

MacArthur Green Impact Report 2024-2025

Carbon Management Policy

MacArthur Green operates a carbon conscious business model. We aim to measure, monitor and reduce our carbon emissions.

Measure: What you measure, you can manage. We assess and report our carbon footprint on an annual basis.

Manage: We use this carbon management plan to make sure we plan and take action to reduce our emissions. **Targets**: It's no good being vague. We look honestly at what we have achieved to understand whether we have done enough to achieve our goals.

Offset: Where we can't eliminate emissions, we offset them. Offsetting is not perfect, but it means we are doing our best to be accountable for our unavoidable carbon emissions. Future: We have planted a woodland of almost 30,000 native broadleaved trees at a site in Lochgair, Argyll. We are also looking at native oyster regeneration in Loch Gair itself. 1

Our Lochgair Woodland

The woodland at Lochgair is registered with the Woodland Carbon Code (WCC). It is estimated that the woodland will sequester almost 10,000 tonnes of carbon over 100 years. This is measured in Woodland Carbon Units (WCU) which is a tonne of carbon dioxide which has been sequestered in a WCC-verified woodland. In 2024, ownership of the woodland was transferred to Lochgair Estates, and MacArthur Green continues to be the lead sponsor of the woodland and biodiversity management of the site. This sponsorship involves funding all woodland and biodiversity management activities.

Biodiversity

We have installed bird and bat boxes on site to encourage biodiversity, and we are constantly looking at other opportunities to do more and add to the natural capital. For anyone reading this, ideas and suggestions are welcome!

Oyster restoration project

We have completed Phase 1 of the oyster restoration project in Loch Gair. See below for more details.

Offsetting

Offsetting is not ideal, and we have not lost sight of the challenging and important work that needs to be done to reduce our carbon emissions. We want to do the best we can and we feel that offsetting can make a positive contribution, provided it is combined with carbon emission reduction.

We only purchase offsets from verified schemes such as Gold Standard. We aim to purchase carbon offsets equivalent to twice our annual emissions in each financial year. We choose various schemes to have a diversified portfolio of offsets, hopefully spreading the positive impact more widely.

Carbon Reduction Target

Scope 1 represents company vehicle mileage. This **increased** in Year 1 and Year 2 due to essential travel to project sites, resulting in a higher carbon footprint. Year 2 was further impacted by the pandemic because vehicle sharing was not possible.

In Year 3, we made a significant investment by purchasing two electric vehicles (EVs) and the installation of an EV charger. These vehicles were added to the fleet halfway through the year, so Scope 1 emissions **decreased** in Year 3 and Year 4.

In Year 5, we saw a further decrease due to continued use of the EVs and replacement of one more vehicle with EV.

Scope 2 is electricity use in the office. This decreased year on year due to energy saving measures in the office. However, electricity use increased in Year 4 due to increased office occupation, heating and cooling, and vehicle charging. Our energy supplier is Good Energy which is 100% renewable.

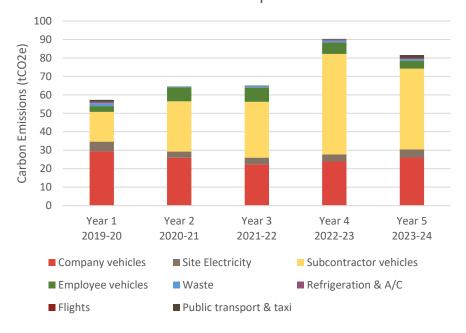
Scope 3 is subcontractor mileage for surveys in remote areas. We are working with our subcontractors to provide them with detailed information on funding for EVs and chargepoints to encourage them to change to EVs if possible.

Buying new vehicles is a substantial investment for sole contractors, and this poses a significant blocker for both our subcontractors and for us in reducing this source of emissions.

Carbon Footprint Summary

MacArthur Green has grown significantly since the baseline year, with turnover increasing from £1.8 million to over £3 million. Whilst our carbon footprint has **increased** during this period from 55 tonnes of carbon dioxide equivalent (tCO_2e) to a maximum of 89 tCO_2e (year 4), the tonnes per million turnover has **decreased** from 31 tCO_2e to 23 tCO_2e .

