



GoGreen[®]
Think green. Be green

Road Map To Net Zero

A Sustainable Planet Rooted In Sustainable Communities

Tackling climate change is the biggest challenge to face humankind. We can all contribute towards the effort. That is why Go Green are committed to reaching **Net Zero by 2030** and will **offset all** of our emissions along the way¹.

Introduction

Go Green was founded in 2000 with sustainable waste management at its core. Since our inception, we have built upon these foundations and created a waste management company with a strong green ethos.

This green ethos has led us to the implementation of a number of sustainable practices at our head office. Waste paper is used for note taking before being recycled, we have utilised electric only vehicles in our fleet since 2018, our head office has been built using reclaimed bricks and warmed with a low carbon alternative to natural gas using an onsite biomass boiler, and we have had onsite solar panels generating 15% of the electricity we use since 2014.

Despite the above in mind, we know that more must be done. That is why Go Green are committed to reaching Net Zero by 2030 and will offset all of our emissions along the way.

Our Path To Net Zero

After launching our GROWW Framework in 2021, within which our GreenEthos pillar sets our environmental targets, we needed to firm up our commitment to reaching Net Zero and then put a plan in place that would allow us to achieve it. This led to the creation of our Road Map To Net Zero. We will continuously measure our progress against our milestones and update the plan as is necessary to achieve our net zero target.

This document aims to set out the details of our Net Zero plan, the milestones that we will pass along the way and key metrics we will use to track our progress.

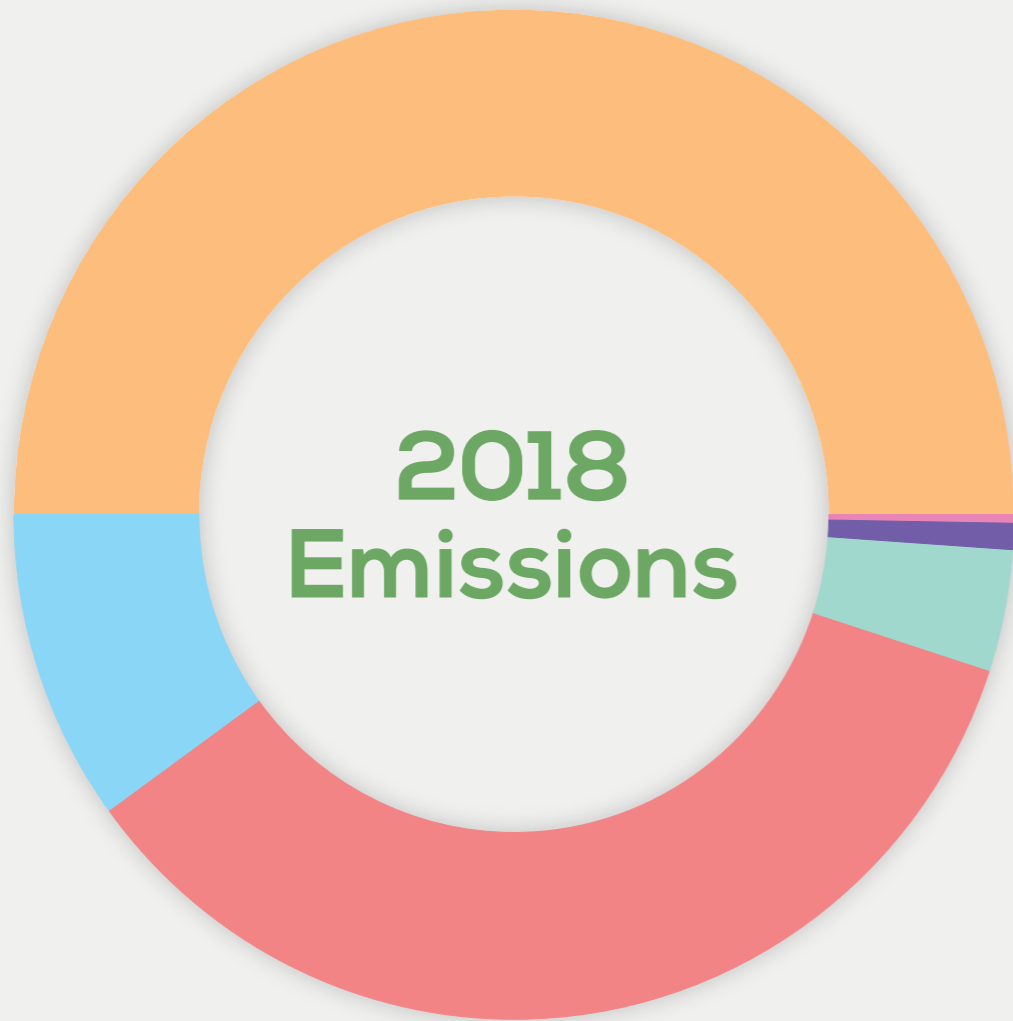


Go Green Head Office

Doncaster, South Yorkshire

Our Emissions Summary

The below doughnut chart shows our 2018 emissions by emissions source. Note that in 2018 no public transport was used and we didn't record electric car miles as we had only just invested in our first electric car.



