

Scottish Land Commission

Climate Change Action Plan

Ref. 655078

MARCH 2020

RSK GENERAL NOTES

Project No.: 655078-F01

Title: Climate Change Action Plan

Client: Scottish Land Commission

Date: 24th March 2020

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Status: Final

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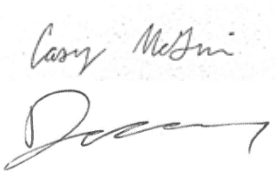
Signature		Signature	
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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Environment Ltd.

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1 INTRODUCTION

1.1 Project Environment

In May 2019, the First Minister of Scotland declared a State of Climate Emergency. As a result of this, and the recommendations of the UK Climate Change Risk Assessment 2017 published by the Committee on Climate Change (CCC), the Scottish Government set a suite of world-leading, ambitious targets to achieve net-zero emissions by 2045. In order to achieve this, strong and decisive leadership is required to create dynamic action to achieve a just and timely transition towards a prosperous net-zero economy.

1.2 Project Summary

It is for this reason that the Scottish Land Commission (hereafter referred to as 'the Commission' or 'we') has commissioned RSK Group (RSK) to develop a Climate Change Action Plan (hereafter referred to as the 'Action Plan') to significantly reduce its emissions and embed sustainable targets and actions within its organisation, and throughout its supply chain.

This Action Plan takes the form of a bespoke carbon calculator tool and user-guide, enabling the Commission to calculate its own carbon emissions, both at present and in the future, with the view to reducing them to net-zero within an ambitious timescale. Subsequently, this tool and user-guide is supplemented by ambitious carbon-reduction targets, and accompanied by a route-map to detail planned carbon-reduction actions up to 2025.

2 CARBON REDUCTION TARGETS

2.1 Vision

The vision of the Scottish Land Commission 'is a fair, inclusive and productive system of ownership, management and use of land that delivers greater benefit for all the people of Scotland'[1].

To achieve this, we endeavour to adhere to the following three objectives (productivity, diversity and accountability) to contribute towards the Scottish Government's National Outcomes and its overall purpose to 'focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth'.

2.1.1 Productivity

Productivity is central to our vision for land reform. We must ensure that Scotland's land is used effectively. We want to focus our efforts on identifying barriers to productive use of land, and devising new ways of overcoming them to unlock energy and creativity. We define productivity firmly in a three-dimensional way, reflecting the economic, social and cultural aspirations implicit in the International Covenant on Economic, Social and Cultural Rights. We see the purpose of increasing productivity as being to further the wellbeing of all the Scottish people, with no one interest gaining unreasonably at the expense of another.

2.1.2 Diversity

Diversity of land ownership patterns is vital to encourage a thriving society where no single type of ownership dominates the landscape. We must encourage a more diverse pattern of ownership and ensure the benefits from land are shared more inclusively, building on the idea of land for the many not just for the few. There is a current and widespread perception that Scotland has a narrow ownership pattern that impedes both productivity and equity. We need to get an accurate understanding of this and how diversifying ownership patterns could maximise the productive management and use of land and spread the benefits more widely.

2.1.3 Accountability

Accountability is a critical part of any system where the decisions of a few potentially impact on the interests of many. We must improve the accountability of landowners and decision makers to the Scottish people and ensure communities are empowered to influence land management and use. It becomes of vital significance in a property-owning democracy where title to most of our land is held by relatively few people, and where land rights carry with them robust responsibilities. We see the owners of land as being ultimately accountable to the Scottish people for the actions that they take and we see strong accountability systems as being key to ensuring that this is effective. Ensuring communities are empowered to influence decisions is integral to robust accountability.

2.2 Mission

To achieve our vision, it is our mission is to promote productive, diverse and accountable land use decision making and land ownership, in a manner that is consistent with

[1] Scottish Land Commission (2018) Making More of Scotland's Land: Our Strategic Plan 2018 to 2021 [Available online at: https://landcommission.gov.scot/downloads/5dde93e166299_Scottish-Land-Commission-Strategic-Plan-2018-21-ENGLISH.pdf]. Last Accessed:14th January 2020.

maintaining global temperature rise below 2ºC, whilst pursuing every effort to maintain it below 1.5ºC.

2.3 Targets

To support this mission to achieve our overall vision, we have identified several emissions reduction targets which form the basis of this Action Plan. These targets feed into the route-map, which outlines actions to achieve them.

