



Driving Change
Our Roadmap to Net Zero

2024

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Excavator Charging Point

KEEP AREA CLEAR

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A Message from our MD

The utilities sector is one of the most significant contributors to global greenhouse gas emissions, estimated to be responsible for over a third of the UK's total emissions. There is therefore considerable pressure on all of us involved in the industry from network operators to maintenance contractors and our own supply chains to reduce energy consumption and to publish our plans, strategies and achievements.

Falco is determined to set the pace and show leadership in tackling climate change within our sector. While the issue of sustainability has been on our radar for some time the implementation of serious, practical measures to plan, lower and report our emissions over the last few years has seen us reduce our own carbon footprint per £m revenue by 41% based on our 2010 baseline.

While we are pleased with this progress, we know we must do more. Creating an accurate baseline figure for emissions across the organisation has enabled us to identify areas where significant improvements can be made and has helped us to distil our efforts into practical changes that will make the most impact.

We understand that building on these early wins to decarbonise our activities and close-in on our target to achieve Net Zero by 2035 is heavily dependent upon technological and commercial developments in the market for renewable fleet, plant and equipment.

We are also mindful that unforeseen innovations and developments over the next few years could take our decarbonisation journey into new and unexpected directions.

Therefore this, our initial Net Zero Plan should be seen very much as a current snapshot of our thinking and in many ways more of a statement of intent than a detailed programme of action.

Finally, we are fully aware that our role in this endeavour extends beyond our own direct emissions as we make up part of an interconnected community of suppliers, network providers, regulators and consumers who are intrinsically reliant upon one another's actions.

We will therefore continue to monitor their plans and objectives to ensure we remain in lock-step with our partners and stakeholders and ensure together we achieve the targets set out for our sector.

Brendan Griffin

May 2024



About Climate Change

Human activities, mainly through emissions of greenhouse gases have unequivocally caused global warming with the average global temperature in 2011-2020 rising by 1.1 degrees Celsius since pre-industrial times.

These activities arise from unsustainable consumption of energy, land-use and land-use change, lifestyles and patterns of consumption and production across regions, countries, organisations, and individuals.

Climate change from widespread and rapid changes in the atmosphere and ocean have occurred and are already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts and related losses and damages to nature and people. Vulnerable communities who have historically contributed the least to current climate change are disproportionately affected.

The impacts of global warming can already be seen in weather-related extremes such as heatwaves, wildfires, heavy precipitation, droughts, tropical cyclones, and physical changes with glacier retreat, sea level rise and acidification¹.

Climate change poses a fundamental threat to the people, place and nature and failure to reduce the emission of greenhouse gases will lead to ever-increasing impacts. These are listed but not necessarily limited to:

- Infectious diseases
- Heat, malnutrition and harm from wildfire
- Mental health
- Displacement of populations
- Inland flooding and damages
- Coastal flood and storm damages
- Damages to infrastructure
- Damages to key economic sectors
- Water availability
- Crop production
- Animal and livestock health and productivity
- Fisheries yields and production
- Terrestrial, freshwater and ocean ecosystem change

From a UK water industry perspective, we're experiencing first-hand the devastating impacts of climate change. Over the past year, we've seen record levels of heavy rainfall on numerous occasions in London and the Thames Valley. These have resulted in flooding to people's homes and businesses. Alongside this, we also experience periods of drought and live in an area that is very water stressed. So, it's imperative that we come together with all the parties involved in flood risk planning, drought planning, and beyond to build robust plans for the future.

Sarah Bentley, CEO, Thames Water



¹ IPCC AR6 Synthesis Report, 2023





The Regulatory Framework

There are a number of commitments, targets and legislation associated with building sustainability and reducing carbon from the utilities sector which have direct and indirect influence on our plans to achieve Net Zero.

In June 2019 the UK became the world's first major economy to pass net zero emissions law when legislation was passed to commit the UK to a legally binding target of net zero emissions by 2050.

In October 2021 the UK government published its Net Zero Strategy with the intention of setting out a pathway to reaching net zero greenhouse gas emissions by 2050. Subsequent plans to reduce and eradicate carbon emissions from the utilities sector references, and is influenced by, this fundamental pathway and the timelines involved.

