Make it NETZERO Carbon Report

RK Bell Group

Year 3 Report

Jan -24 – Dec 24



Prepared for: Glenith Eades

Created by: David Purcell

Date of Report 08-08-25





Company Overview

The RK Bell Group consists of three companies RK Bell Ltd, RK Bell Projects Ltd and GWorks Surfacing Ltd based in Bridgwater Somerset. The group serves a number of sectors including nuclear, construction, commercial, and local authorities. The business is growing and in year 3 had a total group turnover of £21.6 m with 81 employees.

RK Bell Ltd, operates a comprehensive and modern fleet of plant and equipment tailored to meet the diverse needs of civil engineering, construction and transport projects across the South West of England and Wales. The Company ensures all vehicles meet current safety and maintenance standards. Accredited to ISO9001, 14001, 45001, and certified by CPCS, NPORS, and CPA, their fleet includes tipper lorries, low loaders, beavertails, and smaller vehicles for a range of haulage needs, including abnormal loads and waste transport. RK Bell Ltd also supplies recycled and quarried aggregates and is fully equipped to operate within the Hinkley Point C project

RK Bell Projects Ltd offer a range of services including civil engineering, groundworks, drainage, service installation, Infrastructure and Highways. This work includes housing development and commercial projects, road and carriage construction, drainage installation and civil engineering earthworks etc.

Acquired in July 2023 **GWorks Surfacing Ltd** are establishing themselves within the industry to deliver projects to the highest standard. Their scope of work includes residential drives, roads, highways, patch repairs, trench reinstatement and minor civil works packages.

The RK Bell Group has engaged with the Net Zero agenda to reduce costs, deal with customer interest and generally become a more sustainable supplier.

The following report is for a year 3 scope 1 & 2 carbon measurement with some limited scope 3 information. Years 1 and 2 were calculated based on financial year data April – March and did not cover the complete group. The year 3 measurement is for the full group, and the reporting period has changed to coincide to the calendar year, Jan 24 – Dec 24.

Year 3 should be considered as a new baseline year measurement as the company has expanded its fleet and operations including the acquisition of the GWorks Surfacing Ltd business.

The year 3 report will show that since the original baseline year the scope 2 carbon emissions have been reduced significantly by **74.8%**, this represents a standout achievement and a clear demonstration of the Group's commitment and progress towards its sustainability goals.



The GHG Protocol sets the standards for businesses and government to measure and manage emissions. Its Corporate Standard classifies an organisation's greenhouse gas (GHG) emissions into three 'Scopes'...



Clarification of Terminology:

Carbon Neutral = Zero emissions within company owned operations (scope 1 & 2)

Net Zero = Zero emissions across the entire operation including direct and in-direct activities (scope 1,2 & 3)

co2e = A carbon dioxide equivalent or CO2 equivalent, abbreviated as CO2e is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

Reporting objectives and principles

This is a voluntary GHG emissions report that describes the company's carbon intense areas and key initiatives undertaken for carbon reduction. Additionally, the report is developed to track the performance of the company.

The reporting boundary includes:

- Scope 1 (Direct emissions).
- Scope 2 (Indirect emissions from energy purchased).



Year 3 Result - Jan 24 - Dec 24

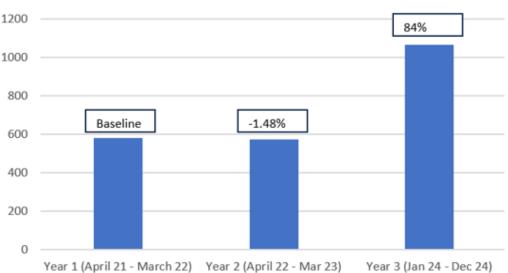
Total Footprint = 1066.5 metric tC02e

0.049 metric tCO2e per £1000 turnover

13.17 metric tCO2e per employee

Area	Carbon tCO2e	% footprint contribution
Electricity (Scope 2)	1.585	0.15%
Diesel (Scope 1)	1055.66	98.98%
Kerosene (Scope 1)	7.511	0.70%
Unleaded Petrol (Scope 1)	1.74	0.16%
TOTAL	1066.50	





In year 3 total scope 1 and 2 emissions have increased by 84% compared to the baseline year 1. All these increases have come from Scope 1 fuel usage throughout the equipment fleet. **It is important to note** that there has been a methodology change in year 3 with the decision to include the full RK Bell Group in the reporting , the group's operations expansion including the acquisition of GWorks Surfacing Ltd in July 2023 and the change in the yearly reporting timeline to a calendar year.

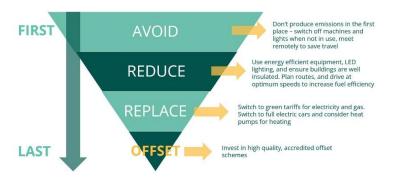


Carbon Reduction Plan

Culture change - the Carbon Hierarchy

The basis of any carbon reduction plan is to ensure that culture and behavioral change can be achieved.

