T&B Contractors

ROAD TO NET ZERO

AUGUST 2022

2022 POSITIVE ABOUT Women into Construction

disability confident COMMITTED

INVESTORS IN PEOPLE

thrive social value

A Diversity Assured GOLD C2E Committed 2 Equality AWARD Accredited Organisation

Contents

EXECUTIVE SUMMARY

This report utilises the standards set out within the global Green House Gas (GHG) Protocol and sets out T&B's vision towards achieving Net Zero.

KEY ELEMENTS INCLUDE

- A commitment to Net Zero for Scope 1 & 2 emissions by 2040 and Net Zero for our Scope 3 emissions by 2045.
- There was a 26% (333 tCO2e) reduction in carbon emissions between 2019 & 2020. Much of this reduction can be attributed to a reduction in activity as a result of the Global Pandemic of 2020. This makes the overall impact of any carbon reduction actions difficult to assess.
- When effects of activity and turnover are removed the real-term reduction from 2019 was an 8.67% reduction in total tCO2e.
- We have saved 359.49tCOe from 2019 levels with a further 3% reduction on 2020 levels. Whilst this represents a near 30% reduction in total CO2e over the period, measuresof carbon intensity (i.e. tCO2e per £million spend) show a slower rate of decline at 11.18% since 2019.
- The most significant contributors to our emissions come from the combustion of fuel either within direct staff commuting (from our owned/operated cars and vans) or from the transport and distribution of products to our sites.
- The reductions from 2020 levels have been maintained despite a return to more normal working patterns.
- Whilst we have seen a return to more normal patterns of work, policies such as dynamic working, use of remote meetings and a move to electric and hybrid vehicles, have seen the reductions in tCO2e to post pandemic, maintained.
- Actions within the Carbon Reduction Plan focus on the areas where we can have the largest impact including working towards the electrification of the company fleet and mandating FORS for suppliers.
- To ensure that change is delivered it is proposed that a working group lead by a member of the Senior Executive Team is appointed.

OUR COMMITMENT TO ACHIEVING NET ZERO

T&B are committed to achieving Net Zero emissions by 2040 for our Scope 1 & 2 Emissions and by 2045 for our Scope 3 Emissions.

Climate Change is one of the most pressing problems facing our world today. It affects everyone - from families worrying about their children's futures, to pension funds deciding where to invest. So, it is in the interest of everyone that we see systemic change that averts climate catastophe and unlocks the potential of green growth.

At T&B, we believe the business community has a key role to play in making that happen, and we are determined to play our part. That is why we are making a science-based commitment to reach net zero greenhouse gas emissions.

BASELINE EMISSIONS FOOTPRINT

This Carbon Footprint report refers to emissions from Scope 1 and 2 sources and Scope 3 emissions within the following categories:

Scope 1 Emissions	Direct GHG emissions occur from sources that are owned or controlled by the company, for example, emissions from combustion in owned or controlled boilers, vehicles, etc. Transportation of materials, products, waste, and employees in company owned/controlled mobile combustion sources (e.g. trucks, trains, ships, airplanes, buses, and cars). Fugitive emissions from intentional or unintentional releases, e.g. hydrofluorocarbon (HFC) emissions during the use of refrigeration and air conditioning equipment.
Scope 2 Emissions	Scope 2 accounts for GHG emissions from the generation of purchased electricity consumed by the company. Purchased electricity is defined as electricity that is purchased or otherwise brought into the company. Scope 2 emissions physically occur at the facility where electricity is generated.

Scope 3 Category	Category Description	Minimum Boundary
Upstream transportation and distrubution	Transportation and distribution of products purchased from tier 1 suppliers including inbound logistics, outbound logistics and transportation and distribution between own facilities (in vehicles and facilities not owned or controlled by T&B).	The Scope 1 and Scope 2 emissions of transportation and distribution providers that occur during use of vehicles and facilities (e.g. from energy use).
Waste generated in operations	Disposal and treatment of waste generated in the company's operations in the reporting year (in facilities not owned or controlled by the reporting company).	The Scope 1 and Scope 2 emissions of waste management suppliers that occur during disposal or treatment.
Business travel	Transportation of employees for business related activities during the reporting year (in vehicles not owned or operated by T&B).	The Scope 1 and Scope 2 emissions of transportation carriers that occur during use of vehicles (e.g., from energy use).
Employee commuting	Transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the reporting company).	The Scope 1 and Scope 2 emissions of employees and transportation providers that occur during use of vehicles (e.g., from energy use).
Downstream transportation and distribution	N/A	N/A

"The need to tackle climate change has never been more pressing. T&B's commitment to Net Zero demonstrates our commitment to addressing these challenges head on as we move towards a low carbon economy."

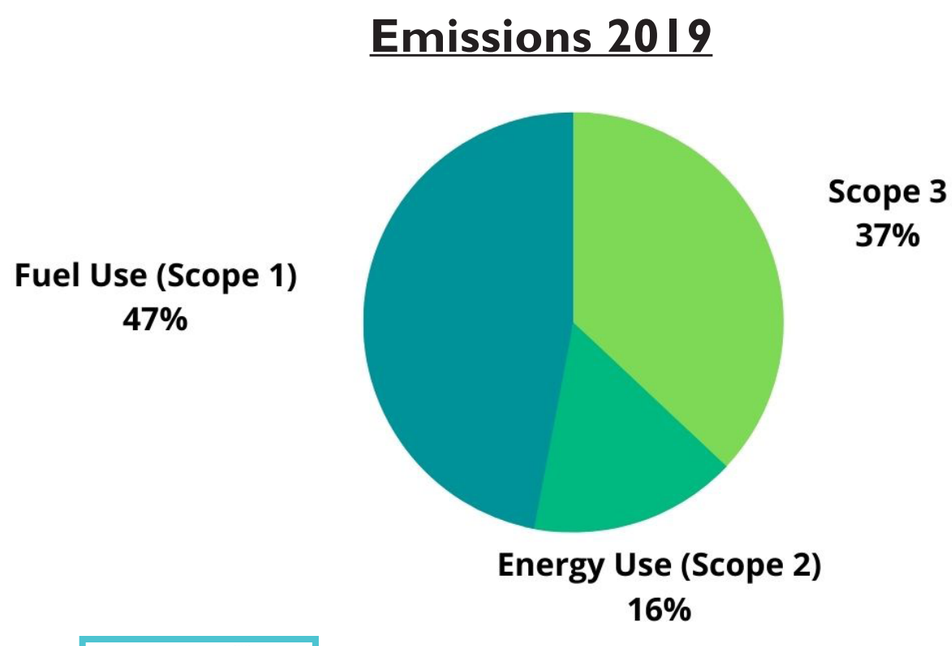
Kane Blatchford, HSQE Director

GHG EMISSIONS SUMMARY (tCO2e)

