

The background of the slide features a large, light blue watermark of the City of Vancouver's coat of arms. The crest includes a crown with four maple leaves, a shield divided into four quadrants (top-left: a ship, top-right: a stag, bottom-left: a ship, bottom-right: an eagle), and a banner at the bottom with the motto 'A NE FOR A'.

Agenda Item 8

Climate Change Strategy and Action Plan

Falkirk Council

Title: Climate Change Strategy and Action Plan
Meeting: Executive
Date: 17 October 2023
Author: Director of Place Services

1. Purpose of Report

- 1.1** The purpose of this report is to present the Council's proposed Climate Change Strategy 2023-2030, update on our Climate Emergency action Plan and consider the Council's Local Heat and Energy Efficiency Strategy (LHEES) and Delivery Plan.
- 1.2** This report also contains an update on the Council's carbon footprint and progress made on reducing emissions since the baseline year.
- 1.3** The recommendations in this report, support the 2022-27 Falkirk Council Plan's strategic priority of supporting a thriving economy and green transition.

2. Recommendations

2.1 It is recommended that the Executive:

- (1) agrees the Draft Climate Change Strategy 2023-2030**
- (2) notes the progress made with actions since the Climate Emergency Action Plan was agreed on 22 February 2022**
- (3) notes the work outlined in the Climate Change Project Register (appended to the climate change strategy)**
- (4) notes the update on the Council's progress toward net zero targets, and**
- (5) agrees to the Local Heat and Energy Efficiency Strategy and Delivery Plan**

- 2.2** The documents relating to the above can be found on the Council's climate change [webpage](#) under publications.

3. Climate Change Impact

- 3.1** This report provides a background to Falkirk Council's Climate Change Strategy and an update to the Climate Emergency Action Plan.
- 3.2** The draft climate change strategy sets out how Falkirk Council plans to meet its climate change obligations, particularly the organisational net zero 2030 target and the national net zero target of 2045. Several outcomes have been identified across key areas such as buildings, energy, and transport. Action on these outcomes will have a positive impact on both Falkirk Council's Climate Change ambitions and its area wide carbon footprint.

- 3.3** The update on the Climate Emergency Action Plan outlines progress on several ongoing actions. An estimated 19,522 tonnes CO₂e savings have been identified through actions such as the Non-Domestic Energy Efficiency project, due to take place during 2023, continuing hydrogenated vegetable oil (HVO) in 2023/24, electrification of our fleet, and a waste to energy project for the Council's residual waste. This CO₂e saving from these is the equivalent of the electricity consumption emissions from over 34,000 households in the UK, based on average energy usage figures from Ofgem.

4. Background

- 4.1** In 2019, Falkirk Council published its organisational emissions target of being net zero by 2030. This pledge requires the Council to significantly reduce emissions linked to operational buildings energy use, streetlighting and fuel consumption for Council owned fleet vehicles. These emissions sources are classed under scope 1 and 2 emissions.
- 4.2** In addition to the Council's net zero target of 2030, Falkirk Council must meet the national target of 75% reduction in emissions by 2030, 90% reduction in emissions by 2040 and net zero by 2045. This is for all emissions associated with Council operations and emissions within the Falkirk Council area such as domestic energy and transport related emissions.
- 4.3** A Climate Emergency Action Plan (2022-2030) was agreed and adopted at the Executive on 22 February 2022. This plan set out a number of actions to support delivery of the organisational net zero target and the national interim target of 75% reduction in emissions by 2030. One of these was the drafting of a Climate Change Strategy to guide this work. In addition, it was emphasised at the time that the Action Plan would be a working document requiring regular review and updated as new activity was identified or closed off. This report addresses both the Strategy element and the review of the Action Plan.

