

The Crofting Commission

Carbon Management Plan

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NATURE POSITIVE GENERAL NOTES

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EXECUTIVE SUMMARY

Summary

The Crofting Commission is keen to address its greenhouse gas (GHG) impact and reduction emissions associated with its operations. Nature Positive has conducted an all-scopes GHG assessment ('carbon footprint') on behalf of the Crofting Commission to ascertain GHG impacts and carbon hotspots. Following on from the GHG assessment, this Carbon Management Plan (CMP) has been delivered by Nature Positive for the Crofting Commission to help develop objectives and pathways to reduce Crofting Commission's GHG emissions.

The actions contained in this CMP have been developed using the findings of the GHG assessment in conjunction with the outcomes of a stakeholder workshop that took place in January 2024.

Next steps

We recommend that the decarbonisation options set out in this document are considered and where viable implemented to facilitate reducing Crofting Commission's contribution to climate change; and that the CMP is reviewed periodically until all feasible emissions reductions are maximised.

The five key actions listed below are emphasised as those to be implemented first, as these focus on the GHG emissions sources that will provide the largest reductions. There is more detail in Table 3: Summary of key SMART actions, towards the end of this document.

1. Switch electricity supplies to good quality green tariffs

Under market-based reporting, accepted by the Science Based Targets initiative (SBTi), it is permissible to use 'green' tariffs as a route to decarbonisation. We recommend switching to appropriate good-quality green tariffs which can demonstrate additionality (i.e. that the use of the tariffs increases renewable generation capacity). Specifically for the Crofting Commission, we recommend purchasing a renewable energy Power Purchase Agreement (PPA) as part of the Scottish Government framework.

2. Set stretch targets for building energy reduction, based on 2022 baseline

To avoid any perception that the Crofting Commission is 'buying' a lower carbon footprint via use of green tariffs (above), we recommend setting an additional reduction target based on reducing office energy (kWh), for electricity, bioenergy and natural gas use. For example, a reduction in the order of 10-15% by 2030 from a 2022 baseline. This can also provide emission reductions from the reduced consumption of natural gas and bioenergy at the office.

3. Improve accuracy of supply chain emissions reporting

Scope 3 categories 1 & 2 emissions (purchased goods and services, and capital goods) collectively contributed 56% of the Crofting Commission's 2022 GHG footprint. For purchased goods and services, this figure is a high-level estimate based on spend-based emissions factors. It would therefore be beneficial to engage with suppliers to collect more specific and accurate emissions data for key products and services. See Section 3.3.2 for more details.

4. Work with core suppliers to obtain lower-carbon goods and services

Subsequent to the above step, engage with core suppliers with a medium- and long-term view to procuring lower-carbon goods and services, specifically for electrical equipment.

5. Improve accuracy of reporting for business travel and switch to electric vehicle use where possible

It is initially recommended that the Crofting Commission improve their accuracy of reporting for business travel by including fuel type as well as potentially providing fuel consumption (in litres) and kWh consumed (for electric vehicles) in place of mileage.

Moreover, given the remote nature of some of the Crofting Counties in Scotland, balancing environmental obligations and the need/mode of choice for business travel can be challenging. It is therefore recommended that where possible, use of electric vehicles, such as through the Crofting Commission's existing fleet, in place of staff privately owned internal combustion engine (ICE) vehicles (grey fleet) are used.

Further to these recommendations, we suggest the all-scopes GHG assessment which accompanies this plan be updated annually to track progress and provide evidence to support any GHG reduction claims.

1 INTRODUCTION

1.1 Project background and drivers

Climate change is the alteration of enduring weather conditions as a result of interactions between the Earth's atmosphere¹ and its various physical, chemical and biological processes². The climate changes periodically, often with variations in solar output and orbit. However, current warming is unambiguously the result of human activity³. Many human activities emit greenhouse gases (GHGs) which trap heat within the atmosphere; other activities, such as deforestation, limit the capacity of natural systems to sequester GHGs. The consequence is anthropogenic climate change: unprecedented net warming leading to the rapid destabilisation of the prevailing climate.

The impacts of this are 'severe, pervasive and irreversible'⁴. They include threats to food and water resources, human health and security, and global ecosystems. Society must therefore achieve large, sustained reductions in GHG emissions while adapting to the impacts of climate change. This requires dynamic action to achieve a timely transition towards a net-zero economy, in accordance with national and international emissions reduction ambitions.