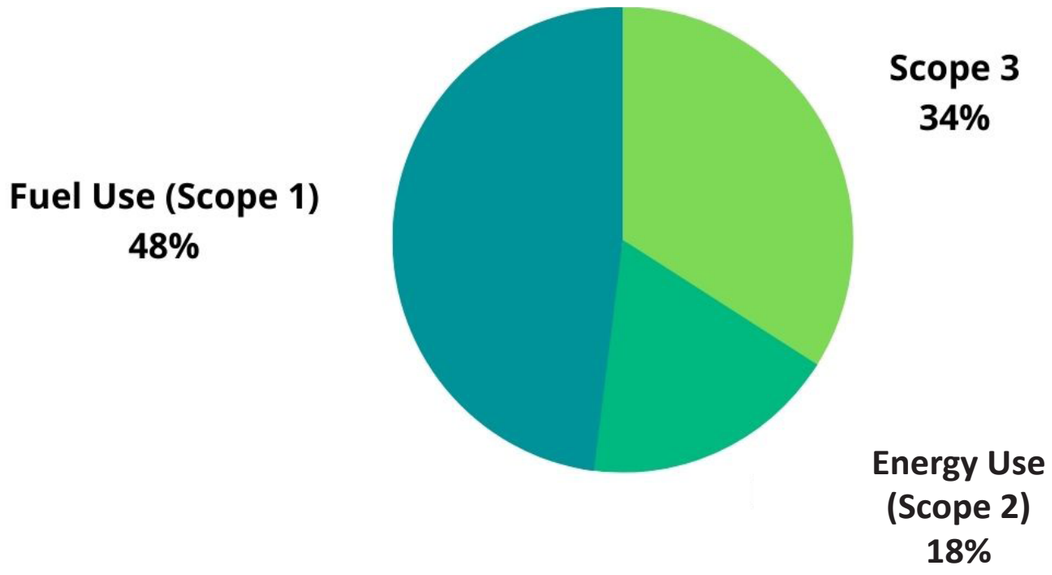
SCOPE	ACTIVITY TYPE	2019	2020	2021	2022	2023	2024
Scope 1	Stationary Combustion (Gas Use Office)	16.009	16.075	18.45	-	-	-
	Mobile Combustion (Cars/Vans)	579.84	436.45	395.44	-	-	-
	Fugitive Emissions from air-conditioning	0.00	0.00	0.00	-	-	-
	Scope 1 - TOTAL	**595.85**	**452.53**	**413.89**	-	-	-
Scope 2	Purchased Electricity - Market Based	201.49	163.84	**163.95**	-	-	-
	Scope 2 - TOTAL	**201.49**	**163.84**	**163.95**	-	-	-
Scope 3	Upstream Transport & Distribution	248.34	233.89	205.80	-	-	-
	Waste Generated in Operations	102.57	61.32	69.28	-	-	-
	Business Travel	5.25	2.85	5.14	-	-	-
	Employee Commuting	118.97	24.78	54.92	-	-	-
	Scope 3 - Total	**475.13**	**322.84**	**335.14**	-	-	-
	Total	**1272.47**	**939.21**	**912.98**			
	Total Reduction (%)	**N/A**	**26%**	**3%**	-	-	-
KPI's	tCO2e/£Million Turnover (S1&2)	**13.95**	**13.35**	**12.52**	-	-	-
	tCO2e/£Million Turnover (S3)	**8.32**	**6.99**	**7.26**	-	-	-
	tCO2e/£Million Turnover	**22.27**	**20.34**	**19.78**	-	-	-

Our overall, most recent, 2021 emissions reports show a small decrease on our 2020 emissions.

Scope 1 (Fuel Use) continued the decreasing trend with a significant drop from 2019 to 2020, and a further drop, though much smaller, from 2020 to 2021.

