AUDIT OF CARBON EMISSIONS AND DECARBONISATION STRATEGY TO ACHIEVE NET ZERO

PROGRESS UPDATE FOR REPORTING PERIOD:

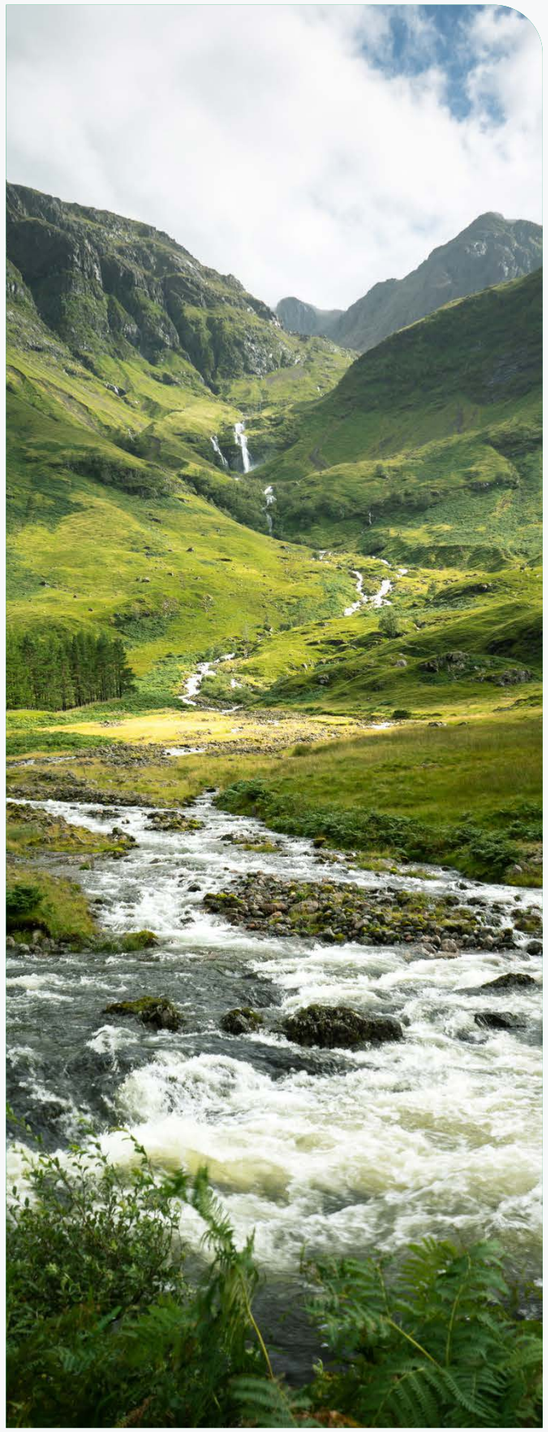
1ST JUNE 2023 TO 31ST MAY 2024

JULY 2025

creative play

Carbon footprint

net zero aligned



Go Green Experts supports organisations in the measurement and reduction of their carbon footprint. We have a wealth of experience supporting companies and non-profits in their drive to reach a lower environmental impact. We ensure that our work is in line with the latest science and standards.

Creative Play (UK) Ltd are experts in commercial and school playground equipment.

Children have been enjoying our outdoor playground equipment for over 30 years in school playgrounds, parks, and holiday parks across the UK.

Title: Audit of Carbon Emissions and Decarbonisation Strategy to Achieve Net Zero
For Period: 1st June 2023 to 31st May 2024
Company: Creative Play
Project Sponsor and Approval: James Harris
Company Authors: Louise Esser
Consultants: Go Green Experts Ltd
Co-Authors: Camilla Krefting & Will Dennis
Dated: July 2025

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EXECUTIVE SUMMARY

To achieve Net Zero, Creative Play needs to consistently remove carbon from our operations and wider business activities each year until 2045. After setting our baseline footprint and committing to this target in 2022, this report now highlights the progress of our journey.

By 2030 Creative Play is also committed to an interim target of reducing Scope 1 and Scope 2 greenhouse gas (GHG) emissions by 50% from our 2022 baseline. We also have an ambition to measure and control Scope 3 emissions, targeting a total GHG reduction of 45% by 2030. These targets are consistent with a 1.5°C reduction pathway and are set in accordance with the Science-Based Targets Initiative (SBTi) guidance. Additionally, we have committed to achieving 80% renewable electricity use by 2025, and 100% renewable electricity use by 2035.

The company's baseline emissions were measured for the period 1st June 2021 to 31st May 2022, totalling 592.72 tonnes of CO_2 equivalent (tCO_2e). In the following reporting period from June 2022 to May 2023, total emissions rose by 19% to 707.15 tCO_2e primarily as a result of a significant increase in spend on goods and services. This increase was due to a one-off impact of moving offices during the year.

Emissions subsequently decreased by 3% in the period from 1st June 2023 to 31st May 2024 to 686.46 tCO_2e with material purchases continuing to be the main driver of emissions. We are on track to hit our forward looking targets and interim 2030 target.

Creative Play's carbon intensity has followed a similar pattern to overall emissions, increasing from 104 tCO_2e per £m to 116 tCO_2e in 2023 and slightly dropping to 114 tCO_2e in 2024. The higher intensity is due to the increase in emissions associated with purchases, which sit under scope 3. The key intensity metric for direct (scope 1 & 2) emissions has reduced from a baseline of 12.72 tCO_2e per £m to 8.76 and 8.04 tCO_2e in 2023 and 2024 respectively. This has been achieved by a 65% reduction in electricity emissions, driven in part by increased use of self-generated solar energy.

A summary of carbon reduction initiatives, both completed and planned, are set out in section 2 of this report.

1.
ORGANISATIONAL BOUNDARY

DATA SETS ANALYSED

Go Green Experts Ltd has reviewed the following data sets submitted by Creative Play:

1. Electricity, gas and fuel consumption
2. Self-generation of renewable energy
3. Business travel: fuel and mileage data
4. Employee commuting and homeworking survey data
5. Waste production
6. Water consumption
7. Refrigerant usage
8. Purchased goods and services from company accounts

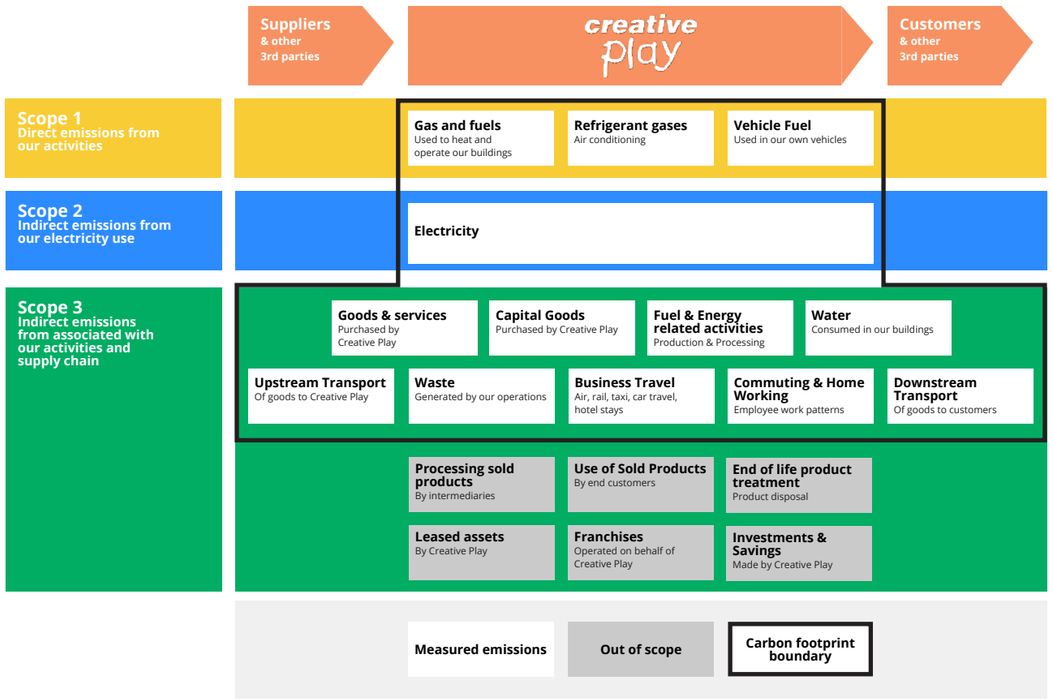
The data was used to calculate the carbon footprint of Creative Play as described in section 3.

