



**POWER GRID
CIVILS LTD**

SUSTAINABILITY BROCHURE



SUSTAINABILITY



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Power Grid Civils are committed to ensuring we run a sustainable, ethically sound business. In conjunction with our legal and moral obligations sustainability is becoming more and more important to our clients as a pre-requisite to working with them on their projects. We encourage sustainability at all levels of the business, without any reduction in Power Grid Civils High Quality standards.

We are committed to meeting our responsibilities within our local community. We support our local area through donations, sponsorship and time. Our sustainability Policy outlines our approach to sustainability and our endeavour to ensure our impact is a positive one.

As a result of the work Power Grid Civils undertake, we are regularly in contact with the natural environment. These areas can be Areas of Special Scientific Interest (ASSI's), Special Areas of Conservation (SAC's), Special Protection Areas (SPA's) and Ramsar Sites. As well as being ISO 14001 certified, we are committed to ensuring Power Grid Civils Environmental impact is as low as practical.



We are now members of the Supply Chain Sustainability School who cover all aspects of the built environment, and focus on eight main topics; Sustainability, Digital, FIR, Lean Construction, Management, Offsite, People and Procurement.

The School is an award winning industry wide collaboration, led by Partners and Members whose Vision for the School is to be:

“An industry where everyone will have the skills and knowledge to deliver a sustainable future.”



CARBON FOOTPRINT



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International Synergies NORTHERN IRELAND industrial ecology solutions

We recently embarked on a partnership with International Synergies (NI) Industrial Ecology Solutions who specialise in waste minimisation, recycling and recovery, water and waste, water treatment, renewable energy and transport. They also are experts in Industrial Symbiosis, in that they facilitate synergies between organisations that have wasted resources and others that can use those resources so both organisations, as well as the Environment can benefit. We believe this will have a positive impact on reducing our Carbon footprint moving forward.



With the support of InvestNI and in Conjunction with Element Consultants Ltd, Power Grid Civils Ltd have undertaken a programme to assess & examine the energy and carbon footprint of our business.

A report was compiled which addressed the following:

- Carbon foot printing
- Energy Efficiency options
- Methodology for assessing scope 1, 2 & 3 emissions
- Structures for achieving net zero operations