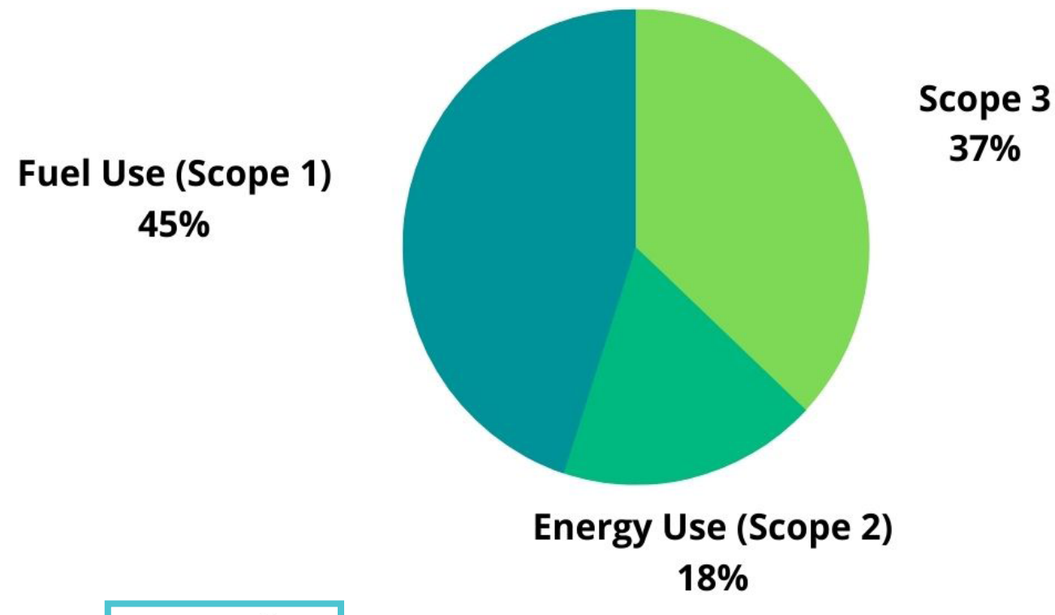


Emissions 2020



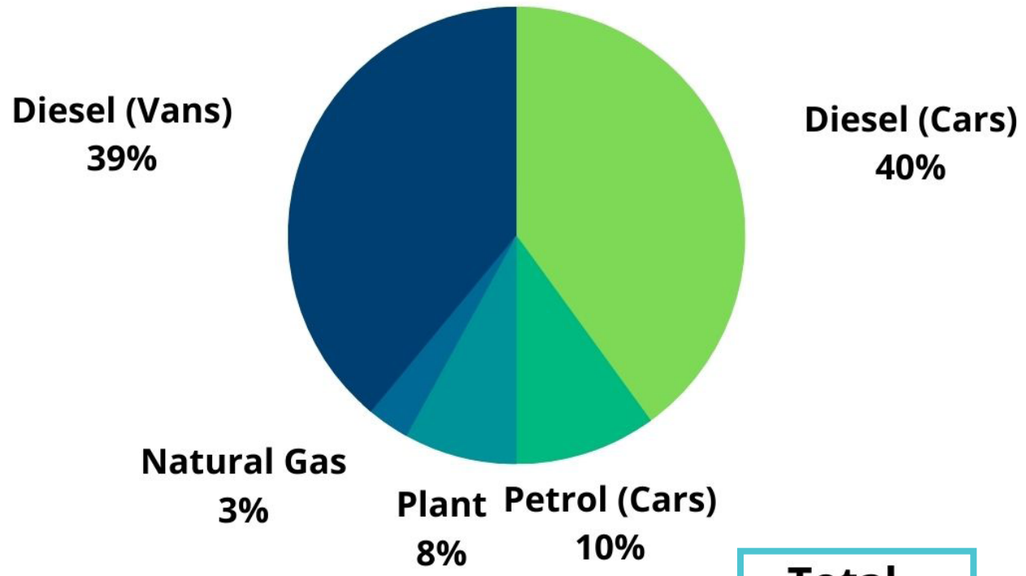
Total - 939.10

Emissions 2021



Total - 912.98

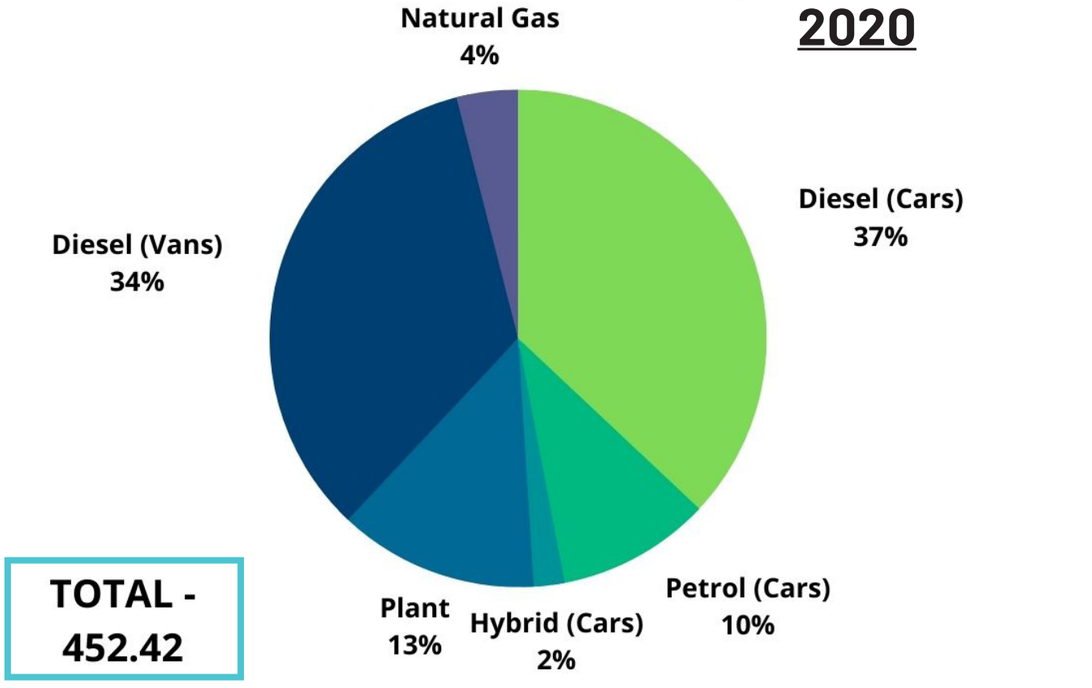
Scope 1 Emissions 2019



Total - 595.69

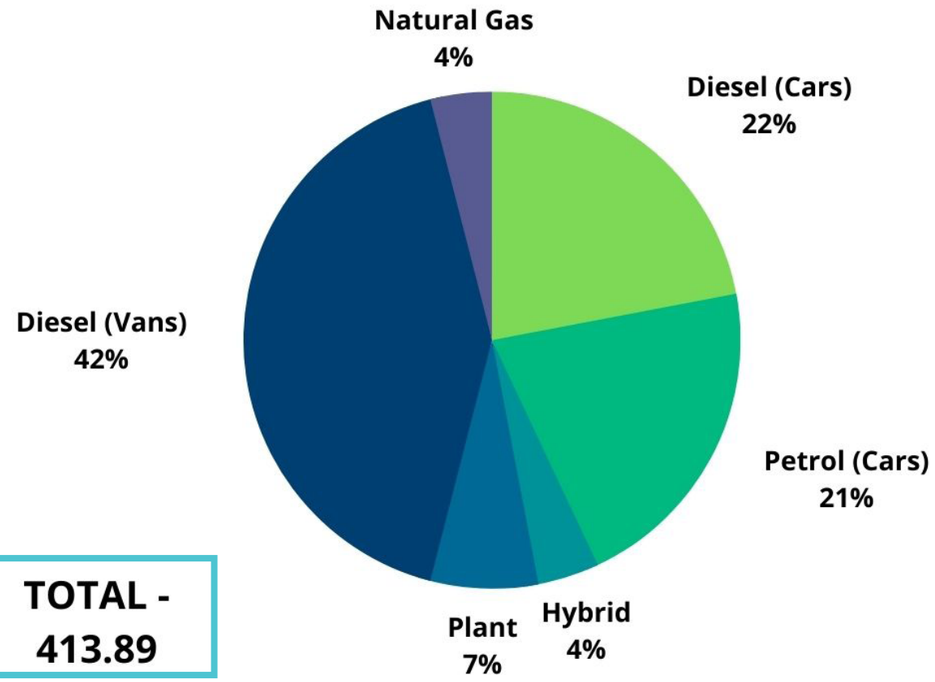
The most significant direct source (Scope 1) of GHG emissions is associated with mobile combustion from our predominantly diesel cars and vans making up 79%, 71% and 64% of our Scope 1 emissions in 2019, 2020 and 2021 respectively. The reduction in 2020 can be seen as a result of a move towards hybrid cars and the significant reduction in travel as a result of the 2020 pandemic. An increase in petrol car emissions in 2021 was more than offset by a reduction of nearly half of 2020's figure for employee diesel car emissions, as well as an increase in hybrid and electric car usage. The gas use in the office slightly increased in 2020 and 2021, while still representing a small fraction of our total emissions.