As an emission baseline has not yet been established, targets are strategic in nature; providing an ambitious indication of the direction of travel of the organisation towards emissions reduction. Once the Commission has measured its first-year emissions using the tool and user guide, targets shall be reassessed and adjusted, using the traffic light system outlined in Section 4.3, as necessary to ensure they remain ambitious and achievable.

Targets include the following:

- Achieve zero direct emissions for all Commission facilities by 2030;
- Achieve zero direct emissions for all Commission travel by 2030;
- Achieve an interim facilities target of net-zero emissions by 2025;
- Achieve an interim travel target of net-zero emissions by 2025;
- Support employees to engage in active travel and/or use low carbon modes of transport; and
- Support suppliers to consider and reduce their emissions including the emissions of their own suppliers.

2.4 Operational influence

Beyond the targets which we have set for our facilities, travel and suppliers, we acknowledge the wider leadership role of the Commission in relation to land. Land use change and decisions are critical to the achievement of the Scottish and UK targets for 2030 and 2045. Our role is to help facilitate the governance needed to ensure these decisions can be taken at the pace and scale needed, in a fair and accountable way. In particular our current work to advise on the establishment of regional land use partnerships is central to this.

3 CARBON CALCULATOR USER-GUIDE

3.1 Overview

The carbon calculator tool has been developed in discussion with the Commission and allows the user to input specific data that has been collected annually. Associated greenhouse gas emissions are then automatically calculated.

The tool has been developed in as much detail as possible, and includes scope 1, 2 and 3 emissions. The following sections detail how it may be used.

3.2 Data Entry

The 'Input' tab (Shown in Figure 1) lists all data that is required to calculate the emissions footprint for the Commission. Grey cells are those where data should be input, light red cells are where alternative options are available from lists, and red cells are fixed and must not be altered. The user must be sure to report any data in correct units where applicable.

The input tab is split into four sections:

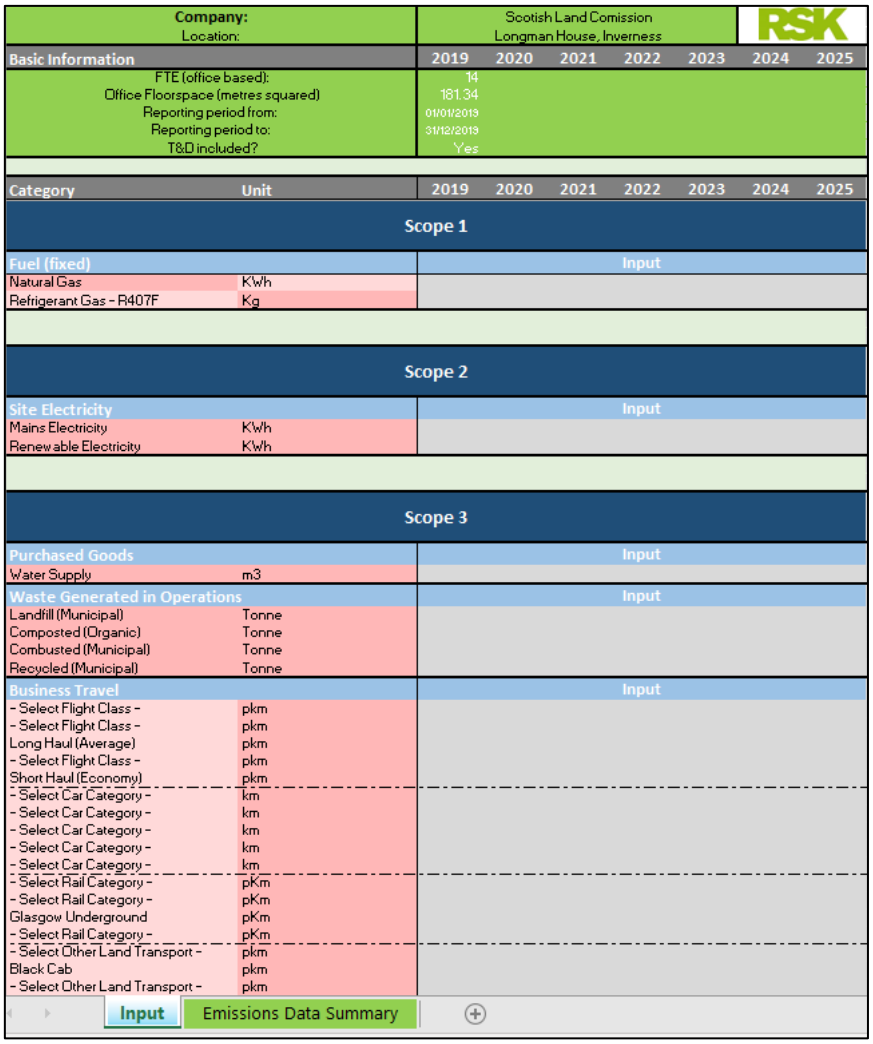
- Basic information. Input here the company specific information that applies to the entire reporting period. If the number of full-time employees (FTEs) or office floor space has changed, use a time weighted average. Transmission and Distribution losses (T&D) are those emissions associated with electricity that is lost due to inefficiencies in the distribution system. The user can elect to include or exclude these.
- **Scope 1.** These are the input fields to calculate the scope 1 emissions (direct emissions released from sources that are owned or controlled by the reporting company).
- **Scope 2.** These are the input fields to calculate the scope 2 emissions (those associated with the generation of purchased electricity).
- **Scope 3.** These are the input fields to calculate the scope 3 emissions (all other indirect emissions sources not accounted for within Scope 1 and 2).

