Frosts - Net Zero Carbon Policy

1. Introduction

Frosts Landscape Construction is dedicated to protecting the environment by demonstrating high standards of environmental responsibility in all our operations and minimising the environmental impacts associated with our business activities, products and services. As a Landscaping company our carbon emissions are relatively low compared to many Construction Industry companies; however, we recognize that they're our biggest environmental impact, and we want to play our part in contributing to the UK Government's targets of cutting greenhouse gases by 37% by 2020 and 80% by 2050, against 1990 levels.

2. Targets

We understand the importance of trying to decarbonise our business in line with government guidance and deadlines and as one of the main Landscaping Companies in the UK we will set ambitious goals for our operations to become carbon neutral by 2045, 5 years ahead of the Governments current target. To achieve this we will measure our carbon emissions for financial year 2020-2021 and then set strategic targets to reduce our footprint each year, compared to the same original baseline. Our current Targets are to:

- Measure our carbon emissions annually starting in 2021
- Understand what is measured in Scopes 1, 2 and 3 and then set a realistic but challenging strategy for reducing our absolute carbon emissions in each scope
- Reduce our total operational carbon emissions (221 $mTCO^2$) by 20% over the next 3 years
- Reduce carbon emissions from our business travel by 20% over the next 3 years
- Become carbon neutral before the government deadline of 2050 or offset the remainder of our carbon emissions
- To ensure legislative compliance and demonstration of best practice

3. Strategy

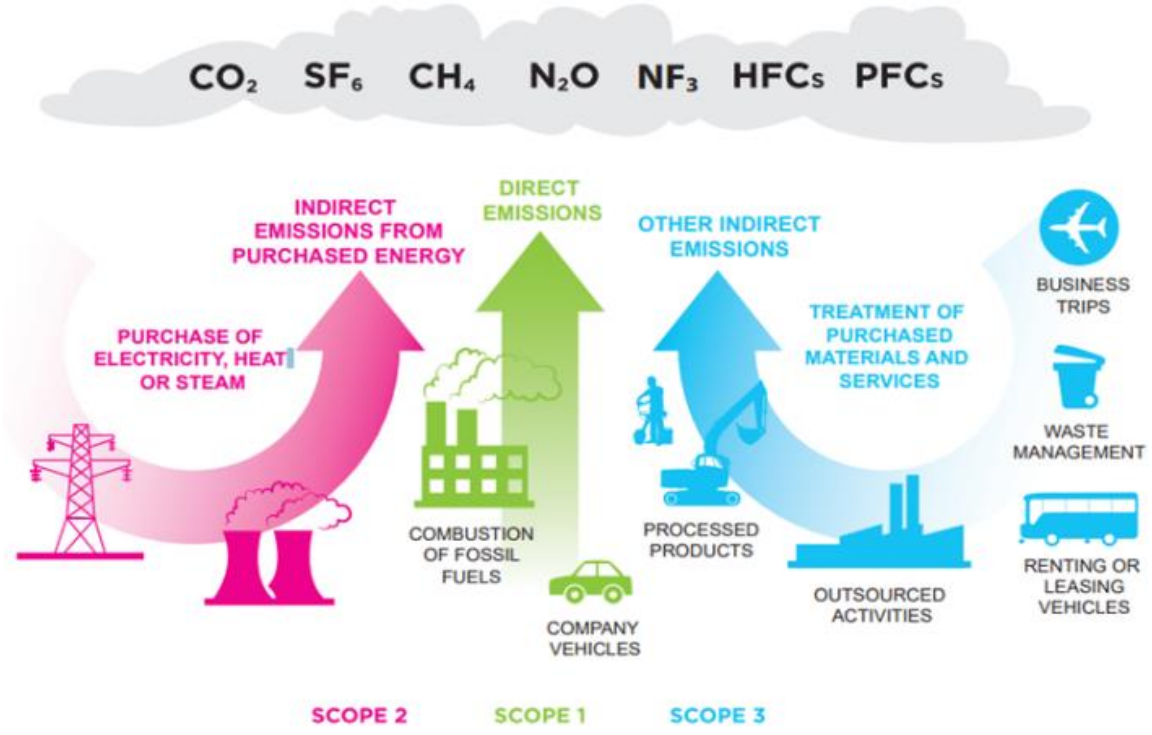
Our carbon management high level strategy involves:

- Publishing of our current carbon emissions on our website
- Implementing, communicating and maintaining this policy across the company and to make it available to all interested parties
- To set new targets in year 2024 and regularly review our objectives and targets annually from then on
- To analyse our performance against these objectives
- Liaise with our landlord and Energy Provider and initiate a program so that a greater percentage of the electrical energy used in our main office is from verified renewable sources. Target 100% by 2024
- Improve operational efficiencies and invest in innovative technologies and approaches to reduce our resource consumption and the waste we generate
- Stop unnecessary business travel by encouraging our people to adopt new technologies to collaborate with colleagues and clients remotely
- To work with our suppliers to understand the opportunities to improve our supply chain footprint

- To share our knowledge of carbon accounting, management, and reporting experience with our Clients and across our networks to accelerate best practice within the Landscaping Industry
- To ensure strategic decision making by the Board of Directors to improve operational practices to help aid decarbonising our business
- Investment of appropriate resources and information to achieve our objectives and targets
- To improve the energy efficiency of our buildings and IT systems
- To ensure the correct level of training and support for our staff to inform and empower them to implement carbon neutral solutions at work and at home
- To work with our clients to achieve aligned carbon neutral goals
- To embrace external initiatives within our industry so that we learn, share best practice and collaborate to champion positive environmental change
- To consider carbon offsetting for our remaining residual carbon emissions

4. Measuring

To accurately measure and reduce our Carbon Emissions Frosts shall utilise the Greenhouse Gas Protocol (GHGP). Under the GHGP an organisations carbon emissions are broken down into 3 scopes as detailed in the basic indicative diagram below

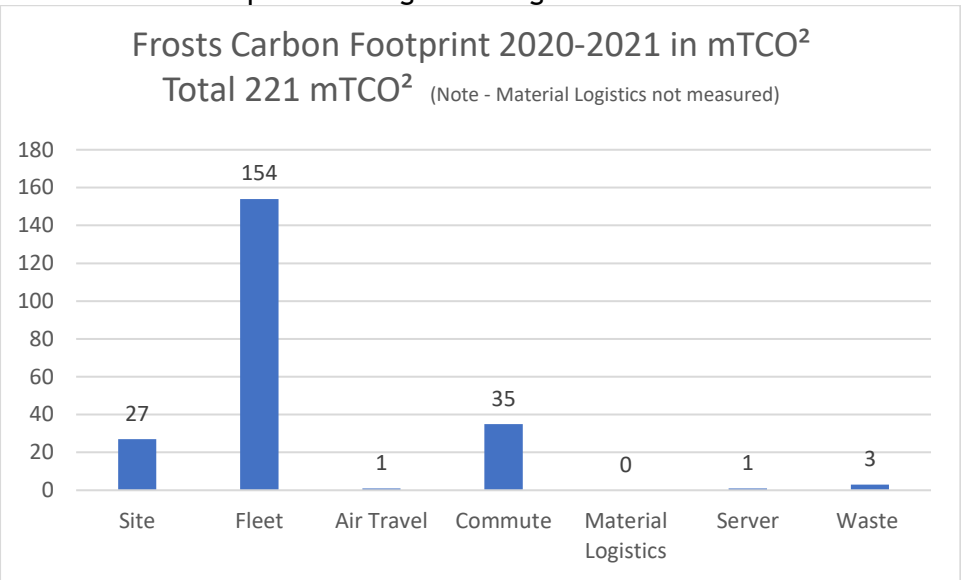


Measuring greenhouse gas emissions is far from straightforward. The Greenhouse Gas Protocol (GHGP) was developed by the World Business Council for Sustainable