Scope 1 Emissions 2020



TOTAL - 452.42

Scope 1 Emissions 2021



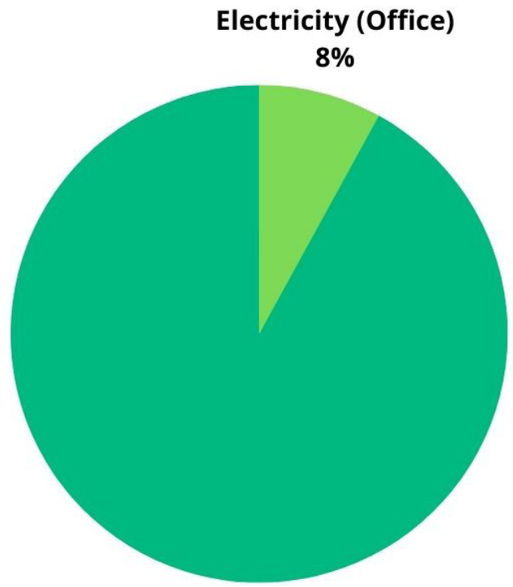
TOTAL - 413.89

T&B Contractors - Winner of the Building Safety Group 'Environmental Award' 2022

An award presented to a BSG Member who is best equipped to demonstrate how a recently implemented system or procedure will have a positive impact on the environment.

The most significant Scope 2 contribution to GHG emissions is from electricity use - particularly across our sites which accounts for approximately 92% and 93% of electricity use in 2019/20 respectively (year 2019 shown below).

Scope 2 Emissions 2019



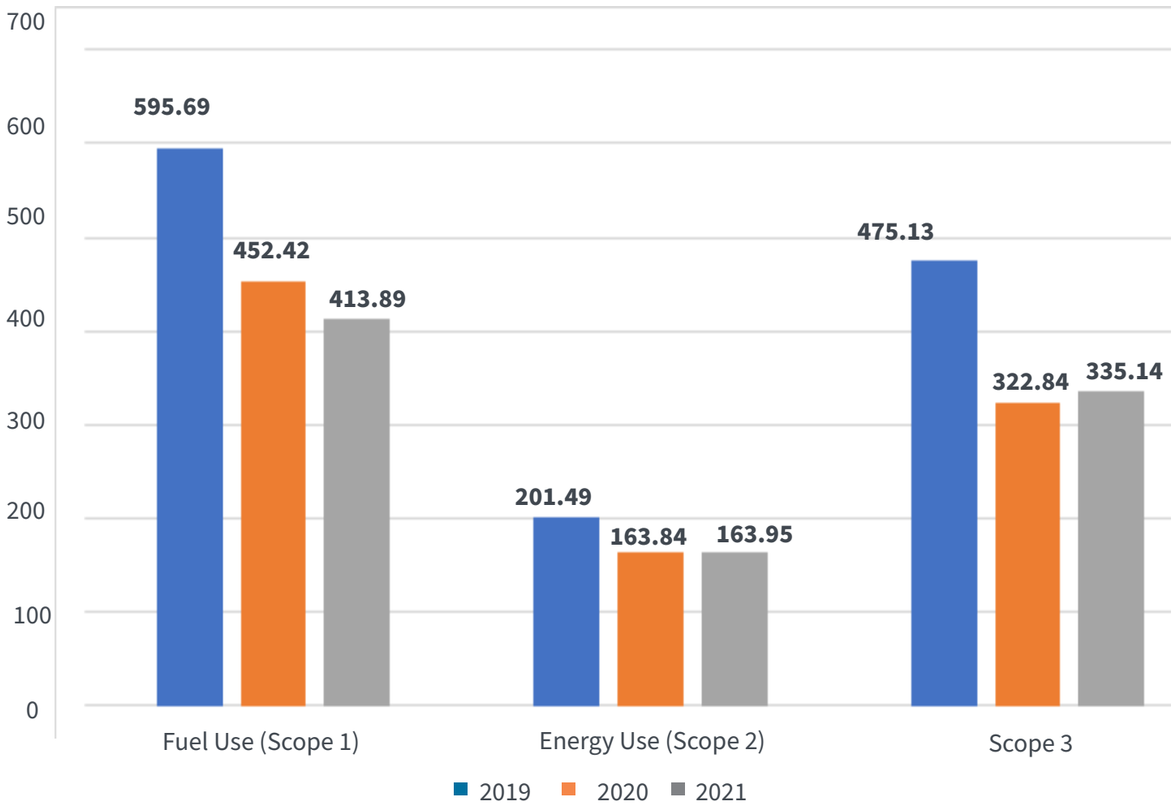
It can also be seen that there was a marked reduction in the emissions in 2020 compared to 2019 levels (a 31.5% reduction). This large GHG reduction in 2020 should be viewed in light of a significant reduction in turnover of the business as a result of the global pandemic in 2020.

It is also true to say that many of the measures that were implemented as a result of the pandemic – in particular the enforced working from home and use of remote meetings – are also likely to have been significant contributors to this reduction. Therefore, when the effect of the reduction in turnover is stripped out, those measures contributed to a real-term reduction in GHG emissions of around 8.67% in 2020 compared to 2019 levels.

Whilst the pandemic has significantly reduced emissions, the emission sources and their percentage contribution can be seen to be broadly stable when compared to the 2019 baseline levels.

