



Carbon Footprint Appraisal for Woodley Town Council

Assessment Period:
1st April 2023 – 31st March 2024

Executive Summary

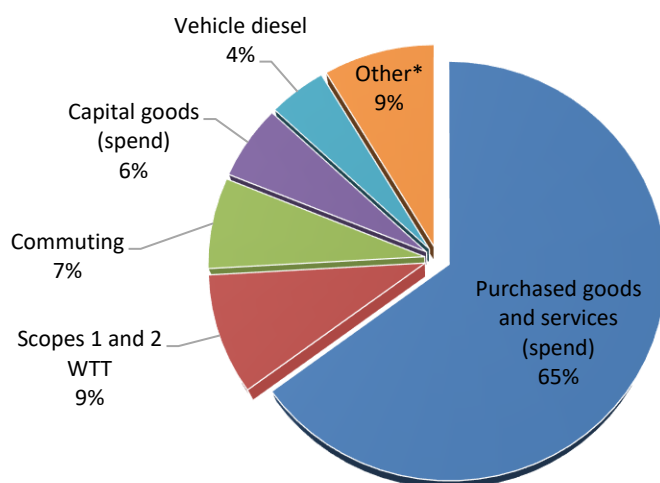
Current Performance

- Woodley Town Council's total market-based emissions are 151.70 tCO₂e and its total location-based emissions are 205.05 tCO₂e.
- The most significant market-based emission source is purchased goods and services (spend), accounting for 65% of the council's carbon footprint.

Recommendations

- Develop a strategy for collecting activity data in place of spend-based data, targeting the suppliers with the most significant impact first.
- Aim to select suppliers that can demonstrate they are taking action to reduce their emissions or intentions to achieve credible sustainability targets.
- Investigate setting up a salary sacrifice scheme to help your employees purchase/lease an EV, e-bike or bicycle. Further investigate installing EV charging points on site to facilitate this switch to EVs.
- Offset the calculated market-based footprint to gain 'Carbon Neutral' status.

Market-based emissions breakdown (incl. WTT)



*Other includes Transmission and Distribution of electricity, Waste generation, Water supply and wastewater generation, Site petrol, Homeworking, Computing, Electricity at leased sites, Biomethane consumption, Grey fleet fuel, and Paper consumption.

Element	Location-based (tCO ₂ e)	Market-based (tCO ₂ e)
Total number of employees	28	
Turnover in £ million	2.5	
Tonnes of CO₂e	205.05	151.70
Tonnes of CO₂e per employee	7.32	5.42
Tonnes of CO₂e per £ million turnover	82.02	60.68

Table of Contents

Executive Summary.....	I
1. Introduction	1
2. Calculation Scope and Accuracy	2
3. Carbon Footprint Results.....	6
4. Comparison and Publication.....	10
5. Conclusion	12
6. Recommendations.....	13
Annex A	15

Quality Control

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1. Introduction

1.1. Company Overview

Woodley Town Council is a parish council located in Berkshire, United Kingdom that provides a number of services for the benefit of the residents of Woodley and the surrounding area.

1.2. Data supplied for the Carbon Footprint Appraisal

A summary of the data supplied by Woodley Town Council for the appraisal can be provided on request.

1.3. Methodology for the Carbon Footprint Appraisal

The methodology document can be downloaded using this link,

https://www.carbonfootprint.com/docs/carbon_footprint_appraisal_methodology_document.pdf

1.4. Abbreviations

CO ₂ e	Carbon Dioxide Equivalent
Defra	Department for Environment, Food and Rural Affairs
EV	Electric Vehicle
g	Grams
GBP	Great British Pound
GHG	Greenhouse Gas
ISO	International Standards Organisation
IWA	International Workshop Agreement
km	Kilometres
kWh	Kilowatt Hours
m ³	Cubic meters
SIC	Standard Industrial Classification
T&D	Transmission & Distribution
TTW	Tank-to-Wheel
WTT	Well-to-Tank
WTW	Well-to-Wheel

2. Calculation Scope and Accuracy

2.1. Scope of this work

Carbon Footprint has assessed the GHG emissions from **1st April 2023 to 31st March 2024** resulting from the energy consumption at Woodley Town Council's facilities and its business transport activities.