1.2 Project summary

To support this transition, the Crofting Commission have commissioned Nature Positive to undertake a GHG assessment ('carbon footprint') followed by the development of a Carbon Management Plan (CMP) to assess, quantify and develop possible ways to manage and reduce its emissions.

This document constitutes the CMP. Its purpose is to provide pathways to reduce GHG emissions, and a range of actions to manage, and where possible mitigate, the climate impact of the Crofting Commission. The CMP uses the findings of the GHG assessment to focus on core emissions areas and maximise decarbonisation potential.

1.3 Overview of Crofting Commission's activities

The Crofting Commission is a statutory regulator for crofting in Scotland, promoting its interests and securing the future of crofting. They have an office in Inverness, totalling 267 m², although at present, a significant proportion of their employees work from home.

¹S, Jackson., Climate change. Britannica. Available from: <https://www.britannica.com/science/climate-change>. Accessed on: 5th February 2024.

² International Geosphere-Biosphere Programme., Earth system definitions. International Geosphere-Biosphere Programme. Available from: <http://www.igbp.net/globalchange/earthsystemdefinitions.4.d8b4c3c12bf3be638a80001040.html>. Accessed on: 5th February 2024.

³ NASA., Climate change: how do we know? NASA. Available from: <https://climate.nasa.gov/evidence/>. Accessed on: 5th February 2024.

⁴ Intergovernmental Panel on Climate Change., 2014. Climate Change 2014 Synthesis Report Summary for Policymakers. Intergovernmental Panel on climate Change. Available from: https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf. Accessed on: 5th February 2024.

2 OVERVIEW OF GHG ASSESSMENT

2.1 Summary

Nature Positive undertook a GHG assessment for the Crofting Commission to quantify GHG emissions as a result of their activities.

The process was carried out in accordance with the reporting standards of the 'Greenhouse Gas Protocol – Corporate Accounting and Reporting Standard' (GHG Protocol, 2011) developed in partnership by the World Business Council for Sustainable Development (WBCSD) and the World Resource Institute (WRI). Following a process of data collection, assurance and assessment, the results of the GHG assessment are presented in Table 1 and Figure 2.1.

Table 1: Crofting Commission's 2022 GHG emissions summary (tCO₂e)

Category	Relevance to the Crofting Commission	tCO ₂ e	%
Scope 1	Mains gas	1.1	1.1%
	Bioenergy	0.5	0.5%
Scope 2	Electricity (market)	2.4	2.4%
Scope 3.1: purchased goods and services & Scope 3.2: capital goods	Electrical equipment, internal and external auditing, paper, post, food/drink, telecommunications and water	57	56%
Scope 3.3: fuel and energy related upstream	Well-to-tank ⁵ (WTT) & transmission and distribution (T&D) ⁶	2.9	2.9%
Scope 3.5: waste	Office waste; wastewater	0.2	0.2%
Scope 3.6: business travel	Flights, hotels, cars, trains, etc	11	10%
Scope 3.7: staff commuting	Car and taxi travel	9.4	9.2%
Scope 3.7: homeworking	Emissions relating to remote workers	18	17%
Totals		102	100%

⁵ Well-to-tank (WTT) emissions refer to the impact of the extraction. Refining and transportation of primary fuels before their use in the generation of electricity.

⁶ Transmission and distribution (T&D) losses refer to the scope 3 emissions associated with grid losses (the energy losses that occurs in getting the electricity from the power plant to the organisations that purchase it).

