Agenda Item	**4**
Report No	**CCWG/3/21**

The Highland Council

Committee:	**Climate Change Working Group**
Date:	16 April 2021
Report Title:	**Climate Change Programme Alignment Report**
Report By:	Executive Chief Officer – Infrastructure & Environment

1. Purpose/Executive Summary

1.1 This report provides a summary of the outcomes from work to better align the Council's programme and workstreams with that of the Scottish Government around the net zero agenda.

2. Recommendations

2.1 The Climate Change Working Group is asked to:

1. Discuss and note the contents of this report.

2. Support the arrangement of a Member workshop to present the outcomes of the Programme Alignment report, discuss options for the setting of a corporate net zero target date and then seek approval of a net zero target date at Full Council.

3. Implications

3.1 Resource – There are no direct resource implications arising from this report.

3.2 Legal – As per para 5.2 below, the Council now has a number of requirements in respect of reporting against its climate change obligations, in addition to being required to directly support Scotland's target to end its contribution to climate change no later than 2045.

3.3 Community (Equality, Poverty and Rural) – There are no direct community implications arising from this report.

3.4 Climate Change/Carbon CLEVER – It is imperative, more so now during a financially challenging period, that the Council maximises external funding to enable the delivery of low carbon projects to aid our climate change targets. It is envisaged that the work required to agree a corporate net zero target as well as service-level commitments to this agenda will help to support external funding applications by demonstrating to funders that the Council is taking its climate commitments seriously.

3.5   Risk – Failure to proactively address the new reporting requirements and holistically address the climate and ecological emergency across all service delivery carries significant reputational risk, particularly in light of the political ambition at both local and national level around the climate change agenda. In addition, a failure to take a proactive approach to climate change action will necessarily limit opportunities to secure external funding.

3.6   Gaelic – There are no Gaelic implications arising from this report.

4.   **Programme Alignment - Background**

4.1   The Scottish government has pledged to end Scotland's contribution to climate change no later than 2045. All public bodies have a duty to support and work towards this target under the Climate Change (Scotland) Act 2009, as amended by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.

4.2   At a meeting of The Highland Council on 9th May 2019, following a motion brought by the Leader of the Council, Cllr Margaret Davidson, Members agreed that the Council declare a climate and ecological emergency, whilst recommitting to achieving a carbon neutral Highland by 2025.

4.3   Following on from this declaration, at a meeting of the Highland Council on 9th December 2019, Members agreed to a £25,000 contribution from the Change Fund to commission a piece of work to help position the Council as positively as possible in respect of future funding streams by aligning with Scottish Government ambition in respect of the climate change / net zero agenda.

4.4   To this end, following a procurement exercise, a consortium consisting of Practically Green, the Sustainable Scotland Network and Wood plc were successful in tendering for this work. The objectives of the work were as follows:

   •   Reshape the Council's programme, key internal policies & capital programme to ensure a best-fit with the Programme for Government, specifically around the climate change agenda, to support the Council's ambition to secure maximum levels of external funding for climate change action;

   •   Set out how the Council can maximise the benefit of its land holdings to support national climate change targets, for example through afforestation, and identify any funding streams or internal policy changes which could support this; and

   •   Identify key financial and non-financial opportunities around the low carbon agenda for the whole Highland region, especially in relation to how the Council can best support and promote the public goods the region can deliver, sequestration of carbon through forestry, peatland preservation and restoration etc, with a view to being in a better position to demonstrate leadership and market Highland as a truly low carbon region.

4.5   This report summarises the key outcomes from the Programme Alignment work (the full report is attached at **Appendix 1**) and sets out important next steps for the Council if we are to move forward positively against this agenda.

5   **The Case for Change**

5.1   The work undertaken to date with regards aligning the Council's programme with that of the Scottish Government around the climate change agenda, as well as discussions with various funders, has made it clear that significant additional funding is going to be made available to support national climate ambition over the coming years.

5.2 As a result of the Scottish Government's own declaration of a climate emergency and to ensure public sector compliance with revised national net zero targets, the Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020 ("the Order") came into force in November 2020, and a letter dated 4th February 2021 from the Cabinet Secretary for Environment, Climate Change and Land Reform, Roseanna Cunningham (attached at **Appendix 2**), was issued to all Council leaders and Chief Executives setting out the new duties for local authorities. This letter sets out that the Council will be required to provide the following in annual reports from reporting year 2021/22 onwards:

- a target date for achieving zero direct emissions of greenhouse gases, or such other targets that demonstrate how the body is contributing to Scotland achieving its emissions reduction targets;

- any targets for reducing indirect emissions of greenhouse gases;

- how the Council aligns its spending plans and use of resources to contribute to reducing emissions and delivering its emissions reduction targets;

- how the Council will publish, or otherwise make available, its progress towards achieving its emissions reduction targets;

- how the Council is contributing to Scotland's Adaptation Programme.

5.3 In pulling together the Programme Alignment report, the consultants undertook a significant mapping exercise of Council policy and workstreams in respect of the climate emergency, the national policy context, proposed funding announced in both the Programme for Government 2020/21 and 2021/22, as well as the shift in priorities as a result of the COVID-19 pandemic and recognition of the benefits of developing a "green recovery" that addresses both the immediate economic impacts and need for a just transition to a net zero economy.

5.4 The Council undertakes a huge amount of work across multiple services and sectors, and that the Council's capital programme contains a suite of projects which have the potential to significantly impact our organisational ability to achieve net zero. It is important to highlight that any projects e.g. housing / infrastructure, boiler upgrades, retrofits etc which are undertaken but do not achieve net zero emissions, will simply create a capital or revenue burden downstream. It is therefore vital that we take this opportunity to carefully revisit and examine the capital programme to ensure that all projects, wherever possible, are contributing to the net zero agenda.

5.5 The report usefully maps out in Chapter 2 the level of exposure each Council service function has to climate change, and as a result, it has become increasingly clear that the Climate Change and Energy Team cannot achieve a "net zero Council" on its own – it is going to take a collaborative, cross-service approach and for the burden to be shared across the organisation.

5.6 In order to move the Council onto a firmer footing in respect of its net zero obligations, the report provides a number of recommendations which can be summarised as follows:

Rec. No	Action	Service / relevant sector	Benefit(s)
1	Develop an articulated & resourced programme of operational activity to help reduce corporate carbon emissions.	All	Clarity around direction of travel & resource requirements. Less ad-hoc approach to

			climate action.
2	Set a target date for net zero emissions from Council operations	All	Will allow us to establish precisely what work needs to be done and resource required to achieve target.
3	Development of service-level plans relevant to specific functions to provide focus and clarity on emissions reductions activity / securing external funding.	Various	More structured approach to emissions reduction across teams and services. Increased external confidence in HC approach and improved funding bids. Will enable a more structured approach to projects & funding
4	Establish dedicated low carbon project & funding staff resource to develop projects, funding applications, identified aftercare/maintenance requirements etc.	Various	A dedicated resource would enable development of investment-ready business cases for external funding bids
5	Better utilise existing expertise (e.g. Mechanical Design Engineers) by removing the requirement to re-charge time to specific projects	I&E Property	Freeing up specific officer time would directly support recommendations 1, 3, 4 and 6
6	Establish a comprehensive database of building energy consumption and associated GHG emissions	Climate Change & Energy Property	Would support more evidence-based interventions to reduce carbon across built estate.
7	Undertake a complete audit of current and future estate requirements	Property	Would support more evidence-based interventions to reduce carbon across built estate. Provides mechanism to inform rec. 8.
8	Develop a property disposal strategy & action plan	Property	Disposal of high consuming assets which are no longer required is one of the easiest ways to reduce corporate emissions.
9	Expedite the deployment of Building Energy Management Systems across estate, esp. schools	Climate Change & Energy Property Education	The ability to control buildings remotely provides a simple mechanism to reduce consumption, costs and emissions.
10	Maximise on-site renewable energy generation / liaison with Distribution Network Operator in respect of grid capacity issues.	Climate Change & Energy	Improved relationship with DNO. Improved identification of low carbon renewable opportunities.
11	Undertake a strategic review to assess post COVID-19 fleet requirements & requirements for charging / refueling infrastructure.	I&E C&P	This work would simplify the decarbonisation of fleet whilst identifying areas where EV charging / hydrogen refuelling provision will be required.

12	Prepare a comprehensive Council land ownership record to inform carbon sequestration opportunities.	All	Development of this record would enable staff to make an evidence-based assessment of best opportunities for afforestation, and to seek funding in support.
13	Develop tree planting strategy for Council's estate	I&E Property Grounds Maintenance	Required to offset emissions which Council cannot reduce to zero.
14	Establish multi-agency Climate Emergency and Net Zero Forum to develop a programme of activity to maximise sequestration opportunities across Highland.	I&E	A cross-agency approach to land management and carbon sequestration is likely to yield significantly more benefit than taking a more siloed approach.
15	Align Council capital programme with the aims & strategic priorities of the Infrastructure Investment Plan	All	Actively integrating the 3 objectives of IIP will expedite the Council's transition to net zero emissions and environmental sustainability.

6. Key Next Steps

6.1 The Programme Alignment report has provided the Council with a robust appraisal of what needs to change to put us on a much more solid footing in respect of the net zero agenda, and to ensure we are best placed organisationally to secure external funding to reduce pressures on both revenue and capital budgets. Whilst it is recognised that there is a huge amount of work to do to get us to net zero, based on the recommendations from the Programme Alignment report, there are a few key steps which need to be undertaken to properly begin this process and ensure that the Council is compliant with new reporting requirements:

- Senior Leadership Team workshop – on 22nd March 2021, a workshop was held with SLT to present the findings of the Programme Alignment work and set the scene in respect of the changing policy landscape around the net zero agenda. A number of key early actions / opportunities have been identified by each service, and it is clear from this session that there is an appetite to work cross-service, with support from the Climate Change & Energy Team, to develop a programme of operational activity to help us reduce our corporate carbon emissions. It is likely that the establishment of an officer-led Net Zero Strategy Group, reporting into the Climate Change Working Group, would be beneficial to provide focus and governance moving forward.

- Member workshop – an opportunity to present the findings of the Programme Alignment work to Members, as well as various options / scenarios for achieving corporate net zero emissions e.g. 2030 / 2040 / 2045, as well as the opportunities and challenges associated with each option. Based on the outcomes of this workshop, a paper would then be drafted for full Council, seeking Members approval and commitment to a specific date for achieving net zero corporate emissions.

- Capital programme – revisit the capital programme to ensure that all projects, wherever possible, are contributing to the net zero agenda

6.2 These steps are absolutely critical to ensure that the Council derives as much value as possible from the Programme Alignment work, and will provide the wider public with

confidence that the Council is taking its declaration of a climate and ecological emergency seriously.

Designation: Executive Chief Officer – Infrastructure & Environment

Date: 23rd March 2021

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Aligning Highland Council's Programme & Workstreams with the Scottish Government's Programme & Low Carbon Commitments

August 2020

Contents

Figures

Tables

EXECUTIVE SUMMARY

ES01   Recognising the significant challenges around climate change, the Scottish Government has agreed a target for Net Zero greenhouse gas emissions in Scotland by 2045. This is a Scotland-wide target, requiring transformational change in Scotland's economy, energy systems, organisations and communities. The net zero target was set in legislation in 2019, as an enhancement to the existing Climate Change (Scotland) Act 2009. Embedded in the 2009 Act are Public Bodies Duties which require all public sector bodies to act sustainably to meet Scotland's emissions targets.

ES02   Following extensive research, engagement with Council officials, and analysis of Scotland's policy and investment landscape, this Report outlines recommendations that will help Highland Council to improve the organisation's engagement with Net Zero and the climate and ecological emergencies. The following graphic helps illustrate the required steps to achieve Net Zero.

Business as Usual	Reduce Emissions	Sequester carbon	Offset	Net Zero/Carbon Neutral

ES03   Commissioned in early 2020, this Report;

- Identifies how the Council can help reshape activity to ensure a better fit with the Scottish Government's climate change agenda and funding,
- Identifies how the organisation can use its own land holdings and estate to support national climate change targets,
- Identifies how the Council, working with stakeholders, can promote the region's public goods to help improve the sequestration of carbon, demonstrating leadership and the potential to market the Highlands as Scotland's Net Zero carbon region.

ES04   To help the organisation achieve its Net Zero obligations, we would suggest senior staff and Highland Council management consider and implement as many of the following recommendations as possible:

Recommendation 1 – The leadership and senior management of Highland Council need to recognise aspirational statements for a "carbon neutral Highland by 2025", while a helpful signal of intent/ambition, need to be firmly supported with an articulated and resourced programme of operational activity. The absence of this articulated and resourced programme undermines the legitimacy and commitment.

Recommendation 2 – During 2021 the organisation's leadership will have to establish work to identify how Council operations, capital and revenue spend and reductions in greenhouse gas emissions will help contribute towards Scotland's Net Zero carbon requirement of 2045. This will involve setting the Council's own Net Zero target date. The Council has to report on these targets and commitment from 2022 onwards.

Recommendation 3 – Significant levels of funding are being made available by the Scottish Government to help embed low carbon activity. The Council's leadership can use models

such as Sphere of Influence and Strategic Control Plans to provide a focus on emission reducing activity which will help to improve the success of funding applications.

Recommendation 4   In the past, the Council has been able to access some of this funding, though this has been in a very ad hoc manner. This approach has meant the Council has missed out on funding and has also not been able to achieve the maximum benefit from funded projects. The Council should establish a central "low carbon project and funding staff resource" which liaises with specialist project officers, to develop projects, funding applications, identified aftercare/maintenance requirements etc. This would allow the Council to achieve a more successful outcome from future low carbon activity.

Recommendation 5.   Within the Council, there are a range of specialists and project officers working on emission reduction activity. These staff are extremely knowledgeable about issues such as policy, technology, and funding that will help the Council achieve lower emission activity. However, many of these staff work on the basis of having to recharge their time to specific projects, which reduces their ability to build up outline projects for funding bids. There is potential for the organisation to make better use of these staff and their expertise by revisiting how these posts are funded. Providing these officers with more support would help the organisation to achieve the improved Net Zero performance it is now legally required to achieve.

Recommendation 6 – There is a consistently high level of energy, and particularly, electricity, being consumed across the Highland Council's built estate. This is despite the installation of onsite renewable energy production and significant investment in energy efficiency measures including staff awareness and better energy controls. These should have reduced energy consumption and associated emissions. We would recommend the Council allocates the resources (both staff and budget) to establish a comprehensive database of building energy consumption and associated GHG emissions. This will help identify why energy consumption is sustained and how it will be reduced. This will likely require a dedicated and funded resource that is currently not in place in the organisation.

Recommendation 7 – The COVID 19 pandemic has challenged traditional office working models and these are unlikely to be completely reversed in the future. We would recommend the Council uses 2021 to resource and undertake a complete audit of its current and future estate requirements. This will raise awareness of the organisation's buildings, their role and also their energy consumption and resulting GHG emissions. This will likely require a dedicated and funded resource to establish a comprehensive data base of buildings etc.

Recommendation 8 – The estate audit should develop a property disposals strategy for the Council. The sustained impact of COVID 19, has embedded a changed way for office-based organisations to operate. In the short to medium term this is likely to result in a significant oversupply of office premises in the Highlands. If this estate cannot be repurposed, for example retail or accommodation, it should be closed and disposed by the Council. It would make sense to prioritise for disposal, higher energy consuming properties and those with limited ability for cost effective building energy efficiency conversions.

Recommendation 9 – There is increasing scope to incorporate Building and Energy Management Systems as well as monitors, data loggers etc which minimise unnecessary energy use in buildings, such as those being deployed through the SMART Cities programme.

The Council has a relatively consistent estate of school buildings unlikely to change in the short to medium term. Maximising the energy efficiency of this core school estate, should be a key priority for the Council. This has the potential to reduce costs, energy consumption and GHG emissions as well as help to educate children on the need to engage with climate change and emissions reduction activity.

Recommendation 10 - The Council will need to maximise the amount of onsite renewable energy production within its estate if it is to meet Net Zero requirements. However, it is recognised that challenges with local electricity grid infrastructure are limiting the ability to install renewable energy. The production and consumption of this renewable energy will be a key component of the Council Net Zero programme. The Council therefore needs to identify solutions that will resolve this capacity constraint.

Recommendation 11 – The Council operates a fleet of small (vans) to heavy (snow ploughs, and bin lorries) vehicles as well as requiring staff travel to deliver services. There is scope for Highland Council to incorporate alternatively fuelled vehicles (some of this impetus required by legislation). We would recommend undertaking a strategic review that assesses for example, post COVID 19 pandemic fleet requirements, where charging points or alternative fuel stores are to be located, how staff could recharge Council vehicles when parked at domestic premises overnight etc.

Recommendation 12 – A key element of this Report was to review the opportunity to use the Council's land estate for carbon sequestration. A fundamental challenge in delivering this analysis was the absence of comprehensive records of the Council's estate. We would recommend the Council allocates resources to prepare a comprehensive land ownership record that could help inform the opportunity for sequestration in its estate.

Recommendation 13 – There is scope to have limited sequestration from woodland planting on the Council's estate. Optimum sequestration rates will take place around 25-30 years after planting. Th Scottish Government target for Net Zero is 2045, 24 years away. The longer woodland planting is delayed, the lower the rate of sequestration will be in 2045.

Recommendation 14 - The area's natural resources provide significant carbon storage opportunities. This is likely to be increasingly important national resource which helps towards Scotland's Net Zero requirements. We would recommend the Council, and other Highland stakeholders start collaboration - Climate Emergency and Net Zero Forum to establish a programme of activity to develop this resource, ensuring the area has suitable skills, businesses, attracting funding etc. There are different Forum models emerging from other areas of Scotland. Organisations like Sustainable Scotland Network could help the Council and partners to establish this Forum.

Recommendation 15 - Given the two drivers of the Scottish Infrastructure Investment Plan and the revision of the UK Treasury Green Book, it is imperative that Highland Council assesses its approach to Capital Spending Plans, identifies how these plans and Council processes need to be aligned with the IIP and revised Green Book, and invests in improving the use of Capital Spending and infrastructure investment to achieve Scotland's and the Council's Net Zero emissions targets and objectives.

Chapter 1 – Introduction

1.1   Highland Council commissioned this report to help identify how operations and service delivery could be more aligned with the Scottish Government's Programme commitments around Net Zero. The work was commissioned in February 2020, just ahead of the Covid 19 outbreak. While the work on this report has continued during the period immediately after the outbreak, there has been a level of disruption to some low carbon thematic work at a national and local level. The specific objectives of this commission were:

> 1   Reshape the Council's programme, key internal policies & capital programme to ensure a best fit with the Programme for Government, specifically around the climate change agenda, to support the Council's ambition to secure maximum levels of external funding for climate change action;

> 2   Set out how the Council can maximise the benefit of its land holdings to support national climate change targets, for example through afforestation, and identify any funding streams or internal policy changes which could support this; and

> 3   Identify key financial and non-financial opportunities around the low carbon agenda for the whole Highland region, especially in relation to how the Council can best support and promote the public goods the region can deliver, sequestration of carbon through forestry, peatland preservation and restoration etc, with a view to being in a better position to demonstrate leadership and market Highland as a truly low carbon region.

1.2   The Council covers an area of 25,657 km^2, representing 11.4% of the land area of Great Britain and 32.9% of the land area of Scotland. Though relatively populous for a Scottish council area, it is also sparsely populated. At 9.0 per km^2 in 2012, the population density is less than one seventh of Scotland's as a whole.

1.3   The UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050. This will require the UK to bring all GHG emissions to net zero by 2050, compared with the previous target of at least 80% reduction from 1990 levels. The Committee on Climate Change[1] (CCC) recognised Scotland has different capabilities, notably its larger land area per person and its significant CO_2 storage potential. This means the country can credibly reach net-zero GHGs earlier. The CCC recommend that Scotland legislates for net-zero GHGs in 2045.

1.4   In its December 2020, 6th Carbon Budget Report[2], the Committee for Climate Change starkly identified the challenges ahead to reach the statutory requirement of Net Zero.

> **The pace of our recommended emissions path tells an important story about what must follow and what has gone before. We don't reach Net Zero simply by wishing it. There must be a process and a sequence by which we reach the goal. Progress is more gradual in the early years as we make up for lost ground. Scaling up new policy development, ramping up new supply chains for low-carbon goods, addressing sectors that have progressed too slowly: transport, industry, buildings, agriculture. A critical moment arrives in the early 2030s, as sales of most high carbon goods are phased out altogether. UK emissions fall sharply over the 2030s, before levelling off in the 2040s, as we clear the final hurdles to Net Zero.**

[1] Net Zero – The UK's contribution to stopping global warming, Committee on Climate Change, May 2019

[2] The Sixth Carbon Budget The UK's path to Net Zero, Committee for Climate Change, December 2020

The implication of this path is clear: the utmost focus is required from government over the next ten years. If policy is not scaled up across every sector; if business is not encouraged to invest; if the people of the UK are not engaged in this challenge - the UK will not deliver Net Zero by 2050. The 2020s must be the decisive decade of progress and action.

The National Context

1.5 Scotland reflected the CCC's recommendations by setting a more ambitious target of achieving Net Zero emissions of all greenhouse gases by 2045[3]. This is tougher than a net zero carbon target, which commits only to balancing carbon dioxide emissions. There are also interim targets including a 75% reduction in emissions by 2030 – the toughest statutory target of any country in the world. In addition, a new statutory order[4] recently laid in the Scottish Parliament will require public sector bodies to provide a target date for achieving zero direct emissions (i.e. from estate and fleet operations) or other measures which demonstrate a contribution to meeting Scotland's targets, including how spending plans and resource use aligns with target objectives.

