Crown Oil sustainability

CARBON NEUTRAL IN ACCORDANCE WITH ISO 14068

Carbon Assessment Report

in accordance with ISO-14068-1

Achievement period: 1st August 2024 - 31st July 2025

Commitment period: 1st August 2025 - 31st July 2026

Date: March 2026

T: 0330 123 1444 | **W:** sustainability.crownoil.co.uk

ISO 14068-1 – Carbon Neutral VOS

The British Standard Institute (BSI) has developed an internationally applicable specification for demonstrating carbon neutrality. Verification to this standard substantiates claims that a business is carbon neutral.

Conformity with this specification can be achieved in three ways:

1. 3rd party certification
2. Other party validation
3. Self-validation

Crown Oil have chosen 3rd party certification through the BSI. This provided Crown Oil with the support, documentation and protection required from external criticism, ensuring high confidence in the carbon neutrality statement.

Table 1: Declaration of achievement of carbon neutrality

ISO14068-1 Requirement	Response
Entity making declaration	Crown Oil Ltd (Group) including: Crown Oil Ltd (company) Speedy Fuels Ltd, Crown Oil Environmental Ltd, Beesley Fuels Ltd, Nationwide Fuels and Lubricants Ltd
Subject of ISO14068-1 declaration	All offices, commercial premises, vehicles, goods and services for which Crown Oil Ltd (Group) has operational control
Description of subject	Crown Oil Ltd (Group) is a group of commercial fuel and lubricant distribution companies providing service coverage across the UK
Rationale for selection of subject	The subject was selected given it represents the operational control boundary of Crown Oil following the WRI GHG Protocol methodology. The boundary is summarised as follows: • Scope 1 emissions: combustion of gas, combustion of fuel (stationary & mobile), refrigerant leakage • Scope 2 emissions: purchased electricity & heat (location based) • Scope 3 emissions: purchased goods & services, capital goods, well-to-tank & transmission & distribution losses, upstream transportation & distribution, business travel, employee commuting, excluded Scope 3 emissions are those associated with: - Use of sold products, processing and end-of-life treatment of sold products
Type of conformity assessment	Third Party Certification from BSI
Baseline date for ISO 14068 programme	1st August 2020 to 31st July 2021
Period during which the entity is demonstrating carbon neutrality of the subject has been achieved	1st August 2024 to 31st July 2025

Recorded carbon footprint of the subject during the period stated above	7,759 tonnes CO_2e p.a.
Which ISO 14068 recognised methodology has been followed to achieve carbon neutrality?	WBCSD/WRI Greenhouse Gas Protocol, Corporate accounting and Reporting standard (revised edition, March 2004)
How have the reductions in GHG emissions during the period been achieved?	Reductions primarily made by substituting mobile combustion of diesel fuel with that of hydrotreated vegetable oil. Please see Carbon Reduction Opportunities for further information.
Has there been material changes to the subject?	No, the scope and boundary of the assessment is the same as the baseline FY2020/21
Actual reduction in GHG emissions	1,057 tCO_2e p.a.
Carbon Offset standard and methodology	Verified Carbon Standard (VCS) (see 'Carbon Offsetting' report section)
UK economic growth rate over the application period	2024: 1.1% https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG
Other-party validation statement	Tunley Engineering declare that the information presented in this carbon neutral claim in support of ISO 14068:2014 is true and accurate to the best of our knowledge, ability and experience
Name of senior representative	Mark Andrews
Signature	M. Andrews
Statement from Senior Representative	Crown Oil Group made significant strides in environmental responsibility during the 2024-25 financial year including achieving verification to the ISO 14068-1 standard for carbon neutrality. Building on this achievement, the Group remains committed to minimising the environmental impact of its operations and will maintain alignment with the ISO 14068-1 standard throughout the 2025-26 financial year.

CARBON NEUTRAL
IN ACCORDANCE WITH ISO 14068

Executive summary

Crown Oil Ltd has completed this carbon footprint assessment report in accordance with ISO-14064-1. This document forms the ISO 14068-1 Qualifying Explanatory Statement whereby Tunley Environmental verify that Crown Oil has achieved carbon neutrality in accordance with said ISO 14068-1 standard on 19th February 2026 for the reporting period of 1st August 2024 and 31st July 2025.

Total carbon emissions in tonnes of carbon dioxide equivalents (tCO_2e per annum) for the FY2024/25 are 7,759 t CO_2e, with respective contributions of 120 t CO_2e for Scope 1, 8 t CO_2e for Scope 2, and the remaining emissions, 7,630 t CO2e attributed to Scope 3.

ISO 14068-1
We achieved carbon neutral status in 2022

The internationally applicable specification, developed by the British Standard Institute, demonstrates carbon neutrality. The third-party verification from Tunley Environmental substantiates claims that we are a carbon neutral business.

We are in our fourth reporting year with previous years being certified ISO 14068 carbon neutral following official BSI audits on ISO14064-1 and third party ISO 14068 verification. We became a carbon neutral business in the financial year 2020/21 and are committed to continue reducing our GHG emissions.

We are actively reducing emissions in line with its Carbon Management Plan through three key measures:

1. An insetting scheme , cutting 419 t CO_2e with verified HVO swaps for residual fuel card use at petrol stations, backed by blockchain certificates, ISCC proofs and ISO 14064 verification
2. Renewable energy tariffs, reducing Scope 2 emissions by 81 t CO_2e via market-based claims
3. And sustainable aviation fuel (SAF) purchases, lowering Scope 3 business travel emissions by 8 t CO_2e through book-and-claim attribution

Per BS ISO 14068-1:2023 and BS EN ISO 14064-1:2019 (aligned with GHG Protocol), HVO insetting qualifies as a genuine value chain reduction that lowers inventory totals, while renewable tariffs and SAF are market-based mechanisms; both location-based (reflecting physical grid mix or fuel combustion) and market-based (reflecting contracts and attributes) emissions are reported for Scope 2 and relevant Scope 3 categories.

Total location-based emissions stand at 8,267 t CO_2e, leaving a residual market-based emissions footprint of 7,759 t CO_2e to be compensated with high-quality carbon offsets.

We have achieved carbon neutrality by purchasing recognised carbon offsets. While notable progress has already been made in reducing emissions, the company acknowledges that some unabated emissions remain, highlighting further opportunities for future reduction.

Carbon credits purchased:

- Grid Connected Wind Power Project by M/s Giriraj Enterprises in Madhya Pradesh – 2,735 VCUs
- Solar Energy Project(s) by SB Energy Private Limited – 2,642 VCUs
- 3.5 MW Small Hydro Project In Himachal Pradesh – 2,500 VCUs

The total carbon offsets is 7,877 VCUs. These carbon credits have been officially verified by BSI, ensuring their compliance with international standards and their contribution to Crown Oil Ltd's carbon neutrality.

Table 2: Emissions summary

Scope	FY 20/21 (t CO_2e)	FY 21/22 (t CO_2e)	FY 22/23 (t CO_2e)	FY 23/24 (t CO_2e)	FY 24/25 (t CO_2e)
Scope 1	2,844	284	311	293	120
Scope 2	201	120	63	22	8
Scope 3	5,888	5,118	5,835	5,380	7,630
Total	**8,933**	**5,522**	**6,209**	**5,695**	**7,759**
Turnover (litres)		570,785,377	538,233,185	566,538,829	723,242,232
Intensity ratio (tCO_2e/ml)	18.3	9.7	11.5	10.1	10.7

Table 3: Emissions summary per category

	Category	FY 20/21 (t CO_2e)	FY 21/22 (t CO_2e)	FY 22/23 (t CO_2e)	FY 23/24 (t CO_2e)	FY 24/25 (t CO_2e)
S1.1	Stationary combustion	24	36	4	6	40
S1.2	Mobile combustion	2,812	248	306	287	79
S1.3	Refrigerants	8	0	0	0	1
S2.1	Purchased heat	21	0	0	0	0
S2.2	Purchased electricity	179	120	63	22	8
S3.1	Purchased goods & services	2,976	1,134	996	871	1,332
S3.2	Capital goods (e.g. assets, machinery etc)	944	1,966	2,172	1,250	3,285
S3.3	Fuel & energy related activities not included in S1 or S2	946	68	104	848	1,066
S3.4	Upstream transportation & distrubution	921	664	992	1,089	691
S3.5	Waste generated in operations	35	19	10	9	27
S3.6	Business travel	16	17	80	84	39
S3.7	Employee commuting	49	120	218	232	85
S3.8	Upstream leased assets	1	0	0	0	0
S3.9	Downstream transportation & distribution	0	1,130	1,263	997	1,105
S3.10	Processing of sold products	excluded	315,546	322,801	302,760	340,134
S3.11	Use of sold products	excluded	1,391,966	1,305,073	1,120,666	1,109,150
S3.12	EOL of sold products	0	0	0	0	0
S3.13	Downstream leased assets	0	0	0	0	0
S3.14	Franchises	0	0	0	0	0
S3.10	Investments	0	0	0	0	0
Total		**8,933**	**5,522**	**6,209**	**5,695**	**7,759**

Inset Removals for Fuel Cards	-419
Renewable Energy Tariffs	-81
SAF for Business Travel Flights	-8
Location-Based Emissions	**826**

Methodology and quantification standards

Carbon emissions context

Carbon dioxide and other greenhouse gasses (GHG) must be reduced to avoid the devastating impact from climate change. From local commitments (such as the Greater Manchester's commitment to zero carbon by 2038) to global commitments (such as the Paris Agreement), it is more important than ever for business to reduce their GHG emissions.