	Baseline 2018-19	Year 1 2019-20	Year 2 2020-21	Year 3 2021-22	Year 4 2022-23	Year 5 2023-24	Trend
Carbon Footprint	55	57	65	65	89	82	
Number of employees	27	27	29	30	32	38	
tCO₂e per employee	2.1	2.1	2.2	2.2	2.8	2.1	\frown
Turnover £Million	1.79	1.67	1.74	2.17	3.25	3.53	
tCO₂e per £Million Turnover	31	34	37	30	27	23	\sim
% increase/decrease	-	11%	20%	-3%	-10%	-25%	



Carbon Footprint

Tonnes of Carbon Dioxide Equivalent tCO₂e

A carbon footprint is measured in tonnes of carbon dioxide equivalent (tCO_2e) . This is a standard unit which can be used express the impact of each of the greenhouse gas in terms of the amount of carbon dioxide that would create the same amount of global warming. This unit is used so that a carbon footprint which accounts for many different greenhouse gases can be expressed as a single number.

Lochgair Woodland Project

In 2018, almost 30,000 trees were planted in a woodland in Lochgair, Argyll. This created over 18 hectares of new woodland. Eight hectares of existing oak woodland and almost six hectares of peatland habitat are also being protected and enhanced.



Bracken control has been an issue on site, as has rhododendron. These plants can impede the growth of the trees planted and so need to be removed frequently.



MacArthur Green was awarded a grant by the Scottish Marine Environmental Enhancement Fund (SMEEF) to investigate restoring native oysters in Loch Gair, with charity partner Seawilding. The purpose of the project was to establish whether a viable population, if any, of native oysters (*Ostrea edulis*) exists in Loch Gair, and what the potential might be for restoration or reinstatement.

Oysters are important to the marine environment because they filter seawater, removing pollutants and chemicals. One oyster alone can filter 200 litres of water a day. In addition to these benefits, oysters also sequester carbon and contribute to biodiversity by creating underwater reefs.

Seawilding carried out surveys in March 2023. The total area surveyed was 65 hectares, through walkover surveys of intertidal areas, video transects, snorkel surveys and salinity testing.

In addition to the survey, MacArthur Green and Seawilding engaged with the local community through leading an event which included a 'sea safari' on the shores of Loch Gair. We aim to incorporate citizen science activities into the project in the future by engaging at an early stage with the local community. By raising awareness of the native oyster protection and potential restoration, we hope to encourage locals to be involved in future works relating to restoration activities (e.g. placement of oysters and monitoring).

Now that Phase 1 is complete, we plan to proceed with Phase 2 in 2024/2025 which will be a trial project, leading onto Phase 3 which would be a wider restoration to deliver significant marine biodiversity benefits.



In addition to our original tree planting project, we identified a unique opportunity to use unplanted areas of the site at Lochgair for discrete projects to plant additional trees for targeted charitable organisations where their values are aligned with ours.



MacArthur Green is working with a Scottish charity called Includem on the 'Seeds of Hope' project. The project will see trees planted for every child, young person and family currently supported by the charity

and in the future as well as for each member of staff they support both now and in the future. The first set of 20 trees was planted in our Lochgair Woodland.

Project Lead, John Gemmell said:

"We think this is a project that will have a lasting impact on the children, young people, and families we support. It is symbolic to have a tree planted for them. This tree will grow and prosper, just like we believe every child and young person has the right and opportunity to do so. We hope that every child and young person will be able to look back positively on the support they receive from includem. They can then return to this area to see that support represented and how it has grown over time with the right systems and supports in place."

McArthur Green Founder, David McArthur, said:

"The outdoors has always been a big part of my life, and I'm keen to introduce the countryside to young folk who may have lived in the city all their lives and are perhaps unaware of the joy it can bring. From little things big things grow, so it's a privilege to be able to expose these young folk to Scotland's unique natural beauty through our tree planting project at Lochgair and introduce them to the positive outcomes of learning new skills in a safe, inclusive and enjoyable environment. Young people are both the custodians and the inheritors of the natural world, so we need to commit to equipping them with knowledge and skills to ensure that Scotland remains on track to reach our net zero targets."



Includem ADAPT for CashBack @Includem_ADAPT · Jul 17 · · · · We went up to Lochgilphead at the start of the month to plant trees as part of our 'Seeds for hope' launch! We had a fantastic day working as part of a team to plant the first 20 trees 🌲 😃



Fleet - Electric Vehicles

Over 90% of our carbon footprint comes from vehicle travel – company vehicles, employee vehicles and subcontractor vehicles. This is the biggest challenge we face to reducing our carbon emissions.