2.2. Organisational & reporting boundaries

Figure 1 shows the full boundaries of the *Greenhouse Gas Protocol Corporate and Value Chain Standards*. The organisation has accounted for all quantified GHG emissions and/or removals from facilities over which it has financial control. This assessment covers the reporting boundaries shown in Table 1, in line with the Greenhouse Gas Protocol Accounting and Reporting Corporate Standard.

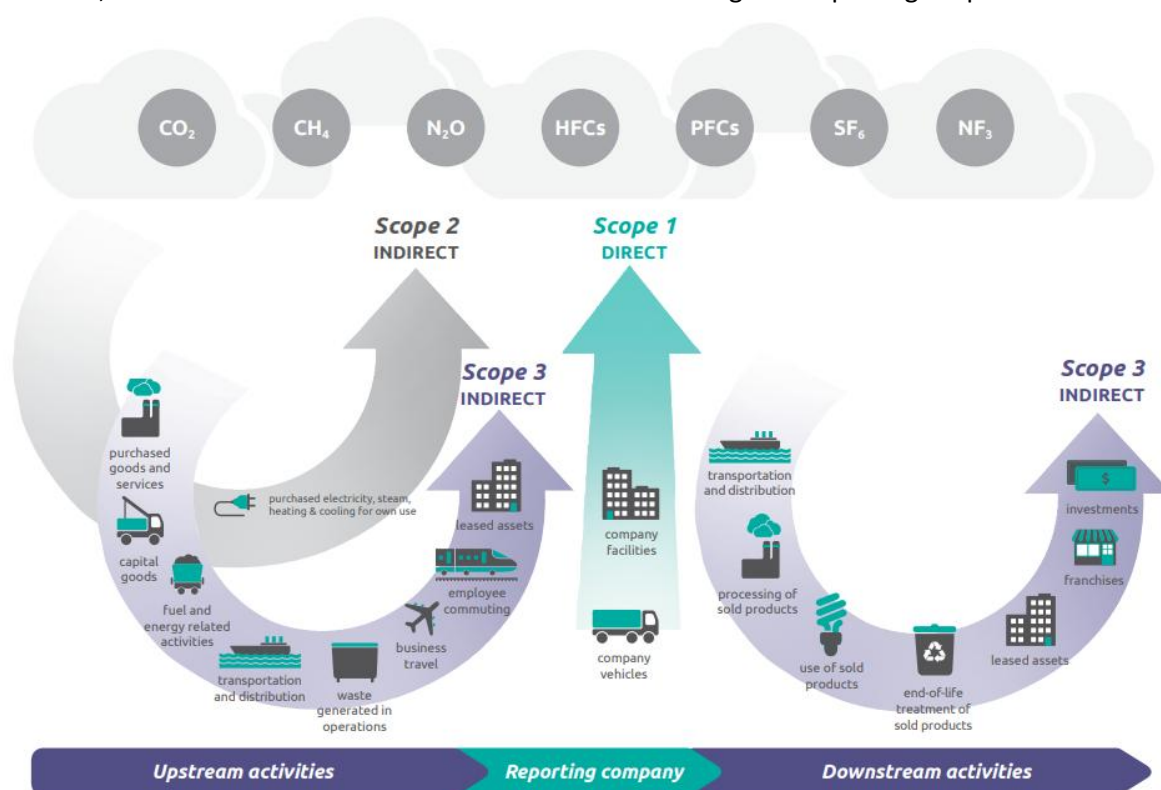


Figure 1: Overview of emissions scopes (GHG Protocol - Scope 3 Calculation Guidance v1.0 - 2013)

Table 1: GHG Protocol Corporate Standard & GHG Protocol Corporate Value Chain (Scope 3) Standard (All green rows have been included in this assessment; all grey rows are not applicable; have been excluded)