We're committed to make significant changes to our business in order to become more sustainable and reduce emissions. To do this, we:

- calculate our carbon footprint per year
- offset these emissions to become carbon neutral
- plan to reduce emissions in the future with aspirations to becoming Net Zero

It's important to understand the phrases often used for sustainability and carbon reduction:

Carbon neutral

Being carbon neutral is to balance carbon emissions with an equivalent amount sequestered or offset. Thus, it is often achieved by calculating the total amount of GHG emissions produced per year and this amount if offset through credits to make up the difference between its emissions and a zero-carbon baseline.

According to PAS 2060:2014 carbon neutral is a:

> ***"condition in which during a specified period there has been no net increase in the global emission of greenhouse gases to the atmosphere as a result of the green house gas emissions associated with the subject during the same period".***

Net zero carbon

Becoming Net Zero is the goal every company should aspire to. It refers to balancing the amount of emitted GHG emissions with the equivalent emissions through offsets or sequestration. However, this should primarily be achieved through a reduction in the amount of GHG emissions produced. Offsets are required when the GHG emissions cannot be reduced any further.

Crown Oil Ltd is a carbon neutral company with aspirations to become Net Zero by 2030.

Exclusions

In accordance with guidelines that ensures the carbon neutrality report does not hide or omit important information, the business activities that are excluded from the business carbon footprint are:

3.10 – Processing of Sold Products
3.11 – Use of Sold Products
3.12 – End of Life Treatment of Sold Products

The decision was made to omit some Scope 3 emission activities to ensure the accuracy of the carbon assessment. Further, the global carbon footprint must represent a relevant baseline to our current operation.

For the avoidance of doubt, the emissions arising from life cycle phases of our products sold to our customer base are calculated but excluded and reported in the Out of Scopes. This is because it is out of our operational control. We are downstream suppliers of the products and thus have limited control in the emissions from using the products. While the emissions from the use of sold oil are materially significant, our negligible influence over how these products are used (as indicated by a less than 5% profit stake) justifies our categorisation as 'out of scope'. This approach is in-line with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Additionally, draft guidance from the Science Based Targets institute (SBTi) for the Oil & Gas industry identifies the scope of emissions for downstream distribution companies (such as Crown Oil) to be excluded. From a financial viewpoint, our value stake represents much less than 5% of the sold product and therefore responsibility lies with the upstream primary extraction and processing companies.

Limitations

It is important to understand the limitations of the carbon assessment that are in herently created by the use of certain assumptions required to calculate the GHG emissions. These assumptions are limitations and, are inevitable and essential when otherwise suitable quantified data is unavailable. Please see the uncertainty scores in the Data Accuracy and Uncertainty Assessment section for further information.

The limitations undertaken to complete this assessment are as follows:

1. Estimated data used from assumptions in place of primary data

In certain circumstances, the data required to calculate the GHG emissions were unavailable. For example, some invoices for electricity were missing for individual months and therefore, extrapolation was required to estimate the total energy usage per year for some locations. The assumptions are noted within the additional document GHG Emissions Methodology, Inventory and Assessment if requested. It is recommended to begin making records for the data where assumptions have been used.

2. Spend-based emission calculations

Primary data that accurately measures the amount (in terms of weights and volumes) of a business activities conducted was used where available. However, for the purchased goods and services and capitals costs, the data available were in costs instead of amounts. This means, the spend-based methodology was used reducing the accuracy of the emission calculations. For example, for office supplies, the amount of money spent on paper was used to calculate the emissions instead of amount of paper purchased.

It is recommended that emissions from the top 20% of suppliers for purchased goods and services are based on quantity of goods/services in place of spend; however, the current approach is appropriate for the large scale of accounts in place. Alternatively, working with suppliers to calculate their carbon footprint, generate supplier specific spend based emission factors and understanding their plans to reduce emissions is recommended.

3. Emissions based off average emission factors

The emission factors applied in the calculations are sourced from the DESNZ 2025 emission factor database. Given the reporting period spans two calendar years, ideally, both 2024 and 2025 emission factors would be used, but due to the inability to segregate data across these years, we have utilised only the 2025 dataset for emission factors.

Additional to the limitations from the GHG emission calculations, uncertainty is also created from the data collection process. In accordance with the ISO 14064-1 international standard, the uncertainty associated with the data used for the carbon footprint quantification has been assessed at the GHG category level.

HVO is a second generation biofuel which is a direct substitute for diesel, with a significantly lower emission factor, and therefore enables lower carbon emissions (Table 4). HVO is derived from waste oils and crops to produce vegetable oil which is then hydrotreated to make HVO. Table 4 shows the emission factor for HVO as provided by both DESNZ and our current HVO suppliers.

Emission factors for fuels have two key components:

1. The emission factor at the end use from combusting the fuel (Scope 1)
2. The emission factor for 'well-to-tank' so called as it accounts for the additional emissions to extract, process and transport fuels to the end-user (Scope 3)

The supplier calculates the emission factor for the end use of HVO based on real data and calculations that follow mass balance equations. The emission factors are then provided through Proof of Sustainability (PoS) certificates that apply under the Renewable Energy Directive (EU) 20128/2001 (RED II).

Table 4: Emission factors for fuels used for mobile combustion as provided by DESNZ and supplier data.

Fuel	Use of fuel kg CO_2e/litre	Well to tank kg CO_2e/litre	Total kg CO_2e/litre
Diesel	2.57082	0.61101	3.18183
HVO (supplier data)	0	0.54291	0.54291
HVO (DEFRA 24)	0.03558	0.56439	0.59997
HVO (used in calculations)	0.03558	0.54291	0.57849

Verification of Methodology

Scope 1 and Scope 2

Verification Conducted by: Tunley Environmental & BSI.

Verification Process: A detailed outline of the verification steps undertaken, including data review (invoices, receipts), risk assessment, and on-site verification activities, as applicable.

Level of Assurance: Reasonable Assurance.

Verification Findings and Opinion: A summary of the verification findings and the opinion issued by Tunley Environmental regarding the accuracy and reliability of Crown Oil Ltd's GHG inventory.

In accordance with the ISO 14064 standard, this GHG report has been rigorously verified by Tunley Environmental to ensure the accuracy and reliability of the disclosed greenhouse gas emissions and removals. The verification process involved an evaluation of the GHG inventory against the ISO 14064 criteria. This included a detailed review of all relevant data, evidenced by invoices and receipts, to guarantee the integrity of the information reported.

The verification was performed with a level of reasonable assurance, the highest level of scrutiny under the ISO framework, indicating a high degree of confidence in the findings. This exhaustive verification process underscores our commitment to transparent and credible environmental reporting, reflecting its dedication to sustainable business practices and its contribution to global efforts in mitigating climate change.

Scope 3

Verification Conducted by: Tunley Environmental & BSI.

Verification Process: A detailed outline of the verification steps undertaken, including data review (invoices, receipts), risk assessment, and on-site verification activities, as applicable.

Level of Assurance: Limited Assurance.

Verification Findings and Opinion: A summary of the verification findings and the opinion issued by Tunley Environmental regarding the accuracy and reliability of Masimo Consumer's GHG inventory.

Introduction

This document forms the ISO 14068-1 Qualifying Explanatory Statement whereby Tunley Environmental verifies that Crown Oil has achieved carbon neutrality in accordance with ISO 14068-1 on 19th February 2026 for the reporting period of 1st August 2024 and the 31st July 2025.

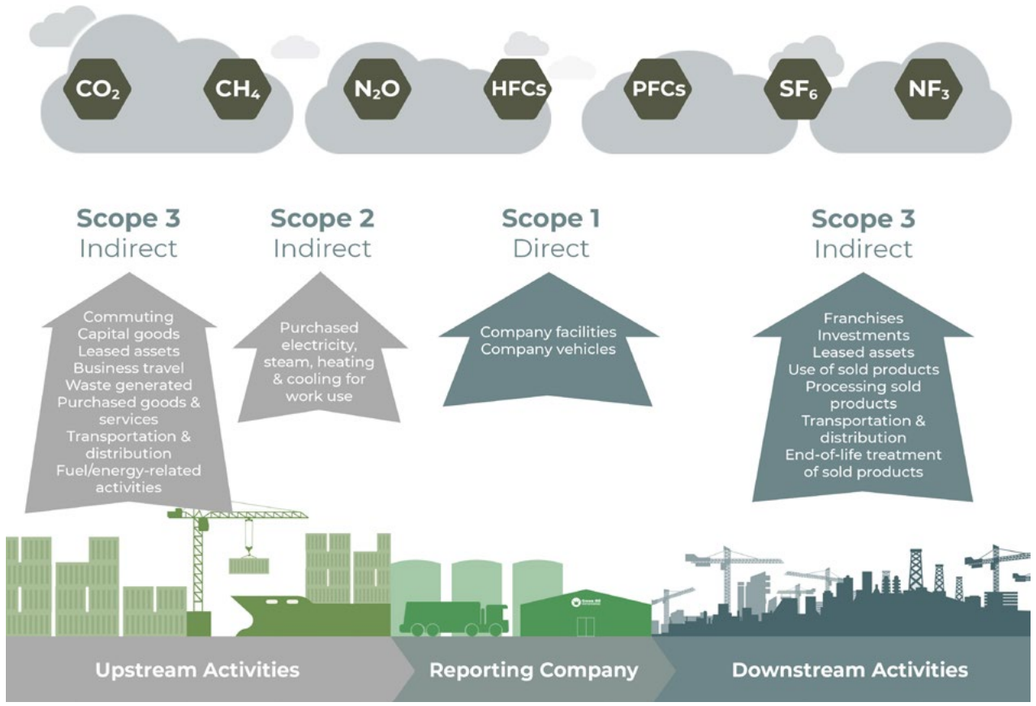
We've worked to calculate our carbon footprint in accordance with the internationally recognised standard ISO-14064-1. The primary data is sourced for our business activities. Greenhouse gas emissions are calculated by Tunley Environmental and are quantified in terms of carbon dioxide equivalents (CO_2e) and thus are occasionally referred to as carbon emissions.

