Crown Oil
sustainability

CARBON NEUTRAL
IN ACCORDANCE WITH ISO 14068

Carbon Assessment Report

in accordance with ISO-14064-1

Achievement period: 1st August 2023 – 31st July 2024

Commitment period: 1st August 2024 – 31st July 2025

Date: March 2025

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ISO 14068-1 - carbon neutral

The International Organisation for Standardisation (IOS) has developed an internationally applicable specification for demonstrating carbon neutrality. Verification to this standard substantiates claims that a business is carbon neutral.

Crown Oil Ltd has received verification through the BSI. This has provided us with the support, documentation and protection required from external criticism, ensuring high confidence in the carbon neutrality report.

Table 1 provides the declaration of achievement for the ISO 14068 carbon neutrality claim.

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 2023 to 31st July 2024
Recorded carbon footprint of the subject during the period stated above	5,695 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	3,238 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	2023: 0.3% 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 2023-24 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 2024-25 financial year.

Table 1: Declaration of achievement of carbon neutrality

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 carbon neutral claim whereby Tunley Environmental verify that we have achieved carbon neutrality in accordance with said ISO 14068-1 standard on 11th February 2025 for the reporting period of 1st August 2023 and 31st July 2024.

Total carbon emissions in tonnes of carbon dioxide equivalents (tCO_2e per annum) for the FY23/24 are 5,695 t CO_2e, with respective contributions of 293 tCO_2e for Scope 1, 22 tCO_2e for Scope 2, and the remaining 5,380 tCO_2e attributed to Scope 3.

C ISO 14068-1
We achieved carbon neutral status in 2022

From our first-hand experience with our customers, we are aware of the reliance society has on oil-based products for daily life, even though fossil fuels are a primary source that produces GHG emissions. Thus, we are in a unique position to make a positive impact on the environment in the way we deliver fuels and work towards influencing society to transition to a net-zero carbon world.

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 aim to achieve a 42% reduction in GHG emissions across all scopes by 2028.

We have set a target for:
- operational net zero emissions in Scope 1 and Scope 2 by 2030
- full net zero, including residual Scope 3 emissions, by 2050

Our strategy involves continuous emission monitoring, reduction efforts, and offsetting through credible projects, all while balancing environmental responsibility with financial sustainability.

This assessment demonstrates our commitment to showing how carbon emissions can be reduced. It also provides a clear evaluation of carbon emissions associated with these business practices and aligns with our ambition for achieving carbon neutrality.

We have achieved carbon neutrality by purchasing and retiring a diverse portfolio of carbon credits, adhering to the stringent criteria outlined in Chapter 11 of the BS ISO 14068-1:2023 standard. These carbon credits were sourced from verified projects that ensure real, additional, measurable, and permanent GHG emission reductions or removal enhancements.

They were retired in a public registry to avoid double counting, ensuring transparency and accountability. The types of carbon credits purchased include those from small hydroelectric projects, waste processing facilities, and other certified initiatives, each contributing to the offsetting of our carbon footprint. The below carbon credits have been officially verified by BSI, ensuring their compliance with international standards.

Carbon credits purchased

- AM: 143782 - 208623 (Jradzor Small Hydroelectric CDM project). Project Number: 1835. Provider: ANI OJSC - 2,000 tCO_2e
- IN: 319013967 - 319062508 (Bundled Waste Processing Facilities in India). Project Number: 3248. Provider: Indo Enviro Integrated Solutions Private Limited - 2,000 tCO_2e
- KR: 187162252 - 187177778 (Kowepo Small Hydroelectric CDM Project in Taean). Project Number: 3833. Provider: Korea Western Power CO., Ltd - 1,000 tCO_2e
- PE: 7423971 - 7487255 (8 de Agosto). Project Number: 8204. Provider: Generacion Andina S.A.C. - 696 tCO_2e

Scope	Baseline year 20/21 (tCO_2e)	21/22 (tCO_2e)	22/23 (tCO_2e)	Reporting year 23/24 (tCO_2e)
Scope 1	2,844	284	311	293
Scope 2	201	120	63	22
Scope 3	5,888	5,118	5,835	5,380
Total	**8,933**	**5,522**	**6,209**	**5,695**
Turnover (litres)	487,800,727	570,785,377	538,233,185	566,538,829
Intensity ratio (tCO_2e/ml)	18.3	9.7	11.5	10.1

Table 2: Emissions summary

Scope	Category	Baseline year 20/21 (tCO_2e)	21/22 (tCO_2e)	22/23 (tCO_2e)	Reporting year 23/24 (tCO_2e)
S1.1	Stationary combustion	24	36	4	6
S1.2	Mobile combustion	2,812	307	306	287
S2.2	Purchased electricity	179	120	63	22
S3.1	Purchased goods & services	2,976	1,134	996	871
S3.2	Capital goods	944	1,966	2,172	1,250
S3.3	Fuel and energy related activities not included in S1 or S2	946	68	104	848
S3.4	Upstream transportation & distribution	921	664	992	1,089
S3.5	Waste generated in operations	35	19	10	9
S3.6	Business travel	16	17	80	84
S3.7	Employee commuting (& remote working)	49	120	218	232
S3.8	Upstream leased assets	1	-	-	-
S3.9	Downstream transportation & distribution	-	1,130	1,263	997
S3.13	Downstream leased assets	-	-	-	-
S3.14	Franchises				
S3.15	Investments				
	Outside of scopes	N/A	1,710,372	1,631,095	1,426,951
Total		**8,933**	**5,522**	**6,209**	**5,695**