A substantial amount of Falco's work is undertaken within Greater London and various legislation from the introduction of the Congestion Charge (2003), Low Emission Zone (2008) and the Ultra Low Emission Zone (2019) have influenced our approach to reducing fuel consumption and pollution.

Changes to the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015, which came into force in April 2023, require all commercial (non-residential) buildings to have an EPC rating of at least C by 2027, increasing to a B by 2030.

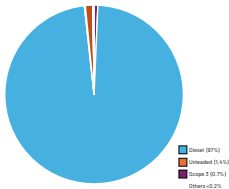
Our Current Status

In Jan 2024 we published our third corporate carbon footprint report. When factoring-in the increase in business (largely due to the expansion of our UKPN work to include LPN and more remote areas of EPN) it revealed a substantial reduction in relative carbon emissions.

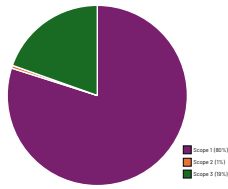
The figures and graphs shown here display our 2024 carbon footprint. There was a large increase in business mileage, largely due to the expansion of our UKPN work, but when factoring in relative emissions we have shown a decrease in our carbon intensity metric (key performance indicator KPI) from 0.94 to 0.62 tCO2e/yr/1000miles.

About 98% of our carbon footprint is a result of logistics with our work, which has meant it has always been our focus in reducing emissions.

			Scope 1	Scope 2	Scope 3	Outside scopes	Total
			tCO2e	tCO2e	tCO2e	tCO2e	tCO2e
Electricity	60204	kWh	0	12.5	4.1	6.9	16.5
Diesel(10PPM)	760,764	Litres	1911.1	0	464.8	106.5	2376.9
Ultimate diesel (10PPM)	1,576	Litres	3.5	0	0.8	0.2	4.3
Unleaded petrol (10PPM)	11,494	Litres	27	0	6.7	1.4	33.6
Ultimate unleaded petrol (10PPM)	166	Litres	0.4	0	0.1	0	0.5
Lubricants	72	Litres	0.2	0	0.1	0	0.3
AdBlue	14,539	Litres	3.8	0	0	0	3.8
			1,945.90	12.5	476.6	115.00	2,434.90

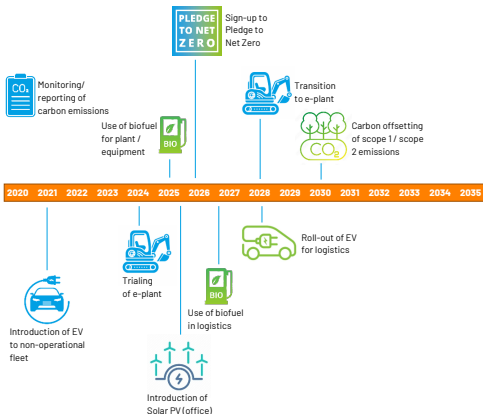


Carbon Footprint by fuel



Carbon Footprint by Scope

Roadmap to Net Zero



Our journey to Net Zero is fraught with unknowns which our success is dependent upon. Falco will align itself to decarbonise at the fastest possible pace and will make use of new technological innovations as/when they become available to the market. Our largest source of emissions, vehicles for logistics, relies upon reduction in costs and enhancement of the infrastructure for electric vehicles to become available, along with the decarbonisation of their energy source be it a fully renewable electricity grid or green hydrogen fuel.

Falco will keep a strategic eye on future decarbonised vehicle and equipment technology and integrate them into our fleet investment cycles. We will also work with our suppliers such that they are also considering strategic alignment with these technologies when they become available, ensuring we are able to hire decarbonised equipment as part of our work to reduce any scope 3 emissions.

While monitoring and measuring our carbon footprint, along with continued efforts to decarbonise, we are aware for the proportion of our scope 3 emissions relative to our scope 1 and 2 emissions to potentially grow and eventually exceed them. With this we will look to work with our suppliers and customers to support and inspire them in their own journey to net zero

Decarbonisation



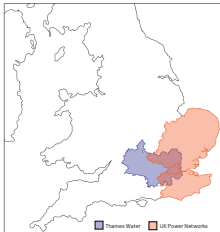
We believe that in order for customers to adopt new technologies, such as EVs, the process needs to be hassle-free. Our role is to ensure that there is sufficient network capacity to enable people to charge their EVs. We expect that by 2030 there will be over 3.6 million EVs needing to charge from our network.