The objective of this business carbon assessment is to provide the necessary information to declare our commitment to achieving the carbon neutral status as an organisation in accordance with ISO 14068-1, a globally recognised standard produced by the British Standards Institute.

This assessment is based on data categorised into three scopes, as defined by the Greenhouse Gas Protocol (Figure 1). For each year, the assessment provides detailed quantification of GHG emissions due to all material Scope 1, Scope 2, and Scope 3 categories.

Where information and data were limited, we made reasonable assumptions based on our expertise and external sources of data.

Figure 1: An overview of the GHG protocol scopes and emissions across an entire value chain



Our portfolio

Crown Oil Limited (Ltd) is a leading supplier of fuels, oils and lubricants. We use our company owned fleet to distribute purchased oil-based products to our customers. The Crown Oil Group is the Ltd company that operates under a number of sub-businesses called:

- **Crown Oil Fuels and Lubricants** – supplies fuels, oils and lubricants across the UK
- **Beesley Fuels Ltd** – dedicated fuel delivery to the West Midlands region
- **Speedy Fuels Ltd** – dedicated fuel deliveries in the Greater London region
- **Crown Oil Environmental** – a provider of planned preventative maintenance services for fuel-dependent businesses
- **Nationwide Fuels and Lubricants** – dedicated fuel delivery with capability to deliver to remote locations

Our emission boundary

It's important to set an emissions scope boundary in accordance with the operational control approach previously stated. Figure 2 presents these boundaries for the quantification of our GHG emissions.

Our locations

Crown Oil Ltd operates from seven facilities, with our main base at the Oil Centre in Bury, Lancashire. The Oil Centre is our main distribution depot and includes two buildings. Located in Bury, the two buildings representing the Oil Centre are in proximity to three more buildings that are used as offices (Borden Way, Crown House and Bridge House).

We also operate at four distribution depots in Doncaster, Birmingham and London (two locations). During the FY22/23, we expanded our operational footprint through the acquisition of a new facility, which, following its purchase, underwent extensive refurbishment and construction processes; as a result of these significant upgrades and modifications, the facility remained non-operational throughout the reporting period.

Table 4 provides an overview of the facilities and locations that were in operation during the reporting period within the Crown Oil Ltd group of companies.

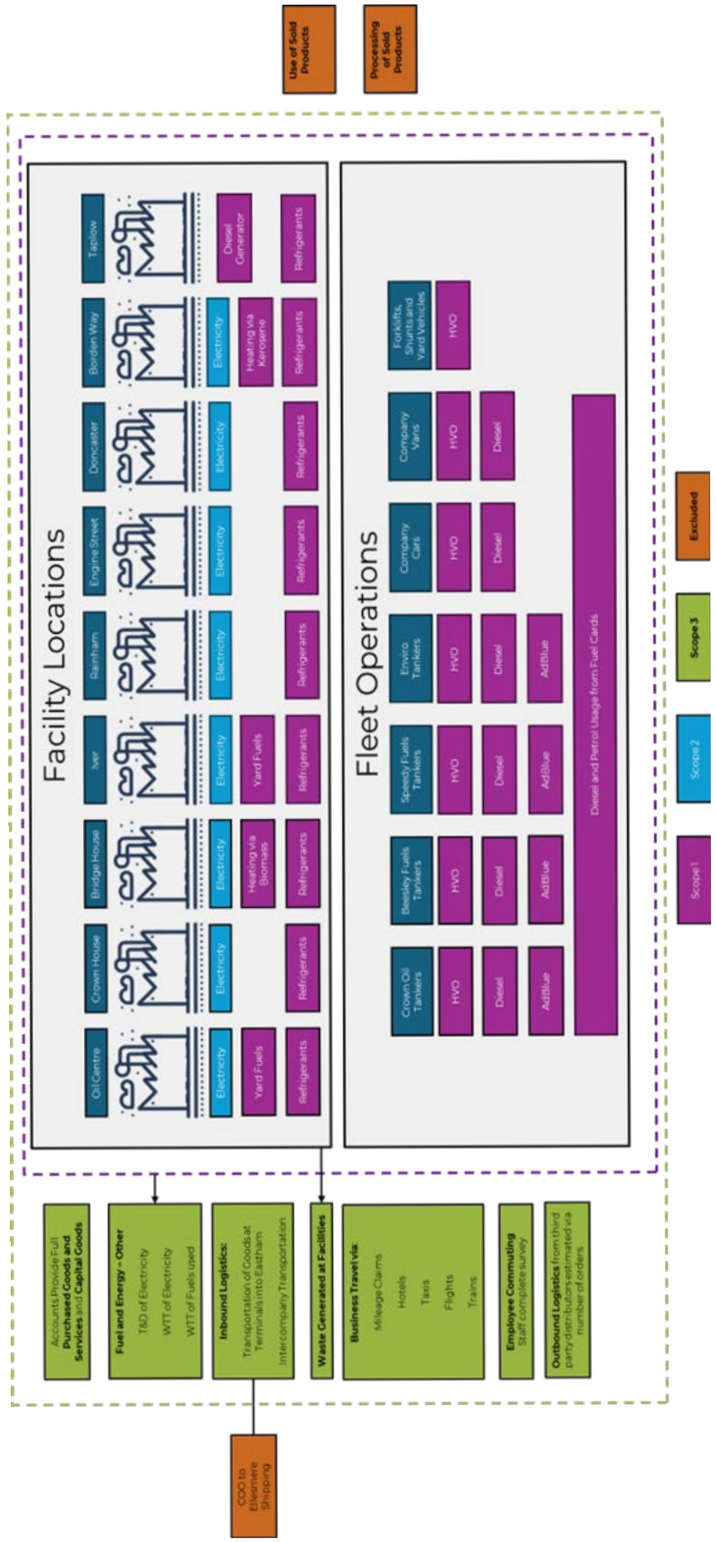


Figure 2: Crown Oil Ltd's Value Chain and System Boundary for the Carbon Assessment

Name of facility	The Oil Centre	Crown House	Bridge House	Doncaster	Oldbury	Iver	Rainham	Borden Way	Taplow
Companies Operating at Facility	Crown Oil Fuels and Lubricants, Beesley Fuels Ltd, Speedy Fuels Ltd, Crown Oil Environmental, Nationwide Fuels and Lubricants	Crown Oil Fuels and Lubricants, Beesley Fuels Ltd, Speedy Fuels Ltd, Crown Oil Environmental, Nationwide Fuels and Lubricants	Crown Oil Fuels and Lubricants, Beesley Fuels Ltd, Speedy Fuels Ltd, Crown Oil Environmental, Nationwide Fuels and Lubricants	Crown Oil Fuels and Lubricants	Beesley Fuels Ltd	Speedy Fuels Ltd	Speedy Fuels Ltd	Crown Oil Fuels and Lubricants, and Crown Oil Environmental,	Speedy Fuels Ltd
Location	Bury	Bury	Bury	Doncaster	Birmingham	London	London	Bury	Maidenhead
Purpose	Main base	Office	Office	Distribution depot	Distribution depot	Distribution depot	Distribution depot	Office, vehicle maintenance, truck parking and IBC storage	
Number of buildings	2	1	1	1	2	2	1	2	1
Owned/leased	Owned	Owned	Leased	Leased	Owned	Leased	Owned	Owned	Owned

Table 5: An overview of our locations and buildings

Emissions data

Our total carbon footprint in the assessment year (2024/25) was calculated to be 7,759 t CO_2e, a total emission decrease by 13.1% from the baseline year (2020/21) as shown in Table 3.

Scope 1 emissions have decreased significantly from 2,844 t CO_2e in the baseline year to 120 t CO_2e. Scope 1 emissions make up 1.6% of the total emissions.

Scope 2 emissions have also reduced significantly, from 201 t CO_2e in the baseline to just 8 t CO_2e in 2024/25, accounting for 0.1% of the total footprint. Remaining emissions were quantified at 98.3% of the total footprint, this was from indirect emissions categorised in Scope 3. These Scope 3 emissions are at a high of 7,630 t CO_2e in 2024/25.