5. Considerations

5.1 Climate Change Strategy

- 5.1.1** The Climate Change Strategy will sit alongside the updated Climate Emergency Action Plan (2022-2030) and sets out Falkirk Council's approach to delivering on its climate change ambition and responsibilities. The Climate Change Strategy can be found [here](#).
- 5.1.2** There are three key themes which underpin the strategy, these are:
- Reducing greenhouse gas emissions;
 - Adapting to climate change; and
 - Securing a just transition and green economic recovery.
- 5.1.3** Falkirk Council's Climate Change Strategy also sets out a number of outcomes which seek to support the transition to net zero across several areas. These outcomes support emissions reductions in the following areas:

- Buildings and energy – reducing emissions in operational Council buildings and supporting residents in the Falkirk area to reduce their energy related emissions.
- Transport – decarbonising the Council fleet and encouraging residents to choose more sustainable travel choices.
- Waste management – support the reduction in waste sent to landfill in line with national policy.
- Procurement – reducing the climate impact of products and services purchased by Falkirk Council.
- Business sector, and non-commercial land use – support the business, industrial and agricultural sector reduce emissions and explore carbon sequestration to further reduce impact from emissions in the Falkirk area.

5.1.4 The Council's Climate Change Strategy will cover the period to 2030, taking us up to the agreed organisational net zero target, and the national interim target of 75% reduction in emissions by 2030.

5.2 Climate Emergency Action Plan 2022-2030 update

5.2.1 The Climate Emergency Action Plan is also a live document with officers providing annual updates on progress. The action plan is appended to the Climate Change Strategy.

5.2.2 This plan outlines updates on the following key areas:

- Council's Vehicle Replacement Programme – highlighting that there are now 124 electric vehicles in the fleet, up from 50 vehicles.
- Hydrogenated Vegetable Oil (HVO) trial for Heavy Goods Vehicles; and
- Non-domestic building upgrades – solar panels and LED installation in several High Schools during 2023.
- Waste to energy – the new waste contracts to deal with residual waste and bulky uplifts includes scope to utilise energy from waste at Earl's Gate. This will significantly reduce the Council's waste emissions.

5.2.3 The Action Plan is also supported by the Council's Project Register. The Project Register illustrates those actions/projects that the Council can implement to realise the reduction in carbon emissions required to meet its Net Zero Targets. The project register is appended to the Climate Change Strategy.

5.3 LHEES Strategy and delivery plan

5.3.1 LHEES sets out the long-term plan for decarbonising heat in buildings and improving energy efficiency across the local authority area. These local strategies will underpin an area-based approach to heat and energy efficiency planning and delivery.

5.3.2 LHEES is primarily driven by Scotland's statutory targets for greenhouse gas emissions reduction and fuel poverty:

- Net zero emissions by 2045 and 75% reduction by 2030.
- In 2040, as far as reasonably possible, no household in Scotland is in fuel poverty.

5.3.3 The LHEES Strategy will draw on standardised methodology to:

- Set out how each segment of the building stock needs to change to meet national objectives, including achieving zero greenhouse gas emissions in the building sector, and the removal of poor energy efficiency as a driver of fuel poverty;
- Identify strategic heat decarbonisation zones, and set out the principal measures for reducing buildings emissions within each zone, and
- Prioritise areas for delivery, against national and local priorities.

5.3.4 The purpose of the LHEES Strategy is to present the evidence base that identifies what needs to be done across the local authority to change buildings and local infrastructure by 2045 to fulfil the Scottish Government's objectives and local priorities relating to heat in buildings. The Strategy will highlight areas within the Falkirk area that have poor energy efficiency and high levels of fuel poverty. Accompanying the LHEES Strategy will be the LHEES Delivery Plan. The LHEES Strategy can be found on the Council's Climate Change [website](#).

5.3.5 The LHEES Delivery Plan will set out actions enabling Falkirk Council to work towards delivery of the LHEES Strategy. Actions will contribute to achieving Scotland's statutory targets on net zero greenhouse gas emissions and fuel poverty, as well as enabling the delivery of changes to buildings and local infrastructure needed to fulfil the Scottish Government's objectives relating to heat and energy efficiency in buildings. The Delivery Plan will clarify our role in delivering the LHEES, focussing on how the council can build on existing plans and policies and coordinate across local partners to create decarbonisation projects. The LHEES Delivery Plan can be found on the Council's Climate Change [website](#).

