EPC B) and no social housing should be let if the energy efficiency rating is lower than Energy Performance Certificate (EPC) D by 2032 (Scotland's Energy Efficiency Programme); All homes with households in fuel poverty to reach Energy Performance Certificate (EPC) C by 2030 where technically feasible and cost effective (Scotland's Energy Efficiency Programme)

Task 3.2:
Transport: Make significant reductions in emissions associated with construction and maintenance of transport infrastructure within the Councils direct responsibility

Actions	Timescale	Resources	Progress update 2023	Additional comments
Introduce Sustainable Transport	By June '21 / ongoing	£2.5m electric vehicle (EV) ChargePoint funding & ChargePoint Scotland funding	In progress The Local Transport Strategy was agreed at the 11th of April Executive meeting. This is due to be published on Council's website.	
Minimise embodied energy in the construction and maintenance associated with Introducing Sustainable and active travel infrastructure.	April '21 to March '26	£2.5m capital funding but with potential for matched Sustrans funding. Also potential for funding from Bus Partnership Fund bid.	In progress All key infrastructure contracts will have the Scottish Governments Sustainability Test applied. This includes looking at construction materials and managing carbon from this.	
Implement Tax Incremental Financing (TiF) projects increase infrastructure capacity for sustainable solutions area wide	Ongoing	Growth and Investment	In progress  The TIF Programme is delivering active travel infrastructure as recently incorporated into the J5 improvements at Cadger's Brae roundabout. Future planned improvements will deliver a significant section of the Grangemouth to Falkirk Green Route	
Electric/hybrid vehicle system repair and replacement training: all mechanics working towards Level 4 award having already achieved Level 3		Falkirk Council Fleet mechanics, EV specific bay and tools	In progress  Details of the L3 training (required to complete MOTs on EVs): Level 3 Award in Electric/Hybrid Vehicle System Repair and Replacement (theimi.org.uk)	

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019))

Task 3.3:
Transport: Significantly reduce embodied emissions associated with Council fleet

Actions	Timescale	Resources	Progress update 2023	Additional comments
Reduce miles travelled by council staff commuting to and between office locations/meetings	Ongoing	Energy and Climate Change Team/Fleet management/Human Resources	Complete  Working from home and hybrid working is reducing the mileage that staff travel for meetings.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019))

Task 3.4:
Waste and Resources: Significantly reduce all emissions associated with waste management

Actions	Timescale	Resources	Progress update 2023	Additional comments
Waste to energy project  – reducing emissions from landfilled waste	Ongoing –	Waste services	In progress  The residual waste contract includes a waste to energy scheme which will result in a significant decrease in the Council's waste emissions.  Waste makes up the largest proportion of Falkirk Council's emissions at around 46%.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.
Engagement to influence behaviour change- organisations	Ongoing – Litter Strategy	Waste services	In progress Falkirk Council's Waste Services team provide support to help members of the public and organisations manage their waste.	
Implement Tax Incremental Financing (TiF) projects increase infrastructure capacity for sustainable solutions area wide	Ongoing – Litter Strategy	Waste services	In progress Falkirk Council's Waste Services team provide support to help members of the public and organisations manage their waste.	

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets)(Scotland) Act 2019)); 56% waste compared to 2020, 52% reduction in GHG emissions from waste compared to 2018, end landfilling of biodegradable municipal waste by 2021, 33% reduction in food waste, reduce all waste sent to landfill by 5% by 2025, recycle 70% of waste by 2025, establish a more circular economy, reduce emissions from closed landfill sites(Climate Change Plan Update); 90% collection rates by 2024 for Deposit Return Scheme.

Task 3.5:
Procurement: Significantly reduce all emissions associated with council procurement

Actions	Timescale	Resources	Progress update 2023	Additional comments
Utilisation of Scottish Government's sustainable procurement tool	Ongoing	Finance / Procurement teams	In progress  A Sustainable Procurement Multidisciplinary Working Group has been set up to flag priority contracts and ensure the sustainable procurement tools are utilised.	Outputs will be monitored and measured within the council's annual climate change report to Scottish Government, the Public Bodies Duty Report.