Scope	Activity	Calculation Type	Completion Status	Justification
1	Electricity, heat or steam generated on-site		Not relevant	
	On-site fuel use	Activity Data	Complete	
	Company owned vehicles	Activity Data	Complete	
	Fugitive emissions (incl. Refrigerant gases and AC)		Complete	Confirmed no refrigerant gas top-ups during the assessment period
2	On-site Consumption of purchased electricity, heat steam and cooling	Activity Data	Complete	
3	1. Purchased goods and services	Spend Based Data	Complete	
	2. Capital goods	Activity / Spend Based Data	Complete	
	3. Fuel- and energy related activities (not included in scope 1 or scope 2)	Activity Data	Complete	
	4. Upstream transportation and distribution	Spend Based Data	Complete	
	5. Waste generated in operation	Activity Data	Complete	
	6. Business travel (not included in scope 1 or scope 2)	Activity Data	Complete	
	7. Employee commuting	Activity Data	Complete	
	8. Upstream leased assets	Activity Data	Complete	
	9. Downstream transportation and distribution		Not relevant	
	10. Processing of sold products		Not relevant	
	11. Use of sold products		Not relevant	
	12. End-of-life treatment of sold products		Not relevant	
	13. Downstream leased assets		Not relevant	
	14. Franchises		Not relevant	
	15. Investments		Not relevant	

2.3. Calculation uncertainty assessment & materiality

The result of a carbon footprint calculation varies in accuracy depending on the data set provided. The more accurate the data supplied, the more accurate the final result. Materiality is determined by the percentage contribution of each element to the overall footprint. Based on the accuracy of the data provided (Table 2), a simple uncertainty analysis has been used to estimate the potential error margin for the appraisal results.

Table 2: Assessment accuracy, materiality and simple error analysis

Emission Source	Data Source	Materiality	Uncertainty	Market-based Error Margin (tCO ₂ e)
Purchased goods and services (spend)	Total cost in GBP associated with the purchase of goods and services was provided from an annual spend report, which was supplied as evidence.	Very High (>40%)	50%	49.19
Capital goods (spend)	Total cost in GBP associated with the purchase of electronic equipment and furniture was provided from an annual spend report, which was supplied as evidence.	Medium (5-20%)	50%	4.40
Commuting	Transport type and annual distance in miles was provided from an employee commuting survey, which was supplied as evidence. The survey received an 100% response rate.	Medium (5-20%)	5%	0.53
Homeworking	Occupancy type and number of homeworking days per week were provided from an employee homeworking survey, which was supplied as evidence. The survey received an 100% response rate.	Very Low (<1%)	50%	0.49
Vehicle diesel	Total consumption of diesel in litres was provided from internal records.	Low (1-5%)	5%	0.42
Water supply and wastewater generation	Total consumption in m ³ was provided from utility bills. It was assumed 95% of the water supplied was returned to the sewer as wastewater.	Low (1-5%)	5%	0.27
Biomethane consumption	Total consumption in kWh was provided from 12-months' worth of biogas bills, which were supplied as evidence.	Medium (5-20%)	1%	0.24



Emission Source	Data Source	Materiality	Uncertainty	Market-based Error Margin (tCO ₂ e)
Waste generation	Bin capacity in litres, number of bins and frequency of their collection was provided from internal records. Total weight in tonnes of municipal waste generated at one site was provided from internal records.	Low (1-5%)	5%	0.15
Site petrol	Total consumption of petrol in litres, used by lawn mowers and strimmers at the Maintenance Depot was provided from internal records.	Very Low (<1%)	5%	0.07
Electricity at owned sites	Total consumption in kWh was provided from 12-months' worth of electricity bills, which were supplied as evidence. For market-based reporting, the supplier-specific emission factor in g/kWh was either sourced from electricity bills or the supplier's website under fuel mix information.	Very Low (<1%)	5%	0.07
Computing	Quantity of specific computing equipment purchased during the assessment period was provided from internal records.	Very Low (<1%)	5%	0.04
Electricity at leased sites	Total consumption in kWh was provided from 12-months' worth of electricity bills. For market-based reporting, the supplier-specific emission factor in g/kWh was either sourced from electricity bills or the supplier's website under fuel mix information.	Very Low (<1%)	5%	0.01
Grey fleet fuel	Total miles and vehicle details such as fuel type and engine size were provided from expense records.	Very Low (<1%)	5%	<0.01
Paper	Quantity of A3 and A4 sheets used during the assessment period were provided from internal records.	Very Low (<1%)	5%	<0.01
Total			+/- 34.17%	+/- 55.90