Development and the World Resources Institute to formalise the process. Under the GHGP all organisations carbon footprints must measure Scope 1 & 2 emissions in full however there is more flexibility in Scope 3 emissions with companies being permitted to choose which Scope 3 emissions to measure as not all sources of carbon emissions from Scope 3 can be influenced by a company with many of these emissions out of its direct control Initially Frosts shall measure all of Scope 1 and 2 emissions and also measure waste generated by our operations, fuel and energy related activities and business trips from Scope 3 as these are all under Frosts direct control. It is anticipated that further targets for Scope 3 will be introduced as Frosts become more adapt at controlling and reducing our current carbon emissions from our own operations and also understand ways to reduce this impact with our key suppliers.

5. Carbon Footprint

Frosts Carbon Footprint for Aug 2020-Aug 2021 was 221 $mTCO^2$



6. Measuring Assumptions & Omissions

The following assumptions used when calculating Frosts Carbon Footprint:

- Vehicle MPG figures were taken from information on the Internet
- Flight details were based on an average of 1 business flight a year
- Material Logistics (Upstream/Downstream) were not measured

7. Offsetting our Emissions

While we aim to significantly reduce our carbon emissions, the remaining emissions we produce will still contribute to climate change therefore we will consider offsetting them to achieve carbon neutrality by:

- purchasing credits from verified carbon offsetting projects
- registering the trees and whip we plant in our landscaping operations against our carbon footprint as an offset
- becoming more involved in potential UK “Wilding” projects.

8. Supply Chain - Carbon Emissions

Each year we will ask our key suppliers to provide us with information which allows us to assess their environmental performance. We will set a target for 50% of our key suppliers to have carbon emissions targets by 2030.

9. Frosts Carbon Reduction Plan prior to 2021

Action	Implementation Date	Comments
Move premises from Wain Close with an Energy Performance Certificate rating of D to a more environmentally efficient local site with an Energy Performance Certificate rating of B or better	June 2019	Completed move from an old low energy efficient building at Wain Close (MK17 8UZ) in Woburn Sands to Liscombe Business Park (LU7 0JL) in June 2019. EPC Cert obtained rating B
Change office heating from gas fired boiler fuel to an energy efficient Air-conditioning and Heat Pump System with Montreal Protocol compliant refrigerant	June 2019	Completed in June 2019 as part of the move to Liscombe Business Park. Air-conditioning and Heat Pump System is an energy efficient system. Gas is R410A which is Montreal Protocol compliant
Set up a recycling scheme at our head office to recycle all greenwaste produced by our Landscaping operations	June 2019	Completed in June 2019. Continue with a 100% recycling of greenwaste
Start to replace Frosts owned 2 stroke Grounds Maintenance Machines with Battery Operated Machines and continue with this plan as older petrol machines need replacing	Started July 2019 and then ongoing	Stihl Battery operated Strimmer, Blower and Mowers purchased and trialed. Going forward as older petrol machines need replacing, they will be replaced with Stihl battery operated machines. Estimated completion 2030
Start to replace Frosts 2 stroke small Construction Machines with Battery Operated Machines and continue with this plan as older petrol machines need replacing	Started July 2019 and then ongoing	Stone Cut off Saws replaced with Stihl Battery operated machines. Ongoing replacements: • Whacker Plates to Battery Operated • Cement Mixers to 110V