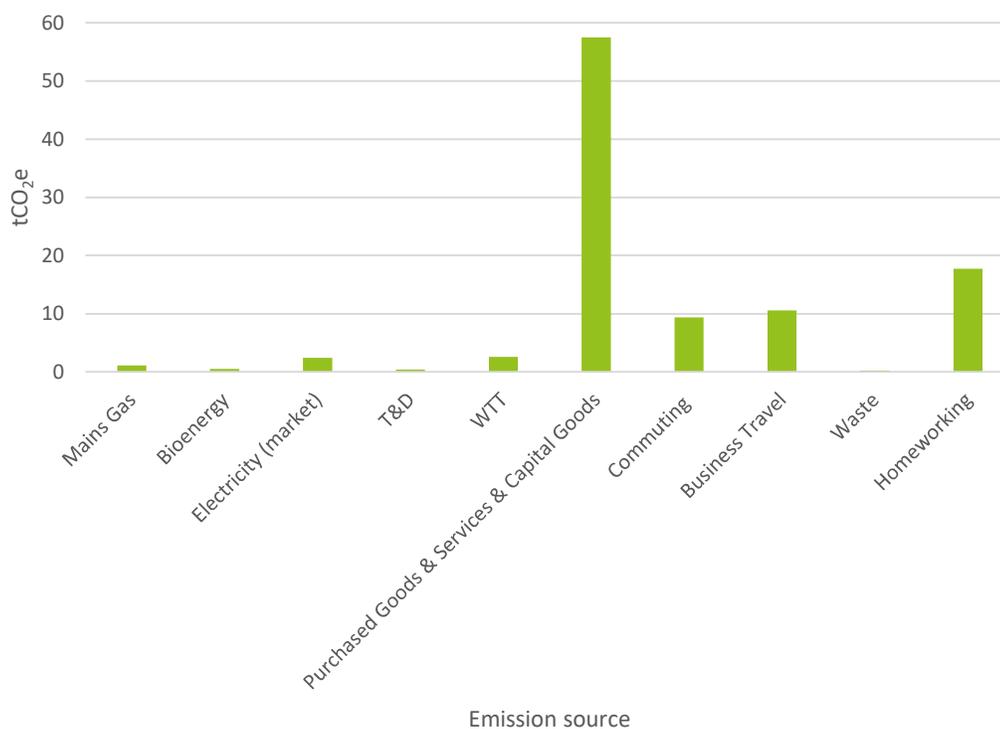


Figure 2.1 Crofting Commission's GHG emissions by source (tCO₂e), 2022

Figure 2.1 presents Crofting Commission's 2022 GHG assessment results. A significant proportion of emissions are attributed to purchased goods and services and capital goods, approximately 57 tCO₂e which accounts for 56% of the total footprint. Of this category, emissions from electrical equipment account for 74% of these emissions.

Emissions associated with homeworking, at 18 tCO₂e (17%), was the next largest source – although this is expected given the high proportion of homeworking within the organisation (that reduces emissions associated with staff commuting). This is followed by emissions associated with business travel at 11 tCO₂e (10%) and commuting at 9.4 tCO₂e (9.2%).

3 STAKEHOLDER WORKSHOP

3.1 Background

Nature Positive delivered a GHG stakeholder workshop to the Crofting Commission in January 2024, to discuss the preliminary findings of the GHG assessment, and to discuss potential decarbonisation objectives and actions, and to facilitate buy-in to proposed outcomes.

The outcomes of the workshop are summarised below and have been used to inform the development of objectives and actions, as set out in the rest of this document.

3.2 Workshop summary

3.2.1 GHG assessment summary

Data quality was variable, as is typical for initial GHG assessments, and generally of good quality. Recommended areas of focus for data improvement include:

- For purchased goods and services and capital goods, spend data was provided. Liaising with suppliers of goods and services to help collect more accurate emissions data for key products and goods would greatly improve supply chain reporting accuracy. This has been calculated from spend-based emissions factors, which are only intended to give an initial approximation of GHG impact. For more information, see Section 3.3.2.
- Business travel data has been provided in mileage. For car trips, fuel specific data was not available. To improve data accuracy, recording fuel type (i.e., petrol or electric) and litres of fuel or kWh purchased as part of business travel claims would be beneficial, especially given that emissions associated with car use accounted for the majority of emissions within this category. Some flights were also undertaken, all of which were classed as short haul and seemingly unavoidable (flights from Scottish Islands to Inverness). Should medium/long haul flights be undertaken in the future, it is recommended to record the class and haul of travel e.g., economy, short haul etc.
- Homeworking accounted for approximately 17% of Crofting Commission's GHG footprint and was the second largest source of emissions. It is therefore recommended to collect primary data on homeworking where possible, in order to reduce levels of estimation within this category.
- Waste data was benchmarked using an assumption of 130 kg of waste per full time equivalent (FTE) employee per annum. It is therefore recommended to collect primary data for future reporting iterations in the form of weight (kg or tonnes) by waste stream (recycled, landfill, incineration etc.). Alternatively, collecting the volume of waste is also a good proxy if weight is not possible.
- To calculate emissions from water, spend data was provided. To increase accuracy of reporting, it is recommended that water consumption and treatment is recorded in m³ (or litres).

Improved data collection will allow a more accurate calculation of Crofting Commission's carbon footprint and will help identify the areas to target for future reduction.