1.6 A key challenge for Highland Council is therefore to have a clear definition of net zero. There are three terms that are often applied to this activity:

- **Zero Carbon**: this means the reduction of CO_2 (and possibly CO_{2e}) emissions to zero, without considering removals or offsetting,
- **Net Zero Carbon**: the balancing of carbon emissions against carbon removals and/or carbon offsetting with the net result being zero (see below), and
- **Carbon neutral**: similar/same as net zero carbon.

The following graphic is included to help provide context around the process of moving towards a net zero/carbon neutral target or commitment.

Figure 1 - Illustration of the Net Zero/Carbon Neutral Process

Business as Usual → Reduce Emissions → Offset → Net Zero/Carbon Neutral

1.7 The Highland Council is currently required to report annually on compliance with Public Bodies Duties[5]. The Scottish Government is adapting this annual reporting to recognise the public sector's leadership role in delivering Scotland's target of Net Zero emissions by 2045. Phase one, initiated by new legislation laid in the Scottish Parliament in September 2020 (taking effect 2021 for reports due in 2022) will require Highland Council to include the following:

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[3] Climate Change (Emissions Reduction Targets) (Scotland) Act 2019

[4] The Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020

[5] Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Order 2015

- a target date for Highland Council achieving zero direct emissions of greenhouse gases, or such other targets that demonstrate how the body is contributing to Scotland achieving its emissions reduction targets.
- any targets for reducing indirect emissions of GHG emissions.
- how Highland Council aligns its spending plans and use of resources to contribute to reducing emissions and delivering its emissions reduction targets.
- how Highland Council will publish, or otherwise make available, its progress towards achieving its emission reduction targets.
- how Highland Council is contributing to Scotland's Adaptation Programme (the most recent version of which was published in September 2019).

As illustrated in the following diagram, it is important to recognise there is a financial cost to high carbon emissions.

Figure 2 - Low Carbon- The Benefits and Cost
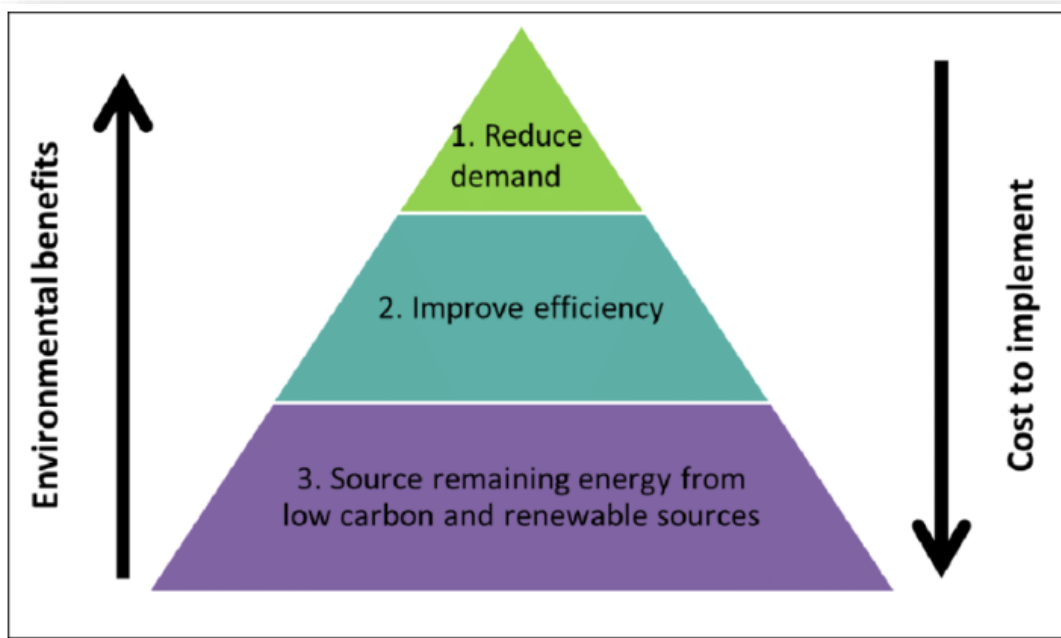
1.8   Each September, The Scottish Government publishes its **Programme for Government**. When Highland Council commissioned this report, the 2019/20 Programme for Government had not long been published. Chapter 1 was titled "Ending Scotland's contribution to climate change". This very much reflected the concerns during 2018 ad 2019 about the climate emergency. However, the COVID 19 pandemic has resulted in significant social and economic turmoil. Published in September 2020, the 2020/21 Programme for Government recognises this COVID 19 turmoil and has identified a number of initiatives to support new training and employment opportunities. This is resulting in a merging of the climate and economic emergencies.

> It is imperative that our **economic recovery is a green recovery** – not just because it is the right thing to do in the face of the climate crisis, but also because it provides opportunities for new work and growth in today's challenging global market.

1.9   A number of the climate related commitments contained in the 2019/20 Programme for Government remain. However, these are now complemented with additional investment to support employment, training and new business creation around the "green economy". The key themes identified in the Programme for Government are

- Supporting local economies and community wealth building – predominately focussed on low carbon transport
- Transforming heat and energy efficiency in our homes and buildings
- Transitioning industrial, manufacturing and energy sectors to net-zero
- Skills and training for Green Jobs
- Investing in our resilience to climate change and future pandemics
- Investing for a Green Recovery and mobilising private finance
- Scotland's land and natural economy

1.10   There are a range of funding initiatives and interventions allocated under these themes. A key opportunity for Highland Council is to prioritise the Themes that are most pertinent to the organisation's operations and identifying how projects will be developed and funded. In discussion with Highland Council staff, we have identified four pertinent themes of low carbon/climate emergency focus. We are focusing on these themes in the subsequent sections of this report.

- Energy and heating
- Transport
- Waste
- Environment and land use

Highland Council Context

1.11   In May 2019, the Council recognised the challenges around GHG emissions and climate change. The organisation declared a climate and ecological emergency which has resulted in an increased focus on climate change action across the organisation.

> **Highland Council recognises the serious and accelerating changes to the world caused by climate change and therefore has declared a climate and ecological emergency**
>
> **The Council will establish a Climate Change panel with responsibility for the following reporting back to full council on progress;**
>
> **1.   Inform ourselves on what the Council is currently doing to reduce our carbon footprint.**
>
> **2.   Revisit the Carbon Clever declaration made by the Council in 2012 with a view to updating and reinvigorating those commitments working towards a carbon neutral Highlands by 2025.**
>
> **3.   Consider and recommend any new targets and priorities for the Council's Corporate Plan by June 2019.**
>
> **4.   We realise we can achieve far less by working alone so we commit to listening to and involving Highland citizens in all that we do and to involve them in the preparation of our new carbon reduction plan.**
>
> **5.   Promptly, we will target areas for behavioural change, such as plastic reduction. These areas to be selected by public consultation.**

1.12   The 2nd reporting item concerned a previous initiative known as Carbon CLEVER. This was a Highland Council-led initiative with a target of a carbon neutral Inverness in a low carbon Highlands by 2025. The Carbon CLEVER initiative had the following aims

> **By 2025, the Highlands will be a region where its residents and visitors can move around easily by low carbon and sustainable forms of transport. The region is well connected both in terms of transport links and through digital connectivity. Buildings across the region will have been energy renovated, and new buildings are energy efficient. The growing majority of buildings in rural areas will be heated by renewable sources. Electricity will be generated from a range of renewable sources, and excess energy can be transmitted to surrounding regions through smart grids, or stored efficiently. Land and resources across the Highlands are utilised for optimal economic, social, and environmental gains. Communities across the region are engaged, are highly active, more healthy and empowered."**

1.13   The June 2019 declaration has facilitated a suite of new GHG emission and Net Zero related activity, driving engagement amongst Highland Council and stakeholders.|Much of this work is regularly reported to meetings of the Council's Climate Change Working Group (CCWG), which has full oversight and scrutiny of climate change efforts across the organisation and performs a critical function in ensuring that the Council takes due cognisance of our enhanced commitments in respect of the climate and ecological emergency.

1.14   While this commissioned report has been prepared, there have been two significant changes in the Scottish Government's approach to the climate emergency;

1.   The Highland Council ecological and climate emergency is now dated and must be revised to identify how the organisation will achieve its own Net Zero obligations

2. The merging of the low carbon and economic agendas to help create opportunities to address both in the post COVID 19 pandemic era.

1.15   This report contains the following chapters

- **Section 2** assesses THC Operational and Capital Programme and Supporting Policies
- **Section 3** assesses a sample of THC Estate to Contribute to Low Carbon and Climate Change Targets
- **Section 4** assesses the steps to help create Highlands as a Low Carbon and Climate Engaged Region
- **Section 5** summarises results and also identifies recommendations for THC.

Chapter 2 – Highland Council Operational & Capital Programme and Supporting Policies

2.01   This section assesses how the Scottish Government's Programme for Government will impact on the Council's operations. To provide a focus for this activity, it is helpful to refer to the Council's Sphere of Influence

Figure 3- The Highland Council Sphere of Influence[6]

01 ORGANISATION	02 PROCURED SERVICES	03 COUNCIL POLICY & STRATEGY	04 PARTNER STRATEGIES	05 WIDER COMMUNITIES
The Council has direct control over its carbon footprint	The Council has direct control to set specifications for the procurement of goods and services	The Council has direct control of its policy making, but is influenced by community needs and partners	The Council has influence on partner and governmental strategies, but no direct control	The Council can influence our communities to share our vision and encourage them to take there own action

2.02   Figure 2 identifies how the Highland Council sphere of influence is greatest for the organisation's own activities and operations as well as the services and materials it purchases. The figure also illustrates how the organisation's influence ability to shape emission reduction in the wider area becomes diluted. So, while the Council identified the desire for a wider "carbon neutral region in 2025", the organisation has very little ability to deliver this aspiration. And as highlighted in section 1.8, there is now a statutory requirement for Highland Council to identify and report how its **__own operations__** will contribute to the Scottish Government's wider Net Zero requirements.

2.03   Reflecting this Sphere of Influence, to help support subsequent analysis, we have split Highland Council operations into the following 3 fields;

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[6] Original graphic sourced from Climate Change and Environment Strategy 2020 – 2025, Cambridgeshire County Council, May 2020

- Internal Operations
- Capital Projects
- Internal Policies

2.04   To provide focus on possible initiatives and interventions, our subsequent analysis has prioritised initiatives around the following 4 themes and their potential impact on Highland Council operations

- Energy and heating
- Transport
- Waste
- Environment and land use

To help inform this analysis, a workshop was held with Highland Council project officers in early August 2020 to discuss the first two of these themes. Waste information was provided by subsequent discussions with key staff. Environment and land use was informed by discussions with key staff, as well as individuals in key partner organisations. This level of engagement has allowed us to collect information that ranges from day to day operational challenges to more strategic opportunities around reducing emissions. A summary of the workshops is contained in Appendix 1. Feedback from individual Highland Council as well as respondents from external organisations is used to inform various recommendations and statements throughout this report.

2.05   As the Sphere of Influence diagram (Figure 2) shows, Highland Council has two main means of driving forward the net zero ambition for the Highland region. The first (and now priority in response to the public sector leadership role) is in continuing to invest, support and decarbonise its own service delivery across the region. The second is to act as an enabler to access wider UK and Scottish Government funding and associated support to homes, businesses and community organisations which assists them to improve low carbon behaviours.

2.06   The Scottish Government's Programme For Government 2020/21 reflects short term challenges in responding and adapting to COVID-19 impacts. It also reflects longer term and wider changes in society as our routes to lower carbon behaviours continue to develop. Some of these changes, e.g. agile working and associated digital service needs, have been accelerated by the pandemic; others continue to evolve.

2.07   Aligning with the themes of the Programme for Government therefore needs to reflect on how Highland Council's own working activities are evolving and how the organisation can best respond and support wider societal changes in the journey to a net zero future.

2.08   While further detail in respect of internal operations is set out in the following sections, it is useful to consider high level themes that crosscut all services within the Highland Council. These are summarised on the following pages.

Table 1 - Scottish Government 2020/21 Programme for Government and Interaction with Highland Council Activity

	PfG Theme	Relevance to Highland Council	Aspects of change	Control or Enabler?
A National Mission to create new jobs, good jobs and green jobs	Creating jobs and boosting skills	Maintain the local economy, support businesses and creating positive employment and training destinations for young people	Increase in funding for business support; skills development; youth training opportunities; affordable childcare access	Enabler
	Employability and Skills Support	Increased access to training; employment; skills development	Agile workforce; re-purposing of skills, addressing economic restructuring that is likely to develop as a result of COVID-19	Enabler
	Creating Green Jobs	Transitioning to a sustainable, net zero society by 2045 and restoring Scotland's environment will create a demand for a wide range of jobs with new skills and long term career prospects with low carbon goods/services; supply chain; nature/land-based jobs; flexible working; workplace transformation; work local challenge; productivity pilot clubs	Investment via HIE, SRUC etc ; procurement of low carbon goods/services; flexible working environment; land management; more understanding of and engagement with Circular Economy and the increased potential for climate/carbon friendly estate and wider Highland land management	Control & Enabler
	Boosting our digital capabilities	Technology eco-hubs; digital acceleration and adoption; connectivity and digital exclusion	Tech start ups; digitisation of planning; cyber security; Connecting Scotland; Reaching 100% (R100) Programme; 4G/5G rollout	Enabler
	Investing in a net zero economy – building momentum	Sustained exposure to emissions reduction and climate change/emergency; Climate Change / Net Zero Plan; Infrastructure Investment Plan; Green Investment Portfolio; Agricultural Transformation Package; Peatland restoration; Regional Land Use Partnerships	Coupled with COVID 19, is likely to challenge current energy efficiency of remaining buildings; influence retrofit improvement works to buildings; sustain funding for low carbon energy systems; low carbon transport systems; land management and land use change	Control & Enabler
	Strengthening links with the global economy	Inward investment; population strategy and talent retention/attraction; support delivery of SDGs	Sourcing wider regional investment; supporting services for residents. Increasing scope to market the Highlands as Scotland's net zero or even carbon negative region and attracting external funding	Enabler

	PfG Theme	Relevance to Highland Council	Aspects of change	Control or Enabler?
	Building strength in our local economies	Community Wealth Building; Scotland Loves local; Social Investment; Community and Third Sector Recovery Plan; Tourism Strategy	Development of multi-layer community services; procurement work with third sector; investment/ development of the tourism sector and greater engagement with the circular economy.	Enabler
Promoting Lifelong health and wellbeing	Embedding a world class public health system	Local public health teams and Health Protect Scotland	Effective delivery of health protection services	Control
	NHS mobilisation	National Elective Care Programme; Cancer services; Chronic Pain Services	Effective models of service delivery to enable accessibility and efficacy	Enabler
	Digital access to care	Digital access to services; video consultations; internet enabled CBT	Digital infrastructure and access to support	Enabler
	Right care, right place, right time	Access to A&E services; reform of dental and Eye care services	Efficacy of delivery and accessibility for patients (including transport logistics)	Enabler
	Rethinking social care	Social care delivery; Carer Allowances;	Model of service delivery and associated requirements	Control & Enabler
	Safeguarding staff and patients	Social Care Fair Work; National Wellbeing hub; Scottish Patient Safety Programme		
	Improvements to population health	Health Inequalities; Scottish Health Protection Network; Sports participation; Mental Health Transition and Recovery Plan; Distress Brief Intervention (DBI);	Support services and access to sports facilities; maintenance of sports facilities; health and wellbeing promotion and support services	Control & Enabler

	PfG Theme	Relevance to Highland Council	Aspects of change	Control or Enabler?
Promoting equality and helping our young people grasp their potential	Supporting children and families	Scottish Child Payment; Child Winter Heating Assistance; expansion of early learning and childcare; Pupil Equity Fund	Delivery of early learning and childcare services; support for vulnerable families and continued use of funds supporting closing the attainment gap in schools	Control & Enabler
	Higher Education	Investing in social housing; improvements to housing stock and digital accessibility	Continued supporting investment for improvements to existing housing stock and development of new housing; continued support for enhanced digital access for all	Control & Enabler
	Promoting equality and human rights	Support for the elderly; Humans Rights support;	Support services for the elderly and accessibility to local services	Enabler
	A Scotland where we live in vibrant, healthy and safe places and communities	20-minute neighbourhoods; Local Place Plans; Active Travel support	Planning strategy and delivery within planning system; investment in infrastructure supporting active travel and enhancements to local places	Control & Enabler
	Ensuring safer communities	Recover, Renew, Transform programme	Support services relating to community welfare	Enabler

2.9   The current pandemic has accelerated some ongoing changes to how services are delivered by the Council and in the wider community. The wholesale switch to home working for a large proportion of the working population has wider impacts on digital infrastructure, office accommodation, commuting and patterns of transport.

2.10   To help support the changes identified in for example the Programme for Government, Highland Council should consider the following actions to help increase Net Zero performance

Theme	Highland Council	Highland Community	PfG Theme
Agile working	Enable suitable IT equipment for all staff to remotely access organisation systems Enhance/extend IT systems to enable remote access and agile working Ensure cyber security systems are robust	Retain access to Council-led services (digital services) Ensure adequate digital connectivity to enable efficient working Ensure staff have suitable skills and equipment to work remotely	Boosting our digital capabilities Connecting Scotland; Reaching 100% (R100) Programme; 4G/5G rollout Digitisation of planning
Property	Rationalise office accommodation to suit agile working Maintain inclusive access to services Retained school estate where there will be scope to focus on building management technologies to increase understanding of resource use Increased uptake of onsite renewable energy production in retained estate	Reflect on work accommodation needs Consider use of third party facilities to support local working More efficiently managed local facilities Where grid constraints allow, greater engagement with low carbon onsite renewable energy	Building strength in our local economies - Community and Third Sector Recovery Plan Local Place Plans Range of energy efficiency/low carbon funding as well as existing programmes such as SALIX SALIX as well as Climate Challenge Funding for community driven schemes and PfG funding for hydrogen and Low Carbon transition schemes
Job Retention		Rationalisation of business costs Supporting finance for periods of enforced	Creating jobs and boosting skills - Business support funding; skills

Theme	Highland Council	Highland Community	PfG Theme
		inactivity/restricted output	development; youth training opportunities
Re-skilling	Maintain staff training in use of IT systems and digital service delivery\n\nScope to support schemes that will provide carbon friendly land management	Extend existing staff skills base\n\nSupport to those seeking re-employment\n\nExtend skills of workforce to meet evolving needs	Creating jobs and boosting skills - Business support funding; skills development; youth training opportunities
Energy Efficiency	Continue to focus on efficient use of energy across all Highland Council activities\n\nEnsuring buildings are fit for purpose for staff use which is potentially less frequent	Support business cost efficiency through efficient energy use	Investing in a net zero economy – building momentum

2.11   Agile working practices will have a fundamental impact on the building estate Highland Council requires to operate effectively in the coming years. Sustained use of virtual working means a lower operational building capacity requirement. While an increasing number of services may be partly or wholly accessed online by the community, there needs to be a network of existing offices to ensure accessibility for all members of the community. Energy management of these facilities will need to evolve to reflect more sporadic and dispersed occupancy.

2.12   A shift to more staff working from home also reduces the scale of daily commuting undertaken by Highland Council staff. This will be mirrored in the wider community where businesses adopt similar models. There may be associated benefits such as less congestion, less emissions/improved street air quality and shortened journey times, but there are also potentially negative impacts such as reduced car parking income for the Council.

2.13   A combination of a smaller property estate and reduction in commuting should mean an overall reduction in GHG emissions that Highland Council has to measure and report each year. A proportion of these emissions will be displaced in the wider region wherever staff, working from home, are using power and heat during their working day. While this displacement activity should mean reduced Highland Council spend, staff operating from individual home offices may generate a disproportionate uplift in energy consumption. This could arise as these individual home offices etc are not likely to have the same level of energy efficiency, heating control etc as larger offices. There will be opportunities for the Council, working with other public sector stakeholders, to try and influence how staff use energy when working at home. While a helpful approach, it will be important for the Council to ensure this does not detract from the bigger objective which is reducing the organisation's own operational emissions and working towards its Net Zero target.

2.14   Consolidation of the built estate provides an opportunity to consider how service functions can be co-located within existing or refurbished buildings. This has the potential, in theory, to

increase building occupancy, avoiding the need for investment in zoning and building/energy/heating management systems. However, again, this will involve allocation of resources to identify partners that would be willing to co-locate.

2.15   This estate evolution will take place while the organisation also has to consider the energy consumption and efficiency of a relatively consistent stock of housing, schools etc. These should be a priority for energy efficiency intervention, and there is a range of funding to support this.

2.16   In summary, the Highland Council should consider the following activity which helps to align operations with activity identified in the Programme for Government;

> 1 – The leadership and senior management of Highland Council need to recognise aspirational statements for a "low carbon highlands", while a helpful signal of intent/ambition, need to be firmly supported with an articulated and resourced programme of operational activity. The absence of this articulated and resourced programme undermines the legitimacy and value of the ambition.