Basil Scarsella,
Chief Executive Officer, UK Power Networks



Logistics

The evaluation of our energy usage shows that fuel consumption by transport (logistics) is by far our most significant carbon impact (98%). In 2023 our vehicle fleet travelled over 3 million miles while delivering maintenance contracts for utility providers throughout London, the South and East of England.



This consumed around 790 thousand litres of fuel and generated over 2400 tonnes of CO₂e. Between 2022 and 2023 there has been a large expansion of our fleet to accommodate new contracts and contract expansions.

Given that logistics operations account for the lion's share of our total energy consumption it is unsurprising therefore that we have concentrated our efforts to reduce fuel consumption from transport which has been the most significant early win in our holistic carbon reduction strategy.

Since 2018 we have purchased several petrol/electric hybrid vehicles and initiated a rolling campaign to replace our standard field vehicles with Euro 6 - compliant, fuel-efficient models with stop-start technology.

After considerable research of the market we settled upon the Ford Transit (L3H3 RWD - 2.0 TDCi EcoBlue - 170PS) as the standard model to replace our existing fleet of operational vans. This vehicle is more fuel efficient and with a Euro 6.2 Engine combined with the use of AdBlue emits far less pollutants. Despite difficulties in the supply chain due to COVID, we were able to roll-out a wholesale replacement of 140 vehicles during 2022.

Our commitment to transition to full EV for company cars, made in 2018, came to fruition when the last of our hybrid vehicles were replaced by electric models in 2022. The next target on our road map is to transition vehicles used by Site Agents and supervisors to EV in 2026/27 (based on availability of network infrastructure and newer models with a higher mileage range).

In 2016 we introduced a transport management system, JobWatch across our fleet which has assisted us in ensuring we optimise our logistics to reduce unnecessary journeys and journey lengths. GPS tracking enables our Service Team to allocate calls based on proximity to the destination.

Analysis of telematics data from JobWatch powered by BigChange® has allowed our transport team to identify and address driver behaviour which includes instruction in techniques to boost fuel efficiency.

JobWatch
powered by: **BigChange®**

Finally in 2022 we implemented a programme to redeploy teams based on their residential locations i.e. clustering the allocation of field staff by proximity to their local department which has significantly reduced journey distances.

We are fully aware that the implementation of these measures can and has had only an incremental impact on our total emissions from logistics.

A significant reduction can only be realised by the transition to EVs used by field operatives.

However, major hurdles stand in the way of rolling-out a switch to an EV fleet. While the cost of market leading EV models such as the Mercedes eSprinter Panel Van is currently around 25% more expensive to purchase or lease, the most significant current barrier to the transition is technical performance.

The e-van weighs a tonne more than its ICE equivalent and has a tonne less gross train weight, meaning two tonnes of capacity would be lost from the current train capacity which makes this option currently unviable. We therefore will need to wait until significant technical advances are achieved.

Alongside this is the issue of practicality. The UK's EV network infrastructure is currently inadequate in terms of the number, distribution and capacity of charging stations to enable our operational teams to efficiently recharge vehicles in the field. In April 2023 Fleet News reported that there was one public standard charger for every 36 plug-in vehicles on the road which was actually down from one in every 31 in 2021. A delay to complete our EV transition is therefore inevitable although we do anticipate both these obstacles will recede in the next 3-5 years.

Falco Offices

The electricity used to power our offices in Central London is derived from the grid and therefore our timeline/plan to decarbonise our office electricity consumption is reliant upon grid decarbonisation.

Below is an extract of the fuel mix and carbon emissions from our current electricity supplier:

ENERGY SOURCE	CURRENT SUPPLIER	UK AVERAGE
Coal	2%	3%
Natural Gas	17%	39%
Nuclear	26%	14%
Renewable	54%	41%
Other	1%	3%
CO2 emissions (g/kWh)	88	189

Carbon Offsetting Strategy



We have sought to align ourselves with many others in our sector by aiming to achieve Net Zero by 2035. While emissions reduction will always form the primary focus of efforts, even with significant reductions we acknowledge that there will likely be a need to offset residual emissions to bridge the gap and achieve our ultimate goal of Net Zero.