5.3.6 High level outputs of the LHEES include highlighting areas of potential intervention. When considering the Falkirk Council area, Falkirk Grahamston, Bo'ness Kinneil and Braes Villages have been highlighted for high levels of poor energy efficiency, areas of fuel poverty and each zone has a range of possibility for retrofit. For the Falkirk Council owned domestic properties, the top areas for poor levels of energy efficiency were Falkirk North, Grangemouth, and Upper Braes. These areas will be of focus throughout future Home Energy Efficiency Programmes for Scotland Area Based Scheme (HEEPS ABS). The HEEPS ABS is designed and delivered by Local Authorities, in combination with utility companies and local delivery partners. It is primarily an insulation programme delivering solid wall and hard-to-treat cavity wall insulation.

5.4 Current progress toward net zero targets

5.4.1 Since the last climate emergency update, work has gone in to quantify the Council's position in terms of progress toward the organisational 2030 net zero target and the national emissions reduction target of 75% reduction in emissions by 2030.

5.4.2 The following graph sets out the pathway to achieving the organisational 2030 net zero target.

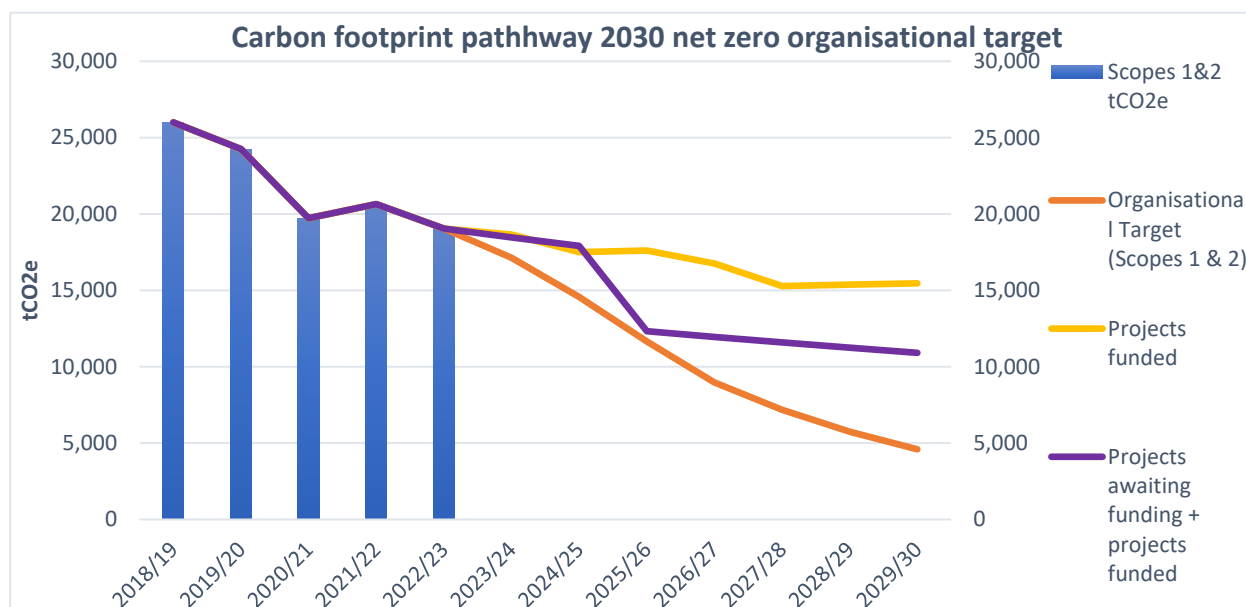


Figure 1: Emissions reduction pathway for 2030 interim target.

