Active Connect
Sustainability Report 2021

Powering Success

Our roadmap to sustainability...


We are taking our first steps on the pathway to carbon neutrality and we invite you to join us on our journey.
The effects of Climate Change are scientifically proven and we need to act now if we want to provide an environmentally sustainable future for our world.
carbon footprint standard™
CO_2e
Assessed
Organisation

Where we are now

First we had to determine our carbon footprint utilising industry best practice standards to gain a thorough understanding of our current green-house gas (GHG) emissions. This assessment provided us with a base measurement to work and report from and enables us to channel our efforts towards major emission sources and identify opportunities for future savings.

What is a carbon footprint?

A carbon footprint is a measure of the impact our activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide equivalents (CO2e). A carbon footprint is made up of two parts, direct and indirect emissions.

1. Direct emissions:

Direct emissions are produced by sources which are owned or controlled by the reporting organisation and include electricity use, burning oil or gas for heating, and fuel consumption as a result of business travel or distribution. Direct emissions correspond to elements within scopes 1, 2 and 3 of the World Resources Institute GHG Protocol, as indicated in **Table 1**.

2. Indirect emissions:

Indirect emissions result from a company's upstream and downstream activities. These are typically from outsourced/contract manufacturing, and products and the services offered by the organisation. Indirect emissions correspond to scope 3 of the World Resources Institute GHG Protocol excluding employee business travel as indicated in **Table 2**.

Table 1: Direct emissions sources

Footprint	Activity	Scope
Direct	Electricity, heat or steam generated on-site	1
	Natural gas, gas oil, LPG or coal use attributable to company-owned facilities	1
	Company owned vehicle travel	1
	Production of any of the six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs and SF_6)	1
	Consumption of purchased electricity, heat steam and cooling	2
	Employee business travel (using transport not owned by the company)	3

Table 2: Indirect emissions sources

Footprint	Activity	Scope
Indirect	Employee commuting	3
	Transportation of an organisation's products, materials or waste by another organisation	3
	Outsourced activities, contract manufacturing and franchises	3
	GHG emissions from waste generated by the organisation but managed by another organisation	3
	GHG emissions from the use and end-of-life phases of the organisation's products and services	3
	GHG emissions arising from the production and distribution of energy products, other than electricity, steam and heat, consumed by the organisation	3
	GHG emissions from the production of purchased raw or primary materials	3
	GHG emissions arising from the transmission and distribution of purchased electricity	3

Why is it important?

Climate change is a global threat which will impact the lives of everyone on the planet.

Over the past two decades the effects of climate change have accelerated. Considerable evidence exists proving climate change has been exacerbated by human activity. Changes in our post-industrial lifestyles have altered the chemical composition of the atmosphere, generating a build-up of greenhouse gases – primarily carbon dioxide, methane, and nitrous oxide levels – raising the average global temperature.

The consequences are already evident and will continue to worsen unless significant action is taken and quickly. Sea level will continue to rise and local climate conditions to be altered, causing an increase in extreme weather events, affecting forests, crop yields, and water supplies. This can lead to homelessness, famine and conflict as resources become scarcer.

Environmental pollution and climate change affect human health, accelerate species extinction, and disrupt vital ecosystems. Ambient (outdoor) air pollution is responsible for at least 4 million human deaths each year[1]. In addition to this, poor air quality and issues of clean water availability leave us more susceptible to diseases such as COVID-19. Combined with rises in temperature and deforestation (from direct human action and climate change related events), resulting in the displacement of animals from their native habitats, the frequency of disease occurrence will increase, as disease will transfer from animals to other geographical areas and larger human populations.

It is vital that all individuals, businesses, organisations and governments work towards the common goal of reducing greenhouse gas emissions. Active Connect are now taking their first steps towards monitoring, reducing and off-setting its emissions.

1 World Health Organisation. https://www.who.int/health-topics/air-pollution

Reporting:

Covid-19 has had a significant impact on our recent business activities and any data retrieved from that period would be deemed as incomplete. We have therefore measured our last full year of normal business operations (2019) for all further reporting emissions to be compared against.

To date, we have been assessed on direct GHG emissions only within the following boundaries:

Scopes explained

Scope 1
Direct emissions created by your activities

This is the exhaust that comes from the vehicles on your campus, natural gas that your buildings directly consume, and the generators you might run.