Our short-term strategy will look to eliminate scope 1 and 2 emissions as much as possible and compensate any remaining residual emissions. Consideration will also be given to scope 3 emissions for which future revisions of this Net Zero plan will clarify as more data and footprinting of these scope 3 emissions occurs.

We will look to set out and start implementing our offsetting strategy prior to 2030, possibly as early as 2028, with a gradual ramping up of offsets to eventually match our residual emissions.

Our long term offsetting strategy will follow the structure as set out in the Oxford Carbon Offsetting principles¹ and start with higher proportions of 'avoidance' and 'carbon reduction with short-lived storage' offsets, and over the years as we move towards 2050, increase the proportion to be 'carbon removal with long-term storage' offsets.

Offsetting will follow the principles of the Integrity Council for the Voluntary Carbon Market (ICVCM) and PAS2060 and conform with; verifiability, additionality, leakage, impermanence, and double-counting.



We will also look to support programmes that enhance and support other sustainability initiatives such as biodiversity and community resilience.

Possible carbon offsetting methods we will explore may include:

Renewable energy projects

Pros: offsetting security very high, beneficial to developing countries, low cost to purchase, co-benefits for developing countries e.g. health and energy security.

Cons: may be limited amount to purchase

International woodland creation

Pros: offsetting security high, strong biodiversity co-benefits.

Cons: may be more expensive purchase, limited extra benefits to talk about

UK woodland creation/peatland restoration

Pros: offsetting security fairly high, strong biodiversity co-benefits, local stories/communities, benefit to our own country

Cons: medium price to purchase, potentially limited stock especially in short/mid-term.

More detail on our carbon offsetting strategy will be included in our 2025 Report.

¹ The Oxford Principles for Net Zero Aligned, Carbon Offsetting, 2020

Procurement

While our Scope 3 emissions (those generated via procurement /supply chain) are currently largely unknown/unmapped we understand that they represent a significant opportunity for decarbonisation over the next 10 years. With increased accounting, mapping and discovery of our procurement and other scope 3 emissions we expect this to increase as a proportion of our carbon footprint over the coming years.

We are therefore already looking into the most efficacious ways in which we can reduce carbon through procurement decisions and drive decarbonisation through our supply chain in the process.

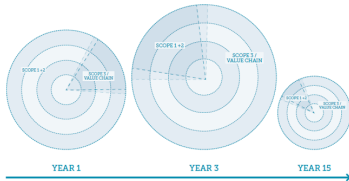
We will be leaning heavily on knowledge and resources from the Institute of Environmental Management and Assessment (IEMA), including the Pathways to Net Zero

training courses and GHG Management Hierarchy, as well as the Supply Chain Sustainability School of which we have been a member since 2016.

In 2025 we will be implementing some simple actions into our standard procurement procedures for example use of the Green Guide and the Building Research Establishment's Framework Standard for Responsible Sourcing (BES 6001) when sourcing materials.

We will also endeavour to work with and support our supply chain partners to assist them to measure, monitor and reduce their own carbon footprints by sharing our experience and knowledge of the discipline. This will both allow us to include their emissions data within our scope 3 reporting while encouraging and supporting them to decarbonise their operations.

QUANTIFIED EMISSIONS - VARIATION OVER TIME



SUPPLY CHAIN SUSTAINABILITY

SCHOOL

IEMA

Transforming the world
to sustainability

BES 6001

Responsible Sourcing

www.greenbooklive.com

Our Leadership Team

Brendan Griffin

As Managing Director, Brendan takes ultimate responsibility for governance and performance of the Falco brand. He provides the leadership to ensure the company is able to fulfil its environmental commitments as well as the financial support to invest in systems and technology that underpin our journey to Net Zero