3. Carbon Footprint Results

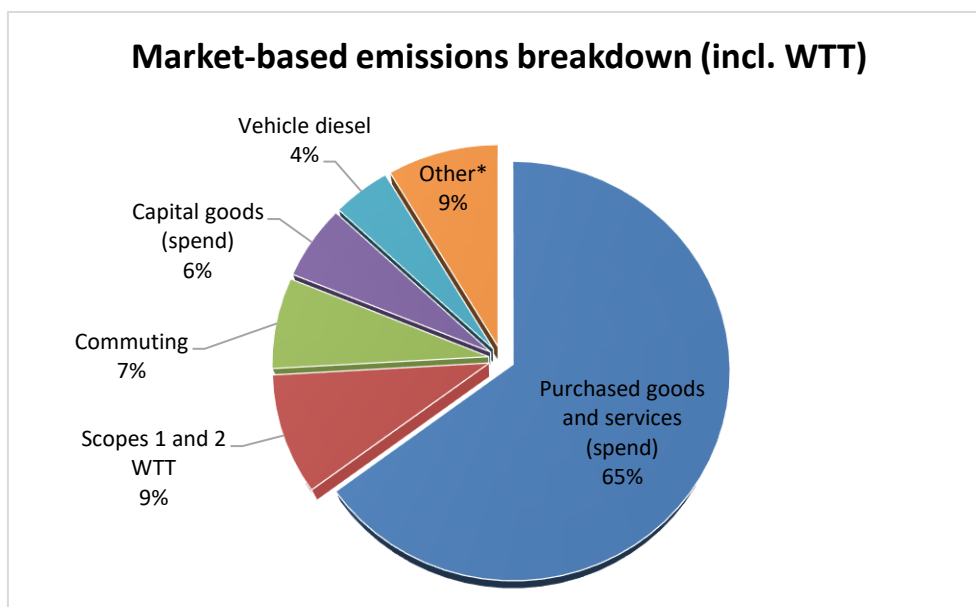
3.1. Summary of results

The total location-based carbon footprint for Woodley Town Council for the period ending 31st March 2024 is 205.05 tonnes CO₂e, and the total market-based carbon footprint is 151.70 tonnes CO₂e.

Table 3: Results of Woodley Town Council's carbon footprint assessment by scope and GHG Protocol emission categories

Scope	Emission Source	Location-Based (tCO ₂ e)	Market-Based (tCO ₂ e)
1	Site petrol	1.17	1.17
	Biomethane consumption	0.09	0.09
	Vehicle diesel	6.78	6.78
Scope 1 Subtotal		8.05	8.05
2	Electricity at owned sites	41.32	1.21
Scope 2 Subtotal		41.32	1.21
3.1	Purchased goods and services (spend)	98.39	98.39
	Water supply	2.60	2.60
	Paper consumption	<0.01	<0.01
3.2	Capital goods (spend)	8.81	8.81
	Computing	0.74	0.74
3.3	Scopes 1 and 2 WTT	23.00	14.01
	Transmission and distribution of electricity at owned sites	4.37	0.08
	Transmission and distribution of electricity at leased sites	0.02	0.02
3.5	Waste generation	2.97	2.97
	Wastewater generation	2.82	2.82
3.6	Grey fleet fuel	0.07	0.07
3.7	Commuting	10.69	10.69
	Homeworking	0.98	0.98
3.8	Electricity at leased sites	0.22	0.26
Scope 3 Subtotal		155.68	142.44
Tonnes of CO₂e		205.05	151.70
Tonnes of CO₂e per employee		7.32	5.42
Tonnes of CO₂e per £ million turnover		82.02	60.68

A full breakdown of emissions by source has been provided in Annex A.