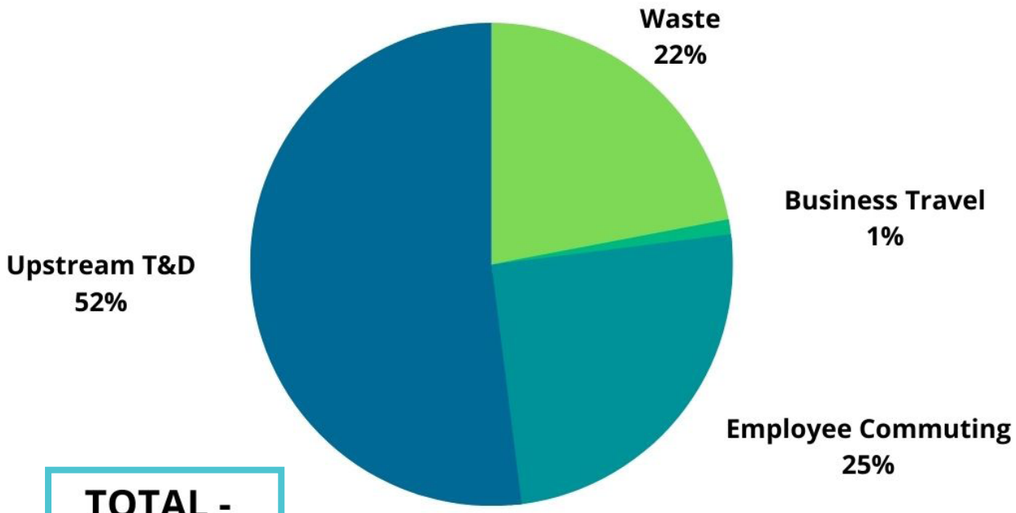
Although there has been some reduction in the Scope 1 & 2 emissions at Head Office, it is likely that these emissions were not reduced, but merely transferred outside of Scope 1 & 2 emissions with employees needing to heat and power their homes. This effect would in turn be offset by the reduction in commuting as a result (both Scope 3 emissions not accounted for in these calculations).

GHG Emissions 2019-2021

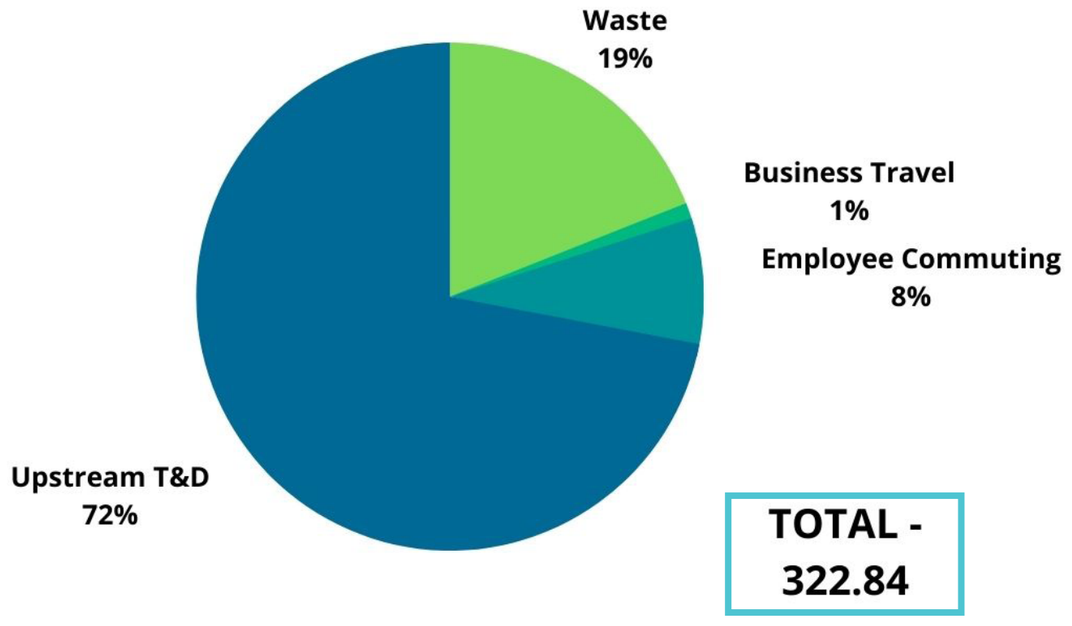


Upstream Transport and Distribution was by far the largest contributor of GHG emissions within the Scope 3 categories currently measured with 248 tCO2e, 233 tCO2e and 205 tCO2e in 2019, 2020 and 2021 respectively. As a percentage of total Scope 3 emissions, the percentage contribution of Upstream T&D rose in 2020 accounting for 72% of the Scope 3 emissions in 2020 (up from 52% in 2019). This is as a result of the large (80%) reduction in the GHG emissions from employee commuting due to the stay-at-home orders in force for much of 2020. In 2021, the total calculated emissions for Upstream Transport & Distribution were lower than the previous year and also represented a reduced percentage of total Scope 3 emissions, as business travel and employee commuting increased on 2020's figures.

Scope 3 Emissions 2019

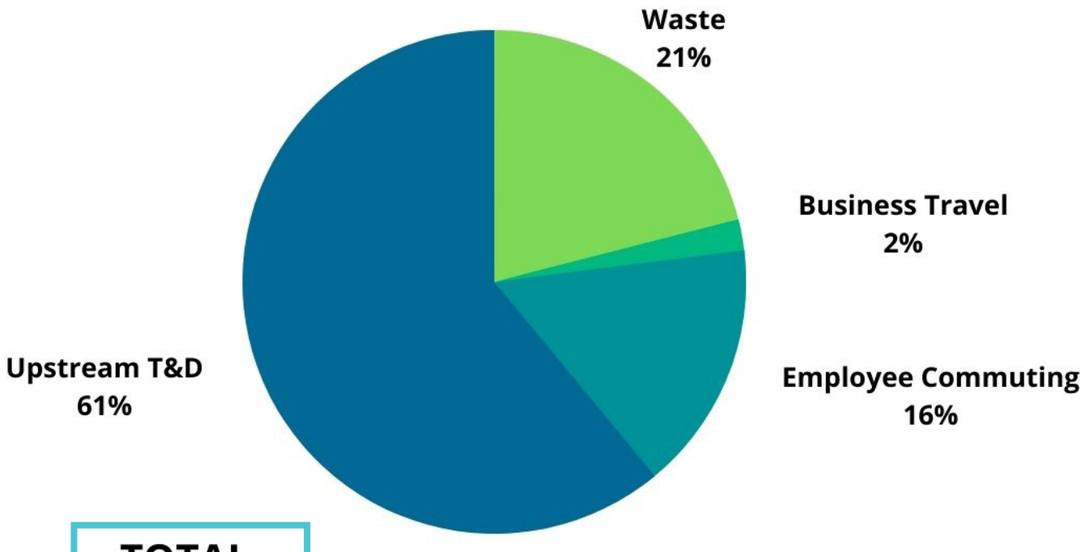


Scope 3 Emissions 2020



Whilst many of the reductions can be seen to be as a direct effect of the pandemic response, we anticipate that practices – learned as a result of the pandemic – will continue to positively impact our Carbon Footprint as we return to pre-pandemic activity levels.