Table 6: Quantified annual emissions for Crown Oil categorised according to The Greenhouse Gas Protocol (GHG) Scopes excluding the insetting reduction.

Scope	FY 20/21 (tCO_2e)	FY 21/22 (tCO_2e)	FY 22/23 (tCO_2e)	FY 23/24 (tCO_2e)	FY 24/25 (t CO_2e)
Scope 1	2,844	284	311	293	120
Scope 2	201	120	63	22	8
Scope 3	5,888	5,118	5,835	5,380	7,630
Total	**8,934**	**5,522**	**6,209**	**5,695**	**7,759**
Turnover (litres)	487,800,727	570,785,377	538,233,185	566,538,829	723,242,232
Intensity ratio (tCO_2e/ml)	18.3	9.7	11.5	10.1	**10.7**

We are actively reducing our emissions in line with the actions outlined in our Carbon Management Plan.

Major reductions come from three key measures:

1. An insetting scheme reduces emissions by 419 t CO_2e via verified HVO swaps in the value chain for residual fuel card use at petrol stations. This is backed by blockchain certificates, ISCC sustainability proofs, and independent verification per ISO 14064 principles.
2. Renewable energy tariffs reduce Scope 2 emissions by 81 t CO_2e through market-based claims
3. The purchase of sustainable aviation fuel (SAF) for business travel flights reduces Scope 3 emissions by 8 t CO_2e via book-and-claim attribution

According to BS ISO 14068-1:2023 and aligned with BS EN ISO 14064-1:2019 (and GHG Protocol guidance), the insetting from HVO swaps counts as a genuine value chain reduction that lowers the reported inventory totals. The renewable energy tariffs and SAF purchases are treated like market-based mechanisms. Both location-based and market-based emissions are provided for Scope 2 (electricity) and relevant Scope 3 categories (business travel). Location-based reflects the physical grid mix or actual fuel combustion emissions. Market-based reflects contractual choices and attribute claims.

The total location-based emissions are 8,267 t CO_2e. After applying these reductions, our residual footprint stands at 7,759 t CO_2e, which will be compensated through high-quality carbon offsets.

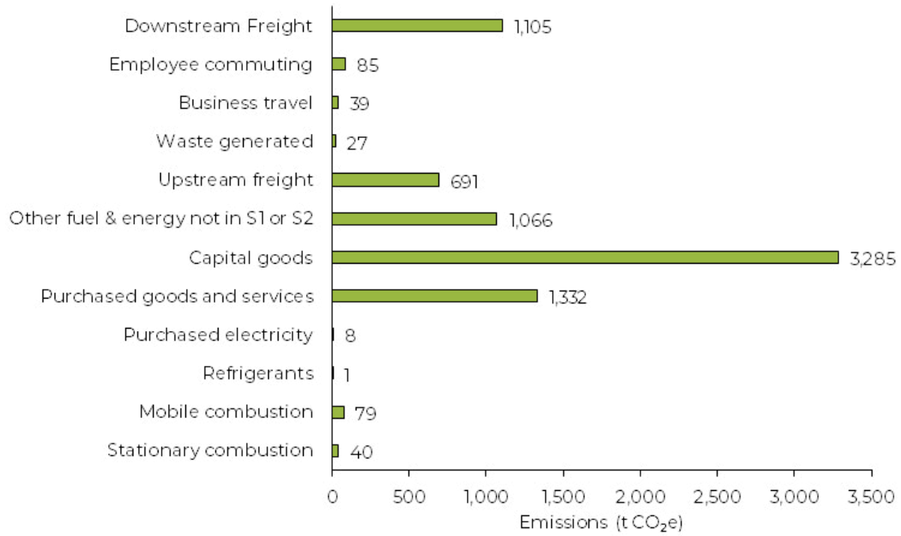
GHG emissions categories

The full GHG protocol scope category report is provided in Table 4 with all quantified emissions per year since the baseline year in 2020/21 to the current reporting year in 2024/25. The largest emissions category was reported from capital goods, producing 3,285 t CO_2e of emissions in the reporting year. The second highest source of emissions was 1,332 t CO_2e from purchased goods and services. The emissions from the sold products are shown in the table but are excluded from the total footprint.

Table 7: Emission data for Crown Oil's business operations from each year as categorsed according to The Greenhouse Gas Protocol

	Category	FY 20/21 (t CO_2e)	FY 21/22 (t CO_2e)	FY 22/23 (t CO_2e)	FY 23/24 (t CO_2e)	FY 24/25 (t CO_2e)
S1.1	Stationary combustion	24	36	4	6	40
S1.2	Mobile combustion	2,812	248	306	287	79
S1.3	Refrigerants	8	0	0	0	1
S2.1	Purchased heat	21	0	0	0	0
S2.2	Purchased electricity	179	120	63	22	8
S3.1	Purchased goods & services	2,976	1,134	996	871	1,332
S3.2	Capital goods (e.g. assets, machinery etc)	944	1,966	2,172	1,250	3,285
S3.3	Fuel & energy related activities not included in S1 or S2	946	68	104	848	1,066
S3.4	Upstream transportation & distrubution	921	664	992	1,089	691
S3.5	Waste generated in operations	35	19	10	9	27
S3.6	Business travel	16	17	80	84	39
S3.7	Employee commuting	49	120	218	232	85
S3.8	Upstream leased assets	1	0	0	0	0
S3.9	Downstream transportation & distribution	0	1,130	1,263	997	1,105
S3.10	Processing of sold products	excluded	315,546	322,801	302,760	340,134
S3.11	Use of sold products	excluded	1,391,966	1,305,073	1,120,666	1,109,150
S3.12	EOL of sold products	0	0	0	0	0
S3.13	Downstream leased assets	0	0	0	0	0
S3.14	Franchises	0	0	0	0	0
S3.10	Investments	0	0	0	0	0
Total		**8,933**	**5,522**	**6,209**	**5,695**	**7,759**
	Inset Removals for Fuel Cards				-419	
	Renewable Energy Tariffs				-81	
	SAF for Business Travel Flights				-8	
	Location-Based Emissions				**826**	

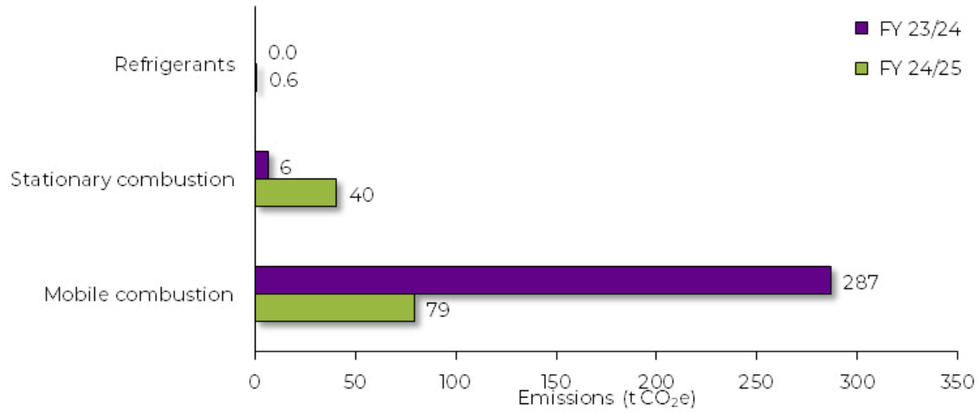
Figure 3: Graphical representation for the quantified emission categories (GHG Protocol) for Crown Oil from 1st August 2024 and 31st July 2025.



Scope 1 emissions

Scope 1 emissions for FY 2024/25 totalled 120 t CO_2e. This represents a sharp drop from the baseline year (2020/21) of 2,844 t CO_2e, driven largely by the switch to HVO in bulk operations and fleet use. However, this is also a further reduction from the previous reporting period (2023/24) which had 293 t CO_2e of emissions for Scope 1. Therefore, this section shall compare the emission categories to further understand this change. The main sub-categories are fugitive emissions from refrigerants, stationary combustion, and mobile combustion as can be seen in Figure 4.

Figure 4: Graphical representation for the quantified emissions for Scope 1 as per the GHG Protocol categories for Crown Oil in the FY 2023/24 in comparison to this reporting year 2024/25.



Fugitive emissions from refrigerants added a small amount this reporting year. A refrigerant leakage of 0.96 kg of R32 occurred at Bridge House, resulting in 0.64 t CO_2e.

Stationary combustion emissions rose to 40 t CO_2e. This increase came from two factors. First, the new facility at Speedy Fuels in Taplow lacks electricity supply. A generator now runs to provide power, accounting for 65% of stationary combustion (27 t CO_2e). Additionally, there was a slight increase in the kerosene usage for heating at the Borden Way facility.

A large proportion of Scope 1 emissions arises from mobile combustion. Our core operations involve the transportation and delivery of fuels using large tanker vehicles, which consume significant quantities of fuel.

Mobile combustion emissions would have increased in comparison to the previous reporting period. However, the replacement of HVO in the diesel pool as verified from insetting has ensured these emissions have decreased. This decrease is clearly shown in the comparative bar chart (Figure 5), where the green bars (FY 2024/25) compare against the purple bars (prior year) across all relevant fuel categories.