  If any categories are not required, leave them blank with the "select category" option displayed. The unit pKm in this section represents person kilometres (kilometres travelled multiplied by the number of people that travelled). If exact categories are unknown for business travel, waste or commuting, select the most applicable or average category.

  For home working days, industry benchmarks have been used for electricity consumption and gas, assuming an office space of 10 m2 per person.

Where possible, data entry units have been provided to match those of the Commissions raw data. In some cases, this has not been possible due to budget constraints, and so units must be converted to those available prior to entry.

Figure 1. Sample taken from data input sheet



Company:		Scotish Land Comission						
Location:		Longman House, Inverness						
Basic Information		2019	2020	2021	2022	2023	2024	2025
FTE (office based):		14						
Office Floorspace (metres squared)		181.34						
Reporting period from:		01/01/2019						
Reporting period to:		31/12/2019						
T&D included?		Yes						
Category	Unit	2019	2020	2021	2022	2023	2024	2025
Scope 1								
Fuel (fixed)		Input						
Natural Gas	KWh							
Refrigerant Gas - R407F	Kg							
Scope 2								
Site Electricity		Input						
Mains Electricity	KWh							
Renewable Electricity	KWh							
Scope 3								
Purchased Goods		Input						
Water Supply	m3							
Waste Generated in Operations		Input						
Landfill (Municipal)	Tonne							
Composted (Organic)	Tonne							
Combusted (Municipal)	Tonne							
Recycled (Municipal)	Tonne							
Business Travel		Input						
- Select Flight Class -	pkm							
- Select Flight Class -	pkm							
Long Haul (Average)	pkm							
- Select Flight Class -	pkm							
Short Haul (Economy)	pkm							
- Select Car Category -	km							
- Select Car Category -	km							
- Select Car Category -	km							
- Select Car Category -	km							
- Select Car Category -	km							
- Select Rail Category -	pKm							
- Select Rail Category -	pKm							
Glasgow Underground	pKm							
- Select Rail Category -	pKm							
- Select Other Land Transport -	pkm							
Black Cab	pkm							
- Select Other Land Transport -	pkm							

Input | Emissions Data Summary

3.3 Emissions Results

Once all data has been correctly input as per the above, the 'Emissions Data Summary' tab will display the total emissions generated during the reporting period (shown in Figure 2).

Emissions are reported in $KgCO_2e$. CO_2e is the universal unit of measurement to indicate the global warming potential (GWP) of GHGs, expressed in terms of the GWP of one unit of carbon dioxide.