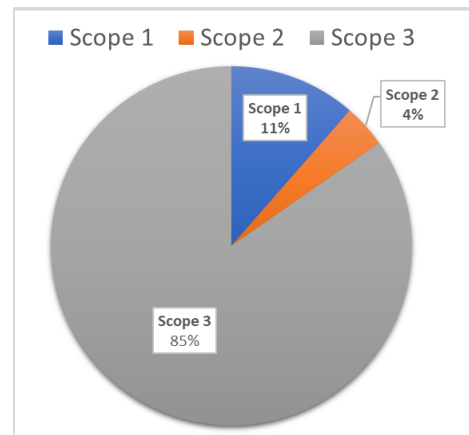
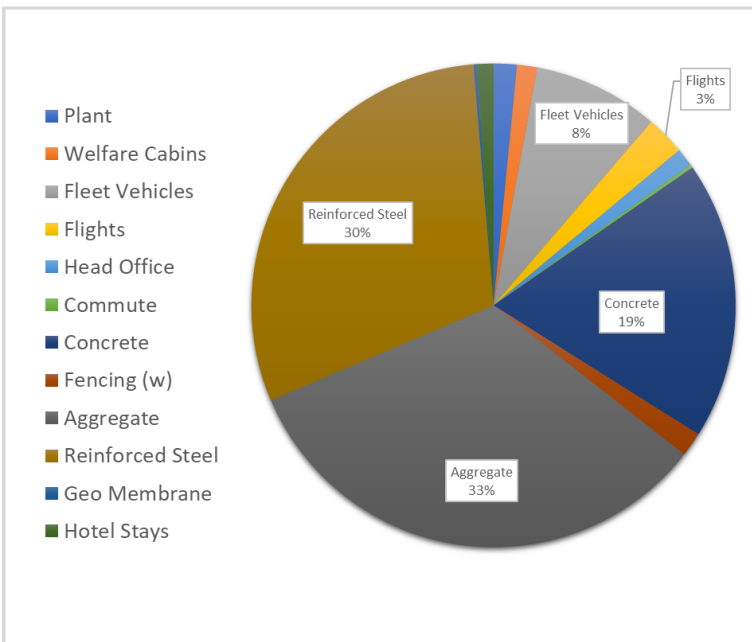
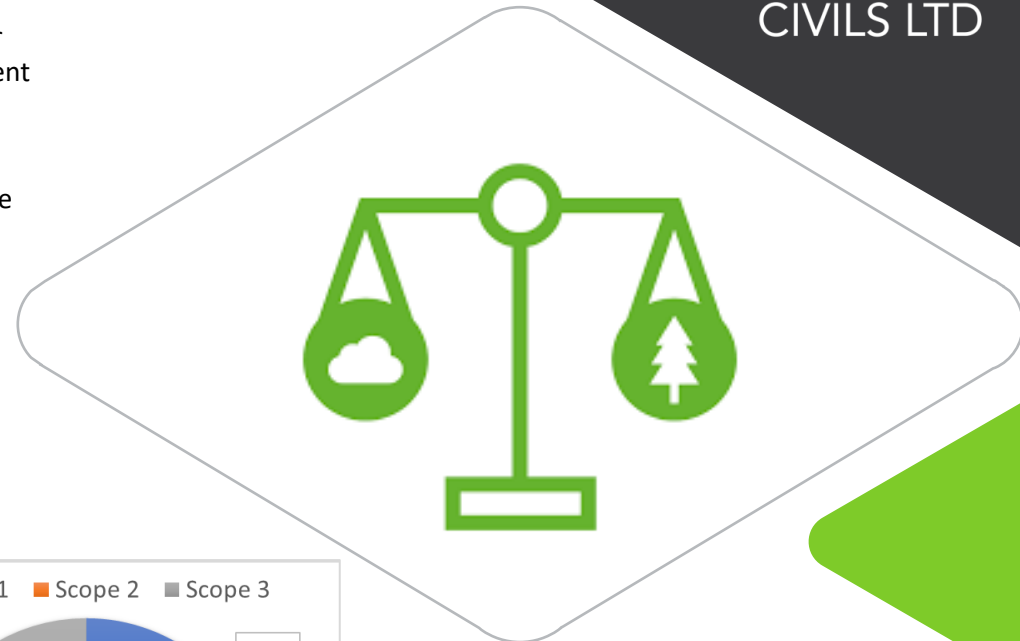


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Our Scope 1 and 2 comes from our fleet of vehicles, plant, flights, site welfare and a small amount from our head office. Our Scope 3 covers commute (private vehicles), Concrete, fencing (wooden), Aggregate, Reinforced steel, teram, geogrid and hotel stays.

At Power Grid Civils Ltd we have already considered our footprint. The use of eco mode excavators in conjunction with efficiency training, has positively impacted our footprint in the short term and our current annual footprint for plant bears this out; 18.29 CO(T). Following our current footprint measurement activity, we look to reduce our footprint further through the use of solar powered welfare units for our sites.

Moving forward, Power Grid Civils Limited will assess the potential for the use of hybrid or all electric excavators and fleet vehicles as we strive to reach net zero emissions from all our activities.



SCOTTISH WOODLANDS



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Approximately 80% of the island of Ireland was covered in woodland following the last Ice Age, 10,000 years ago. Sadly, today we have only 9% woodland cover in Northern Ireland and 11% in the Republic of Ireland.



Pollen grains preserved in peat bogs act like time capsules and provide us with valuable information on woodland structure and development a long time ago. These woodlands were initially composed of juniper, birch, pine, and hazel. Then around 8,000 years ago elm, pedunculate oak with yew, ash and hazel developed on the fertile soils, while Scots pine, birch and sessile oak were widespread on the poorer, upland soils. One thousand years later with the onset of a wetter climate this gave rise to the expansion of alder and reduction of Scots pine.

The first evidence of cereal pollen preserved in peat appears approximately 6,000 years ago which suggests that by this time the first forest clearances were well established. As early farming spread the amount of tree pollen thus fell and was replaced by pollen from grasses and notably ribwort plantain, which is found only in grasslands.

Approximately 2,500 years ago much of the uplands had been cleared of woodland. With the changing wetter climate, the hills and mountaintops then developed into blanket bog, and remained that way.