> 2 - The organisation is now required to identify how its own operations will help contribute towards Scotland's Net Zero carbon requirement of 2045. The organisation has around 20 months to develop this new approach

> 3 – Significant levels of funding are being made available by the Scottish Government to help embed low carbon activity. Becoming more focused on its own operations and Sphere of Influence would allow Highland Council to more successfully apply for funding.

> 4 – COVID 19 continues to challenge traditional office-based approaches to operations etc. This is likely to continue during 2021. There are now clearly established alternatives to office working which will drive further improvement in digital communications and also rationalisation of the organisation's estate. There is significant funding and resources identified in the Programme for Government for supporting ICT provision etc. The continued evolution of service delivery and work activity to be undertaken remotely will be a key opportunity for the Council and highlands.

> 5 – The area's natural resources provide significant carbon storage opportunities. This is likely to be increasingly important national resource which helps towards Scotland's Net Zero requirements. There would be value in recognising this resource in the Highlands, and start collaboration with relevant stakeholders to establish a programme of activity to develop this resource, ensuring the area has suitable skills, businesses, attracting funding etc.

Highland Council Internal Operations

2.17   Highland Council operates with an annual budget of around £580m, split between a Scottish Government provided grant settlement which represents around 78% of this total and the remainder which is generated through the locally raised Council tax. This funding supports the delivery of a range of services. These services are coordinated through 8 functional departments.

Figure 4 - Highland Council Departments
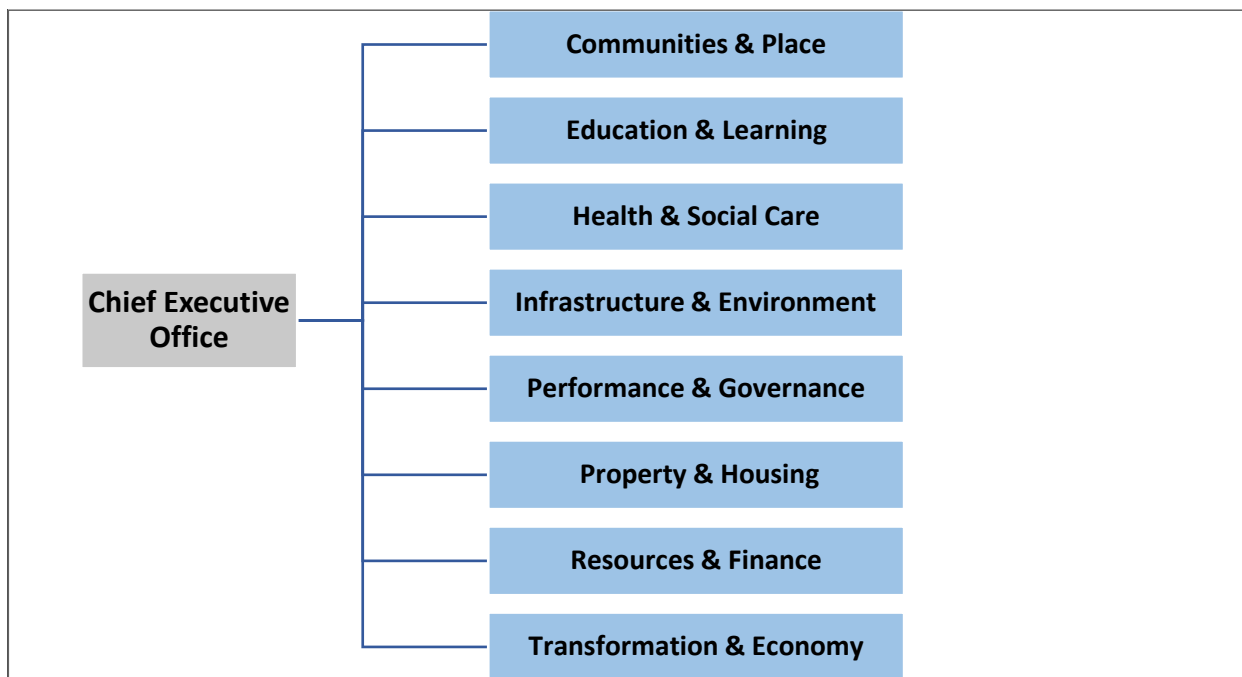
2.18   Departments are responsible for a suite of specific programmes and areas of service delivery. These functional areas have a range of exposure to/involvement with climate change and low carbon activity. A template of these services was distributed to appropriate staff in the organisation and they were asked to score operations against

- Emissions arising from energy use
- Emissions arising from transport
- Emissions arising from the production of waste

Scoring was informed by the following criteria

Score	Commentary
1	Service not responsible for the production of GHG emissions
2	Low level of the service's activity will produce GHG emissions
3	About half the activity in delivering the service produces GHG emissions
4	Over half the service's activity will produce related GHG emissions
5	Significant level of related GHG emissions

2.19   The results from this scoring process are located in the following pages. Red and amber shading have been used to highlight services scoring 5 and 4, respectively. These should be prioritised as the "low hanging fruit" in terms of projects and investment for Highland Council to reduce emissions.

Table 2 - Highland Council Department Service Functions

Energy

Communities and Place	Score	Education and Learning	Score	Health and Social Care	Score	Infrastructure and Environment	Score	Performance and Governance	Score	Property and Housing	Score	Resources and Finance	Score	Transformation and Economy	Score
Anti-Poverty Strategy	3	Additional Support for Learning	3	Adult Social Care NHS Partnership Lead Agency	3	Business Development & Systems Support	4	Best Value	3	Affordable Warmth	3	Annual Accounts and Quarterly Financial	3	Transformation	3
Burials & Cremations	5	Additional Support Services	3	Adult Protection	3	Business Gateway	3	Business Intelligence	3	Catering, Cleaning and Facilities Management	5	Performance Reporting	3	Commercial & Efficiency Team	3
Community Asset Transfer	3	Allowance / Bursaries	3	Allied Health Professionals	3	Building Standards	3	Corporate Fraud	3	Corporate Asset Management	3	Benefits	3	Cultural Strategy	3
Community Engagement	3	Curriculum 3-18	3	Chief Social Work Officer	3	Capital Schemes -	3	Corporate Leadership Support - Councilors	3	Corporate Property Client	3	Corporate Business Support	3	Eden Court and 3rd sector commissioned services/grant funding	3
Community Learning and Development	4	Developing Scotland's Young Workforce	3	Child Protection	3	Infrastructure	5	Corporate Performance	3	Depots	4	Financial management and support to Council Services	3	Future Resources	3
Community Planning	4	Early Years	4	Child Protection Advisers (Health)	3	Car Parking	3	Management	3	Estates Planning and Capital Investment - C&L	3	Health & Safety	3	High Life Highland (HLH)	5

Communities and Place	Score	Education and Learning	Score	Health and Social Care	Score	Infrastructure and Environment	Score	Performance and Governance	Score	Property and Housing	Score	Resources and Finance	Score	Transformation and Economy	Score
Customer Services	3	Education improvement	3	Children's Services: Social Care	3	Climate Strategy & Sustainability	3	Corporate Risk Management	3	FM Client	3	HR (Human Resources)	3	Transformation, Change & Redesign	3
Environmental Health	3	Education maintenance	3	Corporate Parenting	3	Energy	5	Democratic Services - Corporate Governance	3	H&CS and Property Housing input into Care Services	3	ICT & Digital Services	5	Economy	3
Fleet	3	Gaelic Education	3	Criminal Justice	3	Environment	3	Elections - Corporate Governance	3	Homelessness	3	Insurance	3	City Region Deal	3
Grounds Maintenance	4	Gateway	3	Edge of care	3	Ferries	4	Freedom of Information and Data Protection policy	3	HRA (Management of Council Housing)	3	Learning and Development	4	Commercial Property Development	4
Participatory Budgeting	3	Partnership with parents	3	Family Nursing	3	Flood Act Duties	3	Internal Audit	3	In-house Building Maintenance Team	5	Occupational Health, Safety & Wellbeing	4	Economy	3
Place Based Strategy	3	Improving Outcomes	3	Fostering and Adoption	3	Harbours and Marine Facilities	4	Legal - Corporate Governance	3	Office Accommodation Mgt	4	Payroll and Pensions	3	Development & Regeneration	3
Public Conveniences	4	Learning and Teaching	3	Health Improvement	3	Laboratory and Quarry	5	Licensing	3	Project & Cost Management	3	Procurement	3	Gaelic Economy	3
Registrar Services	3	Looked After Children and corporate parenting	3	Health Visiting	3	Planning	3	Ombudsman	3	Property Capital Projects - Budget & Delivery	3	Revenues	3	Housing Development	5

Communities and Place	Score	Education and Learning	Score	Health and Social Care	Score	Infrastructure and Environment	Score	Performance and Governance	Score	Property and Housing	Score	Resources and Finance	Score	Transformation and Economy	Score
Single Grant	3	Mental Health Workers	3	Looked After Children	3	Public and School Transport	2	Parliamentary and political liaison	3	Property Design	3	Taxation	3	Inward Investment	3
Stores	4	Primary Mental Health Workers	3	Mental Health Officers	3	Roads	4	Police & Fire scrutiny	3	Property Engineering Design Services	3	Trade Union Partnership	3	IT Infrastructure (Fibre5G mobile) external,	4
Street Cleansing	4	Primary Schools	5	NHS Commissioned Services	5	Safety Inspections: bridges, structures, drainage& restraint systems	4	Policy	3	Property Maintenance	5	Treasury Management	3	Tourism	3
Third Sector Interface	3	Psychological services	3	Out of Hours Social Work	3	Street Lighting	5	Public Performance	3	Property Support Team	3	Valuation Joint Board Support	3		
Travel Desk	3	Schools - other	5	Prevention Strategy	3	Transport Planning	3	Reporting	3	Schools Catering &Cleaning (client	5	Welfare (Benefit take up)	3		
Ward Management	3	Secondary schools	5	Residential Care	5	Winter Maintenance	4	Trading Standards	3	Tenant Participation	3				
War Memorials	2	Staff Development including professional learning and update	4	School Nursing	3			Transitions Programme	3						

Communities and Place		Education and Learning		Health and Social Care		Infrastructure and Environment		Performance and Governance		Property and Housing		Resources and Finance		Transformation and Economy	
	Score		Score		Score		Score		Score		Score		Score		Score
Waste Management/ Waste Strategy	4			Self-Directed Support	3										
				Throughcare /Aftercare	3										
				Transitions	3										
				Young carers	3										

Functional Department	Service Function	Reason for the High Score
Communities & Place	Community Planning	Energy consumption in office accommodation, maintenance and facilities management
	Grounds Maintenance	Provision of depots, transport and appliance energy requirements
	Community Learning and Development	Energy consumption in building operation and maintenance; facilities management
	Public Conveniences	Facilities management (lighting, water supply and space/water heating) and maintenance
	Stores	Energy consumption for lighting and space heating Facilities management
	Street Cleansing	Storage and operation of equipment (heavy road sweepers) and vehicle maintenance
	Waste Management/ Waste Strategy	Power and heating at waste management facilities, operation and maintenance of vehicle fleet
Education & Learning	Early Years	Power and heating in buildings, maintenance; facilities management
	Staff Development including professional learning and update	Power and heating, operation of training facilities/office accommodation for staff
Infrastructure & Environment	Business Development & Systems Support	Power and heating for office accommodation, maintenance and facilities management
	Ferries	Power and heating for office accommodation, maintenance and facilities management
	Harbours and Marine Facilities	Power (especially external lighting) for facilities, maintenance and facilities management
	Roads	External lighting, vehicle cleaning etc & office accommodation, maintenance &facilities management
	Safety Inspections: bridges, structures, drainage& restraint systems	Power and heating in office accommodation, maintenance and facilities management
	Winter Maintenance	Power and heating in office accommodation, maintenance and facilities management

Functional Department	Service Function	Reason for the High Score
Property & Housing	Depots	Power and heating in office operation and maintenance of facilities
Property & Housing	Office Accommodation Mgt	
Resources & Finance	Learning and Development	
Resources & Finance	Occupational Health, Safety & Wellbeing	
Transformation & Economy	IT Infrastructure (Fibre5G mobile) external,	
Transformation & Economy	Commercial Property Development	

Functional Department	Service Function	Reason for the High Score
Communities & Place	Burials & Cremations	Maintenance and energy requirements for cemeteries (ca. 170 sites) and crematorium
Education & Learning	Primary Schools	Power and heating in buildings; buildings maintenance; building renovation, extension and new build
Education & Learning	Schools - other	Power and heating in buildings; buildings maintenance; building renovation, extension and new build
Education & Learning	Secondary schools	Power and heating in buildings; buildings maintenance; building renovation, extension and new build
Health & Social Care	NHS Commissioned Services	Power and heating in buildings
Health & Social Care	Residential Care	Power and heating in buildings
Infrastructure & Environment	Infrastructure	Power and heating in buildings; facilities management
Infrastructure & Environment	Laboratory and Quarry	Provision of energy; operation and maintenance and facilities management
Infrastructure & Environment	Energy	Facilities management and provision for temporary power
Infrastructure & Environment	Street Lighting	Power for lighting; maintenance and upgrade
Property & Housing	Catering, Cleaning & Facilities Management	Operations and maintenance; facilities management
Property & Housing	Property Maintenance	Provision of energy; operation and maintenance and facilities management; temporary power
Property & Housing	In-house Building Maintenance Team	Provision of energy; operation and maintenance and facilities management
Property & Housing	Schools Catering & Cleaning (client)	Provision of energy; operation and maintenance and facilities management
Resources & Finance	ICT & Digital Services	Provision of energy; operation and maintenance and facilities management
Transformation & Economy	High Life Highland (HLH)	Energy supplies to leisure and sports facilities
Transformation & Economy	Housing Development	Provision of energy; operation and maintenance and facilities management

Transport

Communities and Place	Score	Education and Learning	Score	Health and Social Care	Score	Infrastructure and Environment	Score	Performance and Governance	Score	Property and Housing	Score	Resources and Finance	Score	Transformation and Economy	Score
Anti-Poverty Strategy	2	Additional Support for Learning	2	Adult Social Care NHS Partnership Lead Agency	2	Business Development & Systems Support	1	Best Value	1	Affordable Warmth	1	Annual Accounts and Quarterly Financial	1	Transformation	1
Burials & Cremations	2	Additional Support Services	2	Adult Protection	2	Business Gateway	1	Business Intelligence	1	Catering, Cleaning and Facilities Management	4	Performance Reporting	1	Commercial & Efficiency Team	1
Community Asset Transfer	2	Allowance / Bursaries	2	Allied Health Professionals	2	Building Standards	2	Corporate Fraud	1	Corporate Asset Management	2	Benefits	1	Cultural Strategy	1
Community Engagement	3	Curriculum 3-18	2	Chief Social Work Officer	2	Capital Schemes -	1	Corporate Leadership Support - Councilors	1	Corporate Property Client	2	Corporate Business Support	1	Eden Court and 3rd sector commissioned services/grant funding	1
Community Learning and Development	3	Developing Scotland's Young Workforce	2	Child Protection	2	Infrastructure	2	Corporate Performance	1	Depots	3	Financial management and support to Council Services	1	Future Resources	2
Community Planning	2	Early Years	2	Child Protection Advisers (Health)	2	Car Parking	3	Management	1	Estates Planning and Capital Investment - C&L	2	Health & Safety	2	High Life Highland (HLH)	3
Customer Services	1	Education improvement	2	Children's Services: Social Care	4	Climate Strategy & Sustainability	2	Corporate Risk Management	1	FM Client	2	HR (Human Resources)	1	Transformation, Change & Redesign	1

Communities and Place	Score	Education and Learning	Score	Health and Social Care	Score	Infrastructure and Environment	Score	Performance and Governance	Score	Property and Housing	Score	Resources and Finance	Score	Transformation and Economy	Score
Environmental Health	4	Education maintenance	2	Corporate Parenting	2	Energy	2	Democratic Services - Corporate Governance	1	H&CS and Property Housing input into Care Services	2	ICT & Digital Services	2	Economy	1
Fleet	5	Gaelic Education	2	Criminal Justice	2	Environment	2	Elections - Corporate Governance	1	Homelessness	2	Insurance	1	City Region Deal	2
Grounds Maintenance	5	Gateway	2	Edge of care	2	Ferries	5	Freedom of Information and Data Protection policy	1	HRA (Management of Council Housing)	3	Learning and Development	2	Commercial Property Development	2
Participatory Budgeting	1	Partnership with parents	2	Family Nursing	2	Flood Act Duties	1	Internal Audit	1	In-house Building Maintenance Team	5	Occupational Health, Safety & Wellbeing	3	Development & Regeneration	3
Place Based Strategy	1	Improving Outcomes	2	Fostering and Adoption	2	Harbours and Marine Facilities	4	Legal - Corporate Governance	1	Office Accommodation Mgt	3	Payroll and Pensions	1	Gaelic Economy	2
Public Conveniences	5	Learning and Teaching	2	Health Improvement	2	Laboratory and Quarry	4	Licensing	1	Project & Cost Management	1	Procurement	2	Housing Development	3
Registrar Services	2	Looked After Children and corporate parenting	2	Health Visiting	5	Planning	2	Ombudsman	1	Property Capital Projects - Budget & Delivery	3	Revenues	1	Inward Investment	1
Single Grant	1	Mental Health Workers	3	Looked After Children	2	Public and School Transport	5	Parliamentary and political liaison	2	Property Design	2	Taxation	1	IT Infrastructure (Fibre5G mobile) external,	4

Communities and Place	Score	Education and Learning	Score	Health and Social Care	Score	Infrastructure and Environment	Score	Performance and Governance	Score	Property and Housing	Score	Resources and Finance	Score	Transformation and Economy	Score
Stores	2	Primary Mental Health Workers	3	Mental Health Officers	4	Roads	5	Police & Fire scrutiny	2	Property Engineering Design Services	2	Trade Union Partnership	1	Tourism	3
Street Cleansing	4	Primary Schools	2	NHS Commissioned Services	4	Safety Inspections: bridges, structures, drainage& restraint systems	4	Policy	1	Property Maintenance	5	Treasury Management	1		
Third Sector Interface	2	Psychological services	2	Out of Hours Social Work	5	Street Lighting	4	Public Performance	1	Property Support Team	2	Valuation Joint Board Support	1		
Travel Desk	5	Schools - other	2	Prevention Strategy	1	Transport Planning	2	Reporting	1	Schools Catering &Cleaning (client	5	Welfare (Benefit take up)	1		
Ward Management	3	Secondary schools	2	Residential Care	1	Winter Maintenance	5	Trading Standards	2	Tenant Participation	4				
War Memorials	5	Staff Development including professional learning and update	2	School Nursing	2	Transport Planning	2	Transitions Programme	1						
Waste Management/ Waste Strategy	2			Self-Directed Support	1										
				Throughcare /Aftercare	1										
				Transitions	1										
				Young carers	1										

Functional Department	Service Function	Reason for the High Score
Communities and Place	Environmental Health	Staff deployment to sites
	Street Cleansing	Operations and maintenance staff travel
Health and Social Care	Children's Services: Social Care	Staff deployment to sites
	Mental Health Officers	Staff deployment to sites
	NHS Commissioned Services	Staff deployment to sites
Infrastructure and Environment	Harbours and Marine Facilities	Operations and maintenance staff travel; fuel for vessels
	Laboratory and Quarry	Operations and maintenance staff travel
	Safety Inspections: bridges, structures, drainage& restraint systems	Operations and maintenance staff travel
	Street Lighting	Operations and maintenance staff travel
Property and Housing	Catering, Cleaning and Facilities Management	Staff deployment to sites
	Tenant Participation	Staff deployment to sites
Transformation and Economy	IT Infrastructure (Fibre5G mobile) external,	Operations and maintenance staff travel

Functional Department	Service Function	Reason for the High Score
Communities and Place	Fleet	Operation and maintenance of fleet vehicles
	Grounds Maintenance	Operation and maintenance of plant equipment and movement of staff
	Public Conveniences	Staff movement to sites and associated use of vehicles and plant equipment
	Travel Desk	Facilities management
	War Memorials	Staff movement to sites and associated use of vehicles and plant equipment
Health and Social Care	Health Visiting	Staff movement and associated use of vehicles
	Out of Hours Social Work	Staff travel to sites
Infrastructure and Environment	Ferries	Operation and maintenance of ferries and harbour facilities and associated fuel use
	Public and School Transport	Operation and maintenance of buses and private hire vehicles for movement of pupils
	Roads	Operation and maintenance of plant equipment and movement of staff
	Winter Maintenance	Staff movement to sites and associated use of vehicles and plant equipment
Property and Housing	In-house Building Maintenance Team	Staff movement to sites and associated use of vehicles and plant equipment
	Property Maintenance	Operation and maintenance of plant equipment and support vehicles
	Schools Catering &Cleaning (client	Staff movement to sites and associated use of vehicles and plant equipment

Waste

Functional Department	Service Function	Reason for the High Score
Communities and Place	Street Cleansing	Operation and maintenance of vehicles and plant equipment
	Waste Management/ Waste Strategy	Operation and maintenance of refuse fleet vehicles

2.20   There are two principal reasons for the high scoring in the preceding tables; energy used to heat, light and power the estate and fuel for transport. The following chart, prepared from data used in the Council's annual Climate Change reporting, identifies how energy use across the service functions and offices, has evolved.