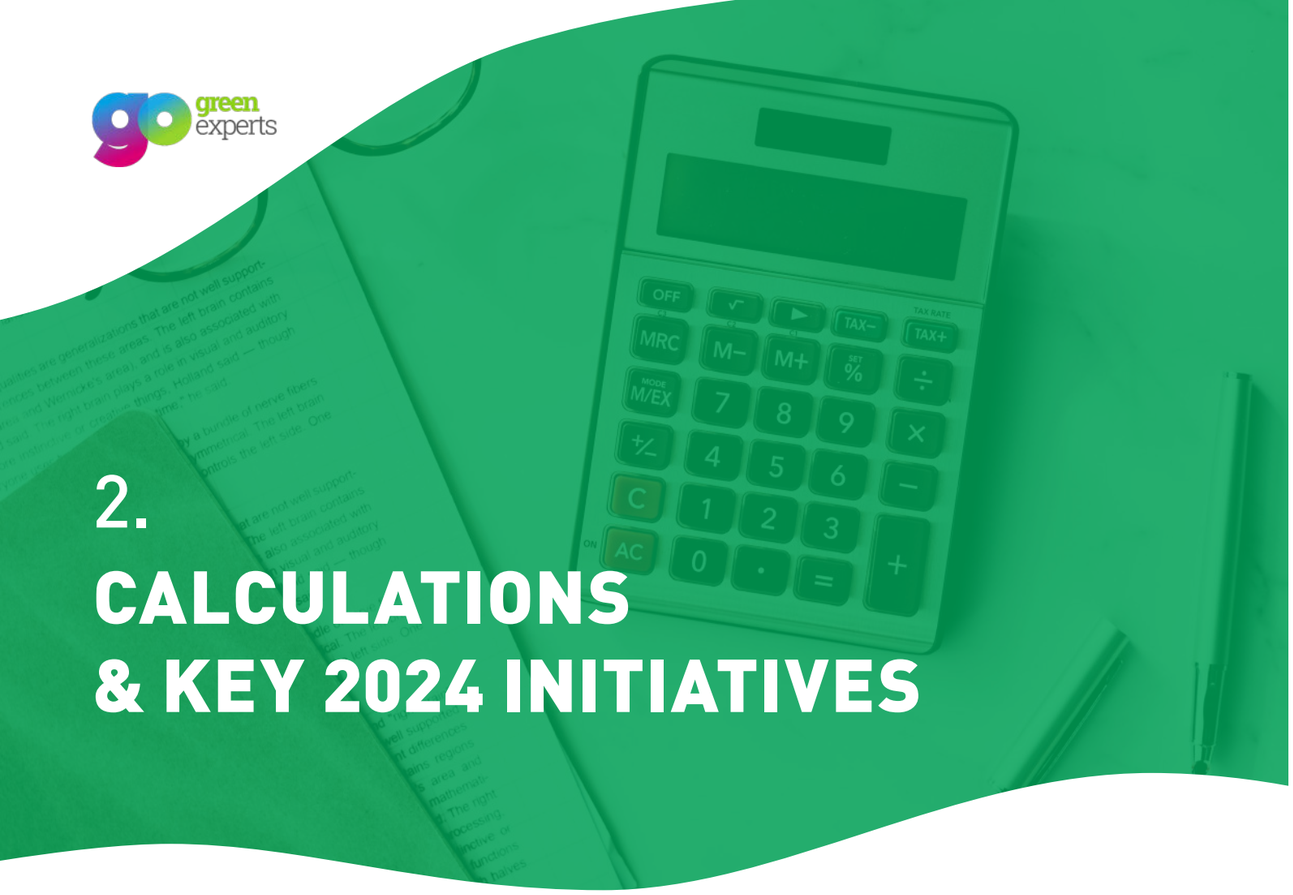
Boundary Setting

Creative Play has adopted the Operational control approach to GHG measurement – we record emissions from facilities, sites and operations over which we have operational control.

The boundary for the measurement of the carbon footprint has been set as the direct operations for Creative Play. The below diagram highlights what is included and excluded from the boundary.

Creative Play's Organisational Boundary





2. CALCULATIONS & KEY 2024 INITIATIVES

The carbon emissions for each category of consumption were calculated using the methodology defined in the Greenhouse Gas Protocol and the carbon conversion factors published annually by ONS and DESNZ on behalf of the UK Government.

Emissions consist of several atmospheric greenhouse gases which include Carbon Dioxide (CO_2), Sulphur Hexafluoride (SF_6), Methane (CH_4), Nitrous Oxide (N_2O), Ozone (O_3), Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs).

For simplicity of comparison, the global warming potential (GWP) of all these gases is combined into a Carbon Dioxide Equivalent (CO_2e). All 'carbon emissions' quoted in this report are in CO_2e units.

Calculations

For the period 1st June 2022 to 31st May 2023 & 1st June 2023 to 31st May 2024 the total carbon footprint (scopes 1, 2 and 3) for Creative Play was calculated to be:

2023

Total Footprint – Location-based:

707.15

tonnes CO_2e

Total Footprint – Market-based:

699.04

tonnes CO_2e

tCO_2e per £M Turnover Location-based:

116.38

tCO_2e per £m turnover

tCO_2e per £M Turnover Market-based:

115.04

tCO_2e per £m turnover

tCO_2e per Employee:

15.8

tCO_2e per employee

2024

Total Footprint – Location-based:

686.46

tonnes CO_2e

Total Footprint – Market-based:

678.35

tonnes CO_2e

tCO_2e per £M Turnover Location-based:

113.80

tCO_2e per £m turnover

tCO_2e per £M Turnover Market-based:

112.46

tCO_2e per £m turnover

tCO_2e per Employee:

14.5

tCO_2e per employee

KEY 2024 INITIATIVES

Completed

- Moved premises from Knutsford Way with an EPC rating of D (75) to Tilston Court with EPC rating of C (72).
- Fitted LED lighting when the building works were completed in Tilston Court.
- Replaced 12mm 100% virgin plastic in production practices with 12mm sheets containing 80% recycled plastic.
- Production replaced Heksa Buffalo Board made from Birch Plywood with Ekon EkoGrip which contains 91% regenerated waste for the 18mm sheets and 89% regenerated waste for the 15mm sheets. The remaining part is made out of a thin top layer of virgin plastic.
- Installed 4.5kWh solar panels in April 2023.
- Installed a 22kW 3-phase electric charging point at the office for employees to charge electric vehicles.
- Cycle to work scheme is ongoing, in 2022 a new bike rack was installed for employees to use. In the last year an additional 2 employees have signed up to the scheme.
- Delivered comprehensive sustainability training programs for all employees to foster a culture of environmental responsibility.
- Installed additional insulation to retain heat above office communal area.
- A vehicle sharing incentive scheme has been launched to reduce travel emissions.
- Additional stud work undertaken above office communal area to reduce the area size and increase heat retention.
- Travel distances for site operatives on projects have been minimised.