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets)(Scotland) Act 2019)

# Section 4: Adaptation and area-wide decarbonisation

#### **Task 4.1:**

#### Energy: Support development of renewable energy within the Council area by third parties

Actions	Timescale	Resources	Progress update 2023	Additional comments
Greener Grangemouth Programme	Ongoing – outline business case development in 2023	Growth Deal	In progress  The outline business case for this project will be developed in 2023 and further information provided at the annual updates of this action plan.  The project is likely to include investment in a community owned solar project.  Further information will be provided in a future update on the action plan.	
Explore/ implement Grangemouth Hydrogen Project	To be confirmed	Timescale for blue hydrogen is 5-8 years, INEOS have announced £1bn investment by 2030	Not started	

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019); 35% heat from low carbon sources by 2032 (Energy Efficient Scotland); by 2030 renewable energy generation in Scotland will account for the equivalent of 50% of our energy demand across electricity, heat and transport (Climate Change Plan Update).

#### Task 4.2:

Other Non-Residential Buildings: Falkirk council to support significant reductions in all emissions associated with construction and maintenance of non-domestic buildings out with the Councils direct control within the Council area

Actions	Timescale	Resources	Progress update 2023	Additional comments
Local Heat and Energy Efficiency Strategy (LHEES)	December 2023	Energy and Climate Change Team/ Building Design Unit/ Housing Planning/ Building control	In progress  Making good progress on the development of the Local Heat and Energy Efficiency Strategy and will be complete by October 2023. Publication will be in line with the Scottish Government deadline of 31st December.	

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019)); 20% heat demand reduction by 2032, 70% heat from low carbon sources by 2032 (Energy Efficient Scotland); all buildings insulated to maximum feasible level by 2032; services sector -53% GHG emissions compared to 2018 (Climate Change Plan Update); 50,000 non-domestic buildings to convert to zero or low emissions heating systems by 2030 (Heat in Buildings Strategy); improve Energy Performance Certificate (EPC) rating as much as is feasible by 2040 (Scotland's Energy Efficiency Programme)

#### Task 4.3:

Transport: Falkirk Council to support significant reductions in, and development of plans to further reduce: all emissions associated with transport beyond the Council's direct control within the Council area

Actions	Timescale	Resources	Progress update 2023	Additional comments
Introduce Sustainable and active travel: -Cycling, walking and bus infrastructure initiatives supporting sustainable travel area-wide.	April '21 to March '26	Sustainable Transport Team	In progress  The TIF Programme is delivering active travel infrastructure as recently incorporated into the Junction 5 improvements at Cadger's Brae roundabout.  Future planned improvements will deliver a significant section of the Grangemouth to Falkirk Green Route. An update on this will be provided at the next update of this Climate Emergency Action Plan.	

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019)); phase out the sale of new petrol and diesel vehicles by 2030 (Climate Change Plan Update); reduce car kms by 20% by 2030 (Climate Change Plan Update), 10% of Everyday journeys by bike by 2020 (Climate Change Plan Update); Electrify 35% of the rail network by 2032 and decarbonise the rail network by 2035 (Climate Change Plan Update)

Task 4.4:
Industry: Falkirk Council to support significant reductions in industrial emissions within the Council area

Actions	Timescale	Resources	Progress update 2023	Additional comments
Engage with Forth Valley for Net Zero to support carbon reduction throughout the area.	Ongoing	Energy and Climate Change Team	Complete A number of engagement events were carried out in the run up to COP26.	
Forth Green Freeport	Ongoing	Various teams	In progress  This will involve a number of partners across the Forth including Fife and City of Edinburgh Councils and INEOS.  One of the key aspects of the Forth Green Freeport is to accelerate Scotland's net zero transition	

Targets (not including interim targets): Net Zero by 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019))

#### Task 4.5:

#### Adaptation: Improve sector-specific resilience to climate change

Also see task 1.1 for actions which improve adaptation capabilities across services and sectors.