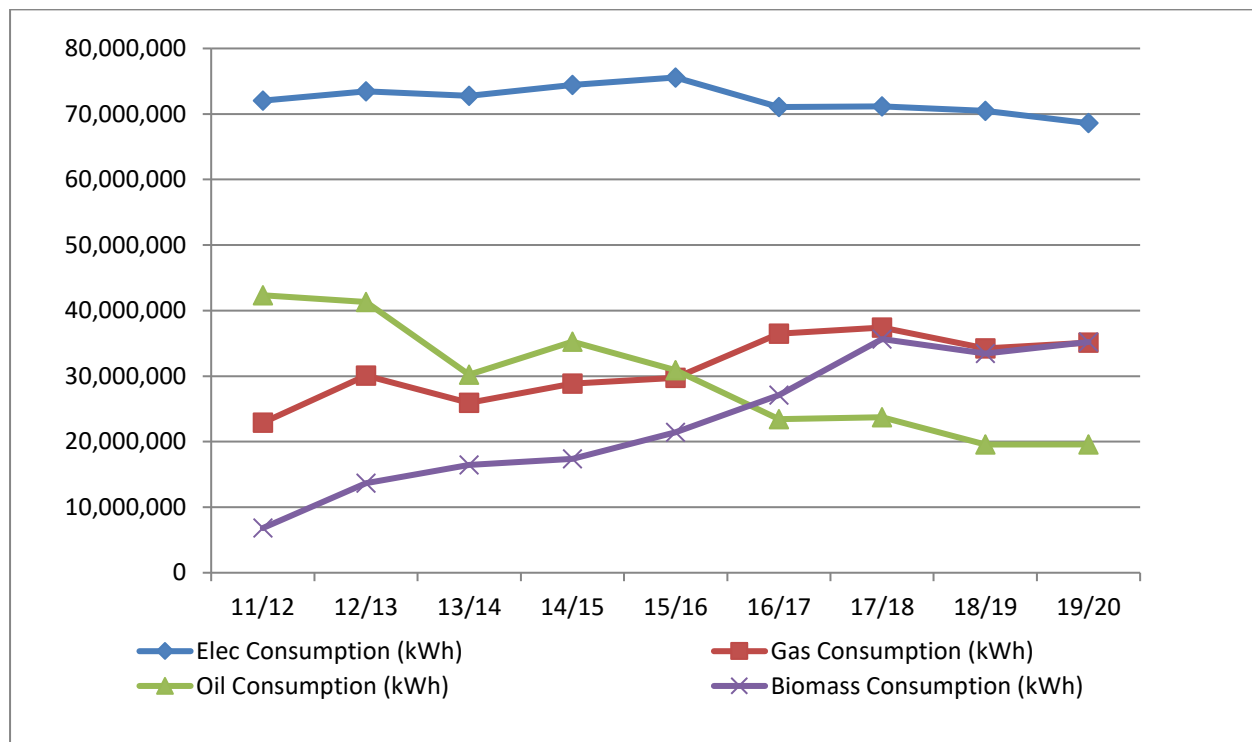*Figure 5 - Main Sources of Energy (kWhs) Consumed in the Highland Council Estate*

Figure 5 illustrates how the consumption of oil in heating systems has more than halved over the period. This was been replaced with lower carbon sources of heating; mains supplied natural gas and biomass. A significant issue of concern is the relatively static annual consumption of grid supplied electricity in the Highland Council estate. This consumption has occurred over a period of sustained adoption of solar PV panels to produce onsite electricity. Also, during this period, there has been growing awareness of how properties can be made more energy efficient, for example replace fluorescent and sodium lighting with LED alternatives that consume around half the energy. This consistent level of consumption would suggest there may be an inability to reduce electricity consumption across the Council's estate.

2.21   Energy efficiency in the built estate is a significant focus of the Programme for Government and a number of immediate funding priorities are identified in the document:

- Heat and Energy Efficiency (Homes and Buildings) – Available funds of £1.6 billion are committed for the next 5-year period. Short-term, this includes £95 million to decarbonise the public sector estate and £55 million to support scale up of energy efficiency programmes. There is also £50 million available via the Green Recovery Low Carbon Infrastructure Transition Programme (LCITP)

- Anticipated second phase of new schools' projects by the end of 2020 as part of the new £1 billion Learning Estate Investment Programme. THC has been successful in being awarded this funding for several new school construction projects
- Interim funding commitment of £300 million for 2021-22 for delivery of affordable homes

2.22   Fuel used in vehicles is another significant contributor to GHG emissions. Given the geographic scale of the region, staff travel to provide service delivery etc will remain significant. Equally, operation and maintenance of roads, marine services and buildings as well as refuse collection and street cleansing have inherent transport requirements. The following chart illustrates the three main sources of Highland Council transport derived GHG emissions.

Figure 6 - Tonnes of CO2e Emissions Arising from Highland Council Travel and Transport Activity
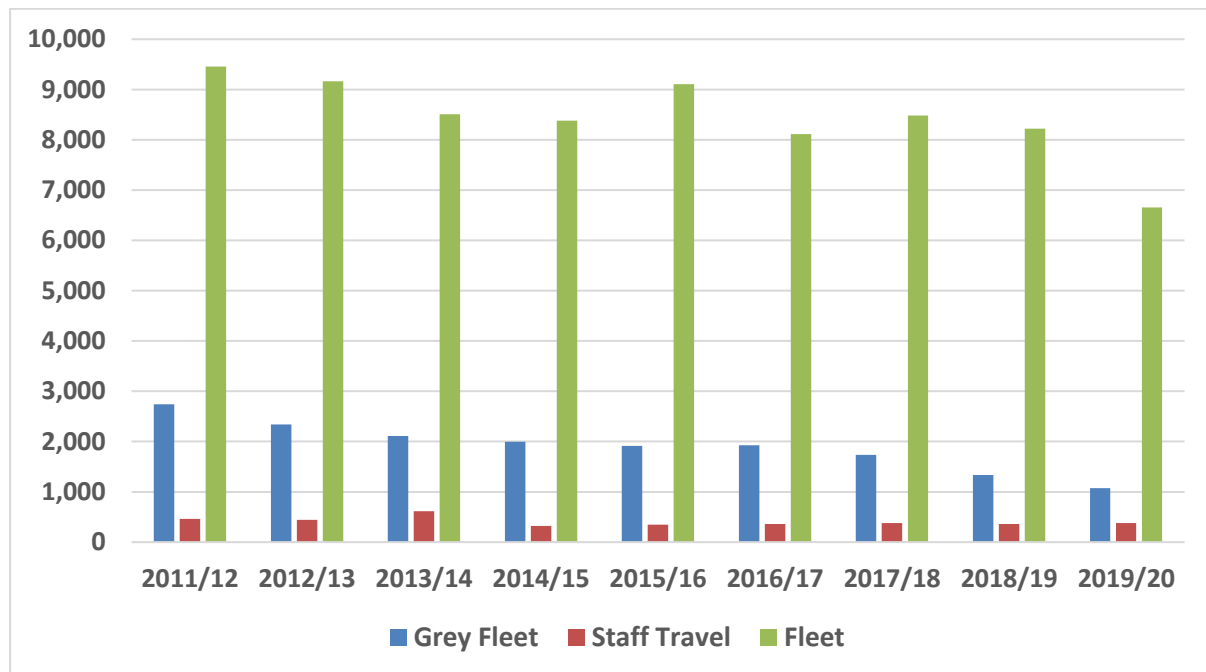
While all sources of transport related emissions are declining, Fleet emissions will have to significantly decline to help the Council meet Net Zero requirements.

2.23   There are a number of relevant transport funding areas identified in the PfG that could support Highland Council to reduce its transport related GHG emissions:

- Infrastructure investment funding of £2 billion over the next five years to stimulate demand for green jobs
- Additional £9m to support ultra-low and zero emission fleet renewal investments
- Establishment of a zero-emission heavy duty vehicle programme, aimed at accelerating the development and uptake of such vehicles in the public and private sectors
- Active Travel Infrastructure – commitment of £500m over the next 5 years to encourage access to bikes and behaviour change schemes

2.24   In terms of wider community transport provision there is opportunity to support public transport operators in the transition to low carbon transport. Working in partnership with other stakeholders can facilitate use of battery electric vehicles and hydrogen fuelled ULEV securing existing funding for low carbon bus fleets or enhanced EV infrastructure via ChargePlace Scotland, for example. This is supported via spatial planning using initiatives such as:

- 20-minute neighbourhoods – supporting enhancement of local services and infrastructure to provide services closer to homes reducing in-built transport requirements
- Climate Action Towns – supporting small towns to develop net zero roadmaps
- Community Wealth Building - reorganising local economies to maximise local opportunities and resilience – ensuring that local people and businesses have a genuine stake in producing, owning and enjoying the wealth they create
- Working Local Challenge - create more shared space local working hubs for the private, public and third sector in local towns to enable more flexible and remote working
- Community and Third Sector Recovery Programme - £25 million of funding immediately available
- Rural Tourism Infrastructure Fund - £9 million available
- Digital Action Plan and R100 Programme – enabling high speed broadband access for all communities. This can support smart travel apps and enriched dial-a-bus and similar transport services to enable smarter travel and encourage use of public transport

2.25   Waste collection vehicles contribute significantly to the GHG emissions associated with waste. The scale of biodegradable waste sent to landfill is the other major source of waste derived GHG emissions. There is scope for Highland Council to reduce emissions from waste collection through the use of alternatively fuelled refuse collection vehicles.

Aberdeen is one of Europe's pioneering hydrogen cities. Through the work of Aberdeen City Council, the city has developed a cluster of hydrogen activity with two publicly accessible hydrogen refueling stations and one of the largest and most varied fleets of hydrogen vehicles in Europe including buses, cars, vans, road sweepers and waste trucks. The city will be the first deployment location for the world's first fleet of fuel cell double decker buses from Wright Bus, due to be delivered in Autumn 2020.

The Highland Council fleet vehicle manager has regular contact with Aberdeen peers and has an interest in the potential for replacing Highland Council refuse collection & snow plough vehicles with alternatively fuelled models.

2.26   In terms of waste management there is a continued focus in the PfG on effective collection systems and diversion of waste from landfill with a focus on recycling and re-use where at all practicable. There is a £70 million fund available to support local authority refuse collection infrastructure and support achievements of 2025 waste and recycling targets. More widely, there is funding to support an increase in deposit return schemes (DRS) and the £100 million Green Jobs Fund available to support further development of packaging innovation, recycling businesses and related service development.

2.27   In summary, the Highland Council should consider the following activity which helps Departments and Service Functions to undertake activity in a manner which will reduce GHG emissions.

1 – There is a consistent level of energy being consumed in the Highland Council's building estate. This consumption has occurred over a period of sustained energy efficiency awareness. These interventions have either not been implemented in the Highland Council estate or have been implemented but their energy saving potential has not been achieved. This is not a viable position with the Council now required to identify how it will reduce energy consumption to help meet Net Zero requirements. We would suggest the Highland

Council allocates the resources; (both staff and budget) to establish a comprehensive database of building by building energy consumption and associated GHG emissions.

2 – We would suggest the Highland Council uses 2021 to undertake a complete audit of its current and future estate. This will raise awareness of the organisation's buildings, their role and also their energy consumption and resulting GHG emissions. This will likely require a dedicated and funded resource to establish a comprehensive data base of buildings etc.

3 – The estate audit results should be used to develop a property disposals strategy for the Council. The sustained impact of COVID 19, now in its 2nd calendar year of requiring offices to be closed, has embedded a changed way for office-based organisations to operate. In the short to medium term this is likely to result in a significant oversupply of office premises in the Highlands. If this estate cannot be repurposed, for example retail or accommodation, it should be closed and disposed by the Council. It would make sense to include high energy consumption and limited ability for cost effective building energy efficiency conversions, as key considerations in the audit.

4 – There is increasing scope to incorporate Building and Energy Management Systems as well as monitors, data loggers etc which minimise unnecessary energy use in buildings. The Council has a relatively consistent estate of Scholl buildings that is unlikely to significantly change in the short to medium term. Maximising the energy efficiency of this school estate through the adoption of Building and Energy Management systems as well as improved controls, should be a key priority for the Council. This has the potential to reduce costs, energy consumption and GHG emissions as well as help to educate children on the need to engage with climate change and emissions reduction activity.

5 – The Council will need to maximise the amount of onsite renewable energy production within its estate if it is to meet Net Zero requirements. Challenges with local grid infrastructure are limiting the ability to install renewable energy production facilities. The production and consumption of this renewable energy will be a key component of the Council Net Zero programme. The Council therefore needs to identify solutions that will resolve this capacity constraint.

6 – The Council operates a fleet of small (vans) to heavy (snow ploughs, and bin lorries) vehicles and staff use their own and pool vehicles for work related travel. Figure 6 has identified the significant contribution to emissions from the organisation's fleet. The greatest reduction in transport emissions will arise from the adoption of lower emission fleet vehicles. Councils such as Aberdeen, Orkney and the Western Isles are already engaging with this transition. There is scope for Highland Council to increasingly engage with this transition. However, it will require a strategic review that assesses for example, where charging points or alternative fuel stores are to be located, how staff could recharge Council vehicles when parked at staff premises overnight etc.
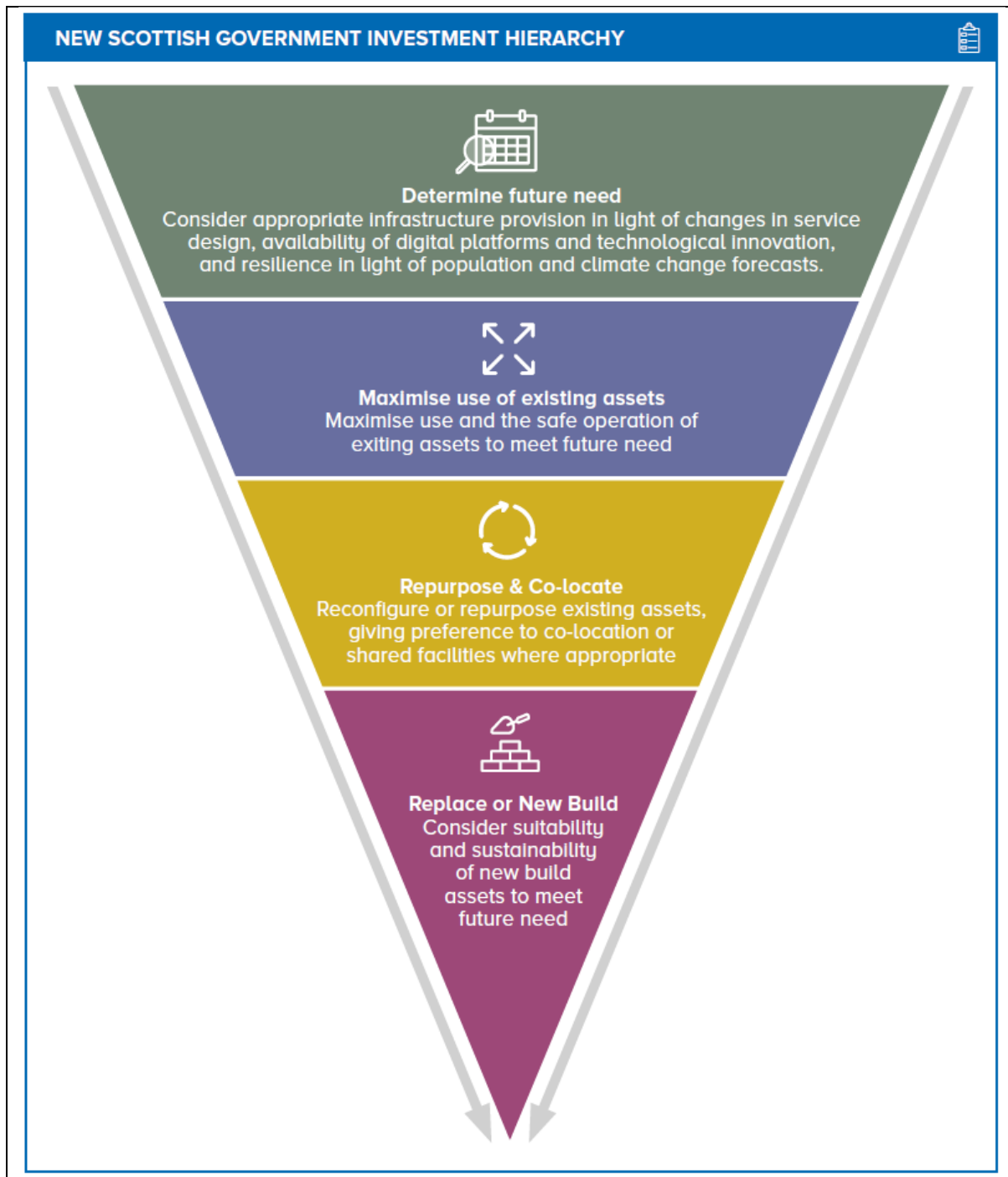
The Critical Role of Capital Investment and Infrastructure Investment

2.28   The Scottish Government recently launched a consultation on its new draft Infrastructure Investment Plan (IIP). The draft IIP was informed by the initial output report from the Infrastructure Commission for Scotland, and the draft IPP accepts virtually all of the ICS's recommendations. The IIP will set the framework and priorities for capital investment over the next five years, with an

expected investment of £24bn (with approximately £6.4bn expected in 2021/22). The Highland Council should accelerate its alignment with the strategic priorities of the IIP, to position itself at the forefront of opportunities for capital investments. Critically important here are the strategic aim of the IIP, the key objectives it will focus on (aligned with the National Performance Framework), and the Infrastructure Investment Hierarchy. These are outlined below:

Figure 7 - IIP Strategic Aim, Objectives, and Hierarchy

NEW SCOTTISH GOVERNMENT INVESTMENT HIERARCHY

Determine future need
Consider appropriate infrastructure provision in light of changes in service design, availability of digital platforms and technological innovation, and resilience in light of population and climate change forecasts.

Maximise use of existing assets
Maximise use and the safe operation of exiting assets to meet future need

Repurpose & Co-locate
Reconfigure or repurpose existing assets, giving preference to co-location or shared facilities where appropriate

Replace or New Build
Consider suitability and sustainability of new build assets to meet future need

The IIP provides a clear framework to inform the Highland Council's own capital programme. The Council must take steps to align its capital spending programme with the IIP, including:

- Incorporating the aims of the IIP as the key strategic aim of the Council's capital spending strategy and plans.
- Clearly and actively integrating the three objectives of the IIP into the Highland Council capital spending plans, with a clear strategic commitment to 'enabling the transition to net zero emissions and environmental sustainability.
- Using the Investment Hierarchy to guide the Council's capital spending plans, ensuring a clear assessment of future needs (within a Net Zero Scotland), maximising the use of existing

assets, repurposing and co-habiting existing assets, and then, as a last-resort, replacing or building new.

2.29   It is also worth noting the revision of the UK Government's Green Book on how to appraise and evaluate policies, projects and programmes. The review of the Green Book, published in November 2020, noted that the public sector needs to improve its management and decision-making of policies, projects and programmes. This includes far better assessment of how policies, projects and programme delivery of strategic outcomes (which for Scotland includes a commitment to Net Zero emissions and the outcomes in the National Performance Framework), and much more attention on assessing the climate and carbon emissions associated with policies, projects and programmes.

2.30   Given the two drivers of the Scottish IIP and the revision of the UK Treasury Green Book, it is imperative that Highland Council assesses its approach to Capital Spending Plans, identifies how these plans and Council processes need to be aligned with the IIP and revised Green Book, and invests in improving the use of Capital Spending and infrastructure investment to achieve Scotland's and the Council's Net Zero emissions targets and objectives.

2.31   Green infrastructure investment can continue to support opportunities for replacement of fleet vehicles with low carbon alternatives. The zero-emission heavy duty vehicle programme noted earlier is also relevant here.

2.32   The Scottish National Investment Bank provides a potential source of funding for wider programmes of energy efficiency retrofit and associated energy infrastructure supporting regeneration of communities.

Figure 8 - Scottish National Investment Bank

Proposed challenges, missions, and investment for the Scottish National Investment Bank

Grand Challenge	Mission	Investment
Climate emergency	Achieving a Just Transition to net zero carbon emissions by 2045.	Invest in rebalancing our economy towards leadership in sustainable technology, services and industries.
Place-based opportunity	Extending equality of opportunity through improving places by 2040.	Invest in places and regeneration to reduce inequality, and improve opportunities and outcomes for people and communities.
Demographic change	Harnessing innovation to enable our people to flourish by 2040.	Invest in innovation and industries of the future for a healthier, more resilient and productive population.

2.33   The Green Investment Portfolio is a further opportunity to seek investment that can drive forward both energy efficiency and renewable energy generation (as well as other climate change action related projects). The first call for projects was released in early October 2020 (https://www.gov.scot/publications/scotlands-green-investment-portfolio-call-projects/). Allied to this will be a Hydrogen Policy Statement and Action Plan that has relevance both for energy in buildings but also transport.

2.34   In terms of further reducing the carbon intensity of energy use this is driven by two aspects of Council behaviour. The first is how energy is procured, blending use of national framework agreements (operated by Scottish Government) with local agreements with suppliers within Highland region and provision of self-supply via its own portfolio of renewable energy development. The Council is familiar with developing renewable energy projects on its own estate including accessing finance via existing routes available to local authorities. The Green Investment Portfolio provides a further option to explore in terms of seeking additional sources of private finance to support a programme of projects (rather than single individual opportunities). Continued support via the planning process will enable further development of renewable energy generation across communities in the region, which remain sympathetic and in keeping with the landscape and character of each area. A key challenge commented on during this work was the capacity of the local grid infrastructure to be able to accommodate increasing connections from onsite energy generation, for example solar PV, micro hydro etc. This is emerging as a consistent constraint on the organisation being able to pursue significant onsite generation on its estate.