Action	Implementation Date	Comments
Install two electrical vehicle charging points at our head office	July 2019	Completed and in use with higher level management Hybrid vehicles (KO67KPP & KX65ZVR)
Install thermally efficient glass film to all office windows	Nov 2019	Thermally efficient glass film installed to all office windows: • Solar Energy Rejected 39% • Solar Energy absorbed 48% • UV protection to 99% • Glare protection to 77%
Reduce unnecessary travel for meetings with Clients, Designers, Architects and Suppliers by recognizing that many meetings can be held using MS Teams or Zoom rather than being held face to face	March 2020 and Ongoing (Initially recognized as part of Covid 19 restrictions)	• Initial target 25% of meetings with Clients, Designers, Architects and Suppliers • Identify a way of measuring this percentage accurately (Reduction in Higher Level Management travel costs) and then increase percentage saving accordingly each year to a 50% target of all external meeting held on MS Teams or Zoom
Rationalize and reduce Frost existing Van fleet of 17 vans. Replace all remaining old vans with Euro 6 compliant diesel engines with additional start stop technology and more diverse seating arrangements to reduce multiple vans going to one site.	July 2020 - Note - Set Lease Hire contract term for 4 years and then review again with a view to an all-electric Van fleet	• Completed - Van fleet rationalized from Qty 17 to 11 vehicles. • All new Lease Hire vehicles Euro 6 compliant with S/S technology (AK63ONN, AK63ONP, AV10NSJ, DL64OYM, KW63VCP and KW64FFN all Euro 4/5 diesel engines not replaced). • Review Lease Hire Contract in 2024 with a view to moving forward with an all-electric Van fleet

Action	Implementation Date	Comments
Remove 17-year-old none environmentally friendly Telehandlers KV53FWW and KV53FWX from our owned machinery inventory and do not replace. Hire in much more modern, economical, and lower emission Telehandlers for site work as required	Nov 2020	Completed - Telehandlers KV53FWW and KV53FWX sold. Current hire of all machinery is through standard plant who are providing almost new plant that has much lower engine emissions

10. Frosts Carbon Reduction Plan 2021 onwards

The following plan is to be read in conjunction with the Targets and Strategies detailed in Paragraphs 1 and 2 above

Action	Implementation Date	Comments
Continue with the current strategy to replace existing small 2/4 stroke machinery with battery operated machinery	Started July 2019 and then ongoing. Target for complete phase out 2030	Phase out all engine driven strimmer's, blowers, stihl saws, hedge cutters, augers, cement mixers, whacker plates as old equipment needs replacing and replace with battery operated equipment or 110V equipment – See Annex for info
Identify a robust battery-operated mower to replace existing Hayter and Etesia Mowers	Started in Aug 21 - Currently no suitable alternative exists	Monitor manufacturers such as Stihl, Pallenc, Viking, Etesia, Hayter, Toro and organize trials of machinery as it becomes available. Identify a suitable mower and then phase out existing machinery
With immediate effect cease to hire any diesel-powered site welfare cabins	Aug 2021 and ongoing	Hire Garic Combi Cabin Eco Series Plus Solar/battery operated welfare cabin or similar alternative See Annex for info
Continue to rationalize travel to site in vans by reducing unnecessary journeys of two vans going to the same site (3 seats-6 seats, minibus hire)	Aug 2021 and ongoing	Ops Managers and SHEQ Director to monitor van fleet on a regular basis to prevent unnecessary journeys of two vans going to the same site