- 5.4.3 The Council's actual carbon footprint is represented by the blue bars. The Council's scope 1 and 2 emissions (operational building energy, fuel for Council owned fleet and electricity for streetlighting) were 25,829 tonnes CO2e in 2018/19 which is the organisational baseline year and in 2022/23 these reduced to 19,041 tonnes CO2e representing a 26% reduction in these emissions.
- 5.4.4 The orange line represents the emissions reduction pathway required to get to net zero by 2030, which will require (on average) an 18% annual reduction in emissions to reach 4,628 tonnes CO2e which is the Council's current sequestration value.
- 5.4.5 The yellow line represents the emissions reduction we are likely to achieve with all the projects we have funded and the purple line is the emissions reduction likely to be achieved if we include projects which are funded plus those awaiting funding. Considering projects that are funded and awaiting funding, the Council will fall short of its 2030 target by 6,282 tonnes CO2e.
- 5.4.6 The scale of the financial challenge is significant in supporting the Council to meet the 2030 organisational net zero target. The Council's existing financial position means there is a high risk of not meeting the 2030 organisational net zero target.
- 5.4.7 Falkirk Council will ultimately need to look at external sources of funding to support carbon reduction projects. As funding opportunities arise, Falkirk Council will make every effort to capitalise on these to help us bridge the gap to meeting our organisational net zero target.
- 5.4.8 Falkirk Council also has a legal duty to support the national carbon reduction targets as set out in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019. This sets a target of net zero by 2045 and a series of interim reduction targets:

- 75% reduction in emissions by 2030
- 90% reduction in emissions by 2040

5.4.9 The next graph below sets out the pathway to achieving the national 2030 interim reduction target of 75% reduction in emissions.

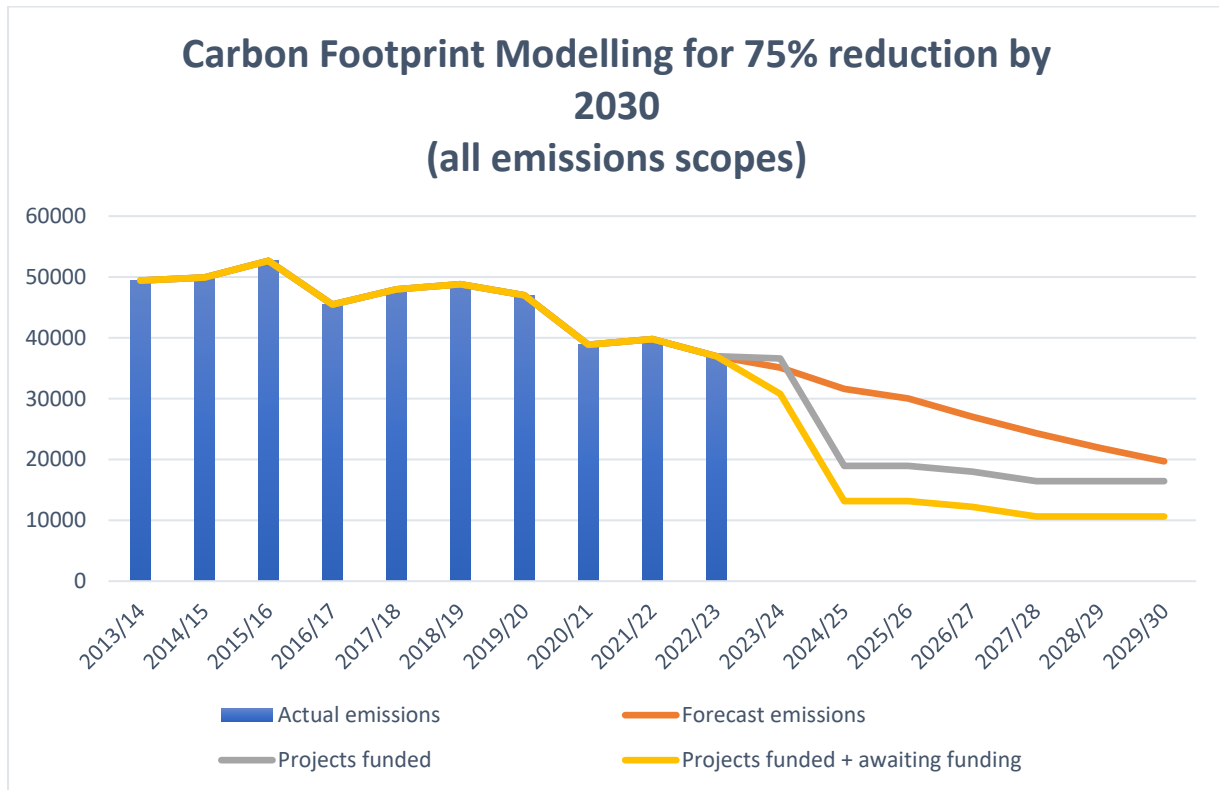


Figure 2: Emissions reduction pathway for 2030 75% interim reduction target for all Falkirk Council emissions sources