3.3 CMP development

The core section of the workshop focused on carbon management and assessed potential projects, initiatives, objectives and actions concerning the key emissions sources identified in the GHG assessment. These were:

- Office energy (primarily electricity)
- Purchased goods and services and capital goods
- Business travel
- Commuting and homeworking

The aim was to elicit existing, previously adopted/considered and potential new aims, projects and initiatives relating to GHG reduction in each area which could be feasibly achieved via amendments to areas including procedures, processes or policies, staff behaviour, or technology and investment. The outcomes are summarised below.

3.3.1 Energy consumption

Office energy usage (mains gas, bioenergy and electricity consumption, including T&D and WTT) accounted for 7% of total GHG emissions. Any office changes that may be planned could provide an opportunity to improve efficiencies and potentially remove natural gas and bioenergy emissions.

Existing or previous initiatives include:

- The Crofting Commission's electricity is currently supplied by EDF Energy Customers Ltd through the Scottish Government framework. This is the National framework agreement for the supply of electricity for the Scottish public sector. The framework provides a range of sustainability benefits including the option of purchasing Renewable Energy Guarantee of Origin (REGO) certificates at a fixed rate, and several Energy Efficiency Services⁷. The framework also facilitates renewable energy Power Purchase Agreements (PPA).
- Similarly to the Crofting Commission's electricity supply, their mains gas is supplied through the Scottish Government framework, specifically through Total Energies Gas and Power Ltd. The scheme provides an option to purchase Renewable Gas Guarantee of Origin (RGGO) certificates.
- The Crofting Commission currently supplement some of their mains gas usage with bioenergy in the form of wood pellets, creating a saving of approximately 2 tCO₂e for every 10,000 kWh of energy consumed (in place of mains gas usage).
- Given the shift to homeworking as a result of Covid-19, the Crofting Commission have recently reduced their office space by approximately one third to ensure

⁷ Electricity Framework Agreement 2019-2024. Available from: <https://www.gov.scot/publications/electricity-framework-agreement/> Accessed on: 5th February 2024.

office area requirements are proportional, thus reducing energy consumption. Reduced office space typically leads to reduced office energy emissions.

Areas to consider and develop

It is important to note that the Crofting Commission's office is managed as part of the wider building by Nature Scot - Scotland's nature agency. Therefore, any premises related changes are subject to discussion between the Crofting Commission and Nature Scot to allow consideration for the wider site.

Carbon intensity reduction options to be considered.

- As part of the benefits provided through the Scottish Government framework, the Crofting Commission could explore the possibility of purchasing renewable energy PPAs. PPAs are recommended over REGO's given that they better support the development and financing of renewable energy developments. This is due to the fairly stable revenue stream that is created through the contract between the energy provider and the company – PPAs typically last between 10-25 years and the electricity is often at a fixed price. REGO's are certificates which showcase that the company has purchased a certain amount of renewable energy, rather than through a contract.
- Further replacement of natural gas heating with alternative options where practical may be a consideration to discuss. Such examples may include opting for further bioenergy use or even the installation of heat pumps.
- Longer term, avoiding lease/ownership of office locations with natural gas usage would be an additional benefit.

Energy efficiency to be generally considered. Typical examples may include the following, but are not limited to:

- Policy of minimising standard office equipment if not already in practice, and of specifying maximum energy efficiency IT equipment (for example, laptops generally use less energy than equivalent desktops).
 - Consider LED lighting with motion-sensors, timers and daylight compensation (if not already in place) and focus on most commonly used areas first. To maximise cost-efficiency this is best installed as part of any potential broader office refurbishment.
 - There can be minor gains from peripheral initiatives such as upgrading hand dryers and minimising non-core IT use such as centralised printers, meeting room screens, etc.
- **Energy performance** can and should be tracked using a benchmark and KPI such as kWh/m² to monitor any improvements in office energy performance over time.

Possible targets/commitments

- **Switching to a renewable or 'green' electricity tariff.** Although this is permitted as emissions reduction by the Science-Based Targets Initiative (SBTi), care should be taken to ensure that any change of tariff is to a service that leads to

genuine additionality of renewable energy, which is not the case for all (or even most) nominally 'green' tariffs, which are often effectively just contractual arrangements with no real-world carbon reduction impact. (This has become so prevalent and misleading that in 2021 the UK government carried out a consultation⁸ on tightening the rules around such claims.) Any such switch should not be taken as a pretext for forgoing genuine energy reduction efforts in addition. Therefore, it is recommended that the Crofting Commission opt for a PPA through the Scottish Government framework.