Action	Implementation Date	Comments
Continue with our existing waste strategy to reduce waste - (Avoid, Reduce, Reuse, Recycle, Recover, Treat, Disposal	Aug 2021 and ongoing	Continue with the recycling of greenwaste, site won soils, pallets, paper. Try to identify potential plant pot recycling schemes
Working from home	Aug 2021	Continue with Frosts flexible working policy that allows staff to work from home when required
High Level Managers to replace existing company cars with Hybrid or fully electrical vehicles	Nov 2021 and Ongoing	• KO67KPP to be replaced with a Hybrid vehicle Nov 2021 • KX65ZVR to be replaced with a Hybrid vehicle by Nov 2022 • KN16YXEto be replaced with a Hybrid vehicle by Nov 2022
Replace the Lease Hire Existing Euro 6 Company Vans with Electrical or Hybrid Vans in 2024	June 2024	Actions by SHEQ Director • Oct 2023 - Carry out a feasibility study on replacement Vans that are Electrical or Hybrid to include range, payload, availability of charging points, costs, limitations, seating capacity • Jan 2021 - Carry out a trial of potential Electrical or Hybrid Vans • Contact Lease companies and place order for Electrical or Hybrid Vans to replace Existing Euro 6 Vans
Fujitsu Air-Conditioning and Heat Pump System – R410A Refrigerant is still current – no drop in currently available, suspect change with R-32 or drop in refrigerant with lower GWP before 2030	Monitor	• Continue with 6 monthly service by Air Con Specialist (Axim Services Ltd) and 6 monthly leak tests

Annex A – Phasing Out of Existing Frosts small petrol driven machinery for battery operated machinery – Timing as old equipment needs replacing, but by 2030 at the latest	
Existing Equipment	**Identified replacement**
Existing Frosts Stihl 2 stroke Petrol Blowers BR550, BR600, BG86  	Replace with Battery Operated BGA 86 and AR3000l Battery Backpack and BGA200 Blower   Consider Pallenc Alternative
Existing Stihl HS81R and HS81T Petrol Hedge Cutters 	Replace with Battery Operated HSA94R and HAS 94T Hedge cutter with AR3000l Battery Backpack  Consider Pallenc Alternative
Existing Stihl FS410 Petrol Strimmer's and Brushcutters 	Replace with Battery Operated FSA135 Strimmer and Brushcutter with AR3000l Battery Backpack  Consider Pallenc Alternative

Annex A Cont'd – Phasing Out of Existing Frosts small petrol driven machinery for battery operated machinery – Timing as old equipment needs replacing, but by 2030 at the latest	
Existing Equipment	**Identified replacement**
Existing Stihl HL94 or HL100 Petrol Long Arm Hedge Cutters 	Replace with Battery Operated HLA135 Long Arm Hedge Cutters with AR3000l Battery Backpack  Consider Pallenc Alternative
Existing Stihl TS410 Stihl Petrol Stone Saw 	Replace with Battery Operated Stihl Battery Operated TSA230 Stone Saw 
Existing Shatal Euro PC1113 and Belle PCLX 320 Wacker Plates to be phased out  	When required hire in Wacker Neuson AP1850e or AP1840e Battery Operated Wacker Plates 
Existing Belle 150 Petrol Cement Mixer (Qty 1 remaining at Frosts) 	Scrap the last remaining item or replace with Belle 150 110Volt Cement Mixer 

Annex B – Potential Clean Tech Machinery to Hire instead of existing Diesel or Petrol items that Frosts currently hire in

GARIC COMBI CABIN ECO SERIES+

ON-DEMAND, ON-SITE, ON-TIME.

A HISTORY OF INNOVATION

KEY FEATURES:

- Anti-vandal steel constructed units
- Canteen for 8 operatives & single person office
- Completely solar powered no need for a back up generator
- Inclusive of all lighting, heating and hot water
- Eco-flush W.C and urinal
- Drying/Changing Room and shower
- Instant boiling water, fridge freezer and microwave
- Reduce fuel bills by up to £150 per week

JCB 19C-1e Mini Excavator

Trialled

JCB

Operating weight	1,902 kg
Max dig depth	2,819 mm
Max dump height	2,818 mm
Battery	4 battery: work for 5 hours on a standard application (equivalent to a full day). 3 charging options: 110V (10 hours, 230V (5 hours), 415V
Swing angle	/

TB216 Mini Hybrid Excavator

TAKEUCHI

Operating weight	1,905 kg
Max dig depth	2,390 mm
Max dump height	2,705 mm
Battery	400volts / 50 Hz / 32Amp
Rated output diesel/electrical (kW)	10.6 / 11.1
Swing angle	80°/50°