Planned

- Researching environmental charities so we can offer them support and donations.
- Installation of battery storage to capture excess solar energy instead of returning to grid.

3.
CARBON FOOTPRINT

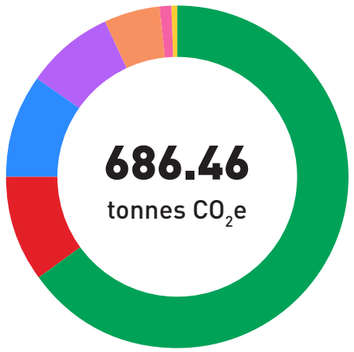
The below charts show the total carbon footprint for Creative Play. Figure 3.1 shows the carbon footprint based on the “location-based” methodology for electricity emissions, whilst figure 3.2 shows the carbon footprint based on the “market-based” methodology for electricity emissions.

- **The location-based method:** A method to quantify GHG emissions (from electricity) based on average energy generation emission factors for defined locations. This assumes that electricity emissions per kWh are the average for the UK national grid.
- **The market-based method:** A method to quantify GHG emissions based on GHG emissions per kWh supplied by the generators from which the reporter contractually purchases electricity.

Carbon Emissions by activity for the period 1st June 2023 to 31st May 2024

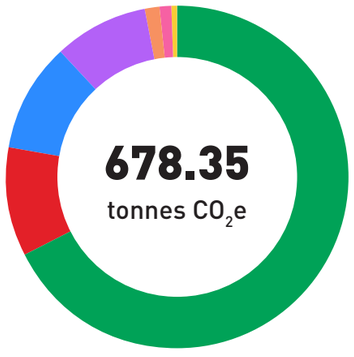
Aspect	Tonnes CO_2e				
	Total	Scope 1	Scope 2	Scope 3	%
Mains Gas	3.06	2.63	-	0.43	0.4%
Electricity	10.76	-	8.11	2.65	1.6%
Fuel Oil	0.00	0.00	-	0.00	0.0%
LPG	0.63	0.56	-	0.07	0.1%
Business Travel	46.31	37.22	-	9.09	6.7%
Freight	27.67	-	-	27.67	4.0%
Staff Commuting	52.49	-	-	52.49	7.6%
Working from Home	3.06	-	-	3.06	0.4%
Waste	17.02	-	-	17.02	2.5%
Water & Sewerage	0.06	-	-	0.06	0.0%
Air Con Cooling	0.00	0.00	-	0.00	0.0%
Purchases	525.39	-	-	525.39	76.5%
Total	**686.46**	**40.41**	**8.11**	**637.94**	**100%**

Figure 3.1: Creative Play Total Carbon footprint 2024 – Location-based



Aspect	Tonnes CO_2e				
	Total	Scope 1	Scope 2	Scope 3	%
Mains Gas	3.06	2.63	-	0.43	0.4%
Electricity	2.65	-	-	2.65	0.4%
Fuel Oil	0.00	0.00	-	0.00	0.0%
LPG	0.63	0.56	-	0.07	0.1%
Business Travel	46.31	37.22	-	9.09	6.7%
Freight	27.67	-	-	27.67	4.0%
Staff Commuting	52.49	-	-	52.49	7.6%
Working from Home	3.06	-	-	3.06	0.4%
Waste	17.02	-	-	17.02	2.5%
Water & Sewerage	0.06	-	-	0.06	0.0%
Air Con Cooling	0.00	0.00	-	0.00	0.0%
Purchases	525.39	-	-	525.39	76.5%
Total	**678.35**	**40.41**	**0.00**	**637.94**	**100%**

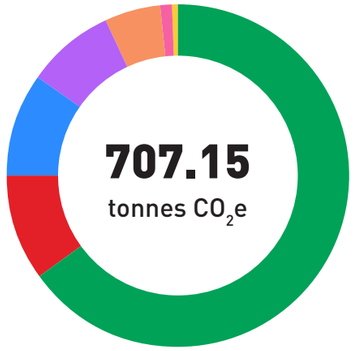
Figure 3.2: Creative Play Total Carbon footprint 2024 – Market-based



Carbon Emissions by activity for the period 1st June 2022 to 31st May 2023

Aspect	Tonnes CO_2e				
	Total	Scope 1	Scope 2	Scope 3	%
Mains Gas	0.00	0.00	-	0.00	0.0%
Electricity	10.96	-	8.10	2.86	1.5%
Fuel Oil	0.00	0.00	-	0.00	0.0%
LPG	1.10	0.98	-	0.12	0.2%
Business Travel	54.96	44.16	-	10.80	7.8%
Freight	25.08	-	-	25.08	3.5%
Staff Commuting	50.56	-	-	50.56	7.2%
Working from Home	2.93	-	-	2.93	0.4%
Waste	7.00	-	-	7.00	1.0%
Water & Sewerage	0.08	-	-	0.08	0.0%
Air Con Cooling	0.00	0.00	-	0.00	0.0%
Purchases	554.47	-	-	554.47	78.4%
Total	707.15	45.14	8.10	653.90	100%

Figure 3.3: Creative Play Total Carbon footprint 2023 - Location-based



Aspect	Tonnes CO_2e				
	Total	Scope 1	Scope 2	Scope 3	%
Mains Gas	0.00	0.00	-	0.00	0.0%
Electricity	2.86	-	-	2.86	0.4%
Fuel Oil	0.00	0.00	-	0.00	0.0%
LPG	1.10	0.98	-	0.12	0.2%
Business Travel	54.96	44.16	-	10.80	7.9%
Freight	25.08	-	-	25.08	3.6%
Staff Commuting	50.56	-	-	50.56	7.2%
Working from Home	2.93	-	-	2.93	0.4%
Waste	7.00	-	-	7.00	1.0%
Water & Sewerage	0.08	-	-	0.08	0.0%
Air Con Cooling	0.00	0.00	-	0.00	0.0%
Purchases	554.47	-	-	554.47	79.3%
Total	699.04	45.14	0.00	653.90	100%

Figure 3.4: Creative Play Total Carbon footprint 2023 - Market-based

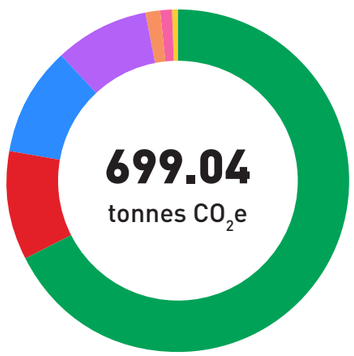


Figure 3.5: Creative Play Total Carbon footprint - comparison

Aspect	Tonnes CO_2e			Variance 2023 to 2024	Variance 2022 to 2023
	2024	2023	2022		
Mains Gas	3.06	0.00	0.00	100%	0%
Electricity	10.76	10.96	31.05	-2%	-65%
Fuel Oil	0.00	0.00	0.00	0%	0%
LPG	0.63	1.10	2.84	0%	-61%
Business Travel	46.31	54.96	58.87	-19%	-7%
Freight	27.67	25.08	59.10	9%	-58%
Staff Commuting	52.49	50.56	49.40	4%	2%
Working from Home	3.06	2.93	0.00	4%	100%
Waste	17.02	7.00	6.00	59%	17%
Water & Sewerage	0.06	0.08	0.06	-24%	33%
Air Con Cooling	0.00	0.00	0.00	0%	0%
Purchases	525.39	554.47	385.40	-6%	44%
Total	686.46	707.15	592.72	-3%	19%

Commentary

Annual variations and data assumptions

The total carbon footprint for Creative Play has decreased from 2023 to 2024 by 3%, following a 19% increase the previous year. Data quality comments and assumptions for each activity are outlined below:

Scope 1 – Gas, LPG and refrigerants:

- Mains gas consumption has been recorded for the first time in 2024; this 2.63 tonnes of scope 1 (and 0.43t in scope 3) has no year-on-year comparison.
- LPG emissions have gradually reduced in line with consumption since the baseline reporting year, from 828 litres in 2022 to 630 and 360 litres in 2023 and 2024 respectively. This is due to an increase of yard space with more storage space, leading to a better layout of units (less space between units) and therefore less consumption.
- No air conditioning leaks were reported in 2023 and 2024; refrigerant emissions are reported as zero.