- Setting a stretch target to **reduce energy consumption by 10-15%** may also result in reduced emissions associated with natural gas and bioenergy consumption.
- Alternatives are to directly install some form of renewable energy generation for Crofting Commission's direct use.

3.3.2 Supply chain categories (purchased goods and services and capital goods)

A note on supply chain emissions factors: GHG emissions from an organisation's supply chain can be assessed using one of several methods, including:

- using high-level and generic spend-based emissions factors for each spend category (e.g. tCO₂e per £k spent on IT),
- using generic product or service activity-based factors (e.g. tCO₂e per average or typical laptop purchased),
- using product- or service-specific factors (e.g. tCO₂e per specific type of laptop purchased, as assessed by or on behalf of the specific manufacturer).

These categories are listed from highest level to most detailed. The first (least detailed) method has been used to calculate emissions from purchased goods and services and capital goods for this initial assessment and a recommendation for these categories is to move to a more robust, detailed emissions assessment for key supply chain categories or areas.

Existing initiatives: Crofting Commission has already considered the following:

- The Crofting Commission have committed to using sustainable procurement, primarily using the Scottish Government's Framework Contract for major procurement purposes. However, it is understood that the Crofting Commission would like to further consider how green procurement can be achieved.

Areas to consider and develop:

- Creation of an approved 'green supplier list', specifically for electrical equipment, based on an overall review of suppliers to support sustainable procurement. This could consider each supplier's low-carbon and sustainability credentials and

⁸ Department for Business Energy and Industrial Strategy (2021). Government to tighten rules to stop greenwashing of electricity tariffs. Available from: <https://www.gov.uk/government/news/government-to-tighten-rules-to-stop-greenwashing-of-electricity-tariffs>. Accessed on: 5th February 2024.

possibly consider and even codify permitted cost premiums for low-carbon procurement alternatives in key categories.

- Nature Positive recommends starting by carrying out an initial Pareto spend assessment of key suppliers in each category (see next section) and engaging with just these key suppliers as a first step, to determine their relevant credentials, policies, and offerings. A blanket supplier engagement approach is not recommended initially.

Possible targets/commitments

No supply chain targets are understood to have yet been considered or adopted. Example targets could include:

- Using a **Pareto analysis** to identify key suppliers in both purchased goods and services and capital goods categories.
- Engaging with these suppliers on:
 - Provision of product or service-specific GHG emissions data (for instance, obtaining a **supplier-specific GHG emission value**), to reduce the reliance on spend-based emission assessments, which are necessarily high-level.
 - Conveying the importance of **decarbonisation** and clarifying with suppliers that **engagement** on this topic will be an important consideration in (and possibly ultimately a condition of) your future working relationship.

3.3.3 Business travel

Business travel contributed to 9.6 tCO₂e (excluding emissions associated with hotel stays at 1.0 tCO₂e) which accounted for 9% of the overall assessment. A significant proportion of emissions from business travel were attributed to private staff car use (grey fleet) (63%). However, as highlighted in section 3.2, only generic 'average car, unknown fuel' data was available.

It should be noted that 26% of emissions associated with business travel are associated with flights. However, it is understood that these are short haul flights from Scottish islands to Inverness only and are therefore largely unavoidable emissions where face to face contact is required.

Existing or previous initiatives include:

- Although there was no company owned vehicle use during the 2022 reporting period, Crofting Commission have access to four pool cars, all of which are electric (facilitated by Nature Scot).
- The Crofting Commission use virtual meetings software (such as MS Teams) where possible. However, it is acknowledged that some face-to-face meetings are still required, especially given the rural nature of some Crofting counties in Scotland.

Areas to consider and develop:

In broad terms, there are three direct ways to reduce emissions from travel: reduce mileage; improve fuel efficiency; or use a less carbon-intensive form of transport. Other options include clearer communications and use of incentives.

- Reduce distances
 - Route planning and improved logistics may be a viable avenue for further exploration as for site visits that are scheduled rather than reactive. For example, it might be possible to switch to fewer but slightly longer journeys, replacing a larger number of short trips. This has the disadvantages of requiring greater planning and of reducing flexibility.
 - Further implementing the 'virtual first' approach for meetings where possible.
 - Lift-sharing may already be in use and may be viable in some instances.
- Encourage less carbon-intensive forms of transport

As previously discussed, emissions from car-based business travel was estimated as 'average car, unknown fuel'. It is recommended that emissions from this source are quantified for each fuel type to increase accuracy of reporting. It is also recommended that attempts are made to use fuel consumption (litres of petrol/diesel or kWh consumed) in preference to mileage if available.