- | | |
|-------------------------------|-------------------------------------|
| 10% - Biomass Pellets | 0% - Electric Car Miles |
| 35% - Petrol & Diesel Cars | 0.25% - Purchased Water |
| 4% - Diesel Backup Generator* | 0.75% - Our Waste & It's Processing |
| 50% - Purchased Electricity | 0.0% - Our Use of Public Transport |

*Changes in reporting over the past 5 years means that diesel for the backup generator was aggregated in with diesel usage in our cars. Based on the past year of use, 10% of diesel used was for the generator and thus 10% has been used for our historic average. We current record car mileage and diesel generator use separately.

Emissions Sources

To begin we must first gain a good understanding of the emissions we are currently producing. Go Green have been tracking our commodity usage since 2016 however changes to recording methodology means that reliable data begins in 2018. Since 2018 Go Green have been recording data for the following scope 1 and 2 emission sources. These sources are what form our Carbon Footprint and therefore it is these sources that we are focusing our Net Zero strategy on:

- Biomass Pellets (4701 kg CO_{2e})
- Petrol & Diesel Cars (16859 kg CO_{2e})
- Diesel Backup Generator (1873 kg CO_{2e})
- Purchased Electricity (23822 kg CO_{2e})
- Electric Car Miles (0 kg CO_{2e})
- Purchased Water (196kg CO_{2e})
- Our Waste & It's Processing (418 kg CO_{2e})
- Our Use of Public Transport (0 kg CO_{2e})

Figures in brackets are for 2018.

Our Carbon Footprint


Using the data collected on each of the above emissions sources, we are able to calculate our carbon footprint using conversion factors provided by DEFRA & BEIS (GOV.UK, 2013).

The summary over leaf shows emissions by source for the year 2018².

Choosing A Base Year

In order to track our progress towards Net Zero we had to decide on a base year with which all emissions would be compared to. Considering the progress we have made towards reducing our carbon footprint starting in 2018 with the purchase of our first electric car and installation of biomass boiler, we chose to use that as the starting point for our journey to Net Zero.

Go Green's Net Zero Reporting Base Year: **2018**



The climate crisis is both the easiest and the hardest issue we have ever faced. The easiest because we know what we must do. We must stop the emissions of greenhouse gases. The hardest because our current economics are still totally dependent on burning fossil fuels, and thereby destroying ecosystems in order to create everlasting economic growth.

- Greta Thunberg (2019)

Biomass Pellets

Biomass pellets are the sole source of heat for our head office; in 2018 they accounted for approximately 10% of our emissions, in 2021 this number rose to just over 22%. This is due to the dramatic reduction in emissions (~47%) from other sources such as fossil fuel powered cars (in 2021 we only had two diesel cars in our fleet). The mass of pellets burned on site increased between these years by ~28% from 66.7 to 85.8 tonnes CO_{2e}. This increase can be attributed to the expansion of our offices and a 12% increase in staff numbers³. For this reason we aim to reduce our emissions from this source relative to the number of employees we have with us on average per year.

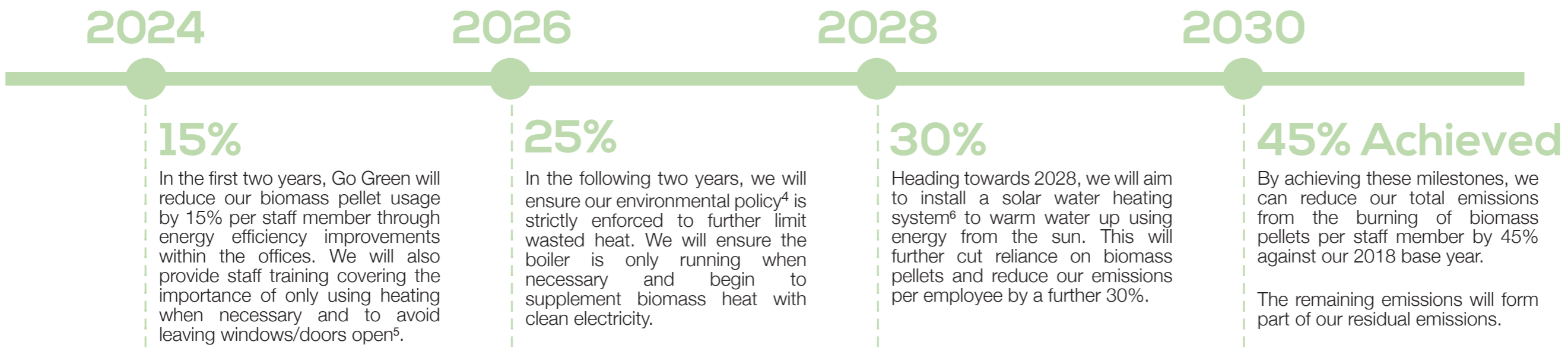
Reducing Our Biomass Usage

Between now and 2030, Go Green aims to reduce our usage of biomass for heating by:

- Increasing heat efficiency within our offices.
- Exploring possibilities for solar heat.
- Invest in solar heating for water.
- Strict enforcement of our Environmental Policy⁴.