Scope 2 – Electricity:

- Installation of solar panels has significantly reduced the reliance on grid electricity, leading to a 65% reduction in related emissions. In 2024 the panels generated 53,682 kWh of clean energy; the remaining grid use was covered by 100% renewable energy tariffs, leading to a further reduction of 8 tonnes of CO_2e when reporting market-based emissions.

Scope 3.1 – Purchased goods & services:

- Spend increased by 44% between 2022 and 2023 leading to a significant increase in purchase emissions, compounded by elevated emission factors for some core product materials. However emissions then decreased year on year from 2023 to 2024.

Scope 3.3 – Water:

- Water consumption for 2024 has returned to the 2022 baseline level after a 25% increase during 2023. Data was estimated for the first quarter of 2023 due to a lack of billing information for the period of transition between sites.

Scope 3.4 & 3.9 – Upstream and downstream transportation:

- Emissions data for freight has been extracted from purchases, and 2023 saw a 58% reduction in spend on related suppliers, which has been maintained for 2024. Future data accuracy will rely on fuel or mileage data from freight suppliers, or access to a customer dashboard.

Scope 3.5 – Waste:

- Total waste has decreased and more recycling has occurred with suppliers such as Rebound Rubber, who remove and recycle rubber surfaces, saving this material from landfill or incineration. However due to a lack in granular data (such as type of waste) the emissions factor for commercial and industrial waste was used in 2023; as this carries a higher emissions factor it lead to an increase in waste emissions.

Scope 3.6 – Business travel:

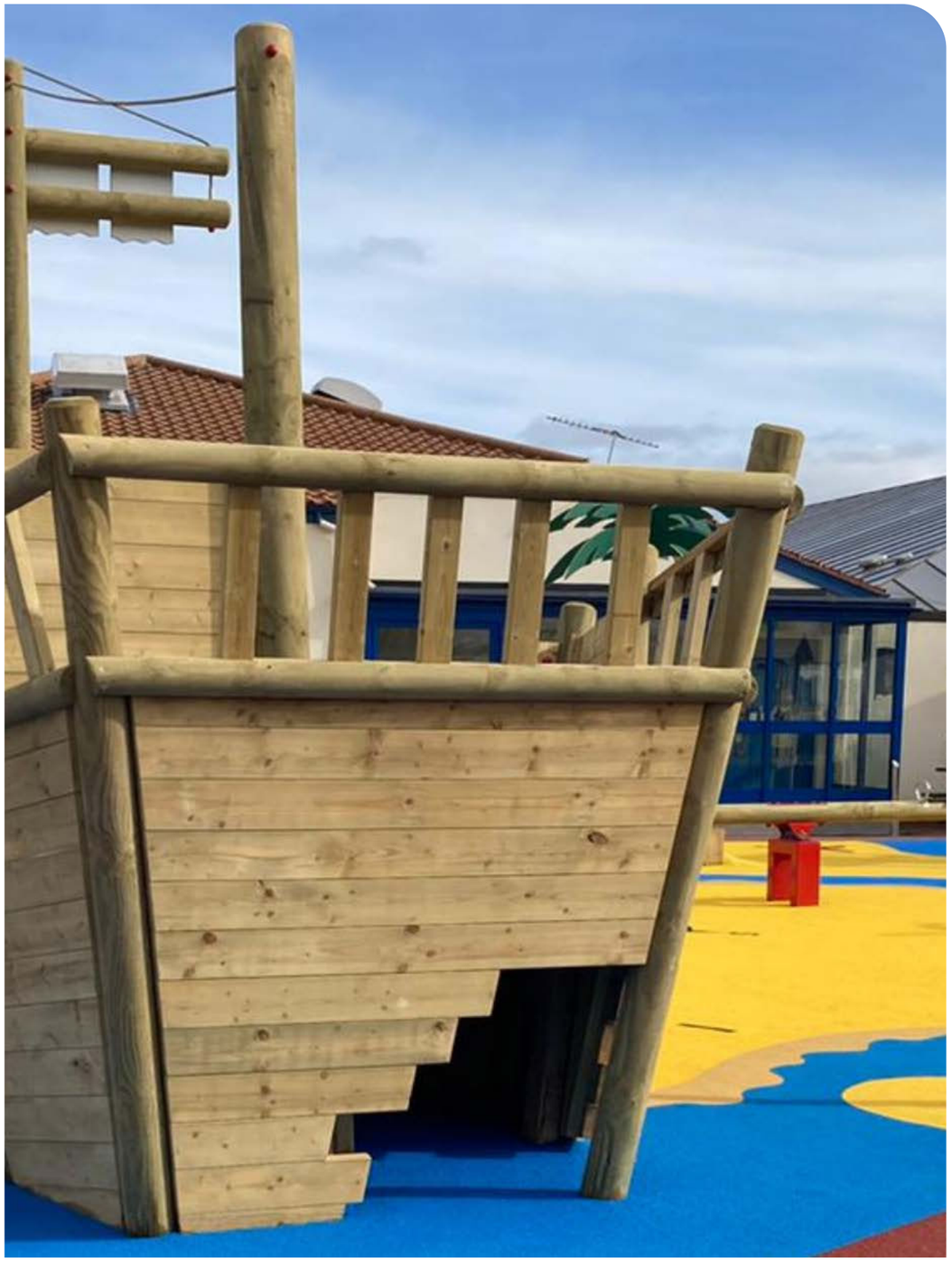
- Business related travel emissions have been calculated using mileage data. An initial 7% reduction in mileage from 2022 to 2023 has been further reduced by 19% in 2024.
- No air travel was reported for the 2023 or 2024 periods.

Scope 3.7 – Commuting and working from home:

- Emissions data is based on an employee survey from 2023 that received 29 responses. An average of the survey responses was taken to extrapolate the data to the total amount of employees that did not complete the survey.
  - » Commuting emissions were calculated for each respondent based on travel type or vehicle type, commuting distance and number of days in the office.
  - » Homeworking emissions were calculated based on reported days working from home and contracted hours.
  - » Despite using the same survey data, updated emission factors for both commuting and working from home have led to increased emissions between 2023 and 2024.
  - » The result of the extrapolation overestimates the WFH figure and shows an increase in WFH emissions year on year when the reality is likely a reduction occurred. This will be reflected in next year's report as more accurate WFH data is used.
- To improve accuracy a new survey will be done for the 2025 period (1st June 2024 to 31st May 2025).

