Carbon Footprint Report 20/21

Our Mission for 2022 and Onwards :

Company Awareness
Strengthen our Environmental Approach
To set realistic targets and monitor our emissions



Setting the baseline

- Gel Engineering is a growing organisation with expertise in the water/wastewater sector, our multidisciplinary teams are providing innovative solutions to complex projects for our clients.
- As Gel Engineering grows each year, so is our carbon emissions. We understand that as an organisation we have our own carbon footprint that needs to be mitigated and with our 10th birthday approaching there is even more urgency to strengthen our green journey.
- We are stepping up in our approach to battling climate change. Our next step is to set the baseline to work towards in the future. Awareness of our impacts can help us grow in a sustainable direction; having this baseline will enable us to make the necessary changes to reduce the carbon emissions released by our every day decision making.
- Completing a carbon footprint report is a positive step in the right direction with the aim of creating a better, cleaner Construction/Engineering industry.



"Having watched and listened to horrifying facts and figures about our collective impact on the planet, not to mention outcomes of COP26 here in the UK and UN Climate change reports, it's become imperative that we ACT NOW. Here at GEL our impact and responsibility to reduce our impact as we grow is extremely important to us. This report is an excellent first step in the right direction for us. Guiding us to reducing our impact and becoming carbon neutral."

The Approach

- We are looking to the future to become a sustainable and environmentally friendly organisation. Operating in the heart of the Covid-19 pandemic, our first footprint has been calculated following The tax year of April 2020 March 2021.
- We are aware that the footprint emissions will be lower due to Covid-19 restrictions and with the national lockdowns however, we operated throughout the pandemic due to the nature of our works. This report is not a full reflection of our emissions for that reporting year due to missing data and working in throughout the Covid-19 restrictions, even so we wanted to kick-start our greener journey to begin implementing changes that will minimise our contribution to climate change.

Our approach:

- Knowing our carbon emissions we can tackle the biggest impacts. Therefore we estimated the hardest carbon emission hits in our company. To name a few; vehicles, fuels, electricity, plant and equipment use.
- Collecting data was the biggest drawback with no system to track each activity.
- Following the GHG Protocol standards the carbon emission conversion factors were directly sourced from the UK government website to ensure the reliability and precision of the report. Using these conversion factors we were able to calculate the carbon dioxide equivalent (kgCO₂e) based on the data we had compiled. Carbon Dioxide equivalent (CO₂e) is a unit that is used to measure how all the different greenhouse gases contribute to global warming.

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Our carbon footprint report is just the beginning of the journey....



Methodology

Conversion rates are based on the 2020 rates as the assessment year falls mainly in 2020 (April 2020 – March 2021).

Following the scope outlines; we compiled data for the 3 GHG Protocol Scopes;

Scope 1: Outlines the conversion rates for the fuel usages, bioenergy, refrigerants.....

Scope 2: Outlines the electricity conversion factors.

Scope 3: Outlines conversion rates for material use, waste disposal, hotel stay, water/wastewater treatment ...

Exclusions	Assumptions
Scope 3: Water/water treatment – our works are mainly based in sewage sites therefore our waste is directly into the sewage treatment works therefore it is difficult to estimate our water usage.	Scope 2: it was assumed that the Workshop electric data was the same as the office due to having no electric value for the workshop.
Scope 3: Materials/freighting of goods – Our projects range across various customer sites; it is challenging to keep track of all deliveries.	Scope 2: Assumptions were made for the material use of paper for the Workshop to be the same as the office due to the workshop being a new additional facility of Gel.
Scope 3: Waste disposal and recycling facilities are provided by our clients on the majority of our projects.	Scope 3: Hotel night stays was calculated using the overall UK conversion rate rather than UK (London rate). The majority of the night stays were outside the London region.

This report includes Scope 1:

- Fuel (Litres)

Scope 2:

- Electric

Scope 3:

- Hotel stays
- Materials Paper



The Outcome



Hotel Stays Fuels - Vehicle Electric Materials - Paper

Our approximate total Carbon emissions for the Assessment year 20/21 was **27 Tonnes of Carbon Dioxide** Equivalent (tCO₂e).

Our highest carbon emission activity of which is just under 90% is the fuel intake of company owned vehicles. Our fleet is of a diesel majority. Our expertise and projects require us to travel to sites; it will be difficult to reduce the need for travelling especially as our organisation expands.

What we can do:

✓ Share vans with other team members (Where practically possible).

✓ We can assign personnel to local sites.

✓ If there is no need for a physical presence then working from home or in the office is encouraged.

□ Introduce electric vehicles to the fleet.

□ Introduce hiring the use of electrical/solar powered plant.

The second highest carbon emissions activity was the overnight hotel stays. This is subject to the ongoing projects; this is predicted to increase post Covid-19 restrictions are lifted and as the organisation continues to grow.

Materials – This report only covers the use of paper. There is currently no way of storing or monitoring of information for other material usage.

Reduction Plans

- The simplest change we can make is altering our mindset as an organisation; providing the training such as Toolbox Talks and even a day out planting trees and litter picking in teams. This will encourage our personnel and will raise awareness of our impact and how we contribute to climate change.
- Maintaining sustainable practice for material conservation and optimising what we already have.
- We are starting to go paperless; many every day use documents are being restricted to online-use only. Our central database system GELNet has been developed to improve our efficiency as an organisation and will be used to reduce our footprint by minimising the need for printing.
- Establishing recycling facilities for our HQ office and on sites will encourage sustainable practice.
- Planning to minimise the use of hotel stays whilst using our GEL homes that houses personnel who commute long distances for projects.

Future Research/Changes:

- Introducing the use of renewable energy to power our sites; this will then encourage us to hire electrical plant as well as conducting research into solar powered plant
- Introducing the idea of rainwater harvesting to help conserve water on our sites.

Other/Carbon offset

- Purchasing of land to plant our very own GEL TREES. This would be a great way to set an example of our dedication to reducing climate change.
- Supporting renewable energy sources.
- Supporting charities that offset carbon emissions.



D To The Future

- As our expertise lies in the water/wastewater industry; we're always seeking a more sustainable approach to providing solutions to our clients. As we embark this greener journey, we will work on our own processes to reduce our own impact on climate change.
- GEL will keep up to date with new technology and invest in the future plant that will be used in our projects.
- GEL to plan a day out dedicated to all things of the environment. Buying a patch of land and using it to give back to the environment by planting trees; it will help offset our carbon emissions for activities that are difficult to lower but that are also difficult to change immediately.
- GEL to lead the way in our sector to inspire change in construction practice; showcasing what we do will motivate our suppliers and competitors to do the same.
- GEL to develop a system to track and monitor data for the upcoming years. This will create a more detailed action plan that will further us in our efforts to reduce our carbon emissions.