Despite our extensive transition to HVO in controlled bulk and fleet operations (almost 90% of the total quantity of fuels used in 2024/25 is HVO), approximately 80% of the mobile combustion emissions in FY 2024/25 still originate from fuel card usage on public roads. HVO is not widely available at retail petrol stations, so ad-hoc refuelling for tanker drivers and other road vehicles continues to rely primarily on conventional diesel. The rise in mobile combustion emissions therefore results directly from increased road-based activity, even with the dominant use of HVO in depot-to-depot and scheduled deliveries.

We've maximised direct use of HVO in our own operations, slashing Scope 1 emissions from fuel use. The majority of the remaining Scope 1 emissions stem from fuel cards used on the road, where HVO is not yet available at petrol stations (please see the full breakdown of Scope 1 Emissions). To address this, the company has implemented an insetting scheme.

This reduces emissions by 419 t CO_2e through verified HVO swaps elsewhere in the value chain. We've received blockchain-backed certificates confirming the swaps occurred due to our involvement, with all HVO carrying ISCC Proof of Sustainability certificates for full traceability and credibility. This insetting directly supports the Carbon Management Plan. It tackles unavoidable road fuel emissions by prioritising value chain reductions, in line with ISO 14068-1's clear hierarchy.

Figure 5: A breakdown of the mobile combustion emissions per usage category for this reporting year (2024/25) and the previous (2023/24).

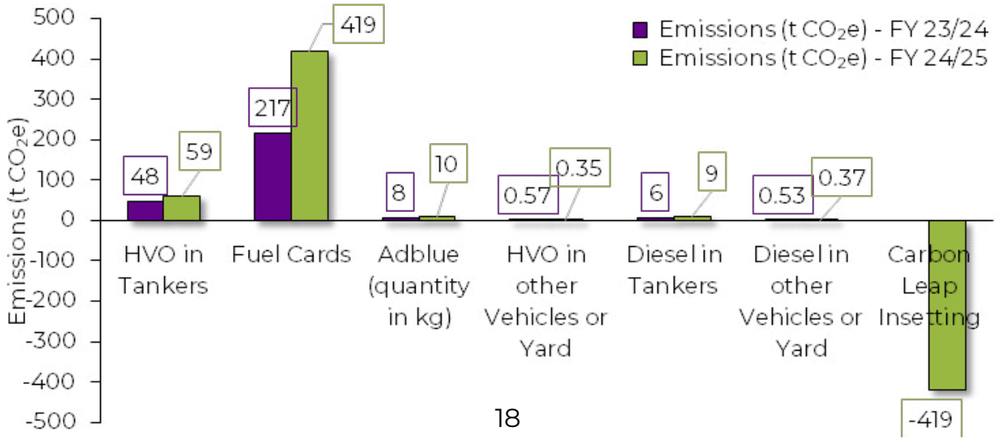
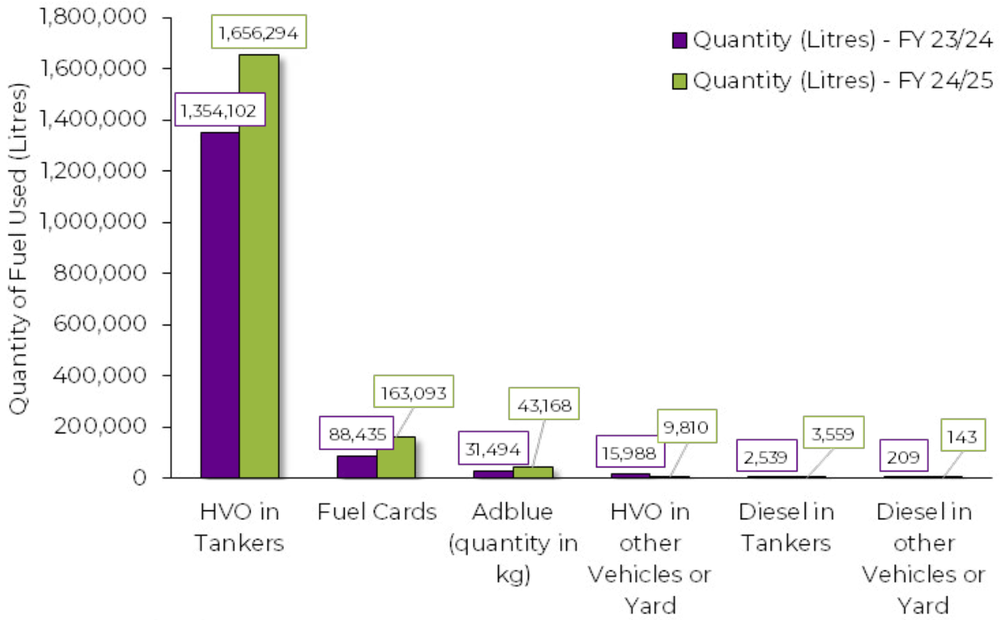


Figure 6. A breakdown of the quantities of fuel used per category for this reporting year (2024/25) and the previous (2023/24).



Scope 2 emissions

Scope 2 emissions are caused by the indirect release of GHG emissions that are released to the atmosphere from the generation of electricity and purchased heat, steam, and cooling. Crown Oil Ltd's Scope 2 emissions in the reporting year from purchased electricity, at 8 t CO_2e per year. This is a significant reduction in comparison to the 179 t CO_2e released from the generation of purchased electricity in 2020/21 baseline. Implementing a change to Ofgem certified eco tariffs with REGO certifications has further reduced the market based GHG emissions reported here.

Below, Table 6 shows the amount of purchased electricity and consequent GHG emissions at each Crown Oil facility in the financial years from the baseline to the reporting year.

In this GHG report, the emissions have been calculated according to market-based methods, considering the specific emissions factors associated with the electricity supplier tariffs as they are reported. Following the recommended standards, both market-based and location-based results are provided for a comprehensive view of our emissions profile.

While the market-based calculation incorporates supplier-specific data, offering insights into the emissions linked with the purchased electricity, the location-based approach yields a broader perspective. For instance, our emissions from purchased electricity, as per the location-based calculation, amount to 89.5 t CO_2e, reflecting the emissions based on average grid factors.

Energy usage at some facilities has been notably reduced due to the installation of solar panels. Although the exact amount of energy generated by these panels is unknown, a significant decrease in energy purchased is evident in Table 6 at specific locations, e.g. The Oil Centre. Despite the unknown amount generated by the solar panels, this does not impact the GHG inventory as the emissions are calculated from the energy purchased from the grid, and the panels do not count towards the removal of emissions.

Table 8: The amount of electricity purchased and emissions released at each location

	Usage (kWh)				GHG emissions (t CO_2e)			
	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 21/22	FY 22/23	FY 23/24	FY 24/25
The Oil Centre	259,174	179,526	130,249	122,552	50	23	6	2
Crown House	141,122	143,182	118,689	107,826	27	11	0	0
Bridge House	52,508	37,850	54,026	60,257	10	7	0	0
Iver	70,699	58,850	49,770	15,044	14	11	10	3
Rainham	49,427	47,602	50,511	49,112	10	4	3	0
Oldbury	32,091	47,602	17,124	22,712	6	3	0	0
Doncaster	16,745	15,311	16,391	20,517	3	3	3	4
Borden Way	-	-	390,079	107,412	-	-	0	0
Total	**621,765**	**520,113**	**826,839**	**505,432**	**120**	**63**	**22**	**9**

Scope 3 emissions

Scope 3 emissions dominate our total carbon footprint in FY 2024/25, amounting to 7,630 t CO_2e. This represents 98.3% of the our overall emissions. Following ISO 14064-1 guidance on completeness and relevance, the report quantifies all material Scope 3 categories in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The breakdown that follows examines each category in order of contribution to the total footprint.

This prioritises the identification of emission hotspots. It helps review and update the Carbon Management Plan, which contains all the targeted reduction efforts, supplier collaboration initiatives, and insetting opportunities that will deliver the greatest impact.

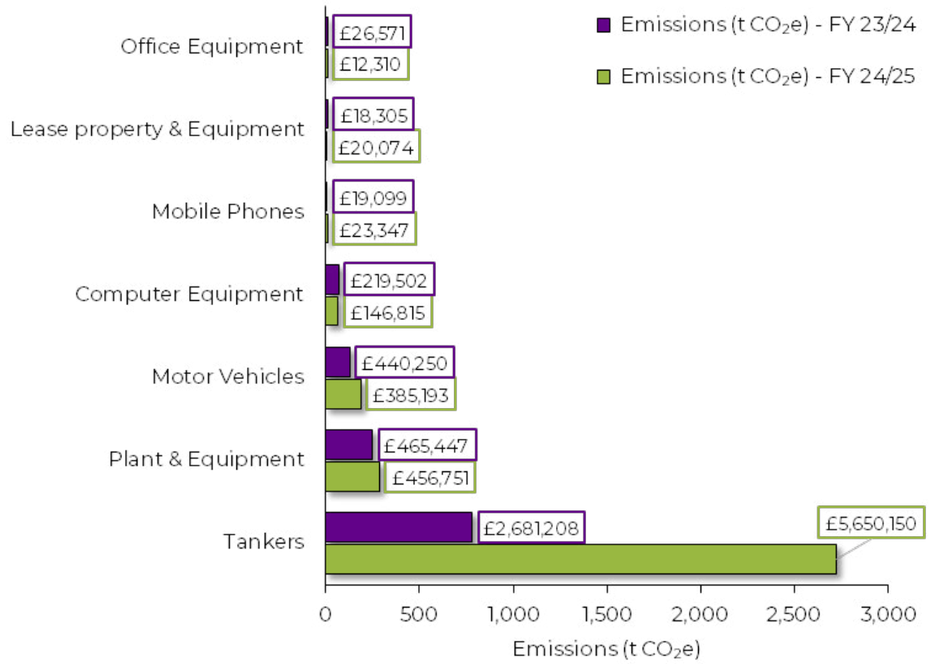
Capital goods

Capital Goods represent the largest single contributor to Scope 3 emissions in FY 2024/25, with emissions quantified at 3,285 t CO_2e. This category captures all upstream (cradle-to-gate) emissions associated with the production of capital goods purchased or acquired during the reporting year. The emissions from each capital good category is shown in Figure 7.