Alan Seyfi

As Falco's Support Services Director, Alan has hands-on input into the development and provision of many of the operations and resources that contribute to our carbon footprint such as logistics, plant/equipment and our supply chain. He continuously researches the market for innovative technologies which we can adopt to reduce emissions and has been directly responsible for the introduction of EVs and the use of Ad Blue in our fleet as well as annual carbon reporting



Fergus McCloskey

Director of sustainability consultancy, Global Environmental, Fergus has a long track record of devising and implementing practical environmental solutions for clients within the construction, civil engineering and utilities sectors. He provides guidance on our approach to sustainability reporting and commits strategies to raise awareness of our achievements



Terry McHugh

Falco's HSQE Director Terry is responsible for implementing the company's environmental policies and commitments and creating the systems to facilitate the achievement of our Net Zero Plan. He manages the process of collecting various datasets associated with carbon emissions and is involved in the development and maintaining accreditations of our environmental management system



Nathan Jamieson

An environmental consultant who specializes in carbon accounting and carbon reduction strategy. He has extensive experience in practical action to reduce carbon emissions and insight into how things fit into regional and global perspectives which all help ensure both short term benefit to the business as well choosing the fastest and most resilient pathway to net zero looking forward

Next Steps

Pledge to Net Zero

The 'Pledge to Net Zero' is a scheme which requires signatories to adopt science-based targets to tackle their greenhouse gas emissions. There are currently over 170 signatories including, notably, Amey, J Coffey, Jacobs Mott Macdonald and the Ramboll Group.

We believe this scheme could provide the framework and discipline we need to ensure our Net Zero Plan is fully aligned with current best practice, the latest scientific knowledge and technological innovations.



By making the Pledge, we will be committing to:

1. Set and commit to deliver greenhouse gas reductions in line with Science Based Targets' 1.5°C climate change scenario. For those in the environmental consultancy sector it must cover buildings and travel as a minimum.
2. Publicly report greenhouse gas emissions and progress against this target each year.
3. Publish one piece of research/thought-leadership each year on practical steps to delivering an economy in line with climate science and in support of net zero carbon. Alternatively, signatories may choose to provide mentoring and support for smaller signatory companies in setting targets, reporting and meeting the requirements of the pledge.

We therefore intend to make the Pledge to Net Zero in the next 2-3 years when our carbon reporting systems are sufficiently robust and the transition to EV's is underway.



Biofuel

We are investigating the feasibility of using biofuels in site plant/equipment. Our standard mini-excavator is supplied by Kubota (KX016, KX018 and U17 models). Kubota UK has now completed its year-long trials of using hydrotreated vegetable oils (HVO) and we await data on the engine telemetry. Should they be encouraging we intend to discuss with the manufacturer the efficacy of using HVO and what, if any, adjustments would need to be made to existing models to be compatible with biofuel use.

HVO is manufactured from renewable raw materials, typically vegetable oils and the process does not release any new carbon dioxide into the atmosphere.

The headline figures are impressive. HVO which meets the EN 15940 standard reduces greenhouse gas emissions by as much as 90%, is 100% renewable, biodegradable and non-toxic as well as having an extended storage life of up to 10 years with less need for regular testing.



E-Plant

In November 2023 we hosted an event, "Welcome to the Cleaner, Greener, Quieter Future for London's Roadworks" attended by a number of our clients and supply chain in which the new Takeuchi fully-electric mini excavator was unveiled. The TB20e battery-powered compact excavator performed tasks alongside a diesel-powered equivalent. This was followed a week later by an initial field test in Stratford, East London involving a 100 metre excavation in a residential street.

The benefits of the new Takeuchi TB20E include:

- ZERO NOx /PM emissions
- ZERO CO2 emissions
- 75% reduction in noise emissions

Following excellent reviews and feedback from site we have decided to continue trials and have taken delivery of two new machines in May 2024 which will be extensively field-tested by our operative teams over the next two years for usability, charging frequency and performance in all weather and ground conditions.

Should this go well we anticipate starting the replacement of our existing fleet with electric-powered models in 2028.





FALCO



Falco Construction

Prospect House, 20 Beeby Road, London, E16 10J

Tel: 020 7474 3105

Email: info@falcoconstruction.co.uk

Web: www.falcoconstruction.co.uk