When thinking about reducing emissions the following hierarchy should be deployed:



Everyone in the company should be aware of this approach and challenge themselves to avoid creating emissions in the first place and reduce them if this is not possible...offsetting any residual or 'unavoidable' carbon should be the last resort.

Reducing Emissions

Diesel usage - 95.5% of total footprint

The company consumes a high level of diesel across its fleet of equipment. In year 3 this equated to 396,641.44 Litres producing **1055.64 tCO2e**

The following should be considered when reviewing options on how to reduce the scope 1 carbon emissions from equipment fleet diesel consumption:

- a. Replace older equipment at the end of service life with more fuel-efficient models and/or review the feasibility of retrofit options with advanced emission control technologies.
- b. Transition to alternative lower-carbon fuels such as biofuel blends, renewable diesel and as technology improves explore electric or hybrid machinery where feasible. e.g., HVO fuels can reduce greenhouse gas



emissions by up to 90% when compared to conventional diesel. It is important to check with the equipment OEM to make sure HVO is a viable fuel. It is normally compatible; however it is essential to check. HVO is a more expensive fuel option which should also be reviewed in advance of adopting this direction in respect to financial viability.

- c. Keep equipment well maintained to ensure engines run efficiently and emissions controls operate correctly.
- d. Train operators in fuel efficient operation/driving techniques. Employee in-cab tech to monitor fuel efficient operation/driving techniques.
- e. Use appropriately sized equipment for the specific task, avoid overuse of larger more fuel intensive machines when a smaller one will do the job.

Electricity 0.15% of Scope 1 and 2 Emissions

Roof mounted solar panels were introduced and became operational on the 19th of Dec 2022. The roof mounted solar panels allowed the business to generate clean, renewable energy on the site of its Bridgwater head office, cutting operational costs. The RK Bell Group produce surplus electricity from its solar panel system that it can sell back to the grid, creating an additional revenue stream while supporting its wider energy transition goals.

Since the baseline, the yearly purchased electricity has dropped by **74.8%** (**30,431kwh to 7657.29 kwh)** resulting in a total year reduction of **5.44 metric tCO2e emissions**.

In November 2024 the electricity tariff was changed from a mixed fuel to a 100% green energy contract. This has eliminated all scope 2 carbon from the electricity usage within the group. However it still leaves some scope 3 carbon emissions associated with grid based transmission and distribution losses.

Another advantage of generating the majority of its energy needs through a solar system is the business needs to purchase considerably less electricity from external suppliers, which often come from carbon intensive generation sources. This reduces the upstream emissions that are associated with electricity production and transmission that form part of a Scope 3 measurement for purchased goods and services. Additionally, if surplus solar renewable power is sold back the grid, it can displace fossil fuel based electricity for other users, lowering overall emissions in the value chain and further reducing the company's scope 3 impact.



The final stage to decarbonize the business in terms of electricity would be to explore the feasibility of battery storage as an add on to a solar power system. By integrating battery storage, allowing excess energy generated during peak sunlight hours to be stored on-site for future use. This will further reduce and possibly eliminate the reliance on grid electricity. This technology continues to develop but currently can come with a high upfront capital cost. Justifying a favorable ROI based on the power usage of the RK Bell Group may make this option unfeasible in the short term.

Action:

• Explore options for battery storage for the Bridgwater site roof mounted solar powered system.

Kerosene Boiler Fuel for Heating 0.7% of Total Scope 1 & 2 Emissions

Kerosene burning for office heating resulted in 7.511 metric tCO2e carbon in year 3.

To further advance decarbonization, the company should explore transitioning from kerosene to cleaner alternatives. The most likely alternative would be to switch to electric heating, powered by the roof mounted solar panel system. Other alternatives include the adoption of heat pumps or considering renewable liquid options.

Unleaded Fuel for Small Tool Equipment 0.16 % of Total Scope 1 & 2 Emissions

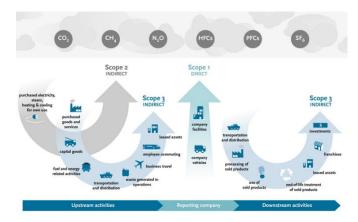
Unleaded fuel used for small tools resulted in 1.74 metric tCO2e carbon in year 3

The use of unleaded fuel in small tool equipment contributes to the scope 1 direct emissions although this has been kept to a low level and is just 0.16% of the total year measurement.

Scope 3



This assessment has concentrated on Scope 1 & 2 emissions, the normal starting point for all companies MINZ activities. To be able to comprehensively manage and reduce a carbon footprint it is necessary to expand the yearly assessment to include Scope 3 emissions. These are indirect emissions from up and down stream of the business operations and can come from 15 different categories (as shown below),



Scope 3 reduction activities will be required to reach a Net Zero position and therefore should be looked at as the next stage of the company's Net Zero journey.

To initiate a scope 3 measurement it is recommended to do the following:

- **a. Identify the relevant scope 3 categories** The GHG protocol defines 15 scope 3 categories. It is recommended to conduct an audit to determine which of the categories are most significant to the RK Bell Group business
- **b. Start Data Collection** For the most relevant categories
- **c. Conduct scope 3 Base line calculation** For review and to determine initiatives for scope 3 carbon reduction.
- **d. Set a Net Zero roadmap** based on total Scope 1,2 & 3 carbon. Including priorities and timeline.