We've invested heavily in new tankers during the year. This strategic capital expenditure increased spend on tankers alone from £2,681,208 in the previous year to £5,650,150 in FY 2024/25. The corresponding emissions from tanker production rose sharply from 780 t CO_2e to 2,804 t CO_2e. Tanker-related emissions account for 83.0% of total Capital Goods emissions and 33.9% of the organisation's overall footprint in 2024/25.

This large emitter stems from a deliberate investment to reduce our overall emissions. By purchasing additional tankers, we bring more fuel delivery operations in-house. This reduces reliance on third-party hauliers. Emissions from fuel burned for transporting and delivering fuels shift from Scope 3 (downstream transportation and distribution) to Scope 1 (direct mobile combustion). Greater control over the fleet allows easier implementation of reduction measures, such as continued HVO adoption, route optimisation and fleet efficiency improvements.

Figure 7: Capital Goods emissions breakdown and comparison – previous year (purple bars) versus FY 2024/25 (green bars). The figure also includes the data labels that show the amount spent in the reporting year on each category that is used to calculate the emissions shown on the X-axis.



Purchased goods and services

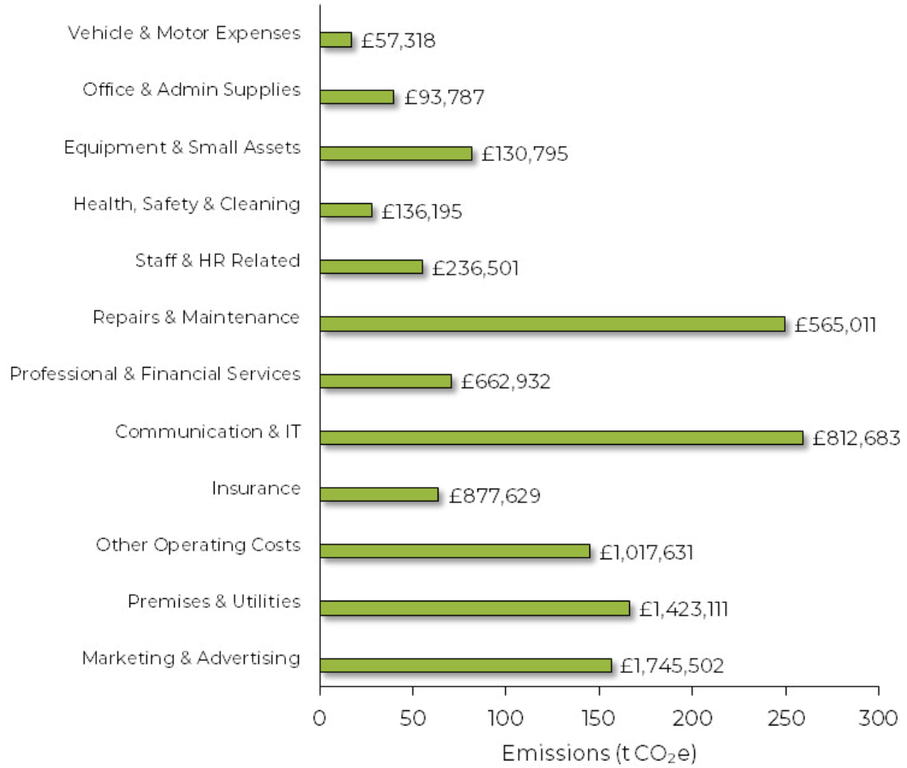
Purchased Goods and Services form the second-largest contributor to Scope 3 emissions in FY 2024/25. This category emitted 1,332 t CO_2e from a total spend of £7,835,373. After excluding items already accounted for more accurately elsewhere (such as electricity in Scope 2 and waste in Category 5), the adjusted spend used for calculations was £7,562,181. Last year the total spend stood at £6,232,486 with emissions of 871 t CO_2e. Over the five years of reporting, emissions in this category have averaged 1,462 t CO_2e. This shows reasonable consistency despite business growth.

Figure 8 reveals a spread across operational areas. Communication & IT leads with 259 t CO_2e. This reflects the embodied emissions in hardware, software, cloud services, and telecoms infrastructure. Repairs & Maintenance follows at 249 t CO_2e. This captures upstream impacts from parts, labour, and contractor services for fleet and facilities upkeep.

These hotspots tie directly to our day-to-day running. IT and repairs highlight the carbon intensity of digital tools and asset maintenance in a fuel distribution business. Marketing spend supports brand and sales efforts but carries production emissions from agencies and media.

This category remains stable over time. It offers opportunities for targeted supplier engagement. Engaging key vendors on their own GHG reductions or switching to lower emission providers can drive progress. Understanding this data helps update the Carbon Management Plan.

Figure 8. Breakdown of emissions from Purchased Goods and Services subcategories in FY 2024/25. The figure also includes the data labels that show the amount spent in the reporting year on each category that is used to calculate the emissions shown on the X-axis.



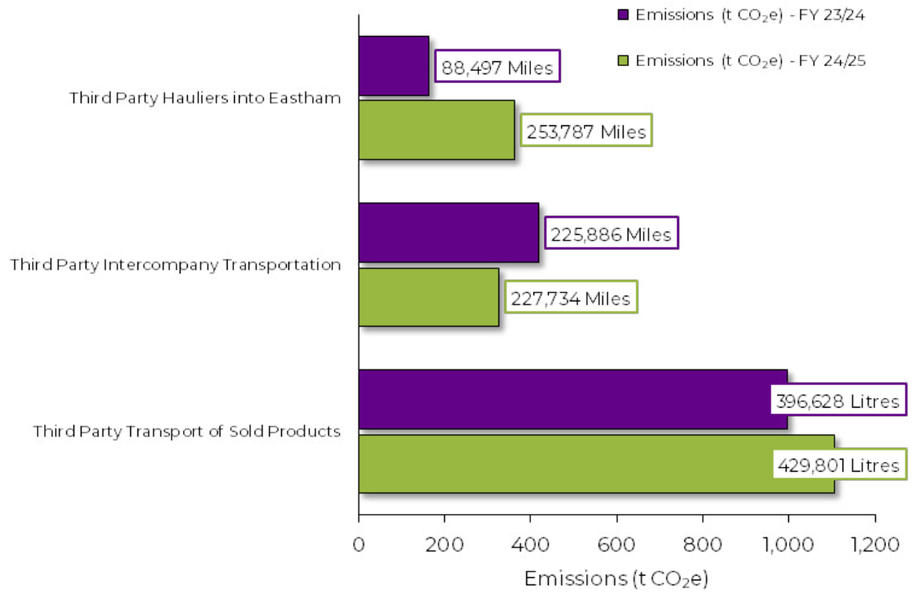
Transportation and distribution

Transportation and distribution emissions encompass upstream inbound logistics to our facilities and downstream outbound delivery of sold products. In FY 2024/25, upstream emissions (Category 4) totalled 691 t CO_2e, while downstream emissions (Category 9) reached 1,105 t CO_2e, for a combined 1,796 t CO_2e. The emissions can be seen in further detail in Figure 9.

Upstream emissions have remained consistent in core activities but reflect boundary changes. Third Party Hauliers into Eastham contributed 364 t CO_2e from 253,787 miles transported. Third Party Intercompany Transportation added 327 t CO_2e from 227,734 miles transported. The key shift is the exclusion of emissions from vessel shipments, previously organised solely by Crown Oil from the country of origin to Ellesmere Port. The move to a shared-vessel model means we no longer control the full journey. These emissions are now outside the reporting scope as our stake is minimal (<5% of product value) with limited control, mirroring the rationale for excluding Category 11 (use of sold products).

Downstream emissions from third party transport of sold products stood at 1,105 t CO_2e from 429,801 litres of diesel used to make the deliveries. Over recent years, downstream has averaged 1,124 t CO_2e, showing consistency amid business growth. Our tanker investments should reduce downstream third-party reliance over time, shifting emissions to Scope 1 for better control via HVO and efficiency measures.

Figure 9: Key transportation and distribution metrics for the previous year versus FY 2024/25. The figure also includes the data labels that show activity data and units in the reporting year on each category that is used to calculate the emissions shown on the X-axis.