 - Encouraging the use of electric vehicles, such as through the Crofting Commission's existing electric fleet (through Nature Scot), in place of the existing ICE⁹ grey fleet, where feasible.
 - Crofting Commission may wish to develop a business travel hierarchy, such as via a decision tree to encourage staff to make informed decisions about business travel. The hierarchy should not require staff to make impractical journeys, but to encourage a considered process which promotes sustainable modes where practical. For example, car sharing and public transport offers GHG savings over single passenger car journeys.
- Improve fuel efficiency of company owned vehicles, hire cars and grey fleet.
 - Introduce journey planning for electric vehicles as part of company Health and Safety policy and procedure. This may include encouraging drivers to plan ahead and make use of apps such as 'Zap-Map'¹⁰ to identify electric vehicle charging locations along their route.
 - Depending on current driver awareness levels, significant energy efficiency savings can be found from 'green driver' training, emphasising

⁹ Internal combustion engine (ICE) typically petrol or diesel powered vehicles.

¹⁰ Zap-Map (2024). Available from: <https://www.zap-map.com/> Accessed on: 5th February 2024.

steady speeds and avoiding sharp acceleration and braking as well as elements such as avoiding in-vehicle aircon use.

- Likewise, encouraging and incentivising simple vehicle maintenance measures such as keeping tyres inflated can have a tangible impact on fuel efficiency.

Possible targets/commitments

- Improve accuracy of reporting for business travel by collecting information on fuel type, as well as potentially collecting fuel use (litres) and energy consumed (kWh) in place of mileage.
- Although no company owned vehicles were used during the reporting period, it is recommended that staff prioritise use of the existing electric fleet over ICE grey fleet for business travel as a means to reduce emissions.
- Introduce a formal journey planning procedure to encourage uptake of public transport and electric vehicles for business travel.

3.3.4 Commuting

GHG emissions associated with employee commuting have been quantified for 2022. They comprised 9.4 tCO₂e, or 9% of the total.

Existing initiatives include:

- It is understood that there are existing facilities at the Inverness office to encourage active travel, including showers, lockers and changing areas.
- Existing cycle to work scheme.
- Existing electric vehicle charge points at the Inverness office.
- Collecting commuting data for staff as part of this project.
- Remote/flexible working available for staff.

Areas to consider and develop:

- For subsequent commuting data collection, it would be beneficial to include additional questions in the survey to allow greater understanding of commuting habits, rather than using the survey purely as a GHG data collection exercise. Additional questions could include asking staff their main reason(s) for travelling to work by their chosen mode and asking what measures would encourage them to travel more sustainably. The data gained could help the Crofting Commission understand potential barriers to sustainable travel, highlight ideas for potential measures and help to understand the possible success of these measures.
- There are several paths towards encouraging lower-carbon commuting methods which include walking, cycling, public transport, and to a lesser degree use of electric vehicles rather than ICE vehicles. However, given the rural location of the

office in Inverness, a greater reliance on car use is expected. These paths include:

- Consider financial or other tangible incentives for low-carbon commuting. Similar to the existing cycle to work scheme, this could include introducing an electric vehicle scheme to offer staff tax incentives for purchasing electric vehicles. At present, approximately 28% of commuter journeys (via car) are already via electric vehicle, although car journeys are predominantly petrol (68%).
- Consider relevant promotional events, such as a weekly or monthly 'walk/cycle/lift share to work' event. This could include events such as National Walking Month (May), Bike Week (June), and Cycle to Work Day (August). Such initiatives can both engage staff and allow employees to make informed decisions about sustainable travel through 'nudging'. A further idea could be a 'slow travel' day for commuting, possibly in conjunction with the offer of enhanced benefits such as additional annual leave allowance as an incentive.
- The Crofting Commission could facilitate office-based car sharing schemes, possibly via a company intranet, or even noticeboards or direct email communications. As this could entail some inconvenience to staff, any incentive mechanisms (possibly financial or related, such as bonus annual leave allowances) could increase uptake. An alternative or complementary option where feasible is offering priority car parking spaces for car-sharers.
- A common reason for commuters not to wish to car share is the thought that they may need to leave work in an unexpected situation and be without a car, or that they will be left at work by the person with a car who has left earlier than them. Thus, providing a guaranteed lift home for car sharers in the event that an emergency prevents their return car sharing journey could encourage uptake of car sharing.