Out of Scope:

- Scope 3 categories 8, 10, 11, 12, 13, 14 and 15 are not in scope for this report, as defined in the boundary on page 7.

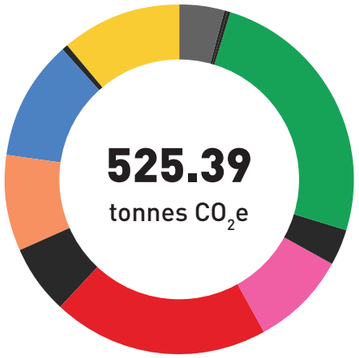


Purchased Goods & Services

Emissions calculations for Creative Play's purchased goods and services are primarily spend-based, with the key categories listed below. The predominant emissions come from Timber and Cement, which are used in the construction of playgrounds. Future reductions in this scope 3 area will focus on using more sustainable, less carbon-intensive or reclaimed materials.

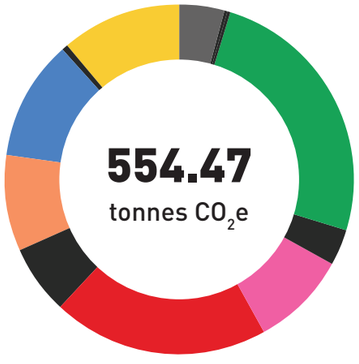
Activity	tCO_2e	Scope 3	%
Services, Training & Marketing	23.23	23.23	4.4%
Building, Repairs & Maintenance	1.17	1.17	0.2%
Computers & IT	0.86	0.86	0.2%
Timber	130.96	130.96	24.9%
Plastic & Grass mat	18.39	18.39	3.5%
Metals, poles, fixtures & ringlets	46.87	46.87	8.9%
Ballast & Cement	104.75	104.75	19.9%
Rubber & wet pour	33.77	33.77	6.4%
Other materials	46.73	46.73	8.9%
Sub-contractors	58.35	58.35	11.1%
Stationery	2.18	2.18	0.4%
Courier services	58.13	58.13	11.1%
Total	525.39	525.39	100%

Figure 3.6: Creative Play 2024 Purchases Footprint



Activity	tCO_2e	Scope 3	%
Services, Training & Marketing	17.05	17.05	3.1%
Building, Repairs & Maintenance	11.55	11.55	2.1%
Computers & IT	0.84	0.84	0.2%
Timber	149.02	149.02	26.9%
Plastic & Grass mat	8.37	8.37	1.5%
Metals, poles, fixtures & ringlets	56.08	56.08	10.1%
Ballast & Cement	135.47	135.47	24.4%
Rubber & wet pour	31.37	31.37	5.7%
Other materials	68.32	68.32	12.3%
Sub-contractors	61.69	61.69	11.1%
Stationery	5.95	5.95	1.1%
Courier services	8.76	8.76	1.6%
Total	554.47	554.47	100%

Figure 3.7: Creative Play 2023 Purchases Footprint



4.

CARBON INTENSITY

Carbon Intensity is a metric that allows a company to compare its emissions year-on-year as the size and activity of the business increases or decreases. This is calculated by measuring emissions per £m in revenue, staff headcount or production.

These metrics allow industry benchmarking and comparison with similar organisations publishing their own carbon intensity and enable customers to estimate their own footprint from doing business with Creative Play, using the revenue intensity metric multiplied by their spend.

Overall intensity has been impacted by the significant increase in spending since the baseline year, leading to a 12% increase per £m in 2023. Intensity per £m reduced by 2% year-on-year in 2024 which is in line with a slight reduction in turnover. However, both years have seen a continued reduction in the scope 1 & 2 intensity metric, showing the control of direct emissions. Since the baseline this has come down by 33%.

Figure 4.1: Creative Play Carbon Intensity Metrics –2024

Company Details	
Reporting year	2024
Revenue	£6,032,092
Employees (FTE)	49

Emissions Summary	Location based	Market based
Total tCO_2e	686.46	678.35
tCO_2e per £M	113.80	112.46
tCO_2e per FTE	14.01	13.84

Revenue intensity by scope	Location based			Market based		
	tCO_2e	tCO_2e per £M	% annual change	tCO_2e	tCO_2e per £M	% annual change
Scope 1	40.41	6.70	-10%	40.41	6.70	-10%
Scope 2	8.11	1.34	1%	0.00	0.00	0%
Scope 1 & 2	48.52	8.04	-8%	40.41	6.70	-10%
Scope 3	637.94	105.76	-2%	637.94	105.76	-2%
Total	**686.46**	**113.80**	**-2%**	**678.35**	**112.46**	**-2%**

Figure 4.2: Creative Play Carbon Intensity Metrics – 2023

Company Details	
Reporting year	2023
Revenue	£6,076,326
Employees (FTE)	46

Emissions Summary	Location based	Market based
Total tCO_2e	707.15	699.04
tCO_2e per £M	116.38	115.04
tCO_2e per FTE	15.37	15.20

Revenue intensity by scope	Location based			Market based		
	tCO_2e	tCO_2e per £M	% annual change	tCO_2e	tCO_2e per £M	% annual change
Scope 1	45.14	7.43	-15%	45.14	7.43	-15%
Scope 2	8.10	1.33	-66%	0.00	0.00	0%
Scope 1 & 2	53.25	8.76	-31%	45.14	7.43	-15%
Scope 3	653.90	107.61	18%	653.90	107.61	18%
Total	**707.15**	**116.38**	**12%**	**699.04**	**115.04**	**15%**

Figure 4.3: Creative Play Carbon Intensity Metrics – 2022

Company Details	
Reporting year	2022
Revenue	£5,705,630
Employees (FTE)	49

Emissions Summary	Location based	Market based
Total tCO_2e	593.73	570.47
tCO_2e per £M	104.06	99.98
tCO_2e per FTE	12.12	11.64

Revenue intensity by scope	Location based			Market based		
	tCO_2e	tCO_2e per £M	% annual change	tCO_2e	tCO_2e per £M	% annual change
Scope 1	49.92	8.28	-	49.92	8.28	-
Scope 2	22.64	3.75	-	5.70	0.94	-
Scope 1 & 2	72.56	12.03	-	55.62	9.22	-
Scope 3	521.17	86.40	-	514.85	85.35	-
Total	**593.73**	**98.43**	**-**	**570.47**	**94.57**	**-**

5.

CARBON REDUCTION TARGET

Creative Play have committed to being Net Zero Carbon by 2045. In order to achieve this ambition, a mixture of measures is available to reduce our emissions over time. This section aims to illustrate all targeted opportunities in the short, medium, and long-term. The options are presented using a hierarchy of consumption avoidance and usage optimisation, followed by decarbonising energy consumption by moving away from fossil fuels.

As the timing of the plan is starting from the recently baselined carbon footprint period, particular focushasbeenontheshort-term initiatives which represent the 'low hanging fruit' for Creative Play.

In 2022 an interim target was set for a 50% reduction in scope 1 & 2 emissions by 2030 from the 2022 baseline. Creative Play commits to reduce scope 1 and scope 2 GHG emissions by this amount, with an ambition to reduce 90% of emissions by 2045.

Our targets have been set using the market-based methodology of electricity carbon accounting rather than the location-based methodology. Creative Play continues to report on both the market-based and location-based carbon footprint in future and aims to become Net Zero by 2045 under both measures.

The graphs below show the glide path from baseline to Net Zero emissions by 2045 and indicates how actual annual emissions compare to this plan. Whilst overall emissions have initially risen above the glide path due to turnover and spend increases, scope 1 & 2 emission reductions are already well within the target, and we are confident that the current scope 3 trend will continue in the near term.