Value chain mitigation activities

We have implemented three key mitigation activities to reduce emissions beyond our direct operations. These align with our Carbon Management Plan and BS ISO 14068-1:2023. The standard prioritises direct and indirect GHG emission reductions, along with removal enhancements, within the value chain before resorting to offsetting. These activities deliver verifiable cuts through supply chain interventions. They are reported as mitigation actions that lower the effective carbon footprint ahead of residual offsetting.

Insetting for residual road fuel emissions

We have implemented a structured insetting programme to address residual Scope 1 emissions from mobile combustion, specifically those arising from fuel card usage on public roads. HVO is not widely available at retail petrol stations for ad-hoc refuelling. This limits direct substitution in those scenarios despite our near-complete transition to HVO in bulk fleet and depot operations.

The insetting scheme enables verified emission reductions within the broader value chain. It facilitates equivalent switches from conventional diesel to HVO by third-party transport operators. This generates 419 t CO_2e of reductions for the reporting period. The programme uses blockchain technology for traceability. We have certificates confirming the swaps occurred directly as a result of our participation. All HVO involved carries ISCC Proof of Sustainability certificates, ensuring feedstock sustainability, no deforestation risk, and full supply chain auditability.

This insetting qualifies as a GHG emission reduction activity under BS ISO 14068-1:2023. The standard establishes a clear hierarchy: prioritise direct and indirect GHG emission reductions, plus removal enhancements, within the value chain before any offsetting. Insetting aligns precisely with this requirement. It delivers verifiable cuts tied to supply chain interventions rather than external compensation. These reductions are not subtracted from the gross GHG inventory. Instead, they are reported as mitigation actions that lower the effective carbon footprint ahead of residual offsetting.

The approach supports our Carbon Management Plan. It tackles unavoidable road fuel emissions through proactive value chain engagement. This advances progress towards credible carbon neutrality. Certificates are shown in Figure 10 and Figure 11.

Renewable energy tariffs for electricity

We have adopted renewable energy tariffs to address Scope 2 emissions from purchased electricity. These tariffs involve contractual instruments like Renewable Energy Guarantees of Origin (REGOs). They attribute renewable generation to the company's consumption. This reduces emissions by 81 t CO_2e for the reporting period under a market-based approach.

Per BS EN ISO 14064-1:2019 and aligned GHG Protocol guidance, Scope 2 emissions are reported dually. Location-based figures reflect the average grid emission factor.

Market-based figures incorporate contractual claims like REGOs. While the physical electricity may still include fossil sources, the market-based method allows zero emission attribution where supported by certificates. This qualifies as a value chain reduction under BS ISO 14068-1:2023. It prioritises low-carbon procurement over offsets.

REGO certificates are available if required.

Figure 10. A certificate from Carbon Leap and DNV to showcase the retired 406 t CO_2e.

DNV

RETIREMENT STATEMENT OF CARBON INSETTINGS ALLOCATED BY CARBONLEAP TO CROWN OIL LIMITED

WE HEREBY STATE THAT

DNV SE, Maritime Advisory Germany (henceforth referred to as "DNV") has reviewed and verified the throughput of CO2eq insets allocated by CarbonLeap based on internal established procedures and methodology.

This review was done according to DNV internal standard for verification of carbon insetting schemes and transactions at the time of issuance.

Based on our professional in-depth review and assessment, we conclude that the expressed amount of well-to-wake emissions was independently verified and provided to CarbonLeap within the process stated below.

This has been forwarded to the specified client with the following information:

Particulars of the project

Company name:	**CarbonLeap**
Carbon inset generation process:	**2025-1045-S1**
Incentive schemes used:	**Non-incentivized**
Regulatory fuel mandate:	**Not mandated**
Emission reduction forwarded to (client):	**Crown Oil Limited**
Emission reduction forwarding number:	**S1-20251197-0**
Emission reduction forwarded (tCO2eq):	**406.00**
Emission scope:	**Scope 1 - WTW emissions**
DNV Statement number:	**2026.01.026**

DNV acknowledges that CarbonLeap has a procedure in place which ensures that the reduced CO2eq emissions cannot be used further or represent any negative GHG balance due to commercial activities.

Hamburg, January 21, 2026

i.V. Tobias Zorn

Benjamin Witt

Figure 11. A certificate from Carbon Leap and DNV to showcase the retired 13 t CO_2e.

DNV

RETIREMENT STATEMENT OF CARBON INSETTINGS ALLOCATED BY CARBONLEAP TO CROWN OIL LIMITED

WE HEREBY STATE THAT

DNV SE, Maritime Advisory Germany (henceforth referred to as "DNV") has reviewed and verified the throughput of CO2eq insets allocated by CarbonLeap based on internal established procedures and methodology.

This review was done according to DNV internal standard for verification of carbon insetting schemes and transactions at the time of issuance.

Based on our professional in-depth review and assessment, we conclude that the expressed amount of well-to-wake emissions was independently verified and provided to CarbonLeap within the process stated below.

This has been forwarded to the specified client with the following information:

Particulars of the project

Company name:	CarbonLeap
Carbon inset generation process:	2025-1034-S1
Incentive schemes used:	Non-incentivized
Regulatory fuel mandate:	Not mandated
Emission reduction forwarded to (client):	Crown Oil Limited
Emission reduction forwarding number:	S1-20251188-0
Emission reduction forwarded (tCO2eq):	13.26
Emission scope:	Scope 1 - WTW emissions
DNV Statement number:	2025.11.004

DNV acknowledges that CarbonLeap has a procedure in place which ensures that the reduced CO2eq emissions cannot be used further or represent any negative GHG balance due to commercial activities.

Hamburg, November 20, 2025

i.V. Tobias Zorn

i.A. Lennart Hawmann

SAF is produced from sustainable feedstocks like waste oils. It reduces lifecycle emissions by up to 80% compared to conventional jet fuel. The programme ensures third-party verification and avoids double-counting through registry systems. Under BS EN ISO 14064-1:2019, this adjusts the emission factor for business travel in Scope 3 reporting. BS ISO 14068-1:2023 recognises it as a value chain intervention. It focuses on sector-specific decarbonisation before offsets. This supports our plan to reduce travel-related emissions. Certificates confirming the SAF attribution are available if required.

Out of scopes

We understand the impact that the products we sell have on the environment. Thus, the impact that their life cycle has on global warming is still measured and actively reduced via increased marketing of biofuels. In the financial year 2024/25, our use of products sold released 1,109,150 t CO_2e, while the processing of the sold products accounted for 340,134 t CO_2e in emissions.

For transparency in carbon footprint reporting, it is important to understand that if the life cycle phases of the sold products were to be included then they would make up greater than 99% of our reporting years' footprint.

Additionally, the biogenic release of carbon dioxide from the use of biofuels is reported in our 'Out of Scopes'. This is because the Scope 1 emission factor contains a zero value for carbon dioxide emissions to account for the carbon dioxide absorbed by the bioenergy sources. The conversion factor used to calculate the CO_2e from the use of biofuels contains value for nitrous oxide and methane only. However, carbon dioxide is still released by biofuels such as HVO. Therefore, these emissions are reported as outside of scopes and are not included in our total carbon footprint.

Altogether, the use of our sold HVO produces 4,051 t CO_2 per annum of biogenic emissions. Altogether the total value for out of scopes emissions in the reporting year 2024/25 was 1,453,335 t CO_2e per year. This included the emissions from the products that we sell and the biogenic emissions from the use of HVO, and other biogenic sources. Other biogenic sources include a percentage of diesel and petrol available at forecourts in the UK and emissions from renewable electricity generation.

Emissions intensity ratio

We previously chose to compare GHG emissions annually based on business performance using ‘per million litres of product’ delivered as an intensity ratio. Table 7 presents the results in the financial year 2024/25 in comparison to that calculated for the previous reporting years. This intensity ratio is expressed as tonnes of carbon dioxide equivalent per million litres of product sold (t CO_2e/ML). In comparison to the baseline year, the intensity ratio has reduced by 41.66% due to their carbon footprint decreasing significantly, while simultaneously increasing the total amount of products delivered.

Table 9: Our carbon intensity ratio

	Baseline FY 20/21	FY 21/22	FY 22/23	FY 23/24	Reporting year FY 24/25
Total (t CO_2e)	8.933	5,522	6,209	5,695	**7,759**
Turnover (litres)	487,800,727	570,785,377	538,233,185	566,538,829	**723,242,232**
Intensity ratio (t CO_2e/ML)	18.3	9.7	11.5	10.1	**10.7**

Carbon offsetting

For the purposes of achieving “Carbon Neutral” to ISO14068-1 in the financial year 2024/25, Crown Oil Ltd purchased 7,877 t CO_2e, well above the required 7,759 t CO_2e to become carbon neutral. Crown Oil Ltd has achieved carbon neutrality by purchasing and retiring a diverse portfolio of carbon credits. This adheres to the stringent criteria outlined in Chapter 11 of the BS ISO 14068-1:2023 standard.

These carbon credits came from verified projects that ensure real, additional, measurable, and permanent GHG emission reductions or removal enhancements. The credits were retired in a public registry to avoid double counting. This ensures transparency and accountability. The types of carbon credits purchased include solar energy, small hydro, and wind power projects. Each contributes to the offsetting of Crown Oil Ltd’s carbon footprint.