5.4.10 The blue bars represent the actual emissions and in 2013/14 emissions were 49,407 tonnes CO₂e and in 2022/23 these reduced to 36,963 tonnes CO₂e. This represents a 25% reduction since the Council started reporting emissions.

5.4.11 Falkirk Council's emissions were 7% less than they were in 2021/22, which (excluding 2020/21) was the largest annual reduction achieved since the Council started reporting on emissions in 2013/14. In 2022/23 emissions were 36,963 tonnes CO₂e compared to 39,795 tonnes CO₂e in 2021/22, this is a reduction of 2,832 tonnes CO₂e.

5.4.12 The main reason for this reduction is the Hydrogenated Vegetable Oil (HVO) trial in 2022/23. HVO has lower emissions than diesel so in vehicles using HVO rather than diesel we see a 90% reduction in emissions. Notwithstanding that this also has a positive impact on air quality across the area, with reduction in particulates from burning diesel.

- 5.4.13 The orange line represents where we need to be by 2030 to get to the interim reduction target. In 2030 the Council's emissions should be no higher than 19,858 tonnes CO₂e to reach this target. This will require a 5% reduction annually to 2025/26 and thereafter a 10% reduction until 2029/30.
- 5.4.14 The Grey line on the graph highlights the emissions reduction the Council will achieve with all the projects we have funded. This position is more positive than the organisational target as we have enough projects funded to achieve the interim carbon reduction target.
- 5.4.15 Finally, the yellow line shows emissions reductions with projects funded and projects awaiting funding, this further accelerates those emissions reductions to get us to around 10,000 tonnes CO₂e in 2029/30.
- 5.4.16 The Council's Project register sets out a list of projects to support Carbon reduction. A key project includes the Strategic Property Review (SPR) delivery on this could result in an emissions reduction of, almost, 700 tonnes CO₂e.
- 5.4.17 There is a £6 million capital fund as part of the Strategic Property Review which will include energy efficiency improvements for properties, to ensure properties are fit for potential transfer to communities.

6. Carbon budgeting

- 6.1.1 The Council trialled revenue carbon budgeting in 2022/23 with various teams across each of the Council's four service areas. For most it was capturing energy related emissions, with fleet tracking waste vehicles progress. In doing this trial it allowed us to look at how we need to manage revenue carbon budgeting going forward.
- 6.1.2 The target in the trial year was to reduce emissions by 5% from the 2018/19 baseline year. Despite some areas going over the allocated carbon budget the Council has achieved a 26% reduction in its scope 1 and 2 emissions (building energy, fuel for Council owned vehicles, and electricity for streetlighting).
- 6.1.3 Going forward the Energy and Climate Change Team will monitor emissions and flag up any areas of concern for example a school building using a higher-than-normal amount of energy during school holidays. This should support emissions reduction from behaviour change.
- 6.1.4 From 2023/24 to 2029/30 the following annual reduction percentages will be required to meet the organisational 2030 net zero target:

Year	% reduction
2023/24	10%
2024/25	15%
2025/26	20%
2026/27	25%

2027/28	25%
2028/29	20%
2029/30	15%

These carbon reduction targets will be reviewed annually depending on progress and will increase or decrease as appropriate. This will be reported to members via the annual climate change update.