*Other includes Transmission and Distribution of electricity, Waste generation, Water supply and wastewater generation, Site petrol, Homeworking, Computing, Electricity at leased sites, Biomethane consumption, Grey fleet fuel, and Paper consumption.

Figure 2: Percentage contribution of each element of Woodley Town Council's market-based carbon footprint

3.1. Emissions from Purchased goods and services and Capital goods (spend-based)

GHG emissions associated with Woodley Town Council's purchased goods and services and capital goods were calculated using a spend-based screening approach. This calculation uses the conversion factors developed by the Department for Environment Food and Rural Affairs (Defra). These allow a conversion of kgCO₂e/£, using SIC codes. Table 4 below shows the calculated GHG emissions per SIC code.

The company's most material emissions source is from SIC Group 33: Rest of repair; Installation. This group also has the highest annual spend of the SIC categories. The sectors that have generated the highest emissions in Table 4, are expected due to the nature of the business.

We recommend that Woodley Town Council works with its key suppliers within the top five SIC categories to develop a strategy for collecting activity data in place of spend-based data, which will significantly improve the accuracy of the calculations.

Table 4: CO₂e emissions associated with purchased goods and services and capital goods spend

Sector Summary	Purchased goods and services (tCO ₂ e)	Capital goods (tCO ₂ e)	% Contribution
Rest of repair; Installation	16.97	-	15.8%
Retail trade services, except of motor vehicles and motorcycles	12.09	-	11.3%
Other professional, scientific and technical services	6.27	-	5.9%
Services furnished by membership organisations	6.07	-	5.7%
Textiles	4.69	-	4.4%
Creative, arts and entertainment services	4.57	-	4.3%
Furniture	-	4.49	4.2%
Computer, electronic, communication and optical products	-	4.31	4.0%
Waste collection, treatment and disposal services; materials recovery services	4.20	-	3.9%
Insurance & Reinsurance	4.18	-	3.9%
Computer programming, consultancy and related services	4.11	-	3.8%
Electrical equipment	3.64	-	3.4%
Rental and leasing services	3.34	-	3.1%
Printing and recording services	2.97	-	2.8%
Telecommunications services	2.34	-	2.2%
Wholesale and retail trade and repair services of motor vehicles and motorcycles	2.10	-	2.0%
Employment services	1.96	-	1.8%
Motion picture, video and television programme production services, sound recording and music publishing	1.94	-	1.8%
Wholesale trade services, except of motor vehicles and motorcycles	1.84	-	1.7%
Buying and selling of own real estate: renting and operating of own or leased real estate, excluding imputed rent	1.80	-	1.7%
Products of agriculture, hunting and related services	1.75	-	1.6%
Architectural and engineering services; technical testing and analysis services	1.58	-	1.5%
Rubber and plastic products	1.47	-	1.4%
Specialised construction works	1.26	-	1.2%
Sporting services and amusement and recreation services	1.21	-	1.1%
Postal and courier services	1.10	-	1.0%
*Other	4.93	-	4.6%
Total	98.39	8.81	100%

*Other includes Accounting, bookkeeping and auditing activities; tax consultancy; Financial services, except insurance and pension funding; Legal activities; Wearing apparel; Paper and paper products; Sewerage services, sewage sludge; Pension funding; Manufacture of gas, distribution of gaseous fuels through mains and steam and air conditioning supply; Other personal services; Food and beverage serving services; Advertising and market research services.