Figure 5.1: Creative Play Net Zero pathway

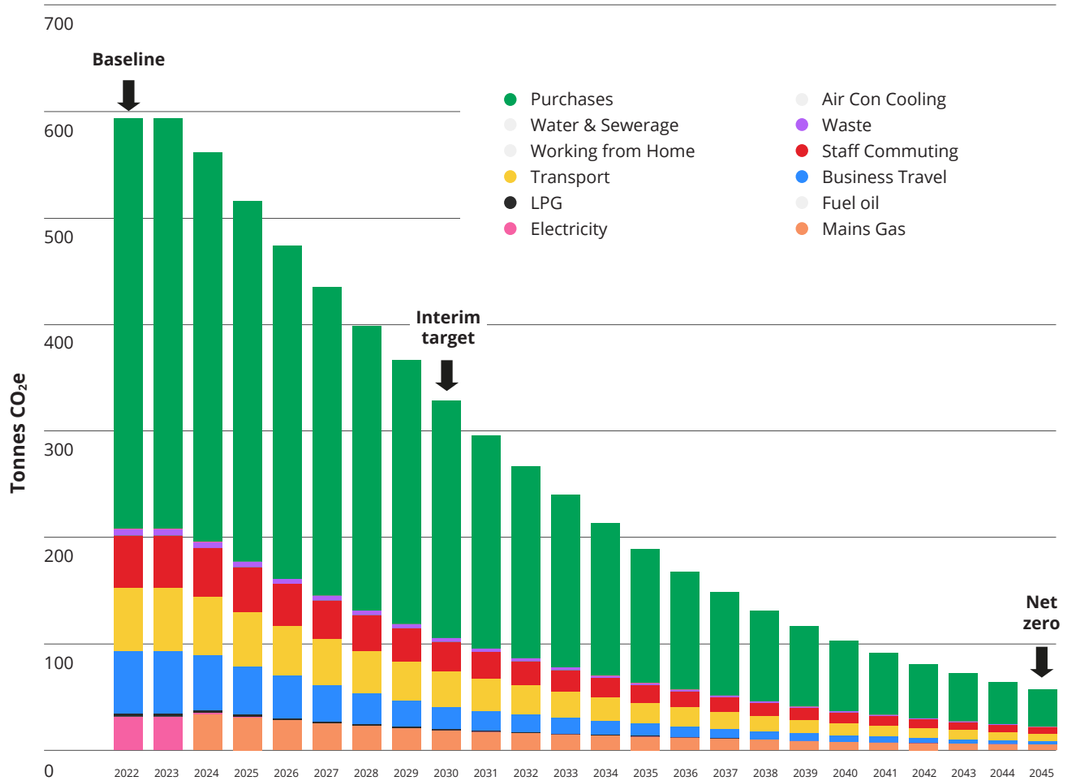


Figure 5.2: Creative Play Net Zero initiatives

Short Term Initiatives:

- Measure energy consumption regularly on new site to enable energy efficiency measure to be effectively implemented.
- Business Travel: Implement plan for driver training and switching to lower carbon vehicles longer term (EVs and Hydrogen).
- Work with supply chain to source lower carbon materials, and investigate design changes to reduce material usage in construction and switch more to sustainable wood away from plastic.

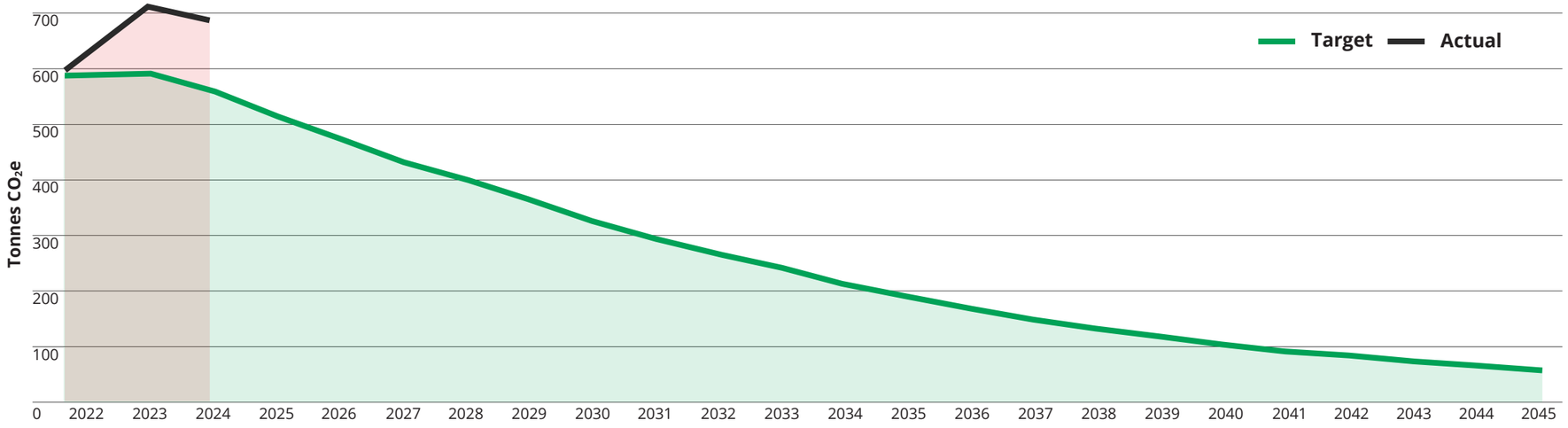
Medium Term Initiatives:

- Install batteries and EV charging on site to work alongside solar panels.
- Move away from single site workshop gas heater to individual electric units which are more efficient.
- Ensure full understanding of end-to-end supply chain material emissions and wider sustainability considerations.
- Offer customers a specific low carbon and sustainable products.

Long Term Initiatives:

- Adopt full circular economy principles, with life of product maximised.
- Only work with low carbon suppliers.
- Freight and business travel all low carbon vehicles (EV or Hydrogen).

Figure 5.3: Creative Play current progress to reduction plan



Wider Assumptions

As part of the glide path to Net Zero, informed assumptions have been made on the wider UK economy's decarbonisation milestones. For example, it is assumed that grid electricity will become increasingly renewable resulting in a lower greenhouse gas conversion factor. Further, over time, the usage of electric vehicles will increase dramatically, as will the usage of alternative, lower-carbon forms of transport – including cycling, trains, zero-emission buses, and EV car share – facilitated by improvements in the UK's low-carbon transportation infrastructure and active travel commitment.

The supply chain, both nationally and internationally will also become less carbon-intensive over time, with more options for very low-carbon products and services, thus supporting a reduction in Creative Play's Scope 3 emissions.