Scope 3 Emissions 2021



TOTAL - 435.14

Overall, the Scope 3 emissions from 2021 remained well below the pre-pandemic emissions from 2019.

Existing Carbon Reduction Projects

T&B have already implemented the following mesaures on our journey to Net Zero:

- We are **BS EN ISO 14001:2015** registered with the British Standards Institute demonstrating our commitment to compliance with environmental regulations and having a positive environmental impact, including reducing our GHG emissions.
- We installed **PIR/energy efficient lighting** to our offices resulting in an estimated 86% reduction in CO2 emissions from our lighting in the Head Office.
- We have worked on a number of exemplar projects delivering positive outcomes - including current carbon reduction projects on ‘hard-to-treat’ properties working with Hertfordshire County Council.
- We have successfully delivered projects to defined environmental standards, including delivering projects in accordance with **BREEAM, LEED and SKA** scheme requirements.
- We have continued to incentivise our staff to choose lower emission vehicles through a **Carbon Car Bonus Scheme.**
- We continue to review our company car choices to reduce fleet emissions and now offer staff both mild/ plug-in Hybrid and, in 2020, the first full electric car choice.
- We continue to offer our staff a tax free **Bike to Work Scheme** and have worked with **Fresh Ways to Work** to develop a **Green Travel Plan** for the office.
- We have developed Biodiversity Workshops provided to schools as an educations resource.

Future Emissions Reduction Targets

OUR REDUCTION TARGETS...

In order to continue to progress to achieving Net Zero emissions by 2040, T&B will need to target the significant carbon emitting processes - namely the company car and van use, electricity use (particularly on site), and Upstream Transport and Distribution.

The move towards renewable generation will continue to lower our Scope 2 emissions over time, however if T&B are to reach Net Zero by 2040 short and longer-term investment and policy decisions will be required. Therefore, we have devloped short, medium and long-term actions that progressively move us towards our Net Zero goals.

To drive the change needed it is proposed that T&B appoint a member of the Senior Management Team, supported by a working groups, and provide training and information to staff on the subject.

The actions target the areas where we can make the most significant impacts, including on our own company and owner fleet, by working with the Energy Saving Trust on electrification of our fleet, and Upstream T&D by mandating CLOCS & FORS across all projects.

Other actions focus on improving our carbon accounting processes with the overall aim to include additional Scope 3 GHG Protocol Categories whilst refining the data capture and accounting for the existing metrics.

Specifically, Scope 3 data for Waste and Upstream T&D has had to be extrapolated from spend with those suppliers. It is therefore likely that there is greater uncertainty on these measures and T&B should look to improve the carbon accounting protcols within these 3 metrics in particular.

SHORT (1-2 YRS)

- Constitute a Sustainability Working Group headed up by a Construction Director with responsibility to drive environmental improvement within the business
- Launch 'Road to Net Zero' commitment at next AGM
- Implement Deltek Project Information Management Systems
- Record and monitor waste, water and electricity on a monthly bases across all sites via Deltek
- Set KPI's for waste, water and electricity use based on monitoring data
- Continue to encourage home-working and use of remote meeting technology via dynamic working policy
- Undertake Fleet Audit* to determine options for company vehicles
- Adopt CLOCS/FORS as a standard for all projects
- Undertake Carbon Training for all staff to raise awareness of issues***
- Carry out the CITB Site Environmental Awareness Training (SEATS) for Site Managers
- Require all hired Non-Road Mobile Machinery (NRMM) to be minimum stage IV compliant with NRMM within Central London ULEZ and CAZ to be minimum Stage V (over 37kw)
- Carry out Environmental Information campaign(s) on single use plastics, plant-based diets etc.
- Require suppliers and sub-contractors to commit to Net-Zero by 2050 (to be approved as part of our Supply Chain)

MEDIUM (2-5 YRS)

- Provide Charge Points at company office points (including considering where these can be introduced as part of the scheme being undertaken)
- Work with suppliers to encourage the use of electric plant and tools by providing discount codes
- Determine mechanisms to measure additional Scope 3 emissions (e.g. from products used) and develop a future plan as to how these emissions can be reduced/mitigated
- Implement routine post occupancy monitoring (where we have design responsibilty) and review data to improve energy performance of projects in use

LONG (5+YRS)

- Increase the use of renewable energy on our sites
- All vehicles (company owned) to be powered by renewable sources
- Review the Head Office facility to determine energy efficiency/renewable energy investment options**
- Invest in Carbon Offsetting for those emissions that cannot be eliminated

***** Fleet audit available via Energy Saving Trust - https://energysavingtrust.org.uk/
****** Note that there is 25% funding available in Hertfordshire via Eastern New Energy - https://www.uel.ac.uk/sri/eastern-new-energy - budget @£40k to meet energy demans at HO via solar PV
*** Online training currently available via the Supply Chain Sustainability School https://www.supplychainschool.co.uk/

CARBON OFFSETTING

It should be noted that this report only considers Scope 1 & 2 emissions - other significant emissions will likely be found within Scope 3 categories, including those highlighted in section 2 of this report. Additional policy decisions will be required for these aspects such as:

- Moving to a paperless management system (via implementation of a cloud-based Project Information Management System)

Whilst we will continually strive to reduce our GHG emissions we recognise that, particularly in the short term, some emissions will be unavoidable. It is also probable that, even after all reasonable actions have been taken, our processes will still have residual GHG emissions. Where this is the case T&B can offset those Carbon Emissions by investing in Verified Gold Standard or Verified Carbon Standard carbon offsetting schemes.

Examples include £10,000 per annum for a Global Portfolio of carbon offsetting schemes or £20,500 of a UK Tree Planting Scheme (based on 2019 GHG Emissions Total). It is expected that the cost of many carbon offsetting schemes will rise as the 'low hanging fruit' carbon offsetting measures are replaced with more complex and costly schemes.