Highland Council Capital Programme 2018/19 to 2022/23

2.35   The Highland Council has close to £2bn of assets on its balance sheet including 203 operational schools, over 6,700km of roads and over 2,000 properties. As the Council with the largest geographical area in Scotland the asset base comprises a hugely diverse range of assets in terms of size, location, purpose and condition. The 2020/21 Programme for Government has identified a number of different funding announcements that could potentially support the Council's Capital Programme activity.

2.36   The Council had prepared a 10-year capital programme, running from 2015/16 to 2024/25. This was reviewed in 2018 and updated in 2019. In light of the COVID pandemic, the organisation's estate will need to be further reviewed as there may be a consolidation of some of the properties which are no longer required. The Capital programme reflects the level of investment the organisation chooses to make in those assets, whether that be creating new assets or improving existing facilities. Investment is funded by two principal means, an annual capital grant received from Government to be used for capital purposes and borrowing which the Council finances through its revenue budget. The following sections summarise the principle services covered by the Capital Programme.

Education and Learning

2.37   Education and Learning covers a broad range of assets including schools and nurseries, community facilities, land and other assets, High Life Highland (HLH) tenanted assets, HLH operated vehicles, Adult Services facilities and Children's Services facilities. Highland has a large number of schools, and a large number of those schools have condition, suitability or capacity pressures. The

Council must also deliver investment to support expansion in Early Learning and Childcare provision to meet Scottish Government policy.

2.38   The Scottish Government's Programme for Government does not specifically identify new funding being made available for care and learning infrastructure. Recently, the way that new schools are procured has changed. In September 2019, the Scottish Government and COSLA launched the first phase of the Learning Estate Investment Programme (LEIP). Under LEIP, local authorities will be fully responsible for the costs of constructing new schools. Local authorities will need to find the money to pay for building the new schools either from their capital budgets, or by borrowing funds. The Scottish Government will then be responsible for covering the 'lifecycle and maintenance' costs of these new schools. This includes the day-to-day running costs of the buildings and the ongoing maintenance costs. Highland Council has successfully engaged with LEIP to help construct several new schools.

2.39   The organisation has successfully engaged with Salix Energy Efficiency Loan Scheme (SEELS). This provides funding for Council assets to reduce energy costs through the installation of energy efficiency technologies. While earlier sections highlighted how Council office estate is likely to be rationalised in the coming months and years, this is less likely for the school estate. There would be value in the Council reviewing its whole school estate and creating a stratified and prioritised programme for energy efficiency improvements. This would inform subsequent SEELS funding bids.

Communities & Place

2.40   A key challenge and also low carbon opportunity is the Council's operation of road vehicles. A fleet of around 500 small vehicles and a number of "heavies" for example over 100 snow ploughs, bin lorries etc is operated by the Council. A key challenge is the replacement of these vehicles. For example, the optimum life cycle life of an HGV working in winter conditions is 7 years. Due to reduced funding in previous years, this has been extended to 10 years which is the maximum life.

2.41   The Programme for Government contains several transport announcements around low carbon.

- Commitment to establish a zero-emission heavy duty vehicle programme, accelerating the development and uptake of such vehicles in the public and private sectors. The programme has been developed in partnership between Transport Scotland and Scottish Enterprise with a minimum investment of £1 million in 2020-21.
- Invest in the establishment of a zero-emission drivetrain testing facility in 2021, with a focus on hydrogen fuel cells to accelerate the development of these vehicles.
- Establish a new resource to support research and product development in zero emission mobility through pooling academic capability and enabling collaborations.

2.42   The funding complements activity already underway to develop the potential for hydrogen fuelling in the Highland area. There is scope to liaise closely with other local authorities who are pioneering work around alternatively fuelled vehicles. And there will be specific locations and businesses that could lend themselves to production and consumption of Hydrogen fuel.

Resources & Finance

2.43   The use of ICT is a key feature of the corporate resources and Highland council procures a range of ICT services. The Scottish Government has been funding the roll out of improved broadband

speeds across the country. While the Programme for Government reiterates the existing commitments, it does not identify any significant additional funding.

Infrastructure & Environment

2.44   The recent completion of a national assessment of flood risk concluded with a Flood Risk Management Strategy and Plan for the Highlands. The Council has committed to: -

- 4 flood protection schemes
- 10 flood studies to develop solutions to known flood risk areas
- 7 surface water management assessments

2.45   In the 2019/20 Programme for Government, the Scottish Government had committed to continue to provide £42 million annually to local authorities for flood protection and increased funding for the Flood Resilience Forum to £189,000 in 2019-20. In the 2020/21 document, the Scottish Government is committing to provide an extra £150 million for flood risk management in addition to continuing to provide £42 million annually to local authorities. There is also a commitment to provide £12 million in coastal change adaptation.

2.46   During this commission, Council staff consistently commented about the fragmented nature of Council energy efficiency and low emissions investment and projects etc. Projects can be quickly created on an ad-hoc basis, often targeted at a recent funding announcement. There was concern expressed that this is leading to rushed applications that were not successful. Where applications were successful, there are often challenges around project delivery, handing over a project to maintenance staff etc at the end of the project as the rationale, implementation/delivery etc had not been clearly identified. So, while the preceding paragraphs have identified sources of funding etc to support service delivery etc, there is a more fundamental project design challenge for the organisation.

Commentary on Land Use

2.47   Land use management provides significant employment and economic output in the Highland region. There are a number of immediate opportunities for support within the PfG:

- Peatland restoration - £20 million committed funds for 2020-21 and further commitment of future investment totalling £250 million over the next decade
- Agricultural Transformation Programme - £40 million of funding to support transformation across the sector and a shift to lower carbon operations
- Green Jobs Fund – Part of the £100 million fund is ear-marked for land-based jobs supporting forestry, blue economy and related work activities. This includes initiatives via the National Transformation Training Fund (£25 million immediate funding available)
- Continued funding for the Scottish Land Fund providing £10 million per year to help communities purchase assets
- Ongoing support for additional tree planting by Forestry and Land Scotland and Scottish Forestry

2.48   The following table captures the various elements of the Council's different operations and how these can relate to the Scottish Government's Programme for Government and the different funding this is allocated.

Function	High GHG Contributor	Key Theme	Highland Council Estate	Highland Region	PfG Priority Area
Communities & Place	Community Planning	Infrastructure - Buildings	Size and design	Co-location of services/amenities	Infrastructure Investment
	Public Conveniences				Scottish National Investment Bank
	Stores	Infrastructure - Roads / Fuelling	Maintenance & vehicle fuelling	Access to services	Green Investment Portfolio
	Street Cleansing				ChargePlace Scotland
	Waste Management/ Waste Strategy	Infrastructure - Harbours / Ferries	Maintenance & fuelling	Access to ULEV fuelling	Agile workforce
	Grounds Maintenance				
	Community Learning and Development	Infrastructure - Broadband	Access and speed	Digital speed & accessibility	Connecting Scotland; Digital Action Plan
	Burials & cremations				R100 Programme
Education & Learning	Early Years	Energy - Efficiency	Retrofit & efficiency	Retrofit fabric efficiency	Green Investment Portfolio
	Staff development				Energy Efficiency Program
	Primary Schools	Energy - Renewable Generation	Extend renewables & hydrogen	Household renewables	Green Recovery LCITP
	Schools - other				
	Secondary schools	Energy - Community Energy	Expand renewable generation	Business renewables	Community Wealth Building
Health & Social Care	NHS Commissioned Services			Community renewables	Community and Third Sector Recovery Plan
	Residential Care				
Infrastructure & Environment	Ferries	Transport - Service structure	Travel logistics & delivery		Hydrogen Action Plan
	Harbours & Marine facilities				
	Roads	Transport - Fleet vehicles	ULEV and hire car strategy		Heavy duty vehicle program
	Safety inspections				
	Winter maintenance	Transport - Public transport	Low emission & smart travel	Smart travel systems	ULEV Fleet renewal
	Infrastructure			Active travel	Active Travel Infrastructure
	Laboratory/Quarry	Waste - biodegradable waste	Local waste management		Refuse Collection Infrastructure
	Energy	Waste - landfill diversion			
	Street Lighting	Waste - recycling / re-use	Circular economy	Recycling / re-purpose	Circular Economy Bill
Property & Housing	Depots	Waste - collection logistics	ULEV & collection logistics	Community waste management	Deposit Return Scheme
	Office Accommodation Mgt				
	Catering, Cleaning & FM	Land Use - peatland restoration		Peatland	Peatland Restoration
	Property maintenance				
	In-house building maintenance	Land Use - forestry		Forestry	Local Place Plans
	Schools catering & cleaning				
Resources & Finance	Learning & development	Land use - land management	Land management	Estate management	Agricultural Transformation
	Occupational health			Croft management	Scottish Land Fund
	ICT & Digital Services				
Transformation & Economy	IT infrastructure	Skills - staff	Digital upskilling		Digital Strategy; Agile Working
	Commercial Property dev				
	High Life Highland	Skills - community	Low Carbon Economy Skills	Extending business staff skills	Green Jobs Fund; Green Workforce
	Housing Dev			Develop low carbon supply chains	

2.49   The Council has produced an extensive suite of policies that guide both internal operations and provide guidance to external parties. The following table summarises these policies and where they may need to be reviewed and updated in light of climate emergency/net zero and commitments in the Programme for Government. Where there are gaps in the column titled Area of Programme for Government Interaction, this reflects the lack of a specific intervention identified in the document that could be linked to a specific Highland Council policy.

Table 3 - Highland Council Policies and Exposure to 2020/21 Programme for Government Funding and Support

Policy	Climate Emergency/Net Zero Relevance and Need for Revision	Area of PFG Interaction
Building standards	Suite of policy documents. The most relevant is <u>BST 020 Biomass Installations Policy</u>. There are now an increasing range of heat pumps; air and ground source with growing interest in water source, being installed in the area. There would be value in ensuring any documents include reference to heat pump technology and ensuring the correct technology for the correct location and function.	- Invest nearly £1.6 billion in transforming our buildings to ensure that emissions from heating are eliminated by 2040. Specific actions involve - At least £95 million to decarbonise the public sector estate - Opening the £50 million Green Recovery Low Carbon Infrastructure Transition Programme (LCITP) - Additional £55 million to support scale up of energy efficiency programmes - Refresh the Energy Efficient Scotland Route Map and set out a clear pathway towards zero emissions from heat in buildings - Establish an expert group to make recommendations to Scottish Ministers on the scope of a potential heat pump sector deal - Launch a scoping consultation in autumn 2020 on standards for new buildings requiring them to use renewable or zero emission heating from 2024.
Community life	Main relevant policy is <u>Section 29 Minibuses Issue:2</u>, March 2018. There may need to be revision to incorporate EV/hybrid transmission and the need for appropriate charging	The 2019/20 identified funding for EVs and there were incentives for EV charging infrastructure.
	<u>Corporate Communications Strategy 2015-17</u>.	The Scottish Government has established a consistent message about the climate emergency

Policy	Climate Emergency/Net Zero Relevance and Need for Revision	Area of PFG Interaction
	There is reference to communicate key messages including *"The Council will support communities to be more resilient to climate change and extreme adverse weather events"* There may be scope to update the document so there is more mention of climate emergency, climate change and Net Zero.	and this is now evolved into the requirements for Net Zero. There is scope to ensure the Council Corporate Communications Strategy reflect these different agendas.
Conservation	Coast Protection Policy Explains Council approach to protecting the coastline. There is scope to ensure any commitments recognise more extreme weather events creating coastal erosion, overtopping etc and also that future development activity can not have a detrimental effect on Blue Carbon. Also ensure there is a low or zero carbon focus to all future infrastructure investments.	There is mention of £12 million in coastal change adaptation funding. Also growing awareness of Blue Carbon, though no specific announcements regards this carbon sink. While English focused, the Committee on Climate Change October 2018 Report - Managing the coast in a changing climate may provide supporting evidence which could help Highland Council improve coast protection and attract some of the Scottish Government funding.
Corporate	See previous comments about the Corporate Communications Strategy 2015-17	
Council tax	The Highland Council Housing Benefit – Local Housing Allowance Safeguard Policy. No revision required of this safeguarding policy in terms of considerations for climate change, climate emergency and Net Zero.	

Policy	Climate Emergency/Net Zero Relevance and Need for Revision	Area of PFG Interaction
Councillors'	Councillor's - <u>Code of Conduct</u> – not available due to broken web link Additional guidance and records of <u>Councilor's Expenses</u> etc	The previous PfG had identified loan finance to help individuals purchase new electric vehicles. There was also finance available to help organisations get involved with electric vehicles. In September this support was extended to finance for 2nd hand EVs. There would be value in reviewing the Council expenses to ensure it captures use of EVs.
Countryside, farming and wildlife	<u>Supporting Co-operation & Managing Unauthorised Encampments - Policy & Procedures</u> is marked as "Draft Awaiting Approval"	Increasing evidence that COVID-19 has affected minority ethnic groups disproportionately and it has highlighted health and socio-economic inequalities. Mentions -Making ethnicity a mandatory field for health databases -Developing a linkage to the census -Embedding the process of ethnicity data collection in the culture of the NHS in Scotland
Education	<u>Home-to-School Transport Policy</u>. This could be reviewed to identify if it is pertinent to address access travel and also low emissions travel. <u>School food nutrition and health policy.</u> Appears dated (reference to 2002 and compliance by 2006). Scope to update to include reference to low carbon, seasonal, locally produced foods?	Scottish Government investing over £110 million in tackling food insecurity as a result of the pandemic; grocery box parcels for people shielding, and provided flexible investment for local authorities and third sector organisations to respond to food insecurity at a local level. Includes almost £30 million to support the delivery of a free school meals or alternative provision during school closures and over the summer holidays. The issue of food insecurity in school holidays has been raised. This is addressed by continuing to fund free school meal entitlements over the Easter and summer breaks.
Environment	<u>Coast Protection (2014)</u> – see previous entry for Conservation. <u>Environmental and Amenity Services Enforcement Policy</u> – appears to have limited to relevance but may be worth a check in terms of misuse of land which leads to increased emissions	While not specifically pertinent to these 2 policies, it is worth noting that the Scottish Government has made available an additional £100 million to Scottish Forestry to increase new planting alongside £30 million to Forestry and Land Scotland to expand Scotland's national forests and land by an additional 18,000 Ha per year by 2024. A further £20 million will go to increase nursery stocks

Policy	Climate Emergency/Net Zero Relevance and Need for Revision	Area of PFG Interaction
	Carbon Management Plan 2013-2020 – requires updating to reflect increased Council and national ambition.	There is also a commitment to significantly increase the rate of peatland restoration.
Elections	Display of Election Posters – Policy. No interaction with climate emergency /emissions or Net Zero	
Digital and technology	Information Management Policy – Information Management Strategy	The Scottish Government has signaled increased funding to support the role out of broadband and also broader digital engagement. A three-part digital investment package, totaling £35.5 million had been committed in the 2019/20 PfG There is also a commitment for an additional £2 billion of infrastructure investment over the next parliamentary session to stimulate demand and create jobs in the transition to net zero in 2020/21 PfG
Finance	Highland Council Financial Regulations - covering the internal provision for financial management. Will need to be reviewed to ensure this covers any allocation of spend that would contribute to the organisation's Zero Carbon target and commitments.	
Gaelic	Communications Strategy 2015 – 2017. Previously addressed in Community Life	
Gypsies and Travellers	Unauthorised camping. Not relevant to Climate Change/emissions agenda	
Housing	Highland Housing Strategy 2010 – 2015 – Link no longer available	Pertinent housing commitments include establishing an expert group to make recommendations to Scottish Ministers on the scope of a potential heat pump sector deal and launch a scoping consultation in autumn 2020 on

Policy	Climate Emergency/Net Zero Relevance and Need for Revision	Area of PFG Interaction
	Housing Repairs Policy – update to include micro renewables Grants for tenant groups – web link no longer working	standards for new buildings requiring them to use renewable or zero emission heating from 2024
Human resources	There is a dedicated web site which supports a suite of HR policies and recruitment information etc. There would be value in reviewing specific areas of HR activity, for example job descriptions, job adverts, appraisals etc so they support staff and the organization with its Net Zero requirements.	
Information management	Similar to digital and technology	
Licensing	Not relevant	
Planning	Community Benefit Policy - dated and could be revised to include woodland establishment or helping facilitate micro renewables Local Development Plans / Highland-wide Development Plan	Committed an additional £2 billion of infrastructure investment over the next parliamentary session to stimulate demand and create jobs in the transition to net zero -The Scottish National Investment Bank is on track to open this year -Will launch the £3 billion Green Investment Portfolio Continued commitment to developing and launching Green Growth Accelerators
Property	Decarbonising Heat Draft Heat Generation Policy – copy of a consultation response, not a policy Policy 16 - Construction design and management policy – aims to ensure the organisation complies with the CDM regulations Property management – link to document no longer live	Over the next Parliament, invest nearly £1.6 billion in transforming buildings to ensure emissions from heating are eliminated by 2040 to remove poor energy efficiency as a driver of fuel poverty. -At least £95 million to decarbonise the public sector estate -Opening the £50 million Green Recovery Low Carbon Infrastructure Transition Programme (LCITP) -Additional £55 million to support scale up of energy efficiency programmes

Policy	Climate Emergency/Net Zero Relevance and Need for Revision	Area of PFG Interaction
Waste and recycling	<u>Suite of waste policies explaining commercial and domestic waste collection, costs etc.</u> There is scope to update these to recognize climate emergency/climate and also progress towards Net Zero and also recognize new processes, working from home etc.	Commitment to develop tools and guidance to support a green recovery our wider climate and circular economy ambitions through procurement
Social media	Not relevant	
Social care and health	<u>School policies and guidance - child wellbeing and safety Child Protection policy</u> Not relevant	
Transport and streets	<u>Winter maintenance</u> There may be scope to adopt emission reduction activity, for example route scheduling to reduce fuel use and emissions and accessing alternatively fueled vehicles, for example hydrogen.	
Trading standards	<u>Consumer advice Trading standards enforcement</u> Not relevant	
Winter	<u>Winter maintenance</u> Not relevant	

2.50   While the previous table identified specific Council policies, the organisation also has a number of strategies that should be reviewed to ensure they incorporate changing or new climate change and Net Zero emphasis and funding in the Programme for Government. Pertinent strategy documents could include

- A Sustainable Highland Change Strategy 2019-2022

- Carbon Management Plan / Energy Strategy and Action Plan
- Highland Coastal Development Strategy – May 2010
- Highland Forest and Woodland Strategy – November 2018

2.51 The previous sections have assessed a significant range of Council operational activity and its relationship to the Programme for Government, climate change and Net Zero. That material has informed the following action points that should be considered by the Council leadership.

1. The previous chapter identified the statutory requirement for Highland Council leaders to identify the organisation's own operational Net Zero plan and target date for achieving Net Zero. Chapter 2 has identified specific operational areas of high carbon activity and where funding is being made available by the Scottish Government to support emission reducing activity. The Council leadership should ensure there are appropriate resources now made available at a strategic/management level to effectively plan how the organisation will engage with Net Zero.

2. Within the Council. there are a range of specialists and project officers working on emission reduction activity. These staff are extremely knowledgeable about issues such as policy, technology, funding that will help the Council achieve lower emission activity. There is potential for the organisation to make better use of these staff and their expertise. Providing resources and more support would help the organisation to achieve the improved Net Zero performance it is now legally required to achieve.

3. There is a significant level of funding being made available to help Scotland, and public bodies, achieve lower carbon operations. The Council has been able to access some of this funding, though this has been in a very ad hoc manner. This approach has meant the Council has missed out on funding and has also not been able to achieve the maximum benefit from funded projects. A common theme discussed during staff consultation was the value in having a central low carbon project and funding staff resource that liaises with specialist project officers, to develop projects, funding applications, identified aftercare/maintenance requirements etc. This would allow the Council to achieve a more successful outcome from future low carbon activity.

4. Council operational GHG emissions arise principally from 2 sources, energy use in buildings, and transport. Despite nearly a decade of focus on renewable energy and energy efficiency, there has only been a minor reduction in building electricity consumption. This is an unsustainable position. We would suggest Highland Council allocate suitable staff resource to complete an audit of the organisation's estate. This would help to identify higher energy consumption and therefore emission buildings. And it would inform how to achieve the energy and emission reductions that the organisation now has a legal requirement to achieve.

5. A key challenge facing the organisation is its existing estate and how much of that will actually be required post COVID 19. We would recommend the Council undertake a comprehensive building estate review, during 2021, to establish which buildings should be maintained and which should be disposed of.

6. Transport emissions arise in 3 categories, staff travel, grey fleet and heavy fleet. The latter is the largest source of GHG emissions though it has been declining. There is increasing scope for the Council to use alternatively powered vehicles, for example electric and

hydrogen. We would suggest the Council undertakes a forward looking assessment of fleet use and fuelling to identify how it will achieve the transport emissions reduction.

7.   As the Council leadership increase their and the organisation's engagement with Net Zero, there will be a requirement to ensure all appropriate corporate documentation is updated to include these issues, where appropriate. This will be required to ensure there is a consistent message about Net Zero and that this is articulated throughout the organisation and to any external stakeholders or individuals reading the documents.