6. Key Action Areas and Assumptions to Deliver 45% emissions reduction by 2030

There are a variety of opportunities available that lead to a reduction of carbon emissions. These opportunities are dependent on the wider decarbonisation of the UK economy within which Creative Play operates, with key examples provided in the table below:

CO_2e Aspect	Opportunities	Baseline emissions	Potential carbon savings in Year 1 (Tonnes CO_2e)	Potential carbon savings by 2030 (Tonnes CO_2e)	% of total footprint	Comment
Background UK Government Decarbonisation - Relevant Activity						
Electric Vehicles & associated EV infrastructure	The UK Government has committed to new car sales to all be zero emission by 2035, and the associated required electric vehicle infrastructure will be in place by that date.	Background policy and infrastructure required to unlock the freight, business travel and commuting carbon savings below.				UK Government • End the sales of new petrol and diesel vehicles by 2030. • All new cars and vans to be fully zero emission by 2035. The UK Government also needs to deliver it's commitment to the rollout of electric vehicle charging infrastructure in the UK ahead of the above phase out dates.
Electricity Grid	Estimated decarbonisation of UK electricity grid - supports office and travel savings.	31	1	15	3%	Estimate based on historic annual reduction in UK grid emissions from recent years. Dependent on continuation at current rate which is in line with government objectives.
Potential Actions						
Purchased Goods & Services	Work with suppliers to jointly reduce emissions.	385	19	162	27%	Carry out supplier surveys and work to influence carbon reduction. Embed procurement policy which requires net zero credentials. Consider alternative materials and 'dematerialisation'. Consider Circular Economy principles.
Mains Gas	Site move means there will be mains gas use in future years that will need to be controlled and reduced.	0	-33	-18	-3%	Gas use in 2024 is estimated from the building EPC reports. Switch to heat pump for office heating to replace gas heating. Use individual electric heaters in the workshop to be used as and when required, to replace the single gas heater.
Electricity	Reduce electricity use in office through increased efficiency and maximising the use of the existing Solar installation at the new site.	31	29	31	5%	Monitor energy consumption in the new facilities.
Business Travel	Review travel requirements.	59	7	38	6%	Review vehicle movements, consider low-emission vehicles, and consider driver training.
Commuting	Encourage switch to EVs.	49	3	21	4%	Switch to electric vehicles, incentivised via salary sacrifice.
Transport	Work with transport providers to jointly reduce emissions.	59	4	26	4%	Switch to low-carbon freight alternatives and driver training.
Other Categories, Water Waste, Air Con etc.	Education and behaviour change.	9	1	5	1%	Implement resource efficiency policy and raise awareness with employees.
Total		**592**	**32**	**265**	**45%**	

7.
ENERGY REDUCTION STRATEGY

Short-Term and Medium-Term Milestones:

- We have set KPIs of 80% renewable electricity use by 2025 and 100% by 2035.
- In order to monitor progress towards the Net Zero target, the footprint should be reviewed annually.
- In 2022 we were at a site which did not use mains gas. Since then we have moved to a new site where gas is used for heating the workshop, and also has solar generation on site. This means that scope 1 emissions will increase in the short term.
- To achieve our interim Scope 1 & 2 reduction targets, we will purchase renewable electricity for the new site and implement plans to reduce gas usage.
- The below initiatives will support delivery against these KPIs.

Employee & Stakeholder Engagement:

2024 to 2026 and ongoing

- Develop a structured training and CO_2e awareness plan for staff.
- Appoint green champions to assist with energy and resource management.
- Discuss ideas with staff to secure engagement.

Manage energy use:

2024 to 2027 and ongoing

- Continue to track energy at all levels of the organisation, and take regular meter readings to identify any trends. Record overnight and weekend consumption for a trial period to establish any patterns or unusual activity.
- Investigate submetering as a way to receive more granular, actionable data.
- Obtain quotes for individual electric heaters in the workshop to be used as and when required, to reduce the consumption of the single gas heater.
- Obtain quotes to install batteries and EV charging on-site to work alongside solar panels.
- Ensure computers, copiers and display screens are set to optimum efficiency. For example, the laptop Power Options settings in the start menu can be reviewed to ensure the machines operate efficiently, use a charger only when charging your laptop, and consider low consumption. Ensure printers and other IT equipment is set to optimum efficiency.
- Review the energy consumption of the I.T. servers.
- Ensure electrical equipment is switched off when not in use.
- Review the office and other equipment energy consumption.
- Compile an asset list of energy-consuming equipment, and review the specifications and usage. Submetering options can enable this process.
- Review energy consumption and embodied CO_2 as a criterion for future purchases.
- Review green energy tariffs to ensure they are industry-leading.

2028 to 2030

- Switch to electric forklift trucks, and use the solar plus battery install plus low cost night time electricity tariff to charge forklifts overnight.

APPENDIX A.
CLIMATE CHANGE AND NET ZERO – BACKGROUND

Since the Industrial Revolution, the average temperature of the planet has risen by around 1°C. This is a rapid change in terms of our global climate system and the temperature rise is continuing. Governments and businesses globally are taking action to minimise this rise and minimise the most severe impacts of climate change.

The Paris Agreement of 2015 committed member countries to reduce their carbon output "as soon as possible" and to do their best to keep global warming "to well below 2°C". However, the Science-Based Target Initiative's (SBTi) guidance urges companies to work towards a 1.5°C reduction pathway. This report is in line with the 1.5°C reduction pathway set by SBTi.

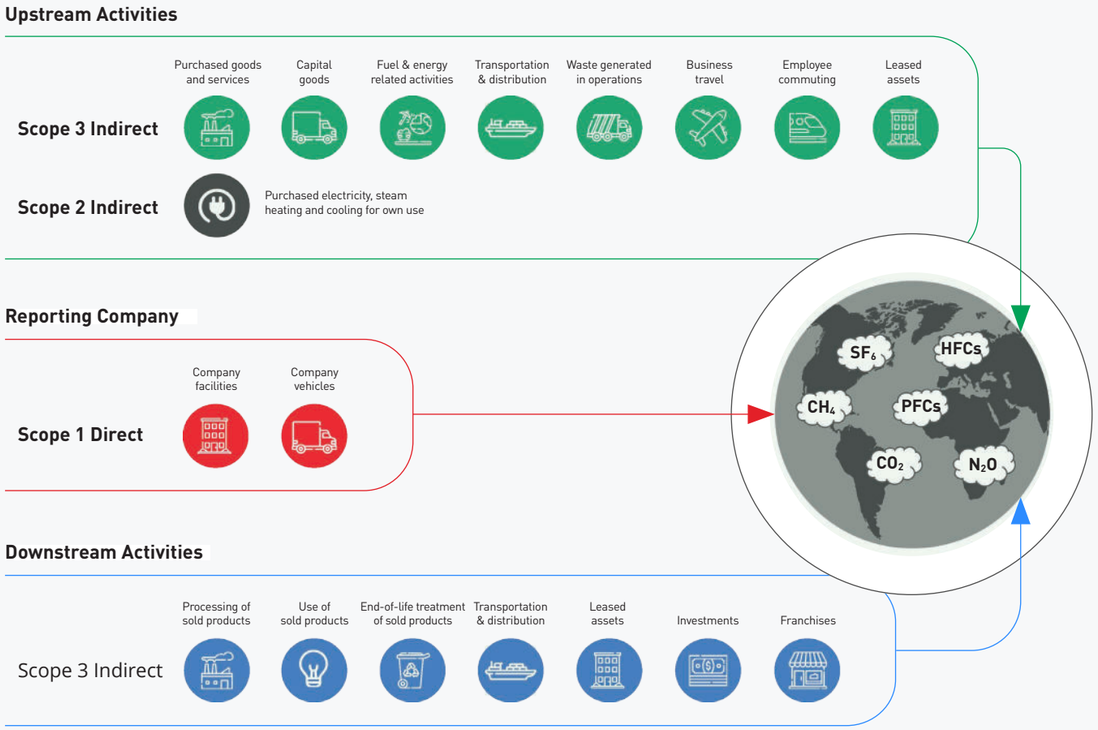
1. 1 Definition of Scopes

Emission scopes are defined by the internationally accepted Greenhouse Gas Protocol. The Protocol has been developed through many years of cooperation between The World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

They are based on an assessment of which emissions an organisation can directly control versus those which the organisation can merely influence.