3.2. Emissions from Well-to-Tank

Well-to-Tank (WTT) emissions relate to the upstream emissions of getting fuel and energy to point of use through its extraction, refinement and distribution. Table 5 provides a breakdown of these emissions associated with each type of activity. **Woodley Town Council can reduce these emissions by reducing its fuel and energy usage by following the recommendations in Section 6.2.**

Table 5: Well-to-Tank CO₂e Emissions breakdown

Emission Source	Total emissions (tCO ₂ e)
Biomethane consumption	11.89
Commuting	2.27
Vehicle diesel	1.65
Site petrol	0.30
Electricity at owned sites	0.17
Electricity at leased sites	0.04
Grey fleet fuel	0.02
Transmission and distribution of electricity at owned sites	0.01
Transmission and distribution of electricity at leased sites	<0.00
Total	16.35

3.3. Emissions from Commuting

The emissions associated with commuting account for 7% of Woodley Town Council's market-based footprint. Table 6 provides a breakdown of the emissions associated with each transport type. **We recommend that Woodley Town Council investigates setting up a salary sacrifice scheme to help its employees purchase/lease an electric vehicle, e-bike or bicycle. The council should also investigate installing electric vehicle (EV) charging points at The Oakwood Centre and Woodford Park Leisure Centre to increase charging capacity and facilitate this switch to EVs.**

Table 6: CO₂e emissions associated with commuting

Transport type	Fuel type	Annual distance (miles)	WTT Emissions (tCO ₂ e) ¹	TTW emissions (tCO ₂ e) ²	Total emissions (tCO ₂ e)
Car	Petrol	21,934	1.53	5.50	7.03
	Unknown	5,662	0.40	1.52	1.92
	Diesel	3,094	0.25	1.01	1.26
	Battery Electric	15	<0.01	<0.01	<0.01
Bus	-	2,388	0.10	0.39	0.49
Total	-	33,093	2.26	8.42	10.69

¹ Refers to the upstream emissions of getting the fuel/energy to the point of use through its extraction, refinement and distribution.

² Refers to the emissions generated while the fuel/energy is being used



4. Comparison and Publication

A summary of the carbon footprint results can be seen in Section 3.1. This will set the base year for all future reports to be compared against.

Carbon Footprint recommends that organisations use the base-year GHG inventory as a benchmark to measure against. When using the base-year GHG inventory as a benchmark, organisations can set realistic reduction targets and measure their progress year on year. This can also provide excellent marketing opportunities, where real figures can demonstrate your commitment towards helping fight climate change.

4.1. External Publication and Benchmarking of Your Carbon Footprint

We strongly encourage you now to **publish your carbon footprint results on Carbon Database Initiative (CaDI)** – our new global platform. Follow [this link](https://carbondi.com/) to grant us permission to publish your results automatically.



<https://carbondi.com/>

External publication demonstrates your commitment to carbon management and to responsible transparency. Your results will also be endorsed on CaDI as ‘Verified’ for additional peace of mind for you and viewers of the data.

Using CaDI, you can also search other organisations that have reported their emissions to benchmark your performance.

Many companies report Scope 1 & 2 emissions for comparison against others as elements included in Scope 3 can vary greatly. Table 7 summarises the emissions across these Scopes, along with metrics showing emissions per unit turnover and per employee, to help your benchmarking.

Table 7: Woodley Town Council's benchmarked GHG emissions

Element	Location-based (tCO ₂ e)	Market-based (tCO ₂ e)
Total number of employees	28	
Turnover in £ million	2.5	
Tonnes of CO₂e	205.05	151.70
Tonnes of CO₂e per employee	7.32	5.42
Tonnes of CO₂e per £ million turnover	82.02	60.68
Scope 1 & 2 Emissions		
Tonnes of CO₂e	49.37	9.26
Tonnes of CO₂e per employee	1.76	0.33
Tonnes of CO₂e per £ million turnover	19.75	3.70

5. Conclusion

Woodley Town Council in conjunction with Carbon Footprint Ltd, has assessed its carbon footprint for the period 1st April 2023 to 31st March 2024, and therefore has qualified to use the Carbon Footprint Standard branding. This can be used on all marketing materials, including website and customer tender documents, to demonstrate your carbon management achievements.