- 6.1.5 Another element of the carbon budgeting process is capital carbon budgeting which is linked in with capital spend. The process looks at all capital projects from the start ensuring that the climate change impact is understood, building in carbon management into the tender process and the contract, and ensuring that there was ongoing monitoring.
- 6.1.6 Carbon management is being built into key infrastructure projects, for example the Grangemouth Flood Protection Scheme. Jacob's have produced a report that includes a chapter on climate change, referring to carbon management.
- 6.1.7 It is worth noting that the Sustainable Scotland Network are developing statutory guidance for Public Bodies on utilising PAS 2080:2023 Carbon Management in Buildings and Infrastructure. PAS 2080 is a specification for whole life carbon management when delivering projects and programmes in the built environment, for example a road or a new school. The specification that the document sets out is essential what capital carbon budgeting aims to achieve.
- 6.1.8 The implications of these projects will also be flagged up in section 3 of all reports and the Scottish Government's sustainability test, which covers climate change, is also being applied to priority contracts.

6.2 Green Energy Fund (£250,000)

- 6.2.1 At the 2 March 2023 budget meeting Elected Members agreed to spend Council's reserves on investigating sustainable energy solutions which would likely benefit Council operational properties.
- 6.2.2 There are three potential projects we have currently identified that could utilise some of this budget. Information included in the table below:

Project	Information
Callendar Park Heat Network	<ul style="list-style-type: none"> •Falkirk Council has received funding from Scottish Government's Heat Network Support Unit to carry out a feasibility study into upgrading/extending the current gas CHP system at Callendar Park. •This study will explore low carbon options for the network in addition to the buildings it could connect to. There is potential to extend to all

	<p>tower blocks within the park area, Callendar Business Park (where the Forum is) and St Andrew's Primary and Graeme High. The site of the new Town Hall will also be considered for connecting to the network.</p> <p>•Following the outputs of the study the intention would be to utilise some of the £250k funding to develop a business case so that the project is investment ready. The Scottish Government has a £300 million fund for supporting the development and rollout of heat networks. This grant fund covers 50% of capital costs only.</p>
Hallglen Solar Farm	<p>•A feasibility study has been carried out into the viability of a solar farm at Woodend Farm Hallglen. The study identified the site is suitable for a solar array of up to 2.5MW which would generate over 3 million kWh of electricity annually.</p> <p>•The study outlines options for connecting to the solar farm and this only included two local primary schools and a nursery school. •There could be the potential for the site to connect to Callendar Business Park, Callendar House, Graeme High and St Andrew's Primary.</p> <p>•A further more extensive study could be carried out to allow us to determine the full suitability for connections at the solar farm.</p>
Mine water geothermal	<p>•TownRock Energy have carried out some studies into the potential for mine water geothermal across all Scottish Local Authorities.</p> <p>•Their study identified potential areas across Falkirk that would be suitable for a heat network utilising mine water as a heat source. Bo'ness is an area that is suitable for this and therefore we would be looking to explore the potential for a network in Bo'ness utilising Minewater geothermal.</p> <p>•Also worth noting that the consultants (Buro Happold) working on the Callander Park heat network study are exploring mine water as a potential source at that site.</p>

6.2.3 If these projects are viable to progress from feasibility study/business case to delivery, then they will be brought to Executive for a decision.

7. Consultation

7.1 Climate Change Strategy

- 7.1.1 Members of the Corporate Sustainability Working Group have been consulted in the development of the emerging draft Climate Change Strategy. This report has also been shared with colleagues in Finance, Legal and Procurement.
- 7.1.2 Community consultation on the climate change strategy has taken place between February and June 2023 in the form of an online survey and attendance at three community events across the Falkirk area.
- 7.1.3 The online survey had 81 respondents and, although doesn't provide a representative sample for any conclusions to be drawn, there was a high level of concern on climate change. The results also highlighted that respondents did not consider the aims of the strategy to have an impact on the cost of living. However, they did consider the aims to have more of a positive outcome for physical and mental health and wellbeing. The results from the survey can be found on the Council's Climate Change [website](#) under publications.
- 7.1.4 The Energy and Climate Change Team attended three community events in May and June 2023, these were STEM at the Helix, Wild Science at Muiravonside Country Park and the Bo'ness Fair. The Helix event was the busiest of all three events, and individuals who engaged with us were generally supportive of what the Council were aiming to achieve with both the Climate Change Strategy and LHEES strategy and delivery plan. There were a few concerns raised over the financial burden on households on taking certain actions for example installing solar panels.