Scope 2
Indirect emissions from the production of the electricity or heat you use

This type of emission comes from the traditional energy sources that power your office buildings or your home.

Scope 3
Indirect emissions from all other activities in which you're engaged

These emission sources can be extensive. They cover all parts of your supply chain, from materials in buildings, business travel for your team, and product lifecycle all the way to the electricity your customers consume.

This is the largest category of all the different emission scopes and poses one of the largest areas for improvement.

Scope 1 Direct emissions	Scope 2 Energy Indirect	Scope 3 Other Indirect
Fuel combustion None	Consumption of purchased electricity, heat steam and cooling Electricity	Purchased materials Water, paper
Owned Transport Company car, van travel		Transmission and distribution of energy Electricity
Process emissions None		Leased assets, outsourcing and franchising None
Fugitive emissions Refrigerants		Transport related activities Flight travel
		Use of sold goods & services None
		Waste Disposal Residual & Recyclable

Key:

Within the assessment boundary	Not included within the assessment boundary

Carbon Footprint Results

The total carbon footprint for Active Connect Ltd for the period ending the 31st of December 2019 was 128.29 tonnes CO2e. Table 3 and Figures 1 and 2 provide a summary of results for Active Connect's carbon footprint calculation, sorted by scope and source activity.

The most significant emission sources are associated with road business travel, with van travel & distribution and company car travel combined, accounting for 97% of the company's total footprint (Figure 1). Of the remaining sources of emissions, site electricity represents the most material element at 2.6% of total emissions, whilst flights accounts for a further 0.3% of the total footprint. The emissions associated with waste, water and paper represent less than 0.1% of Active Connect's footprint.

Active Connect will therefore focus its reduction efforts on the business transport elements of its footprint, with these emissions sources representing the greatest potential for emissions savings.

Table 3: Results of Active Connect's carbon footprint assessment by scope and source activity

Scope	Activity	Tonnes CO_2e
Scope 1	Van travel and distribution	60.37
	Company car travel	39.94
Scope 1 Sub Total		**100.31**
Scope 2	Electricity generation	2.73
Scope 2 Sub Total		**2.73**
Scope 3	Well To Tank	24.45
	Flights	0.31
	Electricity transmission & distribution	0.23
	Water (and wastewater)	0.15
	Paper	0.08
	Waste	0.03
Scope 3 Sub Total		**25.25**
Total tonnes of CO_2e		**128.29**
Tonnes of CO_2e per employee		**6.11**
Tonnes of CO_2e per £M turnover		**42.76**

Figure 1: Percentage contribution of each element of Active Connect's carbon footprint

*Other includes emissions from flights, electricity generation, electricity transmission & distribution, water (and wastewater), paper and waste.

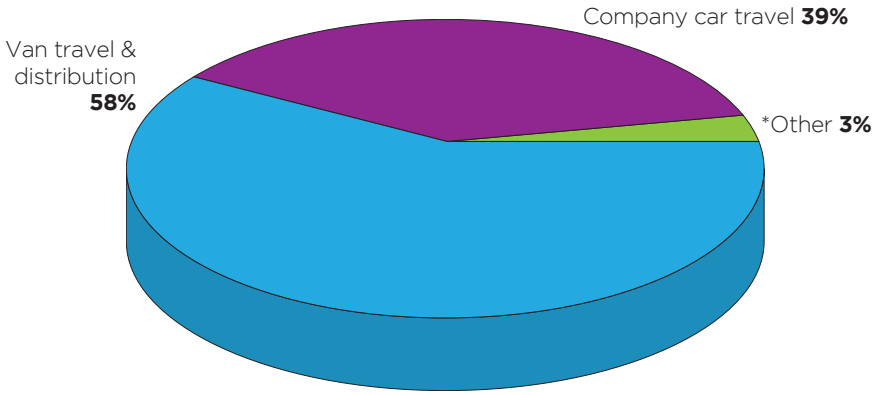
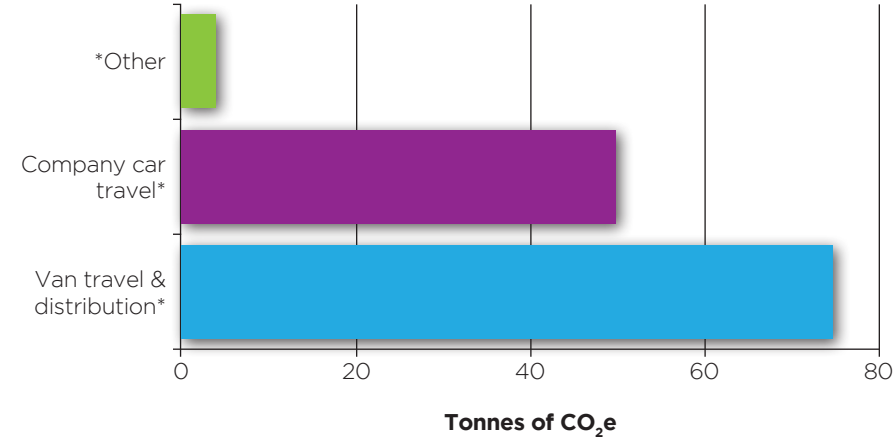