By the time the Civil Survey of Ireland was carried out between 1654-56, only 2-12% of woodlands remained. Little of the original primeval forests had survived, and most had already been cut at least once.

We at Powergrid Civils project manage the construction and maintenance of electricity infrastructure that span the UK and Ireland. This infrastructure is essential to support human and economic development. Therefore, we wanted to ensure we are contributing to return some of the woodland that was removed by human clearances long ago.

In April 2023, on the outskirts of Omagh, Co. Tyrone over 8 acres of native woodland was re-established with funding from PGC.

Approximately, 8,100 native trees have been planted comprising oak, birch, alder, hazel, crab apple, willow, rowan, and Scots pine.



VEHICLE FLEET



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As part of our operations, we operate a fleet of company vehicles in order to meet contract requirements. These account for 8% of our entire CO2 footprint. Although these vehicles necessary for us to fulfil our contract obligations, we are looking at this area to actively reduce the impact it has on our overall emissions. We will therefore replace any vehicles over 3 years old with new models with improved miles per gallon (mpg) to reduce emissions immediately. We will be running education initiatives to equip our vehicle drivers with the knowledge they need to reduce the emissions of their individual vehicle.

Some of this is detailed below:

- Toolbox Talks issued to sites on economy, driving style, standards expected, current CO2 performance.
- Driver improvement training where this is required.
- By insisting only required journeys are undertaken.
- By placing preference on shared car journeys.
- By using vehicles with a better fuel efficiency, when possible, on a task-by-task basis.
- By purchasing electric and/ or hybrid vehicles when this is practical.
- Feedback on driving statistics provided to our employees monthly (with improvement guidance as required) including; acceleration, braking, cornering and speeding from our vehicle tracking software TrackM8.



Trakm8
Data driven insights



WELFARE



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We are currently in the process of implementing the use of Deep Green Genfree Welfare units from Boss cabins across all sites. Based on our current figures these will greatly assist with the reduction of our carbon footprint. Currently our mobile welfare units are producing 15.84CO₂(T) annually.

- Fuel use (estimated) reduction of 1091L per welfare unit each year (=5455.32L for 5 units).
- Reduction in emissions of 3.188CO₂(T) per welfare unit per year (=15.84CO₂(T) for 5 units).
- 100% silent. Zero generator noise.
- Removal of generator servicing requirement (est. £1456 saving per unit per year).
- Toilet servicing monitored remotely, so they are emptied only when required.
- X 3.6 longer lifespan. Sustainably built – 97.2% materials used are recyclable at end of cabin life.



97.2%

**MATERIALS USED RECYCLABLE
AT END OF CABIN LIFE**



66%

**REDUCTION IN WATER CONSUMPTION AND
SERVICE VISITS.**

- HVO biofuel is used in the heater, the unit is running 100% on renewable energy with no fossil fuels consumed.
- Ability to track energy production and usage allows users to monitor and report on how well they are achieving their carbon footprint, Net Zero, ESG and other sustainability targets.
- A freshwater toilet system comprises a Dometic micro-flush toilet with fresh water and wastewater tanks integrated to the cabin and stainless-steel forearm sinks with hot and cold water. The urinal in the male toilet is waterless and odour-free. No harmful chemicals used in water purification process.
- 66% reduction in water consumption and service visits.



PLANT



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At Power Grid we are proud of our plant and our continual improvement in this regard, in terms of quality, specification and environmental impact. We currently have numerous Hitachi-7 excavators of various sizes up to 22T, all under constant review via the CT Fleet software. We review our plant fleet on a triannual basis to ensure we have plant that is economical and of the highest possible specification to meet the requirements of our contracts and sustainability goals.

Current CT Fleetlink data based on medium use, indicates our excavator fleet are producing 16.8CO₂(T) annually.



- Our current excavators have up to 9% reduced fuel consumption compared to previous models.
- Enhanced efficiency due to Hitachi's industry-leading hydraulic system, HIOS V.
- The Stage V-compliant engine does not require an SCR system, eliminating the need for urea, filter replacements and associated maintenance.
- Improved comfort in the cab with integrated console and seat suspension, reduced noise and low vibration levels.



CONCRETE



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As is normal with most companies Carbon Footprint our Scope 3 emissions account for the vast majority of our total emissions and as a company. We are looking at ways we can positively influence this and reduce it. In the main three materials that are integral to our service account for this; Reinforced steel- 355 CO2(T), Concrete- 220 CO2(T) and Aggregate- 397 CO2(T) (per annum).