Chapter 3 - Using Highland Council Estate to Contribute to Low Carbon and Climate Change Targets

3.1   The following graphic illustrates that for Highland Council to achieve Net Zero involves a combination of emission reduction and also an element of carbon offsetting/sequestration. The following chart records key sector emissions and levels of carbon sequestration in Highland Council area over the last 14 years. Data is sourced from UK local authority and regional carbon dioxide emissions national statistics: 2005-2018. While absolute numbers between different data sources vary, they all illustrate common trends and emission trajectories. To help achieve Net Zero, which Highland Council now has to achieve, the organisation has two approaches;

- Use renewable energy to produce more energy than Highland Council can use, with the surplus used elsewhere and saving the consumption of fossil fuel derived energy.
- Use its estate or provide new sequestration activity in the Highlands.

Figure 9 - Highland Council Area Greenhouse Gas Emissions (000 tonnes CO$_2$e) 2005 - 18
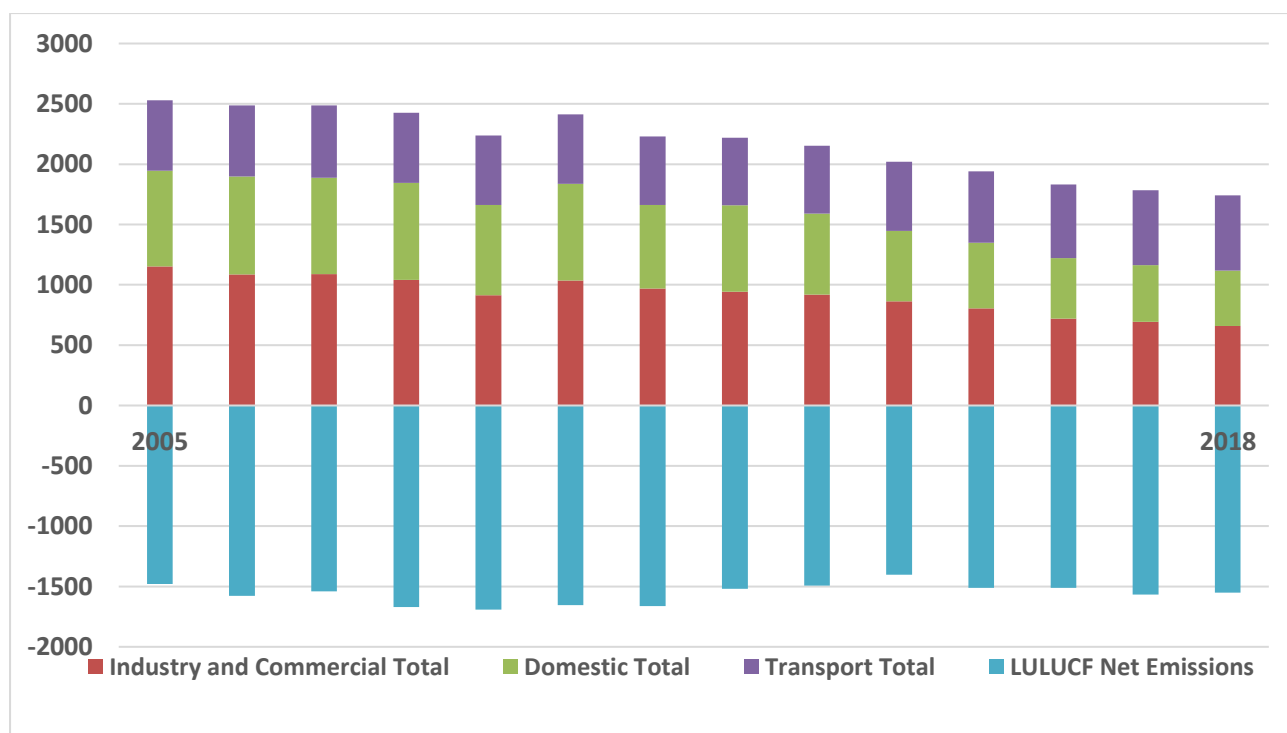
ParkPower

3.2   An option to reduce GHG emissions is to use Council estate, where possible, for onsite renewable energy production. The ParkPower project has been established with the long-term ambition;

"**To develop a Scotland-wide network of sites over the next 20 years that utilise greenspaces sympathetically to support the decarbonisation and decentralisation of Scotland's energy system**".

3.3   The intention is that ParkPower, or the potential of greenspace, will become a key component in a Council's Local Heat and Energy Efficiency Strategy (LHEES), contribute to Local Energy Masterplans and help meet targets in sustainability and climate change action plans. This

involves using a Geographic Information System (GIS) to undertake a mapping process that assesses the 'natural viability' of sites across a local authority portfolio of greenspaces. This will utilise a range of data sources and is based on matching long-term demand with the ability to supply green energy. The green energy technologies under consideration include heat pumps, hydro, solar PV, wind, district heating, solar thermal, battery storage and vehicle charging.

3.4   The following graphics illustrate a before and after, when ParkPower considerations are applied to an existing greenspace.

Figure 10 - Greenspace "Before and After" ParkPower Considerations
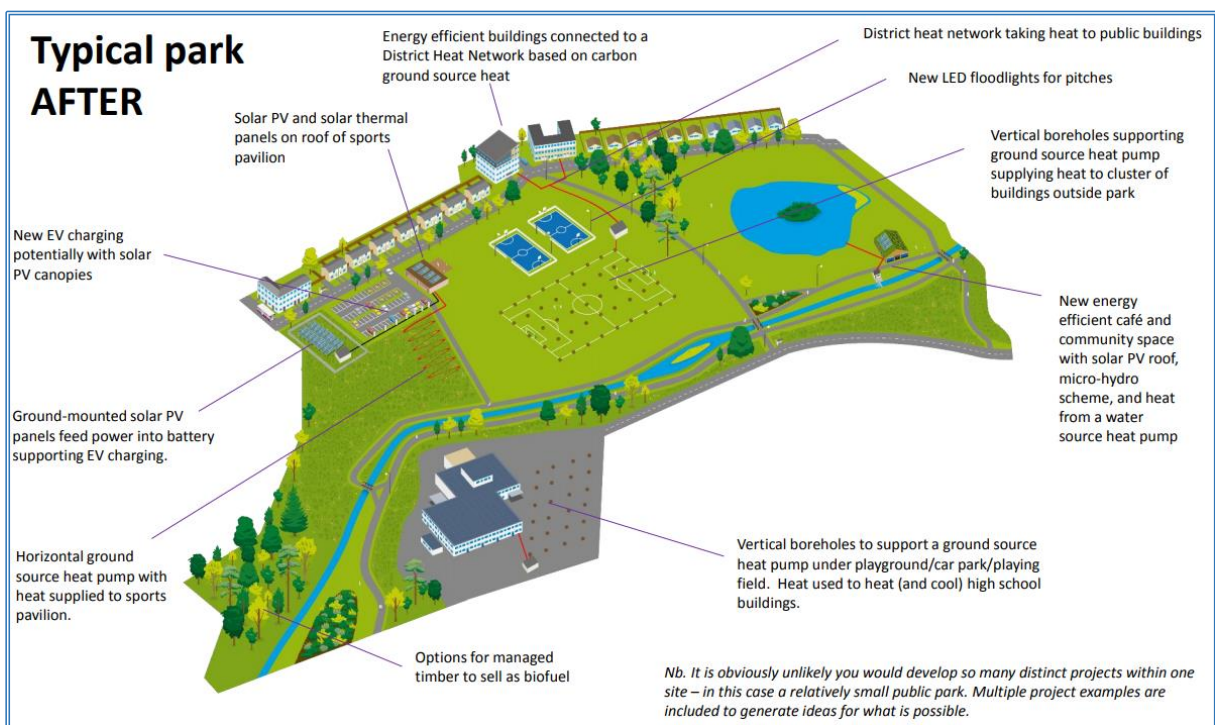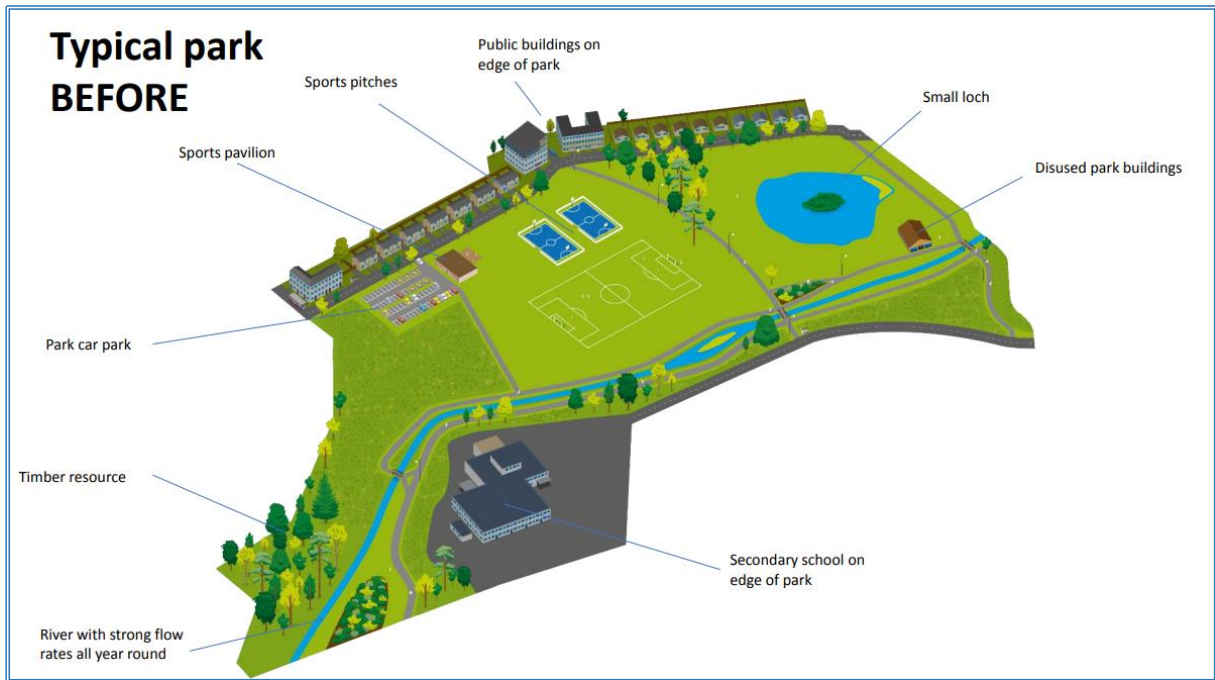
3.5   With a significant portfolio of land close to recreation, education, domestic and commercial/industrial properties, there could be scope to use these areas of land for producing renewable energy that could then be used in Highland Council owned buildings.

3.6   ParkPower projects in the Highlands are likely to focus on 2 key aspects of energy production.

- Supporting the provision of ground mounted solar PV array.
- Supporting the collection of heat via a ground or water source heat pump.

3.7   There are current grid connection challenges in the Highlands for new solar PV arrays. This is a significant challenge when trying to progress the installation of new solar PV arrays. So, while there may be small parcels of land owned by Highland Council that could be suitable for ground mounted solar PV, the viability of a suitable local grid connection would need to be confirmed.

3.8   The production of heat from a ParkPower heat pump project has the potential to feed into an existing district heating system or contribute to a new scheme being installed. A key challenge in the Highlands is the very low experience with district heating systems. An alternative would be to feed the output of the heat pump to a large heat consumer, for example adjacent school or large office.

3.9   For Highland Council there are constraints on the potential location for ParkPower projects. There is a comprehensive mapping resource available at the ParkPower web site and this identifies dozens of park and greens pace areas in the Highlands that could be considered for potentially energy production.

3.10   The Programme for Government does not specifically mention funding for the ParkPower project. However, there are several commitments to support the transition towards the lower carbon energy economy, including;

- Committed an additional £2 billion of infrastructure investment over the next parliamentary session to stimulate demand and create jobs in the transition to net zero
- The Scottish National Investment Bank is on track to open this year
- Will launch the £3 billion Green Investment Portfolio
- Over the next Parliament, invest nearly £1.6 billion in transforming buildings to ensure that emissions from heating are eliminated by 2040 to remove poor energy efficiency as a driver of fuel poverty.
- The deal uplifts Heat and Energy efficiency spend from £112m in 2019/20 to £398m p.a. in 2025-26 and will include:
  - At least £95 million to decarbonise the public sector estate
  - Opening the £50 million Green Recovery Low Carbon Infrastructure Transition Programme (LCITP)
  - Additional £55 million to support scale up of energy efficiency programmes

Carbon Sequestration

3.11   A challenge for Highland Council is how to use its existing estate to provide opportunities for GHG emission sequestration. A simple approach to sequestration is to use afforestation and woodland creation. Tree growth absorbs and locks in carbon to the tree and also transfers some to the surrounding soil. Exactly how much carbon a forest can hold depends on several factors including the tree species and the length of the crop rotation.

3.12   A sample of Highland Council sites was provided to help illustrate the opportunity for carbon sequestration. In the following analysis we have developed 3 typologies to reflect Council estate: large, medium, and small. The large site refers to the Longman Landfill site. There may be issues regards gas recovery at the site so the inclusion should only be seen as providing an indication of the levels of sequestration available. This is a unique site and none of the other sites identified were this large. The medium and small sites are not being attributed to a specific location as they represent multiple sites the Council owns. Again, they are included to provide an illustration of the level of sequestration available.

3.13   The following table assesses the carbon sequestration of a mixture of soft (Scots Pine) and hardwood (e.g. Oak, Rowan, Hazel and Birch) being planted. We have incorporated tree planting that is suitably spaced to allow access by walkers, cyclists etc, rather than densely planted for commercial timber production.

Table 4 - Possible Carbon Sequestration On Highland Council Estate TCO$_2$e

Date since planting	Large – 10 Ha	Medium 2-10* Ha	Small < 1.75 Ha
5 years	20	12	3
15 years	230	138	40
25 years	1010	606	176
45 years	720	432	126
Total	1,980	1,188	333

*Midpoint of 6 used in analysis. Total is the overall emissions absorbed per site.

3.14   The figures in Table 4 illustrate how tree planting on Council land would help sequester carbon. Planting mixed woodland on a 6 Ha site would help to sequester 12 tonnes of CO$_2$e five years later. This means, Highland Council would be able to deduct 12 tonnes of CO$_2$e from the organisation's emission figures, five years after the trees were planted. For the smaller sites, for example <1.75 Ha, planting this area of mixed woodland would have sequestered 176 tonnes of the Council's CO$_2$e emissions, 25 years after planting the trees. The Council would be able to deduct this 176 t CO$_2$e figure from the organisation's for that year, 25 years after the planting. In the case of the Longman, after 5 years the site could have sequestered 125 t CO$_2$e and 9,259 t fifteen years after planting. Put simply, the sooner the Council can plant trees on its estate, the sooner it will be progressing towards the dates when it can claim sizeable carbon sequestration effects against emissions. It is important to note that a key cut-off date for the Council is 2045. This is the date when Scotland (and by implication, Highland Council) has to be carbon neutral/Net Zero. It is now 24 years to that date.

3.15   The previous table assessed the rates of carbon sequestration provided by mixed woodland, planted on 3 different sizes of Highland Council estate. This mixed woodland approach provides an excellent local amenity resource. An alternative would be to undertake more commercial focused productive woodland planting. The following table identifies the different sequestration levels for Sitka Spruce planted on a 40-year clear fell rotation.

Table 5 - Possible Carbon Sequestration On Highland Council Estate TCO$_2$e

Date since planting	Large – 10 Ha	Medium 2-10* Ha	Small < 1.75 Ha
5 years	37	12	0
15 years	689	413	106
25 years	1,149	690	201
Total	1,875	1,115	307

*Midpoint of 6 used in analysis

The increased rate of carbon sequestration is evident when planting Sitka Spruce as a productive timber crop. So, if Highland Council wished to maximise carbon sequestration on its estate, in the right locations, Sitka Spruce for clear fell would deliver more savings than mixed woodland. Again it is worth noting that with the final date for Highland Council to be Net Zero is now only 24 years away.

3.16   A significant challenge for the Council is the very small nature of the majority of its estate. This does not preclude woodland plantation. There is an interest in planting very small woodlands on parcels of land the size for example of a tennis court. They are based on a forest management methodology developed in the 1970s by Japanese botanist Dr Akira Miyawaki and are known as Tiny or Miyawaki forests. While they can improve a local habitat, increase biodiversity, reduce localised surface flooding, and absorb carbon. However, their impact on emission reduction is very minimal. Regardless, there is a steadily increasing number of tiny forests as residents use this approach to improve local amenity. There would be scope for Highland Council to consider this approach on its land. The challenge however would be the significant number and area of tiny forests required to make any realistic impact on sequestering emissions that could be claimed by the organisation. And the longer this takes, the less time there is between planting and the Net Zereo target date of 2045 at the latest.

3.17   The current Programme for Government is supporting woodland creation through a number of approaches identified in the latest programme for Government;

- Additional £100 million to Scottish Forestry to increase new planting alongside £30 million to Forestry and Land Scotland to expand Scotland's national forests and land by an additional 18,000 Ha per year by 2024. A further £20 million will go to further increase nursery stocks
- Committed to significantly increasing the rate of peatland restoration
- Continue to support biodiversity, including £3 million for the Biodiversity Challenge Fund in 2021-22 alongside high-level statement of intent on biodiversity before the end of the year
- Pilot mini-forests to trial innovative approach to restoring biodiversity

Offsetting

3.18   An alternative approach to help Highland Council achieve net zero would be to use some form of offsetting scheme. This involves supporting an offset or reduction in emissions elsewhere (outside the boundary of the Council), to reduce emissions arising in the organisation's estate. Offsets are often made in the developing world where there is potential for a new or current activity to emit GHG emissions. The offsetting provides support to avoid this emission producing activity and adopt a low carbon alternative, with the carbon saved being equal to the required offset amount. While there are various forms of accreditation for offsetting, this approach is not without its critics. A key question for the Council is the spend of grant or council tax funding in another part of the world, to offset emissions. However, there is scope to offset in the highlands, through supporting woodland creation and also maintaining the integrity of areas of peat in the Highlands. The Woodland Carbon Code and Peatland Carbon Code are two schemes that are being developed to potentially offer 'local' off-set opportunities. However, it is the position of the Scottish Government and SSN that off-setting should only be considered for legitimately unavoidable emissions, and while formal guidance isn't yet available, the spirit of the existing legislation is that public bodies should be

doing everything feasible to avoid emissions, reduce emissions and enhance sequestration, before any consideration is given to off-setting.

3.19   This section illustrates there is little scope for the Council to use carbon sequestration on its estate to achieve any significant impacts. And a very pertinent consideration is the final date for net zero being 2045, just 24 years away. The shorter the time between planting and the 2045 date, the less carbon that would be sequestered.

3.20   A key challenge when undertaking the work for this chapter had been to confidently identify the land owned by Highland Council. While the Council does have records/maps, this is not for the whole Council estate. There is a comprehensive mapping resource available via the ParkPower projects. There would be value in the Council allocating staff resource/budget to undertake a comprehensive audit of land owned by the Council. This would help the organisation to maximise the sequestration opportunities across the whole land estate.

Chapter 4 Creating A Low Carbon and Climate Engaged Region

4.1   The previous chapters identified, how Highland Council can become more engaged addressing GHG emissions in the organisation's operations and estate. In this chapter we identify how the Council, working with stakeholders can help develop the Highland region as Scotland's low carbon and possibly, Net Zero region. Using one of the available data sources on emissions, figure 6 identified the area's GHG emissions and also the level of sequestration facilitated by woodland. Combined for example with reducing carbon intensity of grid supplied electricity, this sequestration has helped reduce the area's net emissions from 1,049,000 tonnes of CO_2e in 2006 to 190,000 tonnes CO_2e in 2018.

4.2   To help sustain and continue this emissions reduction trajectory involves Highland Council reducing internal operational emissions. Achieving Net Zero also involves identifying a way to offset or sequester the remaining small volume of emissions. Two key opportunities with regards this offsetting/sequestration are;

1   - Identifying opportunities across the wider Highland region to increase carbon storage and sequestration and
2   – Identifying how the Council and partners/stakeholders can help develop an approach to demonstrating emissions reduction leadership and marketing the Highlands as Scotland's Net Zero or even Net Negative region.

4.3   As previously acknowledged in this report, a key resource for the Highlands is the role played by the area's environment. This environment is helping to address climate change, flooding etc through ***Nature-Based*** solutions. Nature-based solutions refer to the use of nature and natural environments to help tackle socio-environmental challenges, providing benefits to people and nature. In particular, these solutions can help mitigate and adapt to climate change. Compared to technology-based solutions to climate challenge, nature-based solutions are often more cost-effective, longer lasting, and have multiple synergistic benefits including:

- Reducing net emissions
- Expanding carbon sinks
- Providing habitats for biodiversity
- Benefiting human health and well-being
- Helping our society and economy adapt to climate change
- Making more resilient and nicer places to live and work

Nature Based Carbon Storage and Sequestration Activities.