Figure 2: Percentage contribution of each element of Active Connect's carbon footprint

*Other includes emissions from flights, electricity generation, electricity transmission & distribution, water (and wastewater), paper and waste.



Emissions from business travel and logistics

Active connect provide a range of electrical services to both commercial and residential clients, and as a result the company's engineers require regular company car and van travel to attend. Emissions associated with road vehicle travel when journeying to meet clients is therefore likely to always be a material aspect of the company's footprint.
The most significant source of emissions associated with transport activity is van travel & distribution, accounting for 60.0% of Active Connect's total business travel-related emissions, whilst company car travel represents a further 39.7% of these emissions and flying the remaining 0.3% of emissions (Figure 3 and Table 4).

Figure 3: Percentage contribution of each element to transportation emissions

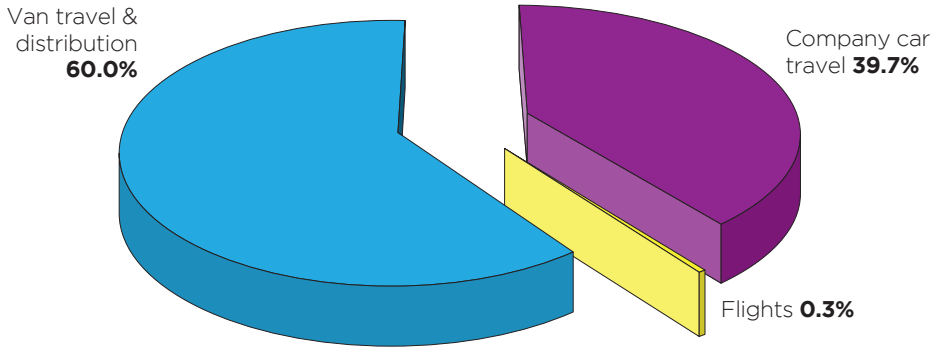


Table 4: CO_2e emissions due to transportation

Type of Travel/Transport	Tonnes CO_2e
Van travel and distribution	60.37
Company car travel	39.94
Flights	0.31
Total	**100.62**

Emissions from energy usage at site facilities

Active Connect operate from a single office site located at the company's headquarters in West Molesey, UK. The company has recently undertaken a number of carbon reduction measures aimed at reducing their emissions associated with office energy consumption, including measures such as switching the majority of the office's lighting to LED and altering the company's IT Systems to remove the need for operating the site's server. Table 5 below shows that Active Connect's West Molesey office site produces a total of 2.96 tonnes of CO_2e, with a per employee footprint of 0.14 for emissions associated with site energy usage.

Table 5: CO_2e emissions as a result of site energy consumption and per employee

Site	No. of staff	Electricity (tCO_2e)	Total per employee (tCO_2e)
West Molesey	21	2.96	0.14

Emissions from water (and wastewater), waste, and paper

Tables 6, 7 and 8 show the emissions associated with water (and wastewater), waste and paper consumption associated with Active Connect's West Molesey office site, with all three elements representing a relatively minor component of the company's footprint.

It can be seen that water and wastewater generation represent the largest of the three elements, at just 0.15 tonnes of CO2e, and with the majority of these emissions associated with the wastewater treatment component (Table 6). The generation and treatment of office waste and paper consumption represent a minor element of Active Connect's total footprint (at just 0.08 and 0.03 tonnes of CO2e respectively), with all of the company's 1.44 tonnes of annually generated office waste being disposed of via recycling.