7.2 LHEES consultation

- 7.2.1 An online survey was carried out from June – August 2022 and 34 individuals responded to the survey. The survey asked a range of questions about energy efficiency and heat decarbonisation. The purpose of this engagement campaign was to gain an understanding of the community's awareness of energy efficiency and their willingness to make changes. Overall, although the response rate to this survey was low, the results have shown some key trends. It is evident that many people are aware of the impact of their heating system on the environment, however there is less of an awareness of how to reduce this impact. A summary of the results can be found on the Council's Climate Change [webpage](#) under publications.
- 7.2.2 'Decarbonise Falkirk' is the name of Falkirk's LHEES community engagement campaign. The LHEES lead and officers from the Energy & Climate Change team attended several events to engage with the public directly concerning LHEES. Leaflets and branded merchandise were distributed around Falkirk, sharing information on LHEES, energy saving tips and leading people to the survey.

8. Financial Implications

- 8.1** There are significant financial, legal and resource implications anticipated for the Council associated with meeting its Climate Change Obligations and Targets. This is also the case for the Climate Change Action Plan 2022-2030 which contains several actions that are currently unfunded. The estimated capital investment to deliver on our organisational 2030 net zero ambition, is £75+ million. This was indicated in the Capital Programme Review on 28th September 2022.
- 8.2** Updates will come forward over the lifetime of the current Council with costed proposals as appropriate to deliver on these aspirations and actions for Elected Members to consider.

9. Resources

- 9.1** The Climate Change remit is significant and impacts all areas of Council delivery. The Energy and Climate Change team will facilitate implementation and there will also be a requirement for significant input from most service areas. The current Corporate Sustainability Working Group which meets bi-monthly is considered a suitable means to achieve such collaboration.

10. Legal

- 10.1** The Council has a legal duty, under the Climate Change (Scotland) Act 2009 to contribute to the delivery of emissions reductions targets. These targets were updated and now covered under the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.
- 10.2** The Council also has a legal requirement to submit annual reports on compliance with climate change duties as per the Climate Change (Scotland) Act 2009. An amendment to the reporting requirements has come into force in which public bodies also have to, for example, report how spending plans and use of resources will be aligned to contribute to reducing emissions and delivering on emissions reduction targets.

11. Risk

- 11.1** There is a risk that the outcomes set out in the Climate Change Strategy will not be met due to the current financial challenge facing Falkirk Council. Future funding opportunities such as the new Public Sector Heat Decarbonisation Fund, due to open for applications in autumn 2023.
- 11.2** The strategy may also not be fully embedded across the Council which could result in the failure to deliver on the outcomes. This will be mitigated by ensuring that services are fully aware of the climate change strategy and its contents. The Corporate Sustainability Working Group will provide a framework to support rollout of the strategy.
- 11.3** There is a risk that failure to meet the organisational target set for 2030 could cause some reputational damage to the Council. This will be mitigated by clear explanation of the challenges faced, and the positive progress that has

been made and will be made in the coming years. It should be noted that such challenges are a national concern and not unique to Falkirk.

- 11.4** The Council also has a small Energy and Climate Change Team and the strategy to an extent could be seen as ambitious for a small team to deliver on. The team will continue to rollout Carbon Literacy training to support services to help deliver the Council's climate change objectives,

12. Equalities

- 12.1** The Council is required to have regard to the Equality Act 2010 and the public sector equality duty (PSED). The PSED places a statutory duty on the Council in the exercise of its functions to have due regard to the need to: (1) eliminate discrimination (2) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (3) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- 12.2** A full Equalities and Poverty Impact Assessment has been carried out for both the LHEES and Climate Change Strategy and Action Plan and there is no potential for discrimination to groups under the Equality Act 2010.

13. Conclusions

- 13.1** This report highlights the current progress made with the Climate Emergency Action Plan (2022-2030) which was agreed at the 22 February 2022 Executive.
- 13.2** The report also asks members to agree the draft Climate Change Strategy (2023-2030) and LHEES strategy and delivery plan.

Director of Place Services

Date: 06 October 2023

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Appendices:

All documents relating to this paper can be found [here](#).