These measures will allow Go Green to reduce our biomass pellet emissions as per the following timescale:

Intensity Ratios	
KG of CO ₂ Per Employee	
2018	2030
46.1	20.7
Per Employee	Per Employee



Petrol & Diesel Cars

In 2018, petrol and diesel cars made up a significant portion of our emissions: 35% or 16,589 kg CO₂e. In the same year, we bought our first electric car. From this point forward we set about replacing all six fleet vehicles with all electric models. As of 2021, we have only two diesel cars left which will be replaced once they become uneconomical⁷.

As a result of our commitment to replace all vehicles, our emissions from diesel in 2021 had reduced by 97.7%. Less travel was permitted in 2021 due to COVID-19 which will have contributed to this⁸. In 2020 our car emissions were 80.3% less than the 2018 measure.

Emissions from electric cars (charging) has been increasing as we transition. As of 2021 we almost exclusively use electric cars, producing roughly 70% less emissions per km⁹.

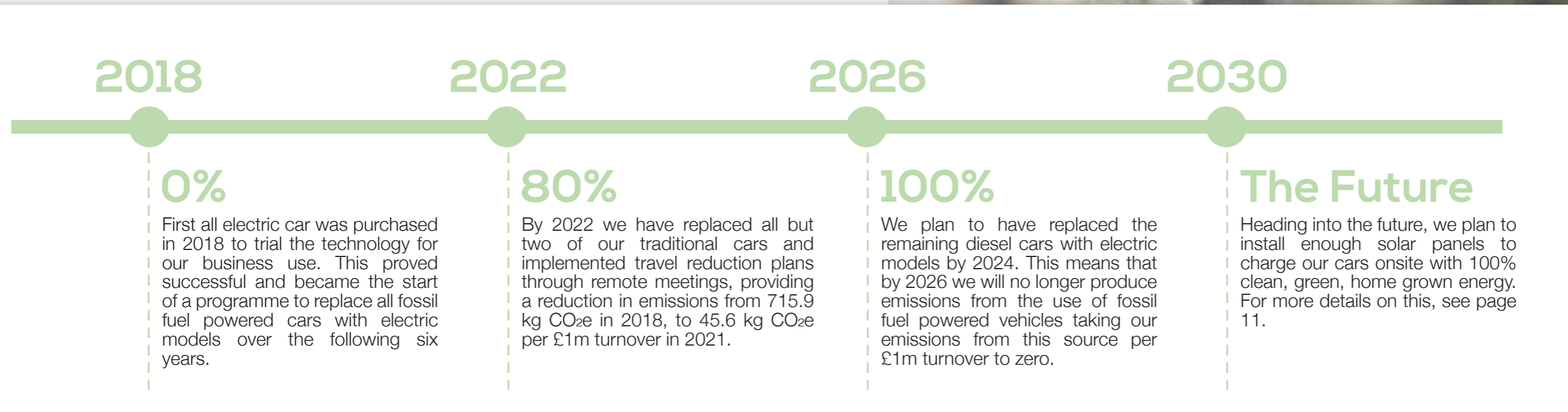
Reducing Our Car Emissions Further

As we move out of the pandemic we expect to be travelling more. Here is what we will do to eliminate emissions from diesel cars:

- Replace the last diesel vehicles with an all electric models.
- Prevent staff travel through the use of remote meeting technology.

These measures will allow Go Green to eliminate our traditional car emissions as per the following timescale:

Intensity Ratios	
KG of CO ₂ Per £1m Turnover	
2018	2026
715.9	0.0
Per £1m	Per £1m