6. Recommendations

6.1. Carbon & sustainability targets

6.1.1. Improving the accuracy of future carbon footprint assessments

The estimated overall error margin is +/- 34.17%, which represents +/- 55.90 tCO₂e of the total assessed market-based emissions.

To improve the accuracy of future assessments, we recommend the following:

- Implement a monthly data and carbon tracking system, such as Carbon Footprint Ltd's Sustrax MX platform. This will help you more easily track data throughout the year, enabling you to check for any anomalous data before final verifications of your results take place.
- Work with your key suppliers to develop a strategy for collecting activity data in place of spend-based data, which will significantly improve the accuracy of the calculations. The accuracy scale of calculating Purchased Goods and Services is detailed in Annex B below.

6.1.2 Target setting for net zero

Woodley Town Council should set targets based on per employee and/or per £M turnover, which will account for business growth. Many organisations are now setting targets based on typical mid-term and longer terms goals to reach net zero (ISO's International Workshop Agreement on Net Zero Guidance - IWA 42:2022³):

- A 50% reduction in emissions per £M turnover/employee by 2030.
- A 90% reduction in emissions per £M turnover/employee by 2045.

All targets set should be reviewed regularly and amended accordingly (i.e. target increased if it is met ahead of schedule). A clear roadmap for individual emissions sources should be in place. This will ensure the strategy for reducing CO₂e emissions and tracking toward a net zero target is appropriate for the business.

A hyperlink to Carbon Footprint Ltd's whitepaper on target setting can be found below:

https://www.carbonfootprint.com/docs/2021_12_cfp_practical_target_setting_-_white_paper_v10.pdf.

³ [ISO - Net Zero Guidelines](#)

6.2. Reducing emissions

To reduce GHG emissions, we recommend the following:

- Consider completing a more detailed analysis of spend-based emissions, by allocating spend to specific suppliers. This will allow the company to understand which suppliers are the most significant contributors per sector. This can be used to develop a strategy for collecting activity data in place of spend-based data, targeting the suppliers with the most significant impact first.
- Develop an internal strategy around supplier engagement to ensure a clear and consistent plan of action is in place for obtaining and monitoring supplier's sustainability information. Aim to select suppliers that can demonstrate they are taking action to reduce their emissions or intentions to achieve credible sustainability targets. Evaluate the supplier's future emissions reduction plans to understand how they will influence Woodley Town Council's supply chain emissions.
- Investigate setting up a salary sacrifice scheme to help your employees purchase/lease an EV, e-bike or bicycle. Further investigate installing EV charging points at The Oakwood Centre and Woodford Park Leisure Centre to increase charging capacity and facilitate this switch to EVs.

6.3. Carbon offsetting

Carbon offsetting is a pragmatic way to compensate for the emissions that you cannot reduce, by funding an equivalent carbon dioxide saving elsewhere.

The majority of projects focus on the development of renewable energy in developing countries, however there are others which have a greater focus on social benefits as well as environmental benefits. Further detail on the type and specific projects that we currently have in our portfolio can be provided on request or be found at: <http://www.carbonfootprint.com/carbonoffsetprojects.html>.