Blue Carbon

4.4   Oceans perform an invaluable ecosystem service that is often overlooked. They play a vital role in trapping and storing carbon dioxide that would otherwise stay in the atmosphere and contribute to global warming. Many marine species capture and store 'Blue Carbon'. In Scotland's seas, such species range from phytoplankton – microscopic plants found at the surface – to kelp beds, mussel beds and cold-water coral reefs. Present understanding of how Blue Carbon is captured and stored is currently limited, with the exception of a few relatively well-studied ecosystems, such as mangroves, tidal salt marshes and seagrass beds.

4.5   Scottish Natural Heritage has commissioned research to identify the potential Blue Carbon stocks in Scottish waters. This identified for example that there are nearly 7.5m tonnes of carbon stored in the Moray Firth Special Area of Conservation. There are other areas of analysis around the Small Isles and Wester Ross which provide another 3.2m tonnes each of carbon storage. These are three of Scotland's top 10 marine Blue Carbon areas, containing nearly 14m tonnes of carbon.

4.6   The Highland coastline including islands at low water is 4,905 kilometres, 21 per cent of the Scottish total, and excluding islands is 1,900 kilometres, 49 per cent of Scotland. With a significant area of sea lochs on the west coast and the Moray Firth on the east, there is likely to be significant Blue Carbon storage in the highland marine environment. Little is currently known about the movement of carbon into and around the marine environment. There is scope to undertake further analysis and monitoring to improve understanding of this resource.

Woodland And Forestry

4.7   Woodland and Forestry is recognised as a significant resource for carbon sequestration and storage in the Highlands. The area is able to benefit from a high level of sequestration, arising from the sustained planting of productive woodlands that took place in the 1970s onwards. Recent years have seen the creation of a more diverse range of tree planting, with mixed woodlands of native species which can attract a higher rate of grant for planting. However, this mixed woodland may not sequester as much carbon as productive woodland planted with softwoods.

4.8   Highland Council recognises the role played by woodland and forestry in carbon sequestration, as well as delivering a broad suite of socio economic and environmental benefits. In the organisation's November 2018 Highland Forest and Woodland Strategy, areas that could be and could not, be considered for woodland expansion, or new planting, are identified. The map of these areas is included in Figure 11.

4.9   There are a range of land-owning interest that have the potential to interact and support new woodland creation. Discussion for this research with a woodland charity identified a local woodland initiative spanning 4 Highland glens. This initiative was bringing together a mixture of public bodies, the woodland charity as one of the landowners, as well as number of private landowners. The charity commented that in this type of initiative, there would be value in creating more of a support forum to help with knowledge exchange. This could also help improve cohesion amongst the existing initiative members and those landowners who may wish to join.

4.10   There is also recognition that while large areas of the Highlands are managed as sporting estates, there is a steady increase of landowners who also consider a broader agenda for management of their estate. Backed by the sustained funding made available by the Scottish Government, and the increased planting targets, forestry and woodland in the highlands are likely to make a significant contribution to the Scotland's net zero requirements.

Figure 11 - Potential for Woodland in the Highlands
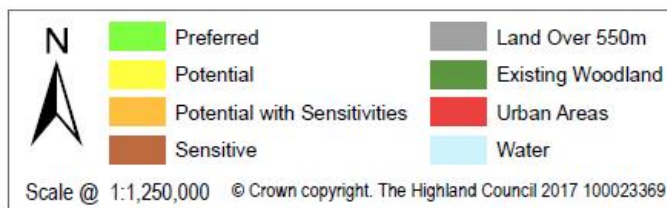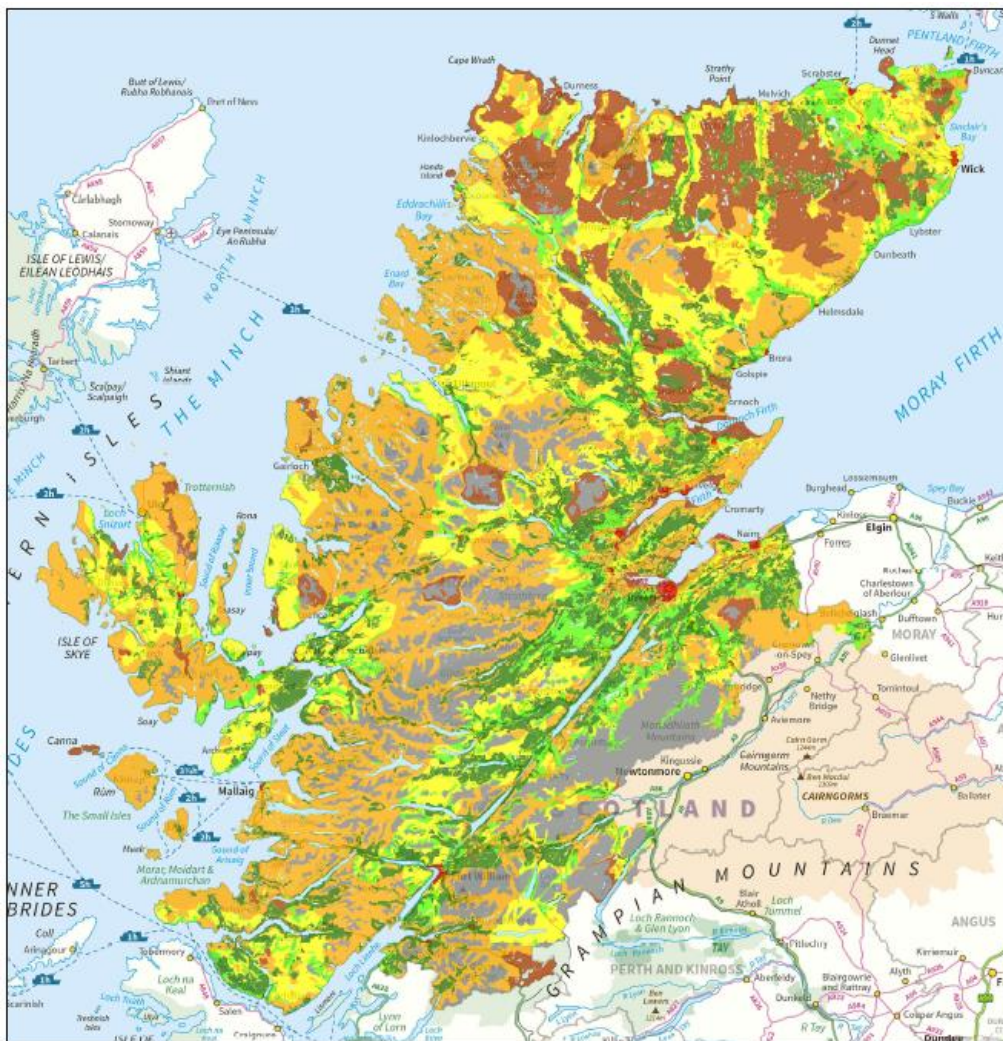
Please note that this spatial mapping is intended to provide indicative rather than prescriptive guidance and should not therefore be interrogated at scales of less than 1:250,000. All woodland creation proposals will be subject to a site specific assessment in order to determine suitability.

Legend:
- Preferred
- Potential
- Potential with Sensitivities
- Sensitive
- Land Over 550m
- Existing Woodland
- Urban Areas
- Water

Scale @ 1:1,250,000   © Crown copyright. The Highland Council 2017 100023369

4.11   Figure 11 illustrates the potential for sensitive and appropriate woodland planting in the Highlands. It is not a recommendation on planting but provides an indication of land that may be suitable for supporting new woodland. It is important to note that woodland planting and creation cannot occur in the same manner as much of the existing productive woodland. The Forestry Commission for Scotland May 2010 document ***The right tree in the right place - Planning for Forestry & Woodlands*** recognises the impact of planting and outlines the processes that must be addressed before new woodland is established.

Peatland

4.12   The carbon storage role of peatland in the Highlands is increasingly acknowledged. In the 2020-21 budget the Scottish Government announced funding of £20 million as the first step of a 10-year £250 million commitment to restore 20,000 hectares of Scottish peatland annually, towards a total of 250,000 hectares by 2030. Investment of £20-£25 million per annum is estimated to build towards the creation of around 200 jobs over 3-5 years, mostly in rural and remote areas.

4.13   The following map shows the areas of key peat resources in the Highlands. The top two classes (1 and 2) taken together identify the nationally important resource:

- Class 1 (pink colour) - Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas likely to be of high conservation value.
- Class 2 (yellow colour) - Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas of potentially high conservation value and restoration potential.

Figure 12 - Priority Peatland In the Highlands
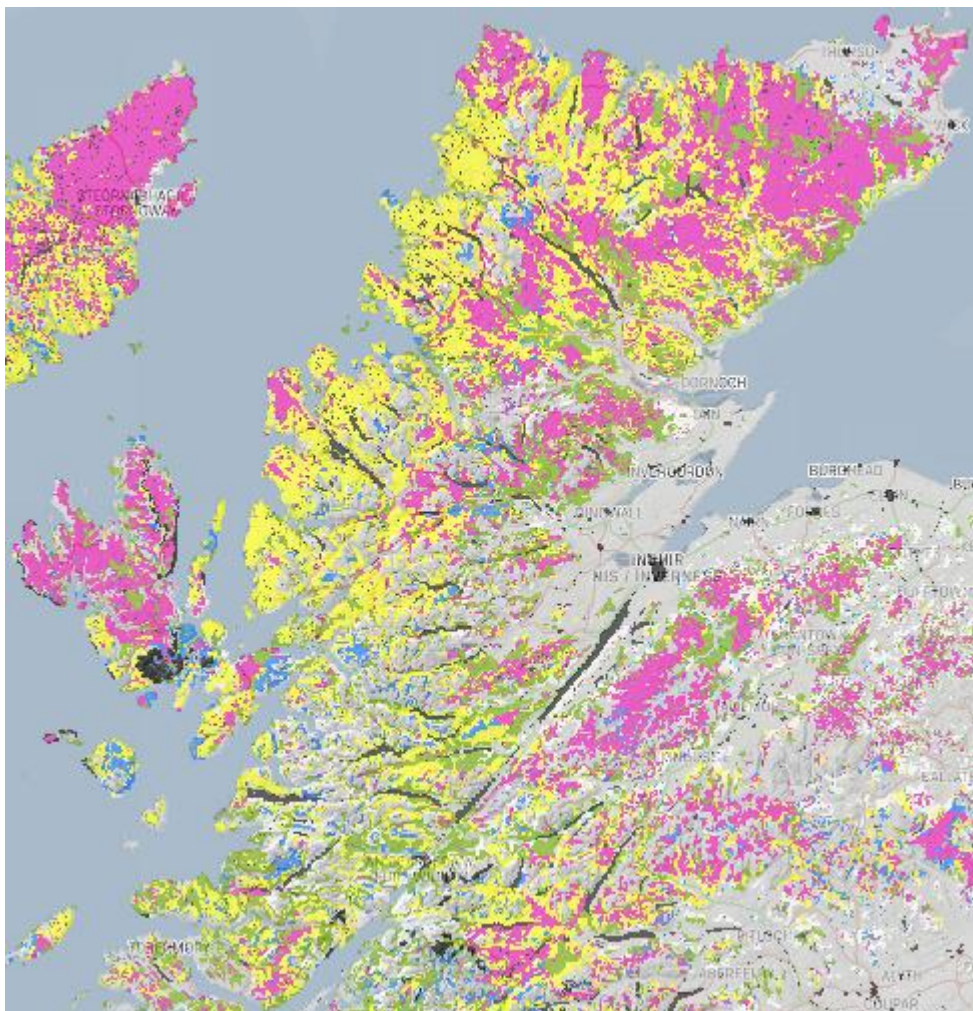
4.14   As knowledge of the carbon sequestration role of woodland increased, the Woodland Carbon Code has supported the creation of new woodland. Each project developed under the Code is registered with the independent Markit Registry, a leading provider of global carbon and environmental credit registry services. Projects are certified to ISO standards by a UK Accreditation

Service (UKAS) accredited third party and an ongoing monitoring programme for the woodlands is agreed between the parties. Carbon credits that arise from certified projects appear on the Markit Registry – providing assurance and transparency. There is ongoing work to provide the same confidence investing in Peatland management. The Peatland Code is currently progressing through the UKAS audit process. This involves assessing interventions against the claimed carbon savings and auditing and assessing performance of the body that will review the processes. It will also asses the competency etc of the organisation that will calculate and confirm peatland enhancement carbon savings. The Peatland Carbon Code is expecting to be UKAS accredited during 2021. This will provide another resource that will encourage carbon sympathetic land management in the Highlands.

Land Management Skills and Training

4.15   One of the challenges facing carbon sympathetic land management in the Highlands is the absence of suitable skills and training. It was commented during our research that the shortage of skilled contractors is already having an impact on some of the land restoration activity planned in the area. To help the Highlands exploit the full potential of carbon sequestration and storage, there will need to be more skilled individuals and contractors able to deliver projects.

4.16   The Scottish Government Programme for Government identified a range of funding to help address some of the issues around elevated youth unemployment that is arising as a consequence of the COVID 19 pandemic. There are specific funding announcements that aim to continue support and activity that is facilitating a lower carbon society, as well as improve employability.

- £60 million Youth Guarantee including increased opportunities for 'green' apprenticeships across public sector bodies
- A £25 million National Transition Training Fund aimed at bridging the skills gap between those facing unemployment and sectors with greatest potential for future growth, including focus on provision of green skills in areas of immediate demand like heat and energy efficiency
- Boost youth employment opportunities and target future skills and capacity requirements in nature and land-based jobs by expanding existing apprenticeship and undergraduate schemes in public agencies – including Scottish Forestry and Forestry and Land Scotland to double their existing commitments to provide opportunities for young people
- Develop a Green Workforce and Skills Development Package with an initial skills gap analysis undertaken by NatureScot
- Publish the Climate Emergency Skills Action Plan

4.17   Highland Council and land management stakeholders should engage with the Scottish Government and relevant partners to ensure there is an awareness of requirements when these different funding initiatives become live.

Highland Carbon Forum - Encouraging Carbon Sequestering Nature Based Solutions

4.18   The previous sections illustrate the potential for significantly increasing carbon sympathetic coastal/marine and land management. This reflects the climate emergency and net zero agendas. Our research identified the opportunity to establish a resource that will nurture, develop and support activity to maximise the area's prospects for carbon sequestration and storage.

4.19   There are several public, private and not for profit organisations in the Highlands that have an interest/involvement in land management. These organisations will have specific remits, funding and objectives. This has the potential to create gaps between organisations where

project/programme activity is tightly focused on specific operational delivery. Establishing a Highland Carbon Forum and providing a small annual financial resource to support pertinent activity, would be a way to bridge gaps between different operations. The following diagram, provided for illustration, identifies some of the potential Forum partners and the carbon expertise they would bring to the group.

Figure 13 – Highland Climate Emergency and Net Zero Forum Members and Expertise

4.20   In the past some of these stakeholders have worked together through different initiatives. The Forum would be a new initiative, ideally with some funding for research or activity that identifies/quantifies where carbon sequestration could be maximised. This funding would help set the Forum apart from current initiatives/networking groupings where there is actually no resource to help progress activity.

4.21   To help maximise carbon sequestration activity in the highlands, there is scope to develop a Forum programme or strategy. The following illustration highlights how a Highland Low Carbon Strategy could support an appropriate Forum programme of work that would establish the Highlands as Scotland's leading zero carbon region.

Figure 14 - Possible Highland Climate Emergency and Net Zero Carbon Strategy
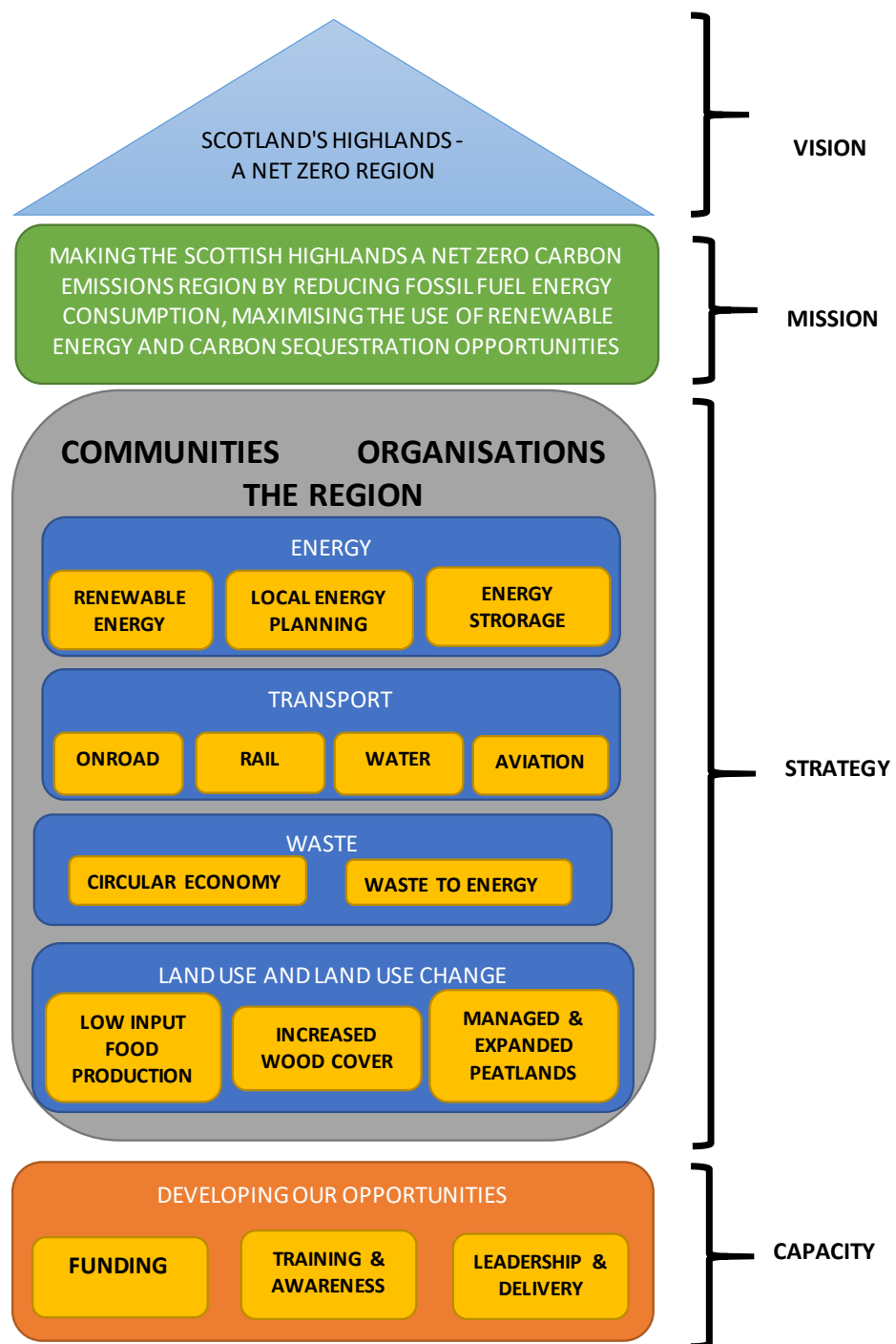
4.23   To achieve the high-level vision, current energy supply and consumption patterns will have to change.

> **In a Net Zero Highlands, unnecessary energy use in community, domestic and commercial buildings will have been minimised and the supply of renewable energy will have been maximised**

Specific projects and interventions that could be encouraged to facilitate this transition include,

- New building standards will help towards eliminating fossil fuelled heating.
- Increased focus on the energy performance and thermal efficiency of existing buildings including public/social housing.
- Increased presence of onsite renewable energy production, either building mounted or located on adjacent land.
- Increased production of renewable energy in the area's energy supply with for example greater development of pumped hydro.
- A number of successful projects that have integrated renewable energy production and local storage
- Greater involvement of the local community in their energy supply and consumption

A number of these interventions are supported through Programme for Government funding announcements.

4.24   There will have to be a similar transition in the transport sector

> **In a Net Zero Highlands, transport will have been increasingly adopting alternatively fuelled transmission, moving away from fossil fuels towards electrification and adopting hydrogen as part of the energy mix.**

Specific projects and interventions that could be encouraged to facilitate this transition include,

- Increasing the proportion of Highland cars, vans etc that are electric vehicles, facilitated through a combination of new planning regulations for developers, continued roll-out of publicly accessible chargepoints through the Local Authority Infrastructure Programme as well as support for EV car clubs throughout Highland communities.
- Adopting hydrogen as a fuel for larger Highland Council vehicles which will need to be considered in early course to meet heavy fleet decarbonisation target of 2030.
- Support for changing patterns of travel though the highlands and also to the highlands after COVID 19 and an increased focus on low and zero carbon local travel, supporting the local economy.
- Facilitating the transition of home working which has helped reduce congestion, emissions but also car parking income.
- Increased uptake of active travel during periods of better weather.

4.25   There will have to be a similar transition in the waste sector. This will be a challenging theme for emissions reduction as Forum members have so little control over the amount, and type, of waste produced in the area. Currently exported waste from the area may be retained and incinerated locally, producing heat and power. There will have been involvement with the likes of Zero Waste Scotland to help drive up engagement with the Circular Economy.

> **In a Net Zero Highlands, waste management will have ensured all organic waste is diverted from landfill, with increased engagement with Circular Economy initiatives and concepts**

Specific projects and interventions that could be encouraged to facilitate this transition include,

- Collection of organic waste material from all domestic, public sector and commercial properties in the area with this material being used in composting and energy from waste facilities

- Promotion of Circular Economy (CE) principles with support and funding having been made available to help the area's commercial sector identify CE solutions.