Diesel Backup Generator

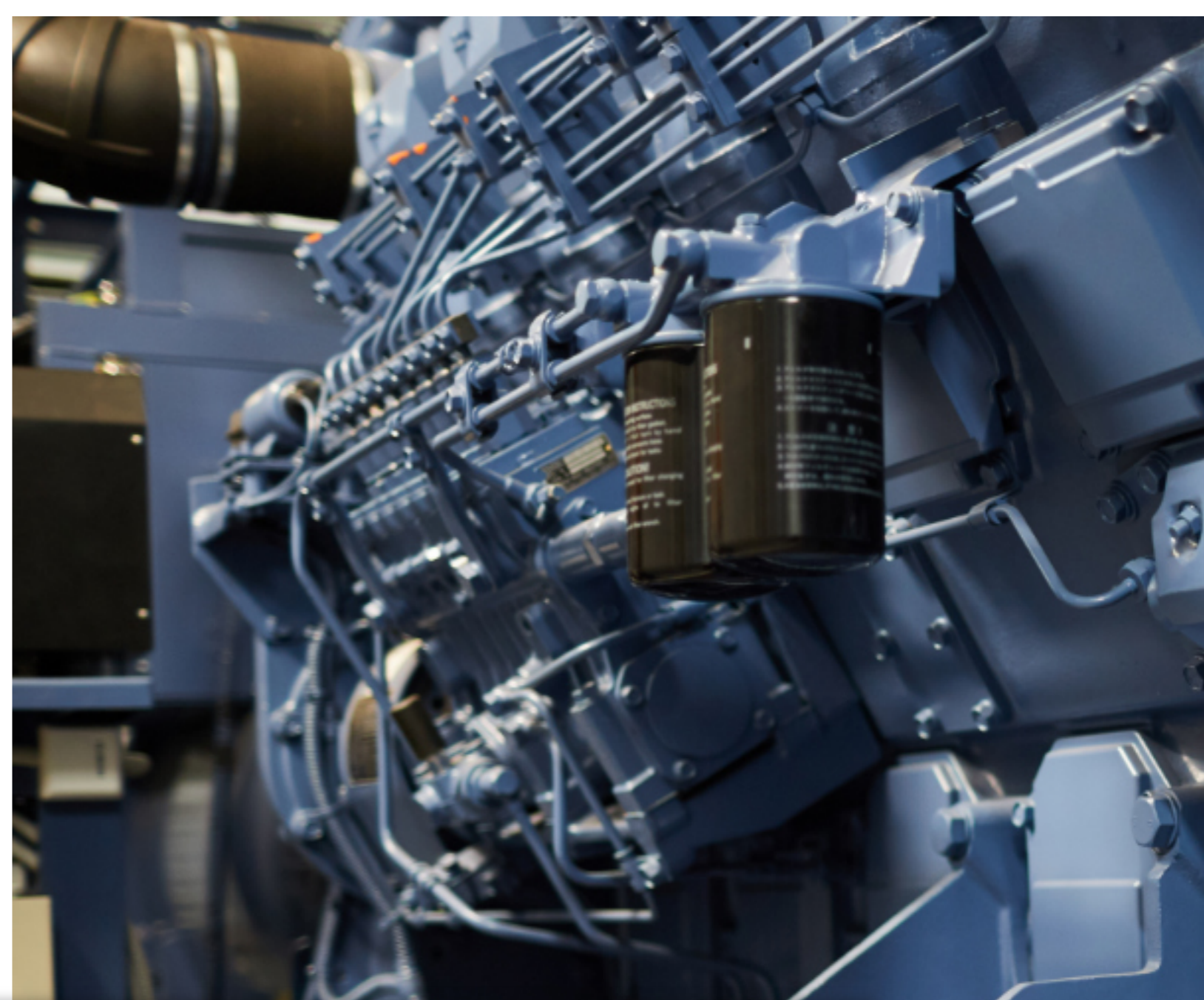
Due to the nature of our head office and its connection to the grid, we have an onsite diesel generator to ensure that our services are not interrupted by power cuts. Until the end of 2020, diesel used in the generator was collectively recorded with car fuel and as such we cannot provide accurate data on the fuel it has used. Based on 2021 usage of 9.75 litres, the emissions totalled 0.09% of our 2021 carbon footprint. Our new reporting structure will provide better insights, though our usage is minimal already.

Reducing Our Generator Usage

As this is a business critical system, we cannot prevent its usage in the short term, but we do have plans that will make this system obsolete in the long run. This will be:

- Install large solar array to generate enough power to remove our reliance on the grid.
- Install an energy storage system to ensure we have power on hand during power cuts.

The below timescale shows our plan to implement this:



2022

0%

We are unable to reduce the usage of this system until we have a clean option in place. In the meantime we will offset all emissions from this source in line with our RAMP framework (see page 15).

2026

50%

Increased solar capacity will reduce the time we have to use the generator by 50% by 2026¹⁰. This is achieved through reducing the number of events where we suffer a power cut and cannot produce enough solar to sustain operations.

2030

100% Achieved

By 2030 we will have full solar capacity on site with an energy storage system in place to ensure we always have power. This will remove our reliance on the grid and make the generator obsolete.

Purchased Electricity

Go Green currently purchases 100% renewable energy, however, at any one time we cannot prove that the energy we are using is coming from a clean source. This fact, backed up by reporting standards (SECR), means that we must declare our energy usage as though it was from a non-renewable source (market based as opposed to location based).