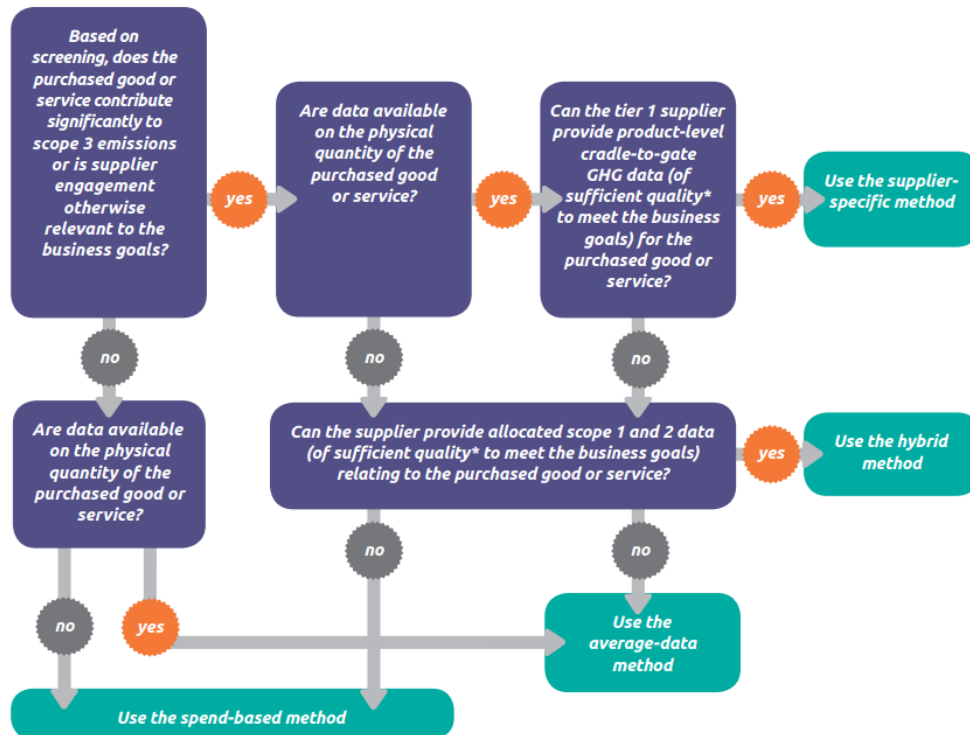
Figure 3: Wind Farm Power project in Thailand

Annex A

A full breakdown of Woodley Town Council's emission sources is given below. This aligns with the GHG Protocol classification methodology and provides each associated emission source.

Scope	GHG Protocol Emission Category	Emission Source	Location-based (tCO ₂ e)	Market-based (tCO ₂ e)
1	On-site fuel use	Site petrol	1.17	1.17
		Biomethane consumption	0.09	0.09
	Company owned vehicles	Vehicle diesel	6.78	6.78
Scope 1 Subtotal			8.05	8.05
2	On-site Consumption of purchased electricity, heat steam and cooling	Electricity at owned sites	41.32	1.21
Scope 2 Subtotal			41.32	1.21
3.1	Purchased goods and services	Purchased goods and services (spend)	98.39	98.39
		Water supply	2.60	2.60
		Paper consumption	<0.01	<0.01
3.2	Capital goods	Capital goods (spend)	8.81	8.81
3.3	Fuel- and energy related activities (not included in scope 1 or scope 2)	Computing	0.74	0.74
		Scopes 1 and 2 WTT	23.00	14.01
		Transmission and distribution of electricity at owned sites	4.37	0.08
		Transmission and distribution of electricity at leased sites	0.02	0.02
3.5	Waste generated in operation	Waste generation	2.97	2.97
		Wastewater generation	2.82	2.82
3.6	Business travel (not included in scope 1 or scope 2)	Grey fleet fuel	0.07	0.07
3.7	Employee commuting	Commuting	10.69	10.69
		Homeworking	0.98	0.98
3.8	Upstream leased assets	Electricity at leased sites	0.22	0.26
Scope 3 Subtotal			155.68	142.44
Tonnes of CO₂e			205.05	151.70
Tonnes of CO₂e per employee			7.32	5.42
Tonnes of CO₂e per £ million turnover			82.02	60.68

Annex B – Decision Tree for Supply Chain calculation method



Note * Companies should collect data of sufficient quality to ensure that the inventory:

- most appropriately reflects the GHG emissions of the company
- supports the company's business goals for conducting a GHG inventory
- serves the decision-making needs of users, both internal and external to the company.

(The Greenhouse Gas Protocol: Technical Guidance for Calculating Scope 3 Emissions (2013))