Kobelco SK210H-LC Large Excavator

Trialled

KOBELCO

Operating weight	22,100 - 23,100 kg.
Max dig depth	6.70 m
Max dump height	6.91 m
Battery	12.3% reduction in fuel consumption.
Rated output diesel/electrical (kW)	124

Annex B Cont'd – Potential Clean Tech Machinery to Hire instead of existing Diesel or Petrol items that Frosts currently hire in

Komatsu HB365LC-3 Hybrid Hydraulic Excavator

Operating weight	36,400 – 37,350 kg
Max dig depth	6.355m— 8.180m depending on arm length
Max dump height	6.595m—7.49m depending on arm length
Battery	20% fuel savings. Up to 53 kW extra electric power
Rated output diesel/electrical (kW)	202

ITE electric dumper

Payload	1,000 kg
Unladen load	
Battery capacity	80 Ah
Skip width	980 cm
Battery charging	Indicative Charge Time - 20-80%, subject to environmental conditions. 2hr 35min (@230V) Off-board fast charge - 0-100% @ 415V : 1hr 40min Charging cable plug type: 16A 110V (yellow) 16A 230V (blue) 16A 415V (red)

Electric compact telehandler 525-60E

Lifting capacity	2,500 kg
Operating height	6 m
Operating weight	5,200 kg
Terrain	Any
Battery life and charging	On-board charging 3kW (240V / 16A) : 25 - 80%: 5hrs 0 - 100%: 8hrs Rapid charging 18kW (415V / 32A): 25 - 80%: 60mins 0 - 100%: 110mins

Towerlight VT-Hybrid 9M LED Lighting Tower

Operating weight	1,230
Max Mast Height	8.5 m
Dimensions	L x W deployed: 3,250 x 2,100 mm
Lamp specification	4 x 150w LED floodlights
Lumens	76,500

Annex C – Current Frosts Machinery where no low emission machinery of similar output/productivity/power is currently available	
Existing Equipment	**Comments on replacement**
Etesia PHG & PHE 46 Mower 	Frosts have trialed Viking and Stihl battery mowers and none are robust enough to cut long wet grass or shrub. Trail Etesia Duocut 46 PAC, PACTS & PABCTS Battery Operated Mowers when they become available with the new battery technology due in 2022 
Hayter Harrier 56 Mower with rear roller 	Continue to monitor the market for commercial off the shelf battery mowers with a rear roller that are robust enough to replace these mowers. Note - Hayter Harrier 48VS, 60Volt Battery mower does have a rear roller and potential as a replacement but is currently considered too small for large lawns 
Camon C2000 Tiller/Rotovator 	No commercially available alternative currently available with enough power to replace this item. Monitor the marketplace/suppliers for newly released alternatives with sufficient power

Annex C Cont'd- Current Frosts Machinery where no low emission machinery of similar output/productivity/power is currently available	
Existing Equipment	**Comments on replacement**
Camon/Tracmaster BCS740 Rotovator 	No commercially available alternative currently available with enough power to replace this item. Monitor the marketplace/suppliers for newly released alternatives with sufficient power
Stihl Auger B120 & B131 	No commercially available alternative currently available with enough power to replace this item. Monitor the marketplace/suppliers for newly released alternatives with sufficient power Ryobi 40Volt 8-inch auger has some potential in soft ground but does not compare to the Stihl Auger BT121 
Honda WB20XT High Pressure Water Pump 	No commercially available alternative currently available with enough power to replace this item. Monitor the marketplace/suppliers for newly released alternatives with sufficient power

Annex C Cont'd– Current Frosts Machinery where no low emission machinery of similar output/productivity/power is currently available	
Existing Equipment	**Comments on replacement**
Camon TC07 Turf Cutter 	No commercially available alternative currently available with enough power to replace this item. Monitor the marketplace/suppliers for newly released alternatives with sufficient power