Since 2018, our energy usage has increased as our company has grown and is our largest carbon source accounting for 50% of our carbon footprint. Although we actually measured an absolute reduction from 2019 to 2021, we saw an increase in emissions per employee as we still had to run the office as though it was full, but with almost 60% less staff onsite. We are well aware that if we were able to account for home energy usage of our staff, the usage per employee should have remained largely the same. We plan to eliminate emissions per employee by utilising on site solar and energy storage.

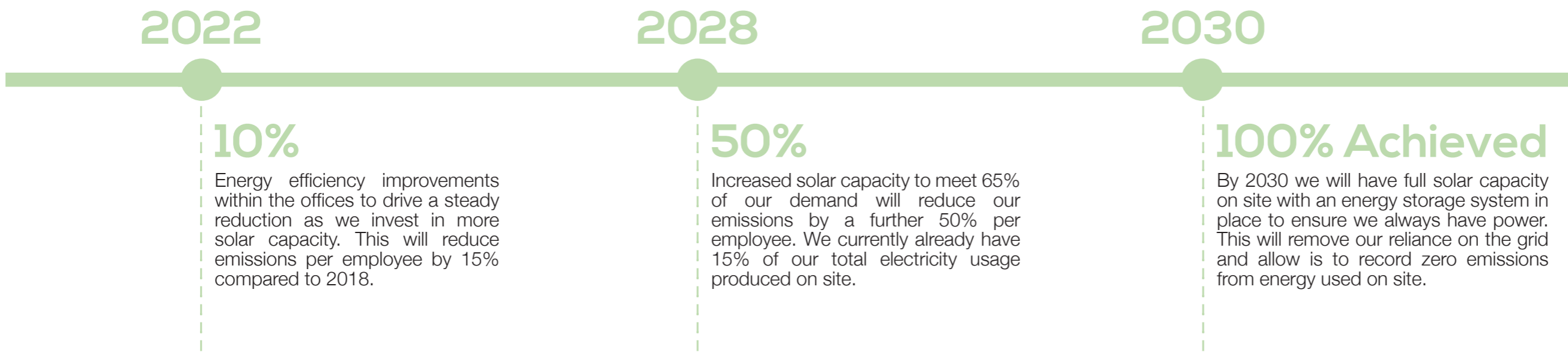
Heading Off Grid

Between now and 2030, Go Green aims to reduce our usage of grid electricity by:

- Installing a larger solar array to meet our energy requirement¹¹.
- Installing an energy storage facility to provide power when solar is offline.
- Energy efficiency through implementation of environmental policy⁴.

Here is the timescale for this technology to be implemented:

Intensity Ratios	
KG of CO2 Per Employee	
2018	2030
910.3	0.0
Per Employee	Per Employee



Electric Car Miles

As we transition from traditional cars to electric cars, our emissions will increase. Despite this fact, the green nature of all electric vehicles means that our emissions for the same mileage will be around 70% less⁹. This will go down further once we have capacity to provide more charge to cars on site with our own solar.

We carried our 162 site audits in 2021 in line with COVID-19 Guidance, producing 6,869 kg CO₂e from vehicle emissions, that's 213.3 kg CO₂e per £1m turnover. In comparison, 2018 traditional car travel produced 18,732 kg CO₂e.

Although our electric cars produce zero tailpipe emissions, they do still produce emissions from manufacture and energy production (embodied emissions). With this in mind we still aim to reduce our electric car mileage.

Reducing Our Electric Car Miles Emissions

Between now and 2030, Go Green aims to reduce our emissions from electric cars:

- Aim to provide 50% of all car charge with onsite solar.
- Reduce travel where possible through remote meetings⁴.
- Utilise public transport if it is more carbon efficient than driving.

The below timeline highlights the milestones within our plan:

2022

0%

2022 will be tough as we try to make up for lost time. Its important to us that we provide a high quality service to our customers and as such we don't envisage a reduction in emissions from electric car mileage in 2022 compared to 2021.

2026

10%

By 2026 we will reduce our emissions from electric car mileage by 10% per £1m turnover compared to 2021 (as this is when data recording begins). This will be achieved through the utilisation of remote meetings, efficient route planning, and onsite solar charging.

2030

50% Achieved

By 2030 we will have full solar capacity on site with an energy storage system in place to provide a significant proportion of the power needed to charge our cars. Due to the scale of energy used in electric cars, we cannot support full off-grid charging. Residual emissions will be offset inline with our RAMP framework.

Intensity Ratios

KG of CO₂ Per £1m Turnover

2021	2030
213.3 Per £1m	106.7 Per £1m

Purchased Water

The processing of waste water into clean, potable water is a carbon intensive process. This is why we think it's important to track emissions from this source. With that said, purchased water accounted for just 0.25% of our 2018 emissions. This percentage has risen since then due to a reduction in overall emissions (47%), predominantly from fossil fuel car usage.