Carbon credits purchased:

- 2,642 VCUs from the Solar Energy Project(s) by SB Energy Private Limited, with serial number 16521-766243655-766246296-VCS-VCU-1507-VER-IN-1-1805-01072022-31122022-0
- 2,500 VCUs from the 3.5 MW Small Hydro Project In Himachal Pradesh, with serial number 16005-733839130-733841629-VCS-VCU-1491-VER-IN-1-2033-01012022-31072022-0
- 2,735 VCUs from the Grid Connected Wind Power Project by M/s Giriraj Enterprises in Madhya Pradesh, with serial number 17066-809554208-809556942-VCS-VCU-208-VER-IN-1-1023-01012022-31032022-0

These carbon credits have been officially verified by BSI. This ensures their compliance with international standards and their contribution to Crown Oil Ltd’s carbon neutrality.

VERRA

Verified Carbon Standard

Certificate of Verified Carbon Unit (VCU) Retirement

Verra, in its capacity as administrator of the Verra Registry, does hereby certify that on 18 Feb 2026, 2,500 Verified Carbon Units (VCUs) were retired on behalf of:

CROWN OIL GROUP

Project Name
3.5 MW Small Hydro Project In Himachal Pradesh

VCU Serial Number
16005-733839130-733841629-VCS-VCU-1491-VER-IN-1-2033-01012022-31072022-0

Additional Certifications

Powered by APX

VERRA

Verified Carbon Standard

Certificate of Verified Carbon Unit (VCU) Retirement

Verra, in its capacity as administrator of the Verra Registry, does hereby certify that on 18 Feb 2026, 2,642 Verified Carbon Units (VCUs) were retired on behalf of:

Crown Oil Group

Project Name
Solar Energy Project(s) by SB Energy Private Limited

VCU Serial Number
16521-766243655-766246296-VCS-VCU-1507-VER-IN-1-1805-01072022-31122022-0

Additional Certifications

Powered by APX

VERRA

Verified Carbon Standard

Certificate of Verified Carbon Unit (VCU) Retirement

Verra, in its capacity as administrator of the Verra Registry, does hereby certify that on 18 Feb 2026, 2,500 Verified Carbon Units (VCUs) were retired on behalf of:

CROWN OIL GROUP

Project Name
3.5 MW Small Hydro Project In Himachal Pradesh

VCU Serial Number
16005-733839130-733841629-VCS-VCU-1491-VER-IN-1-2033-01012022-31072022-0

Additional Certifications

Powered by APX

Appendix - A

Materiality assessment & data categories

Below we provide all of the greenhouse gas emissions scope categories alongside data improvement recommendations (Table A1). These are related to data source and emission factor point based allocation discussed below.

Table A1: Materiality assessment for the 1st August 2023 and the 31st July 2024 reporting year.

Category	In scope?	Justification if out of scope	Data score average	Data improvement recommendations
Stationary combustion	In		4	6
Mobile combustion	In		306	287
Refrigerants	In		0	0
Purchased heat	Zero	No purchased heat	0	0
Purchased electricity	In		63	22
Purchased goods & services	In		996	871
Capital goods (e.g. assets, machinery etc)	In		2,172	1,250
Fuel & energy related activities not included in S1 or S2	In		104	848
Upstream transportation & distrubution	In		992	1,089
Waste generated in operations	In		10	9
Business travel	In		80	84
Employee commuting	In		218	232
Upstream leased assets	Zero	Buildings leased by Crown Oil included in Scope 1 & Scope 2 categories	0	0
Downstream transportation & distribution	In		1,263	997
Processing of sold products	Out	Minimal stake compared to product value (<5%), and limited control	322,801	302,760
Use of sold products	Out	Minimal stake compared to product value (<5%), and limited control	1,305,073	1,120,666
EOL of sold products	Zero	Little to no end of life of sold products	0	0
Downstream leased assets	Zero	Crown Oil lease tanks to customers with limited control	0	0
Franchises	Zero	No franchises in the business	0	0
Investments	Zero		0	0

Data accuracy and uncertainty assessment

All the raw data provided to Tunley Environmental was broken down into accuracy levels reflective of the data sources provided (Table A2 & Table A3). This allows for inaccuracy and uncertainty to be accounted for in this assessment. Both activity data (e.g. quantities of material, usage of electricity, etc) and emission factors are scored using the same band-based system, with 1 & 6 corresponding to the highest & lowest levels of accuracy, respectively.

Emission factors are to be evaluated using the following five indicators:

1. Technological relevance
2. Temporal coverage
3. Geographical coverage
4. Completeness
5. Reliability (e.g. peer-reviewed source, reproducible, low uncertainty in the information provided)

Table A2: Accuracy bands assigned to data, description of data assignment, adjustment factor provided increase to CO_2 emission calculations.

Accuracy score	Description
1	Activity data accurately measured, fully accounted for and/or reported. Emission factor satisfies all five indicators.
2	Activity data provided directly by company/organisation; some generalisations made. Emission factor satisfies four indicators.
3	Activity data produced based on information provided by company/organisation. Emission factor satisfies three indicators.
4	Activity data assumption based on similar product/event reports by the same company/organisation. Emission factor satisfies two indicators.
5	Activity data assumption based on product/event reports by a similar company/ organisation. Emission factor satisfies one indicator
6	Activity data assumption made based only on publicly available information. Emission factor is estimated using the data available for a broader data category to which the emission source belongs, the estimated emission factor does not meet the indicators' requirements

Table A3: Overall score matrix for accuracy assessment

	Error score	Action
1-2		Use the data, no further action required.
3-4		Can use the data, recommended to improve data quality by e.g., i) checking raw data with client (assessing recollection need) and ii) sourcing different emission factors or averaging several data points, required to declare this in the report.
5-10		Strive to improve data as a priority and only use the data when no further improvements can be made (see above)
12-25		Required to improve data quality (see above).
30-36		Do not use the data, discuss with the client and the carbon team to improve data quality and/or to assess whether the data can be used and the approach to report this.

Table A4: Actions to improve data quality and reduce uncertainty

Error score		Emission factor					
		Five indicators	Four indicators	Three indicators	Two indiactors	One indicator	No indicators
Data	Excellent	1	2	3	4	5	6
	Very good	2	4	6	8	10	12
	Good	3	6	9	12	15	18
	Relevant	4	8	12	16	20	24
	Acceptable	5	10	15	20	25	30
	Poor	6	12	18	24	30	36

Appendix - B

Scope 1 & 2 GHG emissions

The following is specified in ISO14064-1: *"The organization shall quantify direct GHG emissions separately for CO_2, CH4, N2O, NF3, SF6 and other appropriate GHG groups (HFCs, PFCs, etc.) in tonnes of CO_2e."*.

Therefore, where possible Scope 1 and Scope 2 emissions are separated into known greenhouse gas emissions (Table A5). This enables further understanding for Crown Oil on their direct greenhouse gas emissions. In addition to the emissions in Table A5, there is also 0.65 t CO_2e of GWP from the leakage of R32 refrigerant.

Table A5. Direct GHG emissions detailed separately for Scope 1 showing CO_2, CH4, N2O emissions in tonnes of CO_2e.

Item	Emissions (t CO_2e of CO_2)	Emissions (t CO_2e of CH_4)	Emissions (t CO_2e of N_2O)
Beesley Trucks - HVO	6.715	0.000	0.000
Tanker Usage - Diesel	9.031	0.001	0.117
Tanker Usage - AdBlue	5.319	0.000	0.000
Tanker Usage - HVO	5.959	0.000	0.000
Van Usage - Derv	0.362	0.000	0.005
Van Usage - AdBlue	0.026	0.000	0.000
Van Usage - HVO	0.202	0.000	0.000
Car Usage - HVO	0.025	0.000	0.000
Yard Usage - Derv	0.615	0.000	0.008
Yard Usage - Red	0.073	0.000	0.001
Yard Usage - Kerosene	0.493	0.001	0.001
Yard Usage - Kerosene	0.004	0.000	0.000
Yard Usage - HVO	0.028	0.000	0.000
Yard Usage: Forklift - HVO	0.100	0.000	0.000
Yard Usage: Shunt NDV - HVO	0.022	0.000	0.000
Yard Usage: Jet Wash - Kerosene	1.277	0.003	0.003
Crown Oil Trucks - HVO	17.771	0.000	0.000
Doncaster Trucks - HVO	2.970	0.000	0.000
Generator at Taplow - Diesel	26.120	0.003	0.339
Harvest Energy Fuel Cards - Diesel	20.718	0.002	0.269
Harvest Energy Fuel Cards - Diesel	27.123	0.003	0.352
Harvest Energy Fuel Cards - Diesel	29.601	0.003	0.384
Speedy - Use of AdBlue	2.075	0.000	0.000
Speedy, Rainham - Use of AdBlue	2.854	0.000	0.000
Bridge House Heating - Biomass	0.556	0.000	0.000
Speedy Trucks - HVO	12.033	0.000	0.000
Speedy Rainham Trucks - HVO	13.483	0.000	0.000
The Fuel Card Company Fuel Cards - Diesel	13.483	0.000	1.345
The Fuel Card Company Fuel Cards - Diesel	103.706	0.012	3.017
Borden Way Heating - Kerosene	10.834	0.029	0.024

T: 0330 123 1444 | **W:** sustainability.crownoil.co.uk