DECLARATION AND SIGN OFF

This Carbon Reduction Plan has been completed in accordance with PPN06/21 and associated guidance and reporting standards for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standards for Carbon Reduction Plans and the GHG Reporting Protocol Corporate Standard*, and uses the appropriate Government emission conversion factors for greenhouse gas company reporting**.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard***.

This Carbon Reduction Plan has been reviewed and approved by the board of Directors and will be reviewed and updated yearly.

Mark Hickson
Managing Director
August 2022

Kane Blatchford
HSQE Director
August 2022

*https://ghgprotocol.org/corporate-standard
**https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
***https://ghgprotocol.org/standards/scope-3-standard

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Data generated using The GHG Emissions Calculation Tool

GHG EMISSIONS (With Emissions Factors)

SCOPE 1: Stationary Combustion - Includes fuel consumption at a facility to prodcue electricty, steam, heat or power. The combustion of fossil fuels by natural gas boilers, diesel generators and other equipment emits carbon dioxide, methan, and nitrous oxide into the atmosphere.

Description				GHG Emissions (Tonnes CO2e)				Emission Factor		
Year	Fuel Source	Amount of Fuel	Units	CO2 (Tonnes)	CH4 (Tonnes)	N2O (Tonnes)	CO2e (Tonnes)	Biofuel CO2 (Tonnes)	EF (kg-CO2e/ unit)	Source
2019	Natural Gas	88331	kWh	15.992	0.0003014	0.0000301	16.009	0.000	53.1145	EPA, "Emission Factors for Greenhouse Gas Inventories," Table 1 Stationary Combustion Emission Factors, March 9, 2018 (https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub).
2020	Natural Gas	88697.2	kWh	16.058	0.0003026	0.0000303	16.075	0.000	53.1145	EPA, "Emission Factors for Greenhouse Gas Inventories," Table 1 Stationary Combustion Emission Factors, March 9, 2018 (https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub).
2021	Natural Gas	101815	kWh	18.433	0.0003474	0.00003474	18.452	0.000	53.1145	EPA, "Emission Factors for Greenhouse Gas Inventories," Table 1 Stationary Combustion Emission Factors, March 9, 2018 (https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub).

SCOPE 1: Mobile Combustion - Includes fuel consumption by vehicles that are owned or leased by the company. Combustion of fossil fuels in vehicles (including cars, trucks, planes, and boats) emit Carbon Dioxide, Methane, and Nitrous Oxide into the atmosphere.

Description				Fuel (Cars,Vans & Plant)			GHG Emissions (Tonnes CO2e)				Emission Factor	
Year	Description	Activity Type	Fuel Source	Vehicle Type	Total	Units	CO2 (Tonnes)	CH4 (Tonnes)	N2O (Tonnes)	CO2e (Tonnes)	Biofuel CO2 (Tonnes)	EF (kg-CO2e/ unit)
2019	All Staff	Distance Activity	Diesel Fuel	Diesel Passenger Cars	520671	Miles	236.269	0.000260	0.000521	236.414	0.000	10.216
2019	All staff	Distance Activity	Motor Gasoline	Gasoline Passenger Cars	157989	Miles	61.651	0.002733	0.000569	61.878	0.000	8.812
2019	Purchased Diesel	Fuel Use	Diesel Fuel	Other Diesel Non-Road Vehicles	17140	Litres	46.230	0.002581	0.001177	46.614	0.000	10.295
2019	Allstar Fuel Cards	Fuel Use	Diesel Fuel	Diesel Light Duty Trucks	87042.31	Litres	234.770	0.000373	0.000559	234.929	0.000	10.217
2020	All Staff	Distance Activity	Diesel Fuel	Diesel Passenger Cars	363926	Miles	165.142	0.000182	0.000364	165.243	0.000	10.216
2020	All Staff	Distance Activity	Motor Gasoline	Gasoline Passenger Cars	120075	Miles	46.856	0.002077	0.000432	47.029	0.000	8.812
2020	All Staff	Distance Activity	Motor Gasoline	Hybrid (Gasoline) Passenger Cars	38210	Miles	10.767	0.000661	0.000138	10.822	0.000	8.825
2020	Purchased Diesel	Fuel Use	Diesel Fuel	Other Diesel Non-Road Vehicles	21100	Litres	56.911	0.003177	0.001449	57.384	0.000	10.295
2020	Allstar Fuel Cards	Fuel Use	Diesel Fuel	Diesel Light Duty Trucks	57788.44	Litres	155.876	0.000247	0.000371	155.972	0.000	10.217

SOURCE:EPA, "Emission Factors for Greenhouse Gas Inventories", March 9, 2018 (https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub); WRI, GHG Protocol - Emission Factors from Cross-Sector Tools, April 2014

CONTINUED - SCOPE 1 - Mobile Combustion Includes fuel consumption by vehicles that are owned or leased by the company. Combustion of fossil fuels in vehicles (including cars, trucks, planes, and boats) emit Carbon Dioxide, Methane, and Nitrous Oxide into the atmosphere.

Description				Fuel (Cars,Vans & Plant)			GHG Emissions (Tonnes CO2e)				Emission Factor	
Year	Description	Activity Type	Fuel Source	Vehicle Type	Total	Units	CO2 (Tonnes)	CH4 (Tonnes)	N2O (Tonnes)	CO2e (Tonnes)	Biofuel CO2 (Tonnes)	EF (kg-CO2e/ unit)
2021	All Staff	Distance Activity	Diesel Fuel	Diesel Passenger Cars	195756	Miles	88.830	0.000098	0.000196	88.884	0.000	10.216
2021	All staff	Distance Activity	Motor Gasoline	Gasoline Passenger Cars	222830	Miles	86.953	0.003855	0.000802	87.274	0.000	8.812
2021	All Staff	Distance Activity	Motor Gasoline	Hybrid (Gasoline) Passenger Cars	57857	Miles	16.303	0.001001	0.000208	16.386	0.00	8.825
2021	Purchased Diesel	Fuel Use	Diesel Fuel	Other Diesel Non-Road Vehicles	10776.52	Litres	29.066	0.001623	0.000740	29.308	0.000	10.295
2021	Allstar Fuel Cards	Fuel Use	Diesel Fuel	Diesel Light Duty Trucks	87042.31	Litres	174.287	0.000277	0.000415	174.404	0.000	10.217

SOURCE:EPA, “Emission Factors for Greenhouse Gas Inventories”, March 9, 2018 (https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub); WRI, GHG Protocol - Emission Factors from Cross-Sector Tools, April 2014

SCOPE 2: **Purchased Electricity -** Electricity and other sources of energy purchased from your local utility (that is not combusted on-site). Examples include electricity, steam, and chilled ot hot water. To generate this energy, utilities combust coal, natural gas, and other fossil fuels, emitting carbon dioxide, methane and nitrous oxide in the process.