In 2018 we produced 6.9 kg CO_{2e} per employee. In 2021 this dropped to just 2.3 kg CO_{2e} per employee. We understand that this is due to staff working from home and as such we plan to maintain this at <5.27 kg CO_{2e} per employee through 2030, a 15% reduction.

Although this source is only a very small part of our footprint, we think it's important to tackle it as statement to our commitment to Net Zero. Here's what we plan to do:

Reducing Our Water Usage

Between now and 2030, Go Green aims to reduce our water usage by:

- Increasing water efficiency within our offices through modern, water saving facilities.
- Installing a rainwater harvesting system to supply water to toilets.
- Strict enforcement of our Environmental Policy⁴.

The below timeframe sets out milestones for this plan:

2024

10%

We will reduce our water usage per staff member by 10% in the next two years through enforcement of our environmental policy and staff training.

2026

15%

By 2026 we will reduce our water usage by roughly 15% per staff member through the installation of a rainwater harvesting system. This will displace potable water that would otherwise go straight down the toilet.

2030

The Future

Water isn't a commodity that can be eliminated or replaced. We will reduce our usage as much as possible before offsetting the residual emissions in line with our RAMP framework. Between now and 2030, the decarbonisation of the UK grid will contribute to less emissions from water processing at the source.

Intensity Ratios

KG of CO₂ Per Employee

2018

2030

6.9

5.27

Per Employee

Per Employee

Waste & It's Processing

Waste is something we know a thing or two about, and it's carbon footprint is no exception. We strive to divert as much of our customer's waste from landfill to reduce their carbon footprint and apply these same practices to our head office. Emissions from waste have always been low for us for the above reasons, however we still see the importance of tackling this source.

In 2018, waste accounted for 0.75% of our footprint. Due to the 47% reduction in our carbon footprint since 2018, this source now accounts for 1.38% of our footprint, with this in mind we have a plan to reduce our waste emissions.

Reducing Our Emissions From Waste

Between now and 2030, Go Green aims to reduce our emissions from waste by:

- Strict enforcement of our Environmental Policy & staff training⁴.
- Frequent reviews of our waste to ensure it is efficiently processed.
- Investment into advancing the waste industry across the UK¹².

These measures will allow Go Green to reduce our emissions from waste as per the following timescale:

2024

2.5%

Increased waste reduction through 2.5% per employee through training and policy enforcement.

2026

2.5%

Further improvements to waste best practice. Reduction in processing emissions from the decarbonisation of the UK Grid.

2028

5%

Investment in the UK waste industry will allow more efficient waste processing along with an increase in circular economy solutions. This will bring waste emissions down further.

2030

The Future

The further decarbonisation of the UK energy grid will have a significant impact on emissions from waste. As the UK moves to more advanced processing this will only reduce emissions further. Any residual emissions will be offset in line with our RAMP framework.

Intensity Ratios

KG of CO2 Per Employee

2018

2030

3.8

3.43

Per Employee

Per Employee

Public Transport

Public transport currently does not make up any of our emissions. We travel exclusively using our own fleet. We chose to include this in our road map as we foresee an increase in this emissions source as the company grows and we continue to travel as efficiently as possible.


With this in mind here are some of the points we are monitoring as we progress towards our Net Zero goal.

Emissions From Public Transport

Between now and 2030, Go Green will likely use more public transport to get our staff around the UK. This will add a new emissions source to our footprint. The below points cover some of the ways will ensure that this is only used when it is more efficient than cars:

- Long distance travel where offsite (non-renewable) car charging would be needed.
- When more than one car would be needed.
- Using the TFL network when driving would be inefficient.





If working apart we are a force powerful enough to destabilise our planet, surely working together we are powerful enough to save it.

- David Attenborough (2021)



Going Wild Reserve

The Plan

The plan is to develop a local patch of land, approximately 60 acres, into a wild reserve that promotes biodiversity, provides space to plant trees for carbon offsetting and gives us a space to provide value back to the community through school engagement projects. We hope to leave a long lasting legacy with this project that will benefit many people in the local areas.

Mosaic Habitats

Our Wild Reserve aims to develop a wide range of habitats including water, scrub, woodland, meadow, hedge row, sand and marsh. This mosaic of habitats will promote biodiversity, sequester carbon and provide a place to introduce children to nature.

Woodland Craft School

Within our Go Green Woodland we plan to launch a woodland craft school for children from all over the region to come and engage with woodland craft sessions and nature skills. These sessions will integrate waste at their core to drive the importance of waste reduction and reuse. We think this will provide an excellent opportunity to show children the importance of nature and what it has to offer.