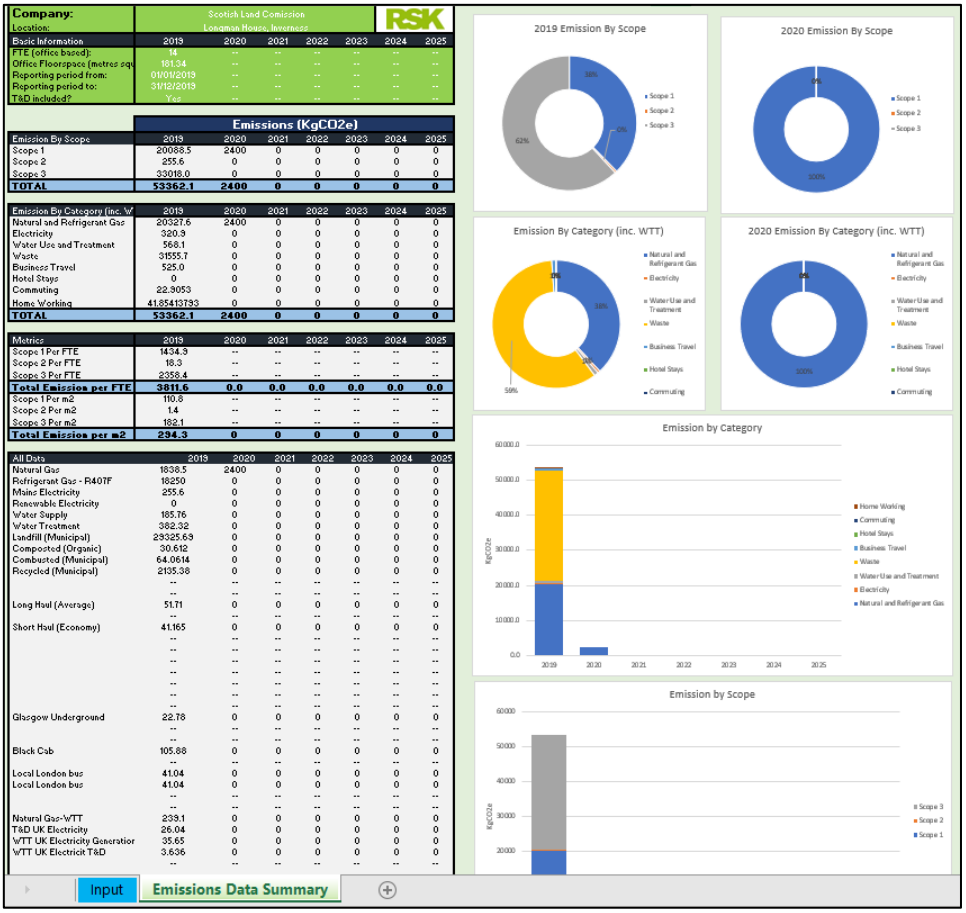
From top to bottom, the following categories are displayed:

- Emissions totalled by emissions scope
- Emissions by activity category
- Emission metrics shown in scope totals per FTE and per m^2 of floor space.
- All emissions from every category.

Graphics automatically display this data in pie charts for the first two years and stacked bars to visualise the year on year emission change. The summary table of all calculations may be used to create additional graphics if required.

Finally, as UK emissions factors are generated on a yearly basis, it is worth noting that the calculator will not process data unless annual updates are made. Emissions factors must be updated annually as the emissions associated with business activities change. This may be from, for example; the UK grid becoming increasingly powered by renewables, or from fuel becoming more refined. Emissions factors are typically distributed by the UK government in the summer of the year they apply to, after which RSK will be able to update emissions factors if instructed.

Figure 2. Emissions Data Summary. Values are arbitrary and for visualisation only.



4 CARBON-REDUCTION ROUTE-MAP

4.1 Purpose

The purpose of the route-map is to support delivery of the carbon reduction targets stated above. It achieves this by outlining planned actions to reduce carbon emissions in relation to the Commission's facilities, travel and suppliers up to 2025. These are areas over which the Commission has direct control or influence.

4.2 Format

The route-map offers a visual representation of the Commission's targets, and its planned actions up to 2025. This route-map will be a living document that will be reviewed and updated yearly up to 2025. This will ensure that it is maintained in a manner which is consistent with the ambitious achievement of the above-stated targets.

The route-map is formatted with respect to three key areas of carbon reduction (facilities, travel and suppliers) along the x-axis, with years along the y-axis. It is populated with actions to be achieved within each of the areas during the time periods specified.

The route-map and targets are consistent with the vision and mission of the Commission and thus the following three strategic objectives are integrated into these, as set out in Section 2:

1. Productivity - to drive increased economic, social and cultural value from land;
2. Diversity - to encourage a more diverse pattern of land ownership with the benefits of land spread more inclusively; and
3. Accountability - to ensure decision-making takes account of those affected and responsibilities are met.

Within the overarching goal of achieving net-zero emissions, opportunities for improving the environment and communities, including using fewer natural resources, generating less waste, moving toward a low-carbon economy, promoting biodiversity, minimising flood risk, and improving water quality are considered.

Actions to reduce GHG emissions include strategic investment into cultural change and financial opportunities into low carbon technologies and/or materials.