We are continue to look into alternative types of concrete that are more environmentally friendly and sustainable. We highlight these options to our clients (subject to design requirements) at the tendering stage of our projects, as an option to reduce the overall Project CO2 footprint.

Hanson has developed its EcoCrete® range of low carbon concretes to make it easier to access low carbon concretes. EcoCrete® reduces the CO2 emissions associated with standard CEM I concrete by up to 85 per cent, helping Power Grid Civils and our clients meet our carbon reduction targets.

There are three products in the range:

EcoCrete®: reduces CO2 by 30-64 percent compared with CEM I concrete.

EcoCrete® Extra: reduces CO2 by 65-79 percent.

EcoCrete® Elite: reduces CO2 by up to 85 percent.



Benefits:

- Reduces the carbon emissions associated with concrete from 30% up to 85%.
- It is easy to use and place.
- Suitable for use in all applications, including reinforced and unreinforced.
- Unchanged construction process.
- Complies with BS 8500 and BS EN 206-1.
- Creates concrete with a lighter, more aesthetically pleasing colour.
- 100% recyclable at end of life, contributing to the circular economy.



REINFORCED STEEL



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Here at Power Grid Civils we are acutely aware of the impact steel production has on emission totals globally. The steel industry is one of the largest producers of carbon in the world. Every tonne of steel produced emits 1.6 to 2.0 CO₂(T), which equates to around 7-8% of total global emissions of CO₂.

CAPITAL REINFORCING

Our supply chain sources reinforced steel primarily through Capital reinforcing when specification and logistics allow us to. They have taken great strides in their production process in order to bring a product to market with genuine CO₂ footprint reduction credentials.



Capital Reinforcing carry UK Cares Sustainability Certification and BES6001 Approval. This means that Capital Reinforcing source 100% of their Steel from equally approved UK Cares Sustainable Steel Mills. The average recycled content of the steel they procure, and supply is around 98% recycled content using EAF (Electric Arc Furnace) routes which has the least carbon impact on all steel produced.

Capital Reinforcing also recycle 100% of their waste products and their goal is to become the first UK Fabricator to become carbon neutral. They have made recent investments in a solar farm to place on top of their factory roof which is approximately 4000m² of natural energy production which will assist them in achieving their carbon neutral goal in the future.



SOCIAL



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We believe in proactive identification and management of business impacts on our people, value chain workers, customers and in our local community. We review various factors as a matter of course in our undertakings- human rights, fair labour practices, living conditions, health, safety, wellness, diversity, equity, work-life balance, empowerment, community engagement, philanthropy and volunteering.

- Power Grid Civils has a counselling facility should the situation arise where an employee ever needs it.
- We have a Mental Health First aider in place in the event of an employee requiring assistance in a Mental Health crisis. We run various health and wellbeing initiatives to increase awareness and access to facilities in this area.
- We monitor our workforce to ensure we are meeting our diversity and equality objectives, as well as legislative requirements.
- We encourage communication between management and employees to facilitate employee engagement in health and wellbeing matters, our annual site health and safety meetings provide an excellent forum for a two-way flow of information between site and senior management.
- We will always seek to improve the qualifications of our employees.
- Annual Health checks are provided to our employees by Bluecrest Health.
- We actively engage in the local community, and this is evidenced in our regular donations of time and money.



We are extremely proud to have people working for Power Grid Civils, that are prepared to give up their time in order to improve their communities.



COMMUNITY



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We are extremely passionate about giving back to our local community and over the years the list continues to grow of the causes and groups we donate our time and money to.



Main Sponsor: TAGB – NI – Taekwondo World Championships
14th - 16th July 2023



Main Sponsor: Tummery Athletic Foyle Cup
16th - 17th July 2023



Main Sponsor: Drumragh Sarfields GFC
Mens Senior Team 2023





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HEAD OFFICE

Unit 4D, Lancer Buildings | Gortrush Industrial Estate
Omagh | Co. Tyrone | N. Ireland | BT78 5EJ

TEL 028 8299 0047 **EMAIL** info@powergridcivilsltd.com

WEB www.powergridcivilsltd.com