It's not possible for our surveyors to use public transport due to the remote nature of the sites. Our team uses public transport for meetings, training and events. We have a zero-flight policy with no flights used since 2019.

We introduced two electric vehicles (EV) to our fleet in 2021. One vehicle is a Renault Zoe which has a range of about 120 miles. The other is an MG5 estate which has a range of about 160 miles. This was a significant investment for MacArthur Green. The cost was equivalent to 10% of net profit in that year.

The Renault Zoe was used for travel to a wind farm site where we were able to leave a Toyota Hilux 4x4 vehicle. This reduced the number of miles travelled in the Hilux for this project by 6000 miles, resulting in a saving of **2** tCO₂**e** of carbon dioxide emissions.



The saving from using both EVs in 2021-22 was 4.7 tCO_2e compared to driving a Hilux for the same number of miles.

We continue to encourage the use of public transport and active travel, for both business travel and commuting. We have facilities to store bikes and wet weather gear. Hybrid working for the team has also reduced the amount of commuting.

We are fortunate to have a team who are enthusiastic about finding was to reduce carbon emissions. Someone in our team attended a conference in the Netherlands, travelling from Glasgow by train and ferry, taking a bike travel the last few miles to the destination.

Careful planning of survey work means that we minimise the use of our diesel and petrol vehicles, using the EVs whenever the site location allows and/or where the tracks on site are suitable for vehicles with lower clearance. We very rarely need to drive in true offroad conditions, so many sites are accessible using cars rather than 4x4.

We also seek to combine surveyor journeys wherever possible, for example, using one vehicle to take two members of the team and coordinate to drop offs when sites are nearby.

We use local subcontractors to conduct surveys in the north of Scotland, and this reduces the number of miles to travel. It is also an important part of supporting jobs for rural communities

(where many of our sites are located) and this is a key consideration in line with Scottish Government's focus on a just transition to net zero. We are working with our subcontractors to make sure they have the information about EVs and chargepoint installation to make it easy for them to transition to EVs when they can.

In 2020, we replaced a 2009 Suzuki Jimny with a new model. Unfortunately, there were no affordable four-wheel drive EV options available, and this vehicle is used for offroad driving to access survey locations. The CO_2 emissions figure for the new vehicle is 174 g/km compared to 191 g/km for the old vehicle. This is a 12% decrease.

Our Office – Energy Use

In June 2021, we changed to Good Energy as our office electricity supplier.

Many suppliers now offer affordable tariffs that are labelled as 'green' but there are differences in how suppliers buy renewable electricity and carbon offset gas. Good Energy's tariffs achieved Gold Standard Green Accreditation under Uswitch's <u>accreditation scheme</u> and we felt they were the best supplier to tie in with our carbon reduction objectives

We are minimising energy use in the office through careful use of the heating system alongside thermometers and a timer. We did not use the air conditioning throughout the past two summers during the pandemic, as its use was forbidden by HSE as our system is one which recirculates air. The temperature was controlled using the blinds to block the sun and opening windows. We will continue with this in future, when weather allows, to minimise energy use.

We replaced the fluorescent lightbulbs in our office with modern LED bulbs in 2022, and this will help to reduce electricity use.



Supply Chain & Purchasing

Our purchasing procedure includes consideration of energy consumption and sustainability. This involves looking for ethical, recycled and environmentally friendly products.

One example of this is our printer purchase. We opted to buy a refurbished printer rather than purchasing a new machine.

Another example is the free sanitary products we supply our team. We have opted for a Hey Girls which is a social enterprise fighting period poverty using a buy-one-give-one model.

Other examples of implementing our purchasing procedure are things like our coffee and tea brands, which are fair trade. Our toilet roll, blue roll and printer paper and stationary are all recycled and unbleached too.

Finance, Investments & Pensions

Our employee pensions have an option for <u>ethical and environmental portfolio investments</u>. Ensuring that your pension is in an ethical fund could be the most powerful thing you can do as an individual to cut your carbon according to <u>makemymoneymatter.co.uk</u>

Our company banking is with ethical investments, where possible.

Ideas Welcome!

We are by no means done in our quest to reduce our carbon footprint, so if you have any ideas or suggestions you feel we could benefit from, please do fire them over to <u>info@macarthurgreen.com</u> and we'll do our best to investigate and implement them!





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