Table 3: Emissions summary per category

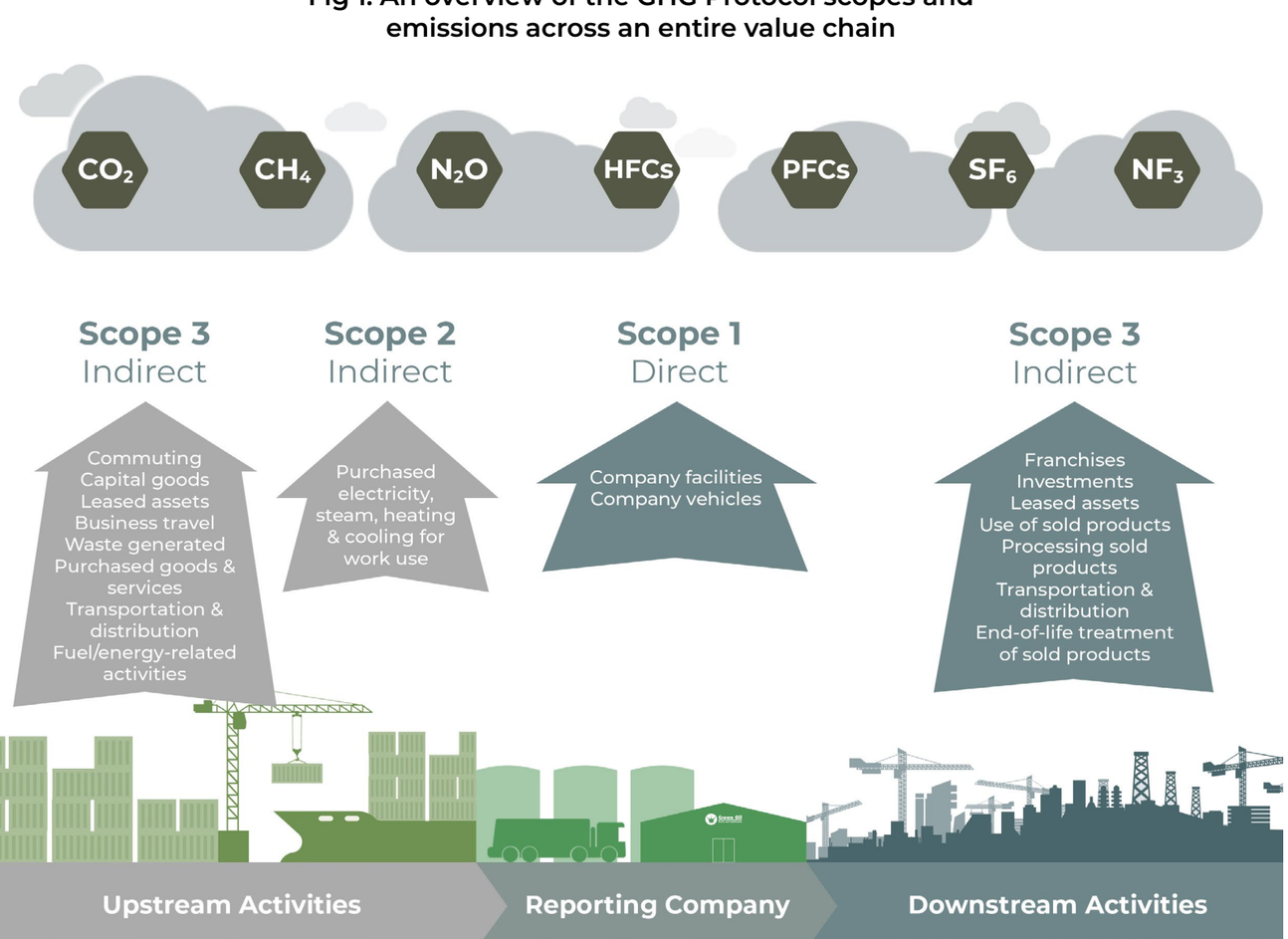
This carbon assessment is based on data categorised into three scopes, as defined by The Greenhouse Protocol. For each year, the assessment provides detailed quantification of GHG emissions due to:

- **Scope 1:** Direct emissions such as those arising from business travel in company controlled or owned vehicles and fuel consumption by heating
- **Scope 2**: Indirect emissions from purchased electricity usage
- **Scope 3:** Other indirect emissions. This includes usage of water, business travelling, waste disposal, transportation and distribution, and the use of supplies such as food and drink

Appreciating the importance of determining major contributors to the emissions, we have included detailed analysis and discussion on different components in each scope to support us in our decision-making processes to reduce our carbon emissions.

The carbon emission calculations have been completed in line with ISO 14064-1. Following the GHG Protocol, all three scopes of emissions are reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain Standard. Figure 1 presents all the business activities to be quantified from a carbon assessment.

Fig 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

- **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 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 for Crown Oil Ltd in accordance with the operational control approach previously stated. Figure 2 presents these boundaries for the quantification of Crown Oil Ltd's GHG emissions.

Our locations

Crown Oil Ltd operate 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.