Go Green Woodland

Our Wild Reserve will be home to a large area of woodland. This woodland will provide carbon sequestration allowing our partners to offset some of their unavoidable carbon. The forest will become home to a vast array of wildlife including birds, mammals and fungi.

Solar & Wind Farm

We plan to construct a large solar farm at our Wild Park to generate clean energy to be fed into the grid. We will supplement this with wind turbines. This will allow us to offset all of Go Green's emissions from electricity, whilst bolstering the UK's transition from fossil fuels to clean energy.

Wetland Habitat

By developing a wetland habitat, our Wild Reserve will help promote biodiversity in the local area. Additionally, this will be a great place for us to show children about the incredible world of pond life!



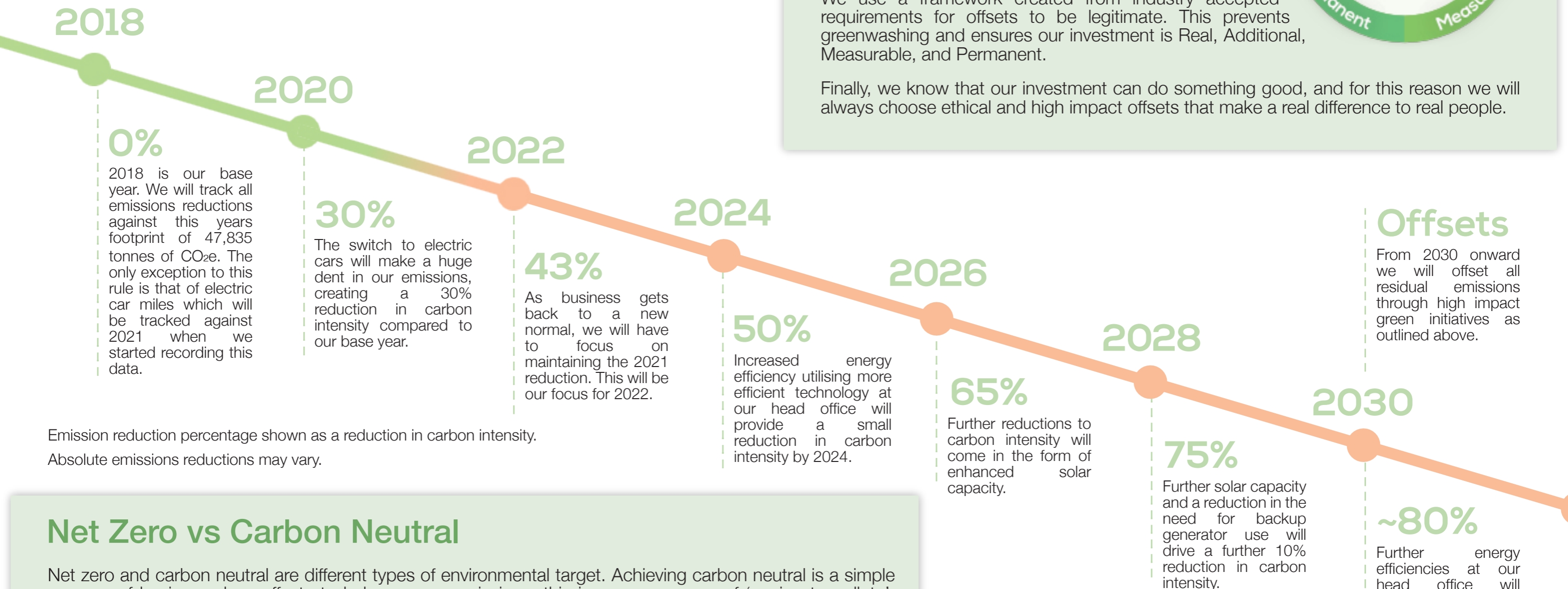
A Go Green Project

This project concerns a patch of previously quarried land and will provide a unique location for active conservation. Our Sustainability Team, working with local organisations, will hand this broken landscape back over to mother nature to be rewilded, bringing benefits to local people and wildlife. We will use this land to offset some of our emissions in an organic way and provide the opportunity for customers and suppliers to engage with us on a homegrown project. We hope this project will deliver lasting benefits to the local area and remain for many years as our legacy.

Net Zero Milestones

In order to track our progress towards Net Zero, we will measure progress against the milestones set out within this document. We won't settle for anything less than our targets and it is the hope that this will drive us towards our commitment of Net Zero by 2030.

As we head towards 2030, we will continue to measure our progress and tweak our road map to ensure that we reach the ultimate goal of carbon Net Zero by 2030.



Emission reduction percentage shown as a reduction in carbon intensity.

Absolute emissions reductions may vary.