User Supplied Data						GHG Emissions (Tonnes CO2e)				Emission Factor
Year	Facility ID	Amount of Electricity Consumption	Units	Calculation Approach	Type of Emission Factor	CO2 (Tonnes)	CH4 (Tonnes)	N2O (Tonnes)	CO2e (Tonnes)	EF (kgCO2e/ unit)
2019	1	41360	kWh	Purchased Electricty - Market Based	Residual Mix	15.75651	0	0	15.7565056	0.38096
2020	1	36121	kWh	Purchased Electricty - Market Based	Residual Mix	13.76066	0	0	13.76065616	0.38096
2021	1	36638.5	kWh	Purchased Electricty - Market Based	Residual Mix	13.95780	0	0	13.95780296	0.38096
2019	2	487553.34	kWh	Purchased Electricty - Market Based	Residual Mix	185.73832	0	0	185.7383204	0.38096
2020	2	393949.995	kWh	Purchased Electricty - Market Based	Residual Mix	150.07919	0	0	150.0791901	0.38096
2021	2	393734.1	kWh	Purchased Electricty - Market Based	Residual Mix	149.99649	0	0	149.9969427	0.38096

SOURCE: European Residual Mixes 2018 v1.2 (published July 2019) - Table 2, Direct GWP (gCO2/kWh)

SCOPE 3: Transportation - Fuel consumption by vehicles used to conduct company-finances travel. Examples include commercial air travel and use of rented vehicles during business trips (travel using company-owned/leased vehicles are included in Scope 1)

Description							GHG Emissions (Tonnes CO2e)					Emission Factor
Year	Category	Emission Factor Dataset	Mode of Transport	Activity Type	Amount of Activity Type	Units of Measure-ment	CO2 (Tonnes)	CH4 (Tonnes)	N2O (Tonnes)	CO2e	Biofu-el CO2 (Tonnes)	EF (kgCO2e/ unit)
2019	Business Travel	UK DEFRA	Rail - National Rail	Passenger Distance	79868.57	Passenger Miles	5.240413	8.998E-06	3.985E-06	5.251	0	0.04085411
2019	Employee Commute	UK DEFRA	Car - Diesel	Passenger Distance	263810	Passenger Miles	72.819474	2.638E-06	7.835E-04	73.027	0	0.27681733
2019	Employee Commute	UK DEFRA	Car - Petrol	Passenger Distance	158378	Passenger Miles	45.915366	8.077E-05	9.661E-05	45.943	0	0.29008593
2020	Business Travel	UK DEFRA	Rail - National Rail	Passenger Distance	43390.48	Passenger Miles	2.846978	8.998E-06	2.165E-05	2.853	0	0.04085411
2020	Employee Commute	UK DEFRA	Car - Diesel	Passenger Distance	46815.25	Passenger Miles	12.922413	4.682E-07	1.390E-04	12.959	0	0.27681733
2020	Employee Commute	UK DEFRA	Car - Petrol	Passenger Distance	39691.5	Passenger Miles	11.506963	2.024E-05	2.421E-05	11.514	0	0.29008593
2020	Employee Commute	UK DEFRA	Car - Hybrid	Passenger Distance	1656	Passenger Miles	0.302369	4.306E-07	2.964E-06	0.303	0	0.18307163

SOURCE: UK DEFRA, Business Travel - land, 2019 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/891105/Conversion_Factors_2020_-_Condensed_set__for_most_users_.xlsx)

CONTINUED - SCOPE 3: Transportation - Fuel consumption by vehicles used to conduct company-finances travel. Examples include commercial air travel and use of rented vehicles during business trips (travel using company-owned/leased vehicles are included in Scope 1)

Description							GHG Emissions (Tonnes CO2e)					Emission Factor
Year	Category	Emission Factor Dataset	Mode of Transport	Activity Type	Amount of Activity Type	Units of Measure-ment	CO2 (Tonnes)	CH4 (Tonnes)	N2O (Tonnes)	CO2e (Tonnes)	Biofu-el CO2 (Tonnes)	EF (kgCO2e/ unit)
2021	Business Travel	UK DEFRA	Rail - National Rail	Passenger Distance	78374	Passenger Miles	5.142350	8.829E-06	3.910E-05	5.153	0	0.04085411
2021	Employee Commute	UK DEFRA	Car - Diesel	Passenger Distance	100165.7	Passenger Miles	27.648738	1.002E-06	2.975E-04	27.728	0	0.27681733
2021	Employee Commute	UK DEFRA	Car - Petrol	Passenger Distance	83325	Passenger Miles	24.156751	4.250E-05	5.083E-05	24.171	0	0.29008593
2021	Employee Commute	UK DEFRA	Car - Hybrid	Passenger Distance	16505.8	Passenger Miles	3.013794	4.292E-06	2.955E-05	3.022	0	0.18307163

SOURCE: UK DEFRA, Business Travel - land, 2019 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/891105/Conversion_Factors_2020_-_Condensed_set__for_most_users_.xlsx)

SCOPE 3: Waste Generated in Operations

			GHG Emissions (Tonnes CO2e)				Emission Factor
Year	Total	Units	CO2 (Tonnes)	CH4 (Tonnes)	N2O (Tonnes)	CO2e (Tonnes)	Source
2019	409,074	£	102.57	0	0	102.57	Network Waste Customer Factor £3988.25 per tCO2e
2020	244,559.49	£	61.32	0	0	61.32	Network Waste Customer Factor £3988.25 per tCO2e
2021	276,300.00	£	69.28	0	0	69.28	Network Waste Customer Factor £3988.25 per tCO2e

SCOPE 3: Upstream Transport & Distribution

			GHG Emissions (Tonnes CO2e)				Emission Factor
Year	Total	Units	CO2 (Tonnes)	CH4 (Tonnes)	N2O (Tonnes)	CO2e (Tonnes)	Source
2019	6,602,331	£	248.34	0	0	248.34	Custom Emissions Factor
2020		£	233.89	0	0	233.89	
2021		£	205.80	0	0	295.80	