Table 6: Water Table

Site	Water Supply (m^3)	Water Supply (tCO_2e)	Wastewater treatment (tCO_2e)	Total emissions (tCO_2e)
West Molesey	140	0.05	0.10	0.15

Table 7: Paper Table

Paper (Amount)	Reams/sheets	Paper Size	Pages	Emissions (tCO_2e)
30	Reams	A4	15,000	0.08

Table 8: Waste Table

Type of Waste	Waste produced per year (tonnes)	Disposal Route	Total Emissions (tCO_2e)
Municipal waste (average)	1.44	Open Loop Recycling	0.03


Where we want to be

Our aim is simple. We are committed to addressing climate change. By 2028 we will be carbon neutral.

We've already implemented a number of changes to reduce our emissions and these include:

- Replacement of existing Light Fittings with the installation of LED Fittings
- Replacement of existing lighting control with the installation of PIR Sensors
- Subscription to Surrey County Councils mailing list that details forthcoming initiatives to make our business more sustainable.
- Registered our interest in "Low carbon across the South East (LoCASE)"
- Replacement of our old IT system and removal of the Server and Tower PC's thus reducing our energy costs.
- Support of WEEE Directive

We are now laying the foundations for our future sustainability and will implement new ideas and procedures to ensure the reduction of our current carbon emissions.

In line with our company name and ethos our foundations will be built upon the strengths of both re-active and pro-active endeavours.

Re-active	Pro-active
Look to representatively reduce current carbon emissions	**Look to reduce future carbon emissions**
Investigate existing company procedures	**Offer alternative solutions to our clients**
Replace existing vehicle fleet with EV equivalents	**Address procurement/supplier emissions**
Champion our efforts to reduce emissions	**Investigate options for natural absorption of emissions**
Collaboration with like minded businesses	**Education of employees in sustainability**
Reduce Waste	**Advocate talking about climate change**

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How we're going to get there

The independent assessment highlights the companies activities that significantly contribute to our carbon emissions as "Van Travel and Distribution" and "Company Car Travel". These two elements make up the majority of our overall output and so this is an area we will look to concentrate on.

Our assessors, Carbon Footprint Limited, have made the following recommendations.

- Evaluate the effectiveness of using remote meetings and limited travel during COVID-19 and re-define what your business classifies as "essential" travel going forwards.
- Active Connect should carry out a detailed transport audit of the company cars and vans within its vehicle fleet. This should consider travel reasons, high mileage expense claimants, driver behaviours, existing assets, procurement policy for new transport assets and feasibility of transitioning to alternative fuel vehicles.
- Active Connect are currently involved with a variety of commercial EV Charger projects and are also registered with OZEV (Office for Zero Emissions Vehicles) for Home and Workplace installation schemes. Therefore, when leasing/purchasing new vehicles, Active Connect should consider transitioning to electric vehicles (EV). Active Connect should focus on maintaining access to the company's existing EV charging point on-site, whilst also increasing the number of charging points installed as potential demand grows alongside the transition to an EV-based fleet. The company can analyse the feasibility of adding EVs to its fleet by comparing the average daily required travel distance against the real-world driving ranges of EVs, for both its company cars and vans.
- Educate staff on energy-efficient driving behaviours (for both fuel-powered and electric-powered vehicles), and where to find information/ maps on public EV charging points.

We will also look to actively pursue additional carbon reduction activities such as the installation of Photovoltaic (PV) panels and possibly the implementation of battery storage of any energy produced.

We will ensure regular maintenance of heating and cooling systems is carried out to improve efficiency.

We will enquire about employing a sustainable Green Energy supplier.

We will look to actively reduce our dependency on Diesel/Petrol fuel.

We will plan to electrify some of our existing vehicle fleet.

We also intend to consider expanding our assessment scope to include emissions associated with the activities of our supply chain.

We will look to educate our own employees on sustainability and will promote initiatives such as "toogoodtogo"

Finally, we will investigate the possibility of offsetting our carbon emissions by supporting cost effective climate change solutions around the world to enable us achieve carbon neutral or Net Zero Carbon status.

The future...

Could the future be Carbon Negative?
Why not!

Active Connect

Powering Success

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