The below diagram summarises the categories of emissions that are classified into each scope.

Depiction of Scope 1, Scope 2 and Scope 3 emission categories



1. 2 Definition of Net Zero

Net Zero means cutting greenhouse gas emissions to as close to zero as possible, with companies then obliged to ensure that any remaining emissions that cannot be avoided by the company's activity are removed from the atmosphere, for example via Direct Air Capture technology (DAC) – per SBTi guidance.

1. 3 Science Based Targets

SBTi is a collaboration between the CDP (formerly the Carbon Disclosure Project), the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF).

The SBTi's goal is to provide companies worldwide with the confidence that their climate targets are supporting the global economy to achieve Net Zero before 2050.

1. 4 Individual Business Contribution

Whilst National and Local Governments are setting targets and policies, including legislation, individual businesses can contribute to the process. Thousands of businesses around the world of all types and sizes are committing to measure and reduce their emissions by:

- Measuring, understanding, and taking steps to reduce their own greenhouse gas emissions, (Carbon Footprint).
- Reducing emissions across all aspects of their operations, including energy use, transport and travel, supply chain, finance and waste.
- Influencing stakeholders including suppliers, customers, staff, and the public to take steps to reduce emissions in parallel.
- Reporting and publicising progress.

1. 5 Individual Business Benefits

By following this route, a company can benefit from:

- Cost-saving: Where most carbon is emitted is almost certainly where spend is highest.
- Winning Business: More and more companies and government agencies are making sustainability a factor in requests for proposals.
- Funding and Investment: Banks and investors are increasingly treating organisations that have clear sustainability plans favourably, for example via offering improved lending rates for sustainability projects.
- Public Relations & Marketing: Publicising sustainability goals and reporting achievements in order to improve customer retention.
- Social and Environmental: Helping to reduce society's carbon emissions and waste.

APPENDIX B. DOCUMENTS AND REFERENCES USED IN CALCULATION

The calculations were carried out using mathematical models and the methodology defined in the Greenhouse Gas Protocol in particular.

The Carbon Conversion Factors published annually by DESNZ on behalf of the UK government.

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversionfactors-2024

https://www.ons.gov.uk/economy/environmentalaccounts/datasets/ukenvironmentalaccounts atmosphericemissionsgreenhousegasemissionsbyeconomicsectorandgasunitedkingdom

The Greenhouse Gas Protocol has been developed between The World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

https://www.ghgprotocol.org

The Inventory of Carbon & Energy (ICE) was produced through the work of Dr Craig Jones (Circular Ecology Ltd) & Prof Geoff Hammond (Uni of Bath) on quantifying embodied energy & carbon in typical construction materials.

www.circularecology.com/embodied-carbon-footprint-database.html

The calculations were performed using Go Green Experts' specialist emission calculation tool aligned with the above protocols, and compliant with ISO 14064-1 standards.

APPENDIX C. GLOSSARY

Term	Description
Absolute Reduction	The actual reduction in emissions with proportional scaling.
Base Year	A historical datum (e.g., year) against which a company's emissions are tracked over time.
Base Year Emissions	GHG emissions from business activities measured during the base year.
Baseline	A hypothetical scenario for what GHG emissions would have been in the absence of a GHG project or reduction activity.
Business Travel	Transportation of employees for business-related activities.
Capital Goods	Final goods that have an extended life and are used by the company to manufacture a product, provide a service, or sell, store, and deliver merchandise. In financial accounting, examples of capital goods include equipment, machinery, buildings, facilities, and vehicles.
Carbon Footprint	The total greenhouse gas (GHG) emissions caused by an individual, event, organisation, service, place or product, expressed as carbon dioxide equivalent (CO_2e).
Carbon Intensity	A measure of carbon emission against a variable of business operations such as turnover, output or staff.
Carbon Neutral	The removal of the equivalent amount of CO_2 by an organisation to what's emitted through activities across their supply chains, by investing in 'carbon sinks' that absorb CO_2.
Circular Economy	A circular economy tries to break that cycle of make-use-dispose with adaptive reuse.
CO_2e	The universal unit of measurement to indicate the global warming potential (GWP) of each greenhouse gas, expressed in terms of the GWP of one unit of CO_2.
CO_2 Equivalent	
Direct Emissions	Emissions from sources that are owned or controlled by the reporting company.
Downstream Emissions	Indirect GHG emissions from sold goods and services.
Embodied Carbon	Total life cycle emissions of a product or building from material extraction to final disposal.
Emission Factor	A factor that converts activity data into GHG emissions data (e.g., kg CO_2e emitted per litre of fuel consumed, kg CO_2e emitted per kilometre travelled, etc.).
Employee Commuting	Transportation of employees between their homes and their worksites.
Environmental Product Declaration (EPD)	A document that quantifiably demonstrates the environmental impacts of a product.
Equity Share Approach	A consolidation approach whereby a company accounts for GHG emissions from operations according to its share of equity in the operation.
Extrapolated Data	Estimates of consumption data based on known trends or patterns, extending partial or average data (such as survey results) to produce a complete picture where gaps exist.
Global Warming Potential	A factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given GHG relative to one unit of CO_2.
Greenhouse Gas	Gasses contributing to global warming. Seven gases, Carbon Dioxide (CO_2); Methane (CH4); Nitrous Oxide (N2O); Hydrofluorocarbons (HFCs); Perfluorocarbons (PFCs); Sulphur Hexafluoride (SF6), and Nitrogen Trifluoride (NF3).
Greenhouse Gas Inventory	A quantified list of an organisation's GHG emissions and sources.
Greenwashing	PR tactic used to make a company or product appear environmentally friendly, without meaningfully reducing its environmental impact.
Indirect Emissions	Emissions that are a consequence of the activities of the reporting company but occur at sources owned or controlled by another company.
Life Cycle Assessment (LCA)	Total emissions from the inputs and outputs throughout a product's life cycle. From the moment it was created to the moment it has decayed.
Location-Based Method	A method to quantify Scope 2 GHG emissions based on average energy generation emission factors for defined locations.
Market-Based Method	A method to quantify Scope 2 GHG emissions based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity.
Net Zero	A state in which the greenhouse gases going into the atmosphere are balanced by removal from the atmosphere. Per SBTi guidance on how companies achieve Net Zero emissions must fall by at least 90% before carbon removal balancing tools are used.
Offsetting	The action or process of compensating for carbon dioxide emissions arising from industrial or other human activity, by participating in schemes designed to make equivalent reductions of carbon dioxide in the atmosphere.
Proxy Data	Data from a similar process or activity that is used as a stand-in for the given process or activity without being customised to be more representative of the given process or activity.
Reporting Year	The year for which emissions are reported.
Scope 1 Emissions	Emissions from operations that are owned or controlled by the reporting company.
Scope 2 Emissions	Indirect emissions from the generation of purchased or acquired electricity,
Scope 3 Emissions	All indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.
Secondary Data	Data that is not from specific activities within a company's value chain.
Supply Chain	A network of organisations (e.g., manufacturers, wholesalers, distributors, and retailers) involved in the production, delivery, and sale of a product to the consumer.
Upstream Emissions	Indirect GHG emissions from purchased or acquired goods and services.
Value Chain	All of the upstream and downstream activities associated with the operations of the reporting company, including the use of sold products by consumers and the end-of-life treatment of sold products after consumer use.
Value Chain Emissions	Emissions from the upstream and downstream activities associated with the operations of the reporting company.
Waste	An output of a process that has no market value.

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