Report Summary

The RK Bell group is committed to advancing its net zero goals through a comprehensive approach to measuring and reducing greenhouse gas emissions across its businesses. Since the baseline year, Scope 2 emissions have decreased by **74.8%**. This is a standout achievement which fully demonstrates the work the group has conducted to reduce its reliance on the purchase and consumption of electricity.



Scope 1 emissions have increased due to business expansion and the greater use and number of its fleet. To address this it is recommended to explore the feasibility to use low carbon fuel alternatives such as HVO and enhance operational efficiency through telematics (vehicle monitoring), enhanced maintenance and operator training.

The installation of roof mounted solar panels has resulted in a 74.8% reduction in purchasing electricity from the grid through self-generation where excess power is fed back into the grid for wider carbon saving benefits.

The feasibility to phase out the burning of Kerosene in favor of electric heating powered by the roof mounted solar panel system should be considered, as this could remove a further 7.511 tCO2e carbon per year.

Alongside direct emissions, the company should expand its carbon accounting to include scope 3 emissions as the next step in its Net Zero journey.

Make it Net Zero Action Plan

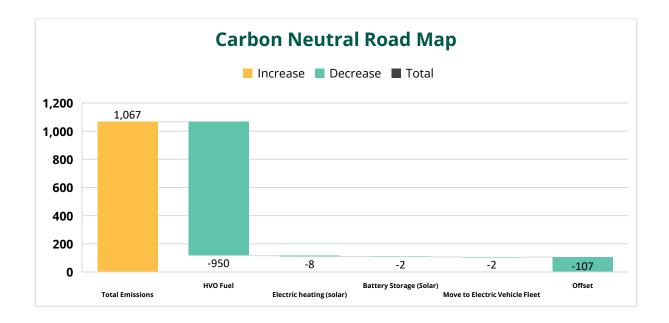
Emission Type	Action	Carbon saving Potential tCO2e
Electricity	Investigate feasibility of battery storage option for solar power system and or the move to 100% green Tariff	1.585
Diesel Fuel	Investigate feasibility to move to HVO for the total fleet	950.09
Kerosene	Move to electric office heating powered by solar	7.511
Total Savings		959.19

Note: The above is for reference only and calculates what could be achieved with 100% achievement for each action. Feasibility and ROI would need to be assessed for each



Summary Roadmap to Carbon Neutrality

The below 'waterfall' chart shows the possible 'ideal world' carbon reductions for the business and how by offsetting the 'residual' carbon, the business could reach **carbon neutral** within its **Scope 1**, and **2** emissions.



Next Steps

- Oreate company charter and plan to encompass the actions within this report.
- Run staff awareness sessions to get the whole team on board.
- Develop a Scope 3 Project to identify measure and reduce these emissions.
- Regular data collection to track progress.

Offsets

If wishing to offset only use high quality and verified offsetting schemes or carbon removal technologies to eradicate residual emissions.

Look for these accreditation badges – IRCA, Gold, and Vera.



Net Zero Pledge

To meet the requirements of the United Nations Race 2 Zero Campaign (Race To Zero Campaign | UNFCCC), the business needs to meet the minimum requirements (Race to Zero Criteria 3.0 (unfccc.int)) and make a public pledge of its plans.

Your pledge can be made via the SME Climate Hub - Commitment - SME Climate Hub which is the UK's recognised platform supporting the UNFCCC's Race to Zero campaign.

Your suggested pledge would be:

- Halve your greenhouse gas emissions before 2030
- Achieve net zero emissions before 2050
- Disclose your progress on a yearly basis

Appendix - Standard and methodology used

This report categorizes its Greenhouse Gas (GHG) Emissions as Scope 1,2 or 3 as referred to in the WBCSD – WRI Greenhouse Gas Protocol (revised edition, dated March 2014). Emissions in Carbon Dioxide equivalent (CO2e) for all scopes are calculated using the conversion factors listed in DENZ Greenhouse Gas Conversion Factors for the relevant 12 month period over which the Carbon Footprint is calculated. Procured renewable electricity and gas is calculated in accordance with the WBCSD – WSI Scope 2 Guidance on procured renewable energy (2015).

Data Quality / Confidence

The data used to generate this report has been collected from various sources (including energy bills and 3rd Party data (including direct, accurate supplier data in relation to the exact level of diesel fuel supply (litres)) and converted to CO2e using the current DENZ conversion factors that it is a true and fair reflection of the both the units of consumption and the resultant GHG emissions of the reporting firm.



** Offsets

As part of the commitment of the business to target reductions in its GHG emissions and ultimately attain net zero, the company will review and report all offsetting that it enters into. All offsetting options will be considered and reported, including formally certificated schemes (e.g., Gold Standard) as well as more informal schemes. Where offsetting is done against informal schemes, details of the calculation logic will be reported.