Supporting sustainable access for staff travelling to and from Crofting Commission's office has potential benefits aside from GHG reductions, such as staff wellbeing, increased productivity, and reducing traffic congestion.

Possible targets/commitments

Example targets could include:

- A **data collection** target date for a certain proportion of commuting staff for annual commuting surveys.
- Absolute or normalised reduction targets for commuting, using either or both of mileage and GHG emissions (which would incentivise the uptake of lower-carbon commuting methods). This would entail collation and upkeep of a more comprehensive, current and robust staff commuting dataset.

3.3.5 Homeworking

GHG emissions associated with homeworking accounted for 17% of total emissions for 2022. Although there is clearly a footprint associated with homeworking, it is important to note that it is typically much lower than the equivalent emissions associated with staff commuting. Therefore, maintaining the high proportion of homeworking that is already present is key to limiting the Commission's GHG emissions.

Areas to consider and develop:

- Given the high proportion of staff homeworking, it could be beneficial to explore the possibility of encouraging and supporting the introduction of green tariffs for staff at home. However, the feasibility of this would need to be explored.

3.3.6 General sustainability initiative precepts

Nature Positive's previous experience has given rise to formulation of the general precepts below as prerequisites for successful sustainability initiatives.

Top-level commitment and involving decision-makers in strategy development. As a public body, top level commitment is already present within the Commission, especially given that the Crofting Commission are keen to take a leadership role in achieving the Scottish Government's target of achieving net zero emissions by 2045.

Hardwire sustainability requirements into individual's job descriptions and/or personal reviews. The Crofting Commission already have plans to take the environment into account in the policies they create, including both minor and internal policies.

Introduction of green champions as a point of contact for other employees. The Commission already have a plan to create an in-house environmental team and hold a meeting three times a year to build on their sustainable systems. It is also understood that many of the staff have environmental backgrounds, and the Crofting Commission are keen to take advantage of this.

4 EXAMPLES OF TARGETS AND OBJECTIVES

4.1 Current targets and summary

The total scope 1 and 2 GHG emissions for the Crofting Commission's 2022 GHG assessment were **4.0 tCO₂e**.

The Scottish Government have set a target to achieve net zero carbon emissions by 2045, with an interim target of a 75% reduction by 2030 from a 1990 baseline. It is understood that the Crofting Commission are aiming to achieve net zero direct emissions by 2030, thus supporting the Scottish Governments carbon reduction targets.

The Science Based Target (SBT) for a small and medium-sized enterprise (SME) comprises a 42% reduction by 2030 for scope 1 and 2 emissions. Note that while SMEs are not set formal quantified scope 3 emissions reduction targets under the SME SBT route, SMEs must commit to measuring and reducing their scope 3 emissions.

Table 2: Scope 1 and 2 emissions for the Crofting Commission

Scope	Description	Total 2022 tCO ₂ e
Scope 1	Direct emissions	1.6
Scope 2	Indirect emissions	2.4
Total		4.0

5 CARBON REDUCTION ROUTE MAP

5.1 Summary

To illustrate possible routes to meeting these objectives, potential actions have been developed and prioritised to outline routes to the most significant emissions reductions. Table 3 summarises five key SMART actions for carbon reduction which we recommend pursuing as next steps. No timeline is given as this will depend on the Crofting Commission's internal priorities, budget and resources, and other variables.

The actions for decarbonisation should be treated as a living document. This will ensure that the actions are maintained in a manner which is consistent with the Crofting Commission's ambitious target of achieving net zero direct emissions by 2030.

Actions 1 and 2 in Table 3 below will support the Crofting Commission in achieving its target of net zero direct emissions by 2030. Actions 3-5 focus on the Commission's indirect emissions which form the majority of its footprint.