4.26 Previous paragraphs explained the different carbon sequestration opportunities in the area. This sequestration is a key resource for the area and one which should be developed. This could become a major source of activity and income for land managers in the area as we progress the post Brexit transition where the Common Agricultural Policy is no longer able to support traditional land management activity in the area.

> **In a Net Zero Highlands, land management and use will have evolved to provide low input foods while also providing increased opportunity for carbon sequestration in woodland and well managed peatland. This will have created new income streams for local land-owners and communities**

Specific projects and interventions that could be encouraged to facilitate this transition include,

- Promotion of increased woodland on private, community and not for profit owned land.
- Support for the planting of new productive woodlands though ensuring in the right location.
- Support for promoting the Highland Peat resource, marketing this and using the Peatland Code to create new sources of income for rural areas and Peatland management.
- Ensuring there is appropriate promotion and awareness of the Highland carbon sequestration resource so interested parties can easily establish and fund projects.
- Ongoing support that recognises the declining agricultural output in the Highlands and the potential for carbon related income as an alternative.

5.7 The final strand of this Net Zero Strategy will be how stakeholders create the foundation of support that encourages and nurtures capacity to deliver this strategy.

> **In a Net Zero Highlands, residents, communities and organisations will have access to the leadership, skills, knowledge and financial support and physical resources required to put the region at the forefront of emission reduction and management**

Key actions that will be supported to create this sense of purpose and the capacity to deliver it include

- Ongoing development of low carbon facilitating skills. Key areas for continued and new skills development include construction, carbon sympathetic land management, energy monitoring and management.
- Evolving infrastructure development will support the living and workspace transition already established but accelerated during Covid 19.
- Supporting the development of a local construction sector able to build domestic and commercial premises that meet high standards of energy efficiency and thermal performance.
- Providing leadership and collaboration to create a strong network of low/net zero carbon knowledge amongst businesses, interest groups, associations, and area residents.
- Using the resources of this network to manage a register of funding opportunities and finance providers that will help facilitate Net Zero opportunities in the Highlands.

Chapter 5 Conclusion and Recommendations –

5.01   The Scottish Government has agreed a target for net zero greenhouse gas emissions in Scotland by 2045. Net Zero will be achieved by reducing operational emissions by as much as possible, and by using sequestration/offsetting activity to address the residue.

5.02   In September 2020 the Scottish Government announced a new requirement for public bodies, from 2021, to set and report on their progress towards Net Zero targets. This will require a significant step change in how Highland Council is currently engaging with the Climate Emergency and Net Zero. There is now a legal duty for the leadership of Highland Council to create a Net Zero plan and date, for the Council.

5.03   In May 2019, Highland Council declared a Climate & EcologicalEmergency. This has committed the organisation to undertake a range of greenhouse gas emissions activity. However, the declaration does not commit the organisation to any quantitative emission reduction targets or activity. This is a weakness. However, the Declaration has triggered a number of different actions, this commissioned report being one of those actions.

5.04   This Report has reviewed how Highland Council can establish a more consistent programme of activity to reduce greenhouse gas emissions. There is scope to access increased Scottish Government and other public funding to support this programme of activity.

5.05   This Report was commissioned ahead of the COVID 19 outbreak. This outbreak resulted in a move of Scottish Government focus from a climate emergency to a health and economic emergency. This has realigned funding to address both the climate and economic emergencies. It presents the opportunity for Highland Council, with partners/stakeholders, to develop interventions that will achieve positive impacts for both these agendas.

5.06   The Council has already had to engage with greenhouse gas emissions reduction and reporting. This level of activity will have to significantly increase during 2021. We would suggest the following are specific actions the Council leadership consider to increase the level of greenhouse gas emissions activity and impact.

> **Recommendation 1** – The leadership and senior management of Highland Council need to recognise aspirational statements for a "carbon neutral Highland by 2025", while a helpful signal of intent/ambition, need to be firmly supported with an articulated and resourced programme of operational activity. The absence of this articulated and resourced programme undermines the legitimacy and commitment.

> **Recommendation 2** – During 2021 the organisation's leadership will have to establish work to identify how Council operations, capital and revenue spend and reductions in greenhouse gas emissions will help contribute towards Scotland's Net Zero carbon requirement of 2045. This will involve setting the Council's own Net Zero target date. The Council has to report on these targets and commitment from 2022 onwards.

> **Recommendation 3** – Significant levels of funding are being made available by the Scottish Government to help embed low carbon activity. The Council's leadership can use models such as Sphere of Influence and Strategic Control Plans to provide a focus on emission reducing activity which will help to improve the success of funding applications.

Recommendation 4   In the past, the Council has been able to access some of this funding, though this has been in a very ad hoc manner. This approach has meant the Council has missed out on funding and has also not been able to achieve the maximum benefit from funded projects. The Council should establish a central "low carbon project and funding staff resource" which liaises with specialist project officers, to develop projects, funding applications, identified aftercare/maintenance requirements etc. This would allow the Council to achieve a more successful outcome from future low carbon activity.

Recommendation 5.   Within the Council, there are a range of specialists and project officers working on emission reduction activity. These staff are extremely knowledgeable about issues such as policy, technology, and funding that will help the Council achieve lower emission activity. However, many of these staff work on the basis of having to recharge their time to specific projects, which reduces their ability to build up outline projects for funding bids. There is potential for the organisation to make better use of these staff and their expertise by revisiting how these posts are funded. Providing these officers with more support would help the organisation to achieve the improved Net Zero performance it is now legally required to achieve.

Recommendation 6 – There is a consistently high level of energy, and particularly, electricity, being consumed across the Highland Council's built estate. This is despite the installation of onsite renewable energy production and significant investment in energy efficiency measures including staff awareness and better energy controls. These should have reduced energy consumption and associated emissions. We would recommend the Council allocates the resources (both staff and budget) to establish a comprehensive database of building energy consumption and associated GHG emissions. This will help identify why energy consumption is sustained and how it will be reduced. This will likely require a dedicated and funded resource that is currently not in place in the organisation.

Recommendation 7 – The COVID 19 pandemic has challenged traditional office working models and these are unlikely to be completely reversed in the future. We would recommend the Council uses 2021 to resource and undertake a complete audit of its current and future estate requirements. This will raise awareness of the organisation's buildings, their role and also their energy consumption and resulting GHG emissions. This will likely require a dedicated and funded resource to establish a comprehensive data base of buildings etc.

Recommendation 8 – The estate audit should develop a property disposals strategy for the Council. The sustained impact of COVID 19, has embedded a changed way for office-based organisations to operate. In the short to medium term this is likely to result in a significant oversupply of office premises in the Highlands. If this estate cannot be repurposed, for example retail or accommodation, it should be closed and disposed by the Council. It would make sense to prioritise for disposal, higher energy consuming properties and those with limited ability for cost effective building energy efficiency conversions.

Recommendation 9 – There is increasing scope to incorporate Building and Energy Management Systems as well as monitors, data loggers etc which minimise unnecessary energy use in buildings, such as those being deployed through the SMART Cities programme. The Council has a relatively consistent estate of school buildings unlikely to change in the short to medium term. Maximising the energy efficiency of this core school estate, should be a key priority for the Council. This has the potential to reduce costs, energy consumption

and GHG emissions as well as help to educate children on the need to engage with climate change and emissions reduction activity.

Recommendation 10 - The Council will need to maximise the amount of onsite renewable energy production within its estate if it is to meet Net Zero requirements. However, it is recognised that challenges with local electricity grid infrastructure are limiting the ability to install renewable energy. The production and consumption of this renewable energy will be a key component of the Council Net Zero programme. The Council therefore needs to identify solutions that will resolve this capacity constraint.

Recommendation 11 – The Council operates a fleet of small (vans) to heavy (snow ploughs, and bin lorries) vehicles as well as requiring staff travel to deliver services. There is scope for Highland Council to incorporate alternatively fuelled vehicles (some of this impetus required by legislation). We would recommend undertaking a strategic review that assesses for example, post COVID 19 pandemic fleet requirements, where charging points or alternative fuel stores are to be located, how staff could recharge Council vehicles when parked at domestic premises overnight etc.

Recommendation 12 – A key element of this Report was to review the opportunity to use the Council's land estate for carbon sequestration. A fundamental challenge in delivering this analysis was the absence of comprehensive records of the Council's estate. We would recommend the Council allocates resources to prepare a comprehensive land ownership record that could help inform the opportunity for sequestration in its estate.

Recommendation 13 – There is scope to have limited sequestration from woodland planting on the Council's estate. Optimum sequestration rates will take place around 25-30 years after planting. Th Scottish Government target for Net Zero is 2045, 24 years away. The longer woodland planting is delayed, the lower the rate of sequestration will be in 2045.

Recommendation 14 - The area's natural resources provide significant carbon storage opportunities. This is likely to be increasingly important national resource which helps towards Scotland's Net Zero requirements. We would recommend the Council, and other Highland stakeholders start collaboration - Climate Emergency and Net Zero Forum to establish a programme of activity to develop this resource, ensuring the area has suitable skills, businesses, attracting funding etc. There are different Forum models emerging from other areas of Scotland. Organisations like Sustainable Scotland Network could help the Council and partners to establish this Forum.

Recommendation 15 - Given the two drivers of the Scottish Infrastructure Investment Plan and the revision of the UK Treasury Green Book, it is imperative that Highland Council assesses its approach to Capital Spending Plans, identifies how these plans and Council processes need to be aligned with the IIP and revised Green Book, and invests in improving the use of Capital Spending and infrastructure investment to achieve Scotland's and the Council's Net Zero emissions targets and objectives.

Climate Change Workshop - Programme Alignment

Wed 5th August

Online 14.00 – 16.00

Preamble –

Over an 18-20 month period, we are witnessing a massive and very decisive policy shift. From a climate emergency, we are moving through a health emergency and are now entering an economic recovery emergency.

By identifying the right interventions, we have the potential to link the climate and economic recovery emergencies. While there is currently fluidity around specific interventions and funding, this will become more certain over the coming 6, 8, 10 weeks.

The opportunity for HC is to have a portfolio of almost shovel ready projects and interventions that combined, address the climate and economic emergencies

What we would like from the workshop is for your thoughts on 2 strands of activity.

Internal -
1 – What do we need to do differently in terms of policy, vision and governance to ensure the organisation is ready to undertake activity that will support these agendas?

2 – What are the immediate, short term projects or initiatives the HC can deliver that encourage emissions reduction as well as encouraging local economic activity.

External –

3 – What are the bigger projects that the Council can quickly encourage, instigate and support and which deliver emissions reduction and local economic activity

4 – Who are the partners the Council needs to engage with to facilitate this activity.

Internal	External
1 – What do we need to do differently re policy, vision and governance Key Issues emerging and discussed during the workshop include a) There is a significant disconnect between members, senior management in the organisation and the staff challenged with specific project activity. This applies in all areas of low carbon activity. b) Need to be realistic about the net zero commitment. We cannot realistically achieve this and it has become a distraction. Far better to set a realistic and achievable target that would allow the organisation to work competently towards. c) There needs to be a consistent level of support and engagement from senior management to demonstrate that the organisation is serious about this agenda. A key opportunity is to ensure all corporate documents acknowledge the low carbon benefits for the area and the organisation d) A key challenge is improving the Council's own performance. Energy consumption and emissions have been growing in recent years. e) An approach to low carbon that was repeatedly mentioned was Alignment, Coherence and Coordination f) Organisation can use this to approach to help develop a more robust, informed and appraised project and funding case. Too often	**3 – What are the bigger projects that the Council can quickly encourage** a) Where there are significant new pieces of legislation, or new national government policy, can this create new opportunities for the Council? Current examples are the Environment Bill, Transport Bill and progressing LHEES. Is there scope for the council to become an energy producer, for example produce own hydrogen? b) There is growing recognition that hydrogen will be an element of the area's future energy mix. There are a number of issues that will need to be reviewed and developed to help progress this technology and opportunity. There is scope for the Council to benefit from experience in other LA's for example hydrogen bin lorry in Western Isles, hydrogen cars in Orkney and hydrogen buses in Aberdeen. c) The Council is one of the few in Scotland to cover both an urban and also such an extensive rural area. There is scope for the organisation to review how it delivers its functions in rural areas as part of the post Covid restructuring etc. d) Council has been successful in applying for and being awarded significant funding through the likes of SALIX. To be more effective at these applications, senior management should consider how it established a project development and funding application team/resource in the Council. This would help lead to an increase in

projects are not well prepared and planned and end up creating a negative experience for, and in the Council.

g) Recognise there is no wriggle room in terms of funding and staff availability for developing and delivering opportunities. Again, this implies there is more planned out activity that can be integrated and staffed, as required.

h) Identify suitable finance to help fund projects. The 2025 target implies creating a rate of emissions reduction greater than achieved elsewhere. How is this to be financed as activity is likely to take multiple millions of pounds and involve significant staff resources that are not currently available.

i) In light of the current Covid turmoil, there is a legitimate issue around staff ability to engage with new policy and project activity and the funding that would be made available by the organisation to support activity.

2 – What are the immediate, short term projects or initiatives.

There are a number of short-term opportunities around the main areas of emissions production; energy, transport, waste and land use.

a) There is an opportunity to build more of a structure around the organisation's low carbon activity. Creating an Highland Council Low Carbon Strategy will provide the support structure for initial scoping activity as well as medium term project implementation.

funding awards and also the implementation of more effectively planned projects. This may involve collaboration with external stakeholders in the area.

e) There is scope to develop a low carbon narrative that is also linked to the economic recovery that will be required post Covid. This may also expose the Council's project activity to new sources of funding.

f) The Scottish Investment Bank is a new facility being established and will be a potential source of green related finance. There will be scope to monitor the roll out of the Bank to identify possible funding support that the council can apply for.

g) HITRANS looking at hydrogen, opportunities and merits as part of Cromarty freeport proposal. A definite opportunity for the Council to progress and include in the – Inner Moray Firth LDP.

h) It could be helpful for the HC to identify project activity that will help the organisation and the area residents to become more aware of low carbon. For example, is there scope to provide an e-car club vehicle as part of a small housing development, setting the standard and flying the flag.

4 – Who are the partners the Council needs to engage with to support this internal and external activity?

a) There is a well-established portfolio of energy related funders. A key opportunity for the Council is to establish a team that scopes out projects in advance, having a list of

b) There will be an opportunity to use the Covid crisis to consolidate the estate. An immediate opportunity is to audit the existing estate and identify disposals. Disposal criteria could include high carbon – poor energy efficiency and hard to heat properties.

c) There is a lack of understanding about the existing building estate and its energy consumption. An immediate activity is to establish a profile of energy consumption in the post Covid consolidated estate. This is likely to involve increased monitoring and modelling of building use and energy consumption.

d) The Council has successfully engaged with low carbon activity in the past. There is scope to revisit some of this activity, updating and replicating projects elsewhere when appropriate. As there is already a corporate awareness of activity, there will be reduced time and resources required for lead in and subsequent operations.

e) In the appropriate properties, solar PV can make a valuable contribution to reducing grid supplied electricity consumption. There is scope to assess onsite consumption and look to install appropriate sizes of PV arrays. Where beneficial, this can be implemented with battery storage.

f) There is already a degree of local engagement and use of for example SWOT analysis, to identify opportunities for local infrastructure, energy efficiency etc. There is scope to increase that

interventions etc that are ready to be targeted at appropriate funding when it emerges.

b) There will be a range of funders for low carbon transport improvements that are likely to be intervention/technology specific. Council staff are familiar with these organisations and have identified key contacts. For example, Energy Saving Trust, HiTrans, Transport Scotland Aberdeen and Moray LAs.

c) There are local stakeholders that the Council could be engaging with on appropriate activity, for example NHS, Housing Associations, local community groups etc.

d) Is there scope for the likes of the Sustainable Scotland Network to assess innovative ways of sharing infrastructure, e.g a car club.

engagement to maximise opportunity for communities to recover from the Covid outbreak

g) There is a significant challenge in the area with grid constraints. There is scope to use this as one of the criteria in estate consolidation. There is also opportunity to lobby Governments to try and remove this constraint.

h) There is the opportunity for quick win low carbon assessments and possible projects where existing and reliable emerging technology and applications are used. For example, water source heat pumps to collect heat from both fresh and marine water environments

i) There is increased operational funding for leasing electric vehicles. There is scope to quickly increase the Council's use of EVs and installing the appropriate charging.

j) There is scope to quickly establish a project group that will review sites that are retained after the post Covid estate review. These project groups could help assess the transport requirements of staff and the ability to deliver this with EVs.

k) The post Covid Council operations are likely to involve less travel/commuting etc. This provides an ideal time to review transport requirements and change policies etc

l) There is scope to utilise frameworks with suppliers of low emission transport equipment. However, there is also the scope to develop the inhouse competencies for

installing, maintenance etc of this equipment.

m) There is scope to establish new data collation and analysis which could be helpful in demonstrating to senior management, the benefits of more energy efficiency and reduced transport and emissions.

n) Is there scope to deliver a quick win project where HC engages with likes of Energy Saving Trust, Transport Scotland, HiTrans etc to help deliver domestic low carbon awareness (heating, lighting, driving etc) for the Council's staff to implement in their own homes.

o) Increased opportunity for car club engagement at retained priority sites?

p) Look at funding for showcase project providing EV carclub for housing dev. Benchmark costs, with short term funding used to bridge gap. Get developers on side.

q) There is an opportunity to score every transport-related project and suggested methodology for scoring against new transport strategy. This will help identify which are best technologies and best modes. Could we look at which temporary active travel improvements could be made permanent?

r) Roads and waste are major fleet customers. These are statutory functions, so it is imperative to operation of Council. Need to start fundamentally looking at winter maintenance provision. Can we do this differently or not at all? Route

optimisation is another opportunity. But this can have a negative impact on staff, for example reduce amount of overtime which is a negative impact for some officers.	

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<u>**Council Leaders and Chief Executives**</u>

4 February 2021

PUBLIC SECTOR LEADERSHIP ON THE GLOBAL CLIMATE EMERGENCY: CLIMATE CHANGE REPORTING DUTIES

As recognised by the First Minister, COSLA and local authorities, and public bodies across Scotland, there is a global climate emergency, and this emergency has not gone away. Despite the unprecedented challenge of COVID-19, Scotland remains committed to ending our contribution to climate change within a generation. This year the world is looking to Scotland's leadership on climate action as Glasgow hosts the COP 26 climate summit in November marking the most important moment of the international climate challenge since the Paris Agreement in 2015.

Scotland has set one of the most robust legislative frameworks for emissions reduction in the world, with a commitment to a just transition where no one is left behind. We are committed to a green recovery from COVID-19 in which we capture the opportunities of green jobs, business growth, prosperity and wellbeing. Our updated Climate Change Plan, published in December, sets out the bold actions that chart our pathway to a green recovery and includes more than 100 new policies and increased ambition for more than 40 others.

COVID-19 continues to profoundly impact all of us, and Scottish Ministers are deeply grateful to the public sector for your huge efforts in safeguarding our communities, protecting our National Health Service and saving lives. We also need to continue to work together to safeguard our planet's future, so I am writing to secure your continued leadership and support in the shared national endeavour to deliver a just transition to a 75% emissions reduction by 2030 and Scotland's world-leading goal of net zero emissions by 2045.

Since 2009, Scotland's public bodies have been legally required to act in the way best calculated to contribute to the delivery of our emissions reduction targets and you can be proud of the leadership role you have played in helping achieve a 50% cut in national greenhouse gas emissions. Public bodies are the frontline of our climate emergency response, with many already going well beyond their legislative duties to drive action and influence change across society. Public bodies are also central to Scotland's preparedness for the challenges that we will face as our climate continues to change.

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The Scottish Ministers are committed to working closely with our partners in COSLA, local government and the wider public sector, to support leadership on climate change. Our Programme for Government 2020-2021 has committed to at least £95 million over the next Parliament to support the decarbonisation of the public sector estate, and commits to action on the climate impact of the £12.6 billion of annual public procurement. Transport Scotland's Switched on Fleets scheme has been supporting the decarbonisation of public sector vehicle fleets.

Following consultation in 2019, we have already delivered our Programme for Government commitment to strengthen our legislative framework through new regulations laid in Parliament which will support public bodies' leadership role. The consultation showed strong support for public sector bodies being required to set targets for when they will achieve zero direct emissions, and for reduced indirect emissions. The Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020 sets out that public bodies will be required to provide in their annual reports:

- where applicable, the body's target date for achieving zero direct emissions of greenhouse gases, or such other targets that demonstrate how the body is contributing to Scotland achieving its emissions reduction targets;
- where applicable, targets for reducing indirect emissions of greenhouse gases;
- how the body will align its spending plans and use of resources to contribute to reducing emissions and delivering its emissions reduction targets;
- how the body will publish, or otherwise make available, its progress to achieving its emissions reduction targets; and
- where applicable, what contribution the body has made to helping deliver Scotland's Climate Change Adaptation Programme.

The new requirements apply from the report year ending on 31 March 2022 onwards. Further detailed guidance will be issued by the Scottish Government by April 2021.

As Scotland emerges from COVID-19, we have a chance to build a greener, fairer and more equal society and economy. A green recovery will deliver economic, social and environmental wellbeing and respond to the twin challenges of climate change and biodiversity loss. I am grateful for your continued strong leadership and support in the national endeavour to tackle the global climate emergency.

ROSEANNA CUNNINGHAM

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