Actions	Timescale	Resources	Progress update 2023	Additional comments
Flood Risk Management Plan interventions	Ongoing	Flooding Team	In progress Flood Risk Management Strategies have been prepared by SEPA. Part of this strategy identifies actions to address flooding in the areas at greatest risk. Falkirk Council also provides information to communities on flood risk.	nterventions outlined in SEPA Flood Risk Management Plans: Flood Risk Management Plans   SEPA
Implement Grangemouth Flood Protection scheme	To be confirmed	Flooding Team	In progress  An update on this was provided at the 18th January 2022 Executive. It was anticipated that the project would be in the 'scheme notification' phase by late 2022.  Further information on the progress of the Grangemouth Flood Protection scheme will be provided at the next update of the Climate Emergency Action Plan.	Gap in funding for infrastructure
Eco-system services- maintenance and development	Ongoing	Planning and Environment	In progress  The sustainable grass management pilot has supported the offsetting of carbon emissions and also contributed to a significant increase in biodiversity at the pilot sites.	

Targets (not including interim targets): Requirement to support the Scottish Climate Change Adaptation Programme

# Appendix 2 – Falkirk Council's Project register

Please contact Falkirk Council's Energy and Climate Change Team by emailing <u>climatechange@falkirk.gov.uk</u> if you require a version of this plan in a format which is accessible to screen-reading software.

The following tables sets out projects that will reduce the Council's emissions. These are split into projects that have received funding and projects that are awaiting funding.

The projected CO2e savings are estimated and may be higher or lower than stated, these will be monitored through the annual Public Bodies Climate Change Duty Report.

Project	Status	Estimated CO2e savings (tCO2e)
New NDEE phase 2 - Electricity - 10 sites	Funded – anticipated implementation in 2023	74
New NDEE phase 2 - Gas -10 sites	Funded - anticipated implementation in 2023	370
Falkirk High School LED lighting	Funded - anticipated implementation in 2023	38
Grangemouth High School LED lighting	Funded - anticipated implementation in 2023	35
Denny High School LED lighting	Funded - anticipated implementation in 2023	38
St Mungo's High School LED	Funded anticipated implementation in 2023	38
Replacement of 8 medium vans with EV (part of vehicle replacement programme)	Funded – delivered April 2023	16
Replacement of 8 small vans with EV (part of vehicle replacement programme)	Funded – delivered April 2023	14
Replacement of 5 large vans with EV (part of vehicle replacement programme)	Funded – delivered April 2023	14
Replacement of 15 tippers with EV (part of vehicle replacement programme)	Funded – delivered April 2023	43
Replacement of 5 SUVs with EV (part of vehicle replacement programme)	Funded – delivered April 2023	11
Solar PV in 7 high schools	Funded - anticipated implementation in 2023	221
Hydrogenated Vegetable Oil (HVO) in Refuse vehicles	Funded – from April 1st 2023	253
Grangemouth Sports Complex - hall lighting	Funded – completed May 2023	8
Vehicle Replacement Programme – number of diesel and petrol fleet replaced with EV	Funded – expected to cover next few years	113
SPR outputs - electricity	This is a phased approach, likely to be completing financial year 26/27	372
SPR outputs - gas	This is a phased approach, likely to be completing financial year 26/27	1,346
Waste to Energy	Likely to operational from summer 2023	16,518
	Total savings (tCO2e)	19,522

Table 1: Projects that have received funding

Project		Estimated CO2e savings (tCO2e)
Remaining LHEES work (covers 80% of operational buildings and requires approximately £52 million capital investment)	Awaiting funding – requires significant investment	5,055

Table 2: Projects awaiting funding