5.2 SMART actions for decarbonisation

Table 3: Summary of key SMART actions to decarbonise

SMART actions				
Action	Description	tCO ₂ e saved/yr	Cost	Ease
1. Purchase renewable energy PPA as part of the Scottish Government framework	Under market-based reporting, accepted by the SBTi, it is permissible to use 'green' tariffs as a route to decarbonisation. We thus recommend switching to appropriate good-quality green tariffs which can demonstrate additionality (i.e. that the use of the tariffs increases renewable generation capacity). Specifically for the Crofting Commission, we recommend purchasing a renewable energy PPA through the Scottish Government framework.	~2.4 tCO ₂ e/ year	Some marginal cost is likely compared to standard tariffs.	Simple
2. Set stretch targets for building energy reduction, based on 2022 baseline	To avoid any perception that the Crofting Commission is 'buying' a lower carbon footprint via use of green tariffs (above), we recommend setting an additional reduction target based on reducing office energy	N/A to electricity if green tariffs used. Mains gas and bioenergy reduction of 10-15% equates to	Depends on measures required, but some low or no-cost options are available (see 3.3.1)	Various. Some simple measures (e.g., improved office temperature control) possible

SMART actions				
Action	Description	tCO ₂ e saved/yr	Cost	Ease
	(kWh) use, perhaps in the order of 10-15% by 2030 from a 2022 baseline.	savings of ~0.2 tCO₂e.		
3. Improve accuracy of supply chain emissions reporting	Scope 3 categories 1 & 2 emissions (purchased goods and services, and capital goods) collectively made-up 56% of the Crofting Commission's 2022 footprint. As this figure is a high-level estimate based on spend-based emissions factors, engage with suppliers to collect more specific and accurate emissions data for key products and services. See Section 3.3.2 for more details.	No direct emissions reduction but would better inform future decarbonisation options.	Limited additional cost beyond staff time for Pareto assessment and supplier data requests.	Moderate
4. Work with core suppliers to obtain lower-carbon goods and services	Subsequent to the above step, engage with core suppliers with a medium- and long-term view to procuring lower-carbon goods and services, specifically for electrical equipment.	Based on 2022 estimated emissions, a 10% saving of electrical products could equate to approximately 4.3 tCO₂e /year.	Some marginal cost possible but extent impossible to assess at this stage.	Moderate. Will simplify as procurement staff and suppliers understand the GHG drivers.
5. Accuracy of business travel reporting and encouraging use of electric vehicles	Given that the Crofting Commission already has access to a fleet of electric vehicles, it is recommended that staff prioritise use of electric company owned vehicles in place of ICE grey fleet for business travel where car travel is required. Accuracy of reporting should also be improved to include data on vehicle fuel type, and potentially submission of fuel use (l) and kWh consumed in place of mileage, particularly to capture use of lower carbon intensity travel (such as electric vehicle over ICE vehicle)	Based on 2022 estimated emissions, a 50-75% switch to electric vehicles could equate to approximately 2-3 tCO₂e/year.	Low to no cost.	Moderate, will simplify as revised business travel procedures and expense claims are streamlined.

5.3 Review

Nature Positive recommend that the above actions are reviewed annually to assess overall progress and to determine whether actions can be made more ambitious and/or whether targets are on track to be achieved within a set timeframe.

Indicators can also help to identify whether the Crofting Commission is on track to achieve its carbon reduction targets. Examples may include:

- Percentage of energy supplied from renewable sources
- Proportion of suppliers measuring their carbon footprint and engaging in their own carbon reduction strategy
- Percentage of non-ICE vehicles used for business travel
- Average number of journeys (including all modes of transport) for business travel

5.4 Possible additional actions

The following are general and additional actions that can be undertaken to further reduce carbon emissions and promote sustainability. Potential savings have not been quantified.

Update office equipment

When upgrades are required, ensure that maximum energy efficiency technology is specified (there will be a marginal capital cost, but lifetime revenue cost savings will almost always compensate). In addition, consider formally adopting a policy of considering lifecycle energy costs and GHG emissions as part of the procurement process.

Timescale: ongoing, starting immediately.

Potential GHG impact: small to medium.

Water and wastewater initiative

Reducing water and wastewater use is an effective way of reducing carbon emissions and engaging employees in a sustainable initiative. Generic actions for reducing office water use include:

- Installing modern dishwashers in kitchen areas and run on energy saving modes with a full load.
- Installing dual flush systems in bathrooms or cistern replacement devices.
- Regular monitoring and maintenance to check for leaks and dripping taps, fitting a water meter to monitor water use, installing optimum flow fittings or automatic/sensor taps where not already present.

Timescale: ongoing.

Potential GHG impact: small (but water is a highly visible resource, and this could form a useful part of a broader sustainability drive)

Avoid single use materials

Description: avoid purchase of single-use materials where possible in both the office and kitchen areas. Any single-use material presently in-office should be used and appropriately recycled.

Timescale: ongoing.

Potential GHG impact: small.

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