Table 1: The Scottish Land Commission Carbon Reduction Route-Map

	Facilities	Travel	Suppliers
2020 - 2025	Begin annual reporting to the CDP (Carbon Disclosure Project), a non-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.		
	Develop and implement an Energy Management Strategy (including energy audit) to reduce energy consumption. Actions may include making recommendations and working with the Scottish Government on thermal insulation, LED retrofitting, energy use policy, appliance choice and installation of energy infrastructure.	Develop and implement a carbon emissions levy to compensate for the carbon that our business travel generates.	Develop and implement a Supplier Engagement Strategy (if applicable) to understand their emissions and sustainable strategies.
	Develop and implement a Waste Management Strategy to reduce waste*. Actions may include composting, material use and reuse policy, adjusted goods supply policy, enhanced recycling, community partnership collaboration.	Develop and implement a Green Travel Plan which includes consideration of preferred modes of travel, speed limits, vehicle maintenance, route selection procedure, travel expense policy, carpool policy and plan, vehicle hire policy.	Develop and implement circular economy goods supply policy.
	Develop and implement a Water Management Strategy to reduce water consumption**. Actions may include behaviour changes, making recommendations to the Scottish Government and installing water efficient technologies.	Adapt operations to include working from home, flexible working hours and meetings via conference call as preferable.	Identify and adopt supplier standards and principles with respect to science-based targets for carbon reduction and other sustainability factors. At least 50% of suppliers should meet this target.

	Develop and implement a carbon emissions levy to compensate for the carbon that our facility generates.	Encourage active travel through improved infrastructure and facilities as well as relevant incentives.	Identify and adopt a low carbon tender procedure to incorporate focused actions throughout all projects to reduce carbon emissions.
	Recommend that the Scottish Government engages renewable gas and electricity suppliers	Adopt limited-use hotel policy to implement preference for low emitting hotels and/or accommodation.	Develop and implement low carbon stakeholder and community engagement policy so as to make training and engagement activities accessible at distance.
	Engage office building owners/managers to achieve zero-direct emissions.	Implement an electric vehicle charging point to encourage uptake of private electric vehicles.	80% of suppliers meeting supplier standards and principles with respect to science-based targets for carbon reduction and other sustainability factors.
Target	Achieve zero direct emissions for all Commission facilities by 2030. Achieve an interim facilities target of net zero direct emissions by 2025.	Achieve zero direct emissions for all Commission travel by 2030. Achieve an interim travel target of net-zero direct emissions by 2025. Support employees to engage in active travel and/or use low carbon modes of transport.	Support suppliers to consider and reduce their emissions including the emissions of their own suppliers.

* Extracting and processing raw materials (i.e. wood, oil and minerals) to make usable materials (i.e. paper, plastic and metal) requires energy. Reducing, reusing and recycling often saves energy because it removes the need for extraction and processing.

** Water and energy are inextricably linked as a large amount of energy is used in every stage of water use from its supply, consumption, disposal and treatment. Energy is also required to heat water.

4.3 Review

RSK recommend that the route-map is reviewed annually using a traffic light system to measure progress on implementing the plan. The traffic light system would involve assessing each interim and long-term target based on the following criteria:

- **Red:** far from achieving this target;
- **Amber:** close to achieving, but not yet achieving, this target; or
- **Green:** this target has been achieved and the Commission can increase their ambition.

For targets rated red and amber, these would be prioritised to ensure implementation by the target date, or as soon as possible thereafter. Targets rated green will be reassessed so as to determine whether they may be made more ambitious.

The Commission will then be able to assess overall progress be seeing how many targets are on track to be achieved within the set timeframe.

4.3.1 Indicators

Indicators can also help to identify whether the Commission is on track to achieve its carbon reduction ambitions. RSK recommends that when conducting a review, the following indicators, inter alia, should also be used each year to gauge improvements achieved toward meeting the targets set out in the route map.

4.3.1.1 Facilities

- Percent of energy supplied from renewable energy sources
- Percentage of waste sent to landfill
- Percentage of water used

4.3.1.2 Transport

- Average emissions of registered cars
- Average emissions of registered vans
- Average number of journeys (including all modes of transport)
- Percentage of people using active travel to and from work

4.3.1.3 Suppliers

- Percentage of suppliers measuring their carbon footprint
- Percentage of suppliers engaging their own carbon reduction strategy
- Percentage of suppliers meeting supplier standards
- Percentage of tenders including carbon reduction activities