Net Zero vs Carbon Neutral

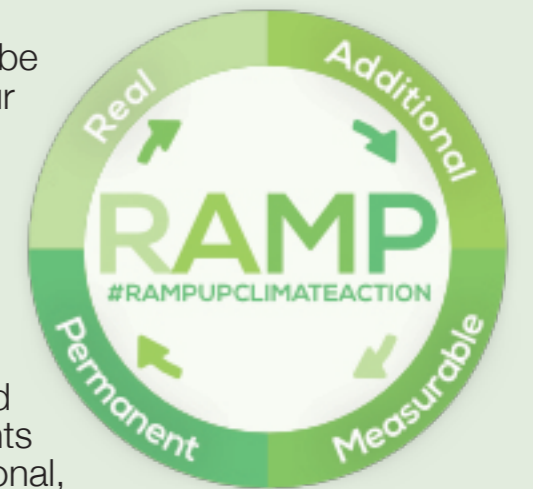
Net zero and carbon neutral are different types of environmental target. Achieving carbon neutral is a simple process of buying carbon offsets to balance your emissions, this is seen as a way of 'paying to pollute'. Achieving net zero requires a business to reduce their emissions as much as possible, in a way that can be demonstrated, and only then buying offsets to balance the unavoidable emissions known as residual emissions. These offsets need to be Real, Additional, Measurable, and Permanent (RAMP Framework).

Emissions Offsetting

Emissions offsetting is a contentious topic and needs to be approached with this in mind. Once we have reduced our carbon intensity by ~80% against our 2018 base year, we will need to offset the remaining residual emissions. This is something we will start doing in 2022 and continue indefinitely. This forms the final action in our Net Zero Plan.

The emissions we offset will be covered each year in our Sustainability Report, and is likely to change year on year. We use a framework created from industry accepted requirements for offsets to be legitimate. This prevents greenwashing and ensures our investment is Real, Additional, Measurable, and Permanent.

Finally, we know that our investment can do something good, and for this reason we will always choose ethical and high impact offsets that make a real difference to real people.



Offsets

From 2030 onward we will offset all residual emissions through high impact green initiatives as outlined above.

References & Appendix

This final page contains all references for material used in this report along with an appendix. We hope that you find all information you might be looking for from this page however if there is something you think needs clarifying or explaining. Please get in touch at csr@gogreen.co.uk.

References

GOV.UK. 2013. Government conversion factors for company reporting of greenhouse gas emissions. [online] Available at: <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting#full-publication-update-history> [Accessed 13 January 2022].

Energy Saving Trust. 2022. Solar water heating. [online] Available at: <https://energysavingtrust.org.uk/advice/solar-water-heating/> [Accessed 19 January 2022].

Harvey, F., 2020. Electric cars produce less CO2 than petrol vehicles, study confirms. [online] The Guardian. Available at: <https://www.theguardian.com/environment/2020/mar/23/electric-cars-produce-less-co2-than-petrol-vehicles-study-confirms> [Accessed 23 March 2020].

Appendix

- [1] Starting with 2021, Go Green will offset all of our Scope 1 & Scope 2 emissions through real, additional, measurable and permanent offsets. These offsets will be disclosed each year through our Sustainability Report.
- [2] 2018 emissions data is calculated using the best data we had at the time. The 2018 conversion factors were used. [Click here to view on the Gov website.](#)
- [3] In 2018 we had on average across the year 102 full time employees. By 2021 we had an average of 115 employees. All employee are based at our head office.
- [4] Our environmental policy sets out actions to ensure we are acting in a responsible manner with sustainability at the forefront of our work. [Click here to view on our website.](#)
- [5] This training is already given to all members of staff on induction. A refresher quiz is sent to all staff members on an annual basis to ensure standards don't slip.
- [6] Roof mounted solar water heating systems can generate up to 90% of a buildings hot water needs in summer dropping to around 25% in winter (Energy Saving Trust, 2021).
- [7] Once the car has come to the end of its life. This means that we stretch out the embedded emissions out over more miles and time, thus reducing the carbon per mile figure. This is only by a small amount but it is to most economical use of the vehicle.
- [8] Go Green understand the impacts Coronavirus had on our business operations. We know that it will be tough to maintain the 2020/2021 carbon emissions levels due to business activity increasing, however we are committed to doing so.
- [9] Based on data from countries that predominantly use renewable or nuclear energy such as the Netherlands and France. The UK will see initial savings of around 30% but this will continue to increase rapidly as we decarbonise our energy grid (Harvey, 2020). Excludes embodied emissions.
- [10] Occasions may still present themselves where we don't have energy stored to support us during a power cut, therefore we will use the generator in this instance. Once solar capacity exceeds our need, we will have excess power stored on site ready for use.
- [11] Preliminary study shows that we have enough roof space to accommodate the number of solar panels we will need to achieve this. We could invest in [solar trees](#) if needed too.
- [12] Through SME spend and prioritising waste companies that are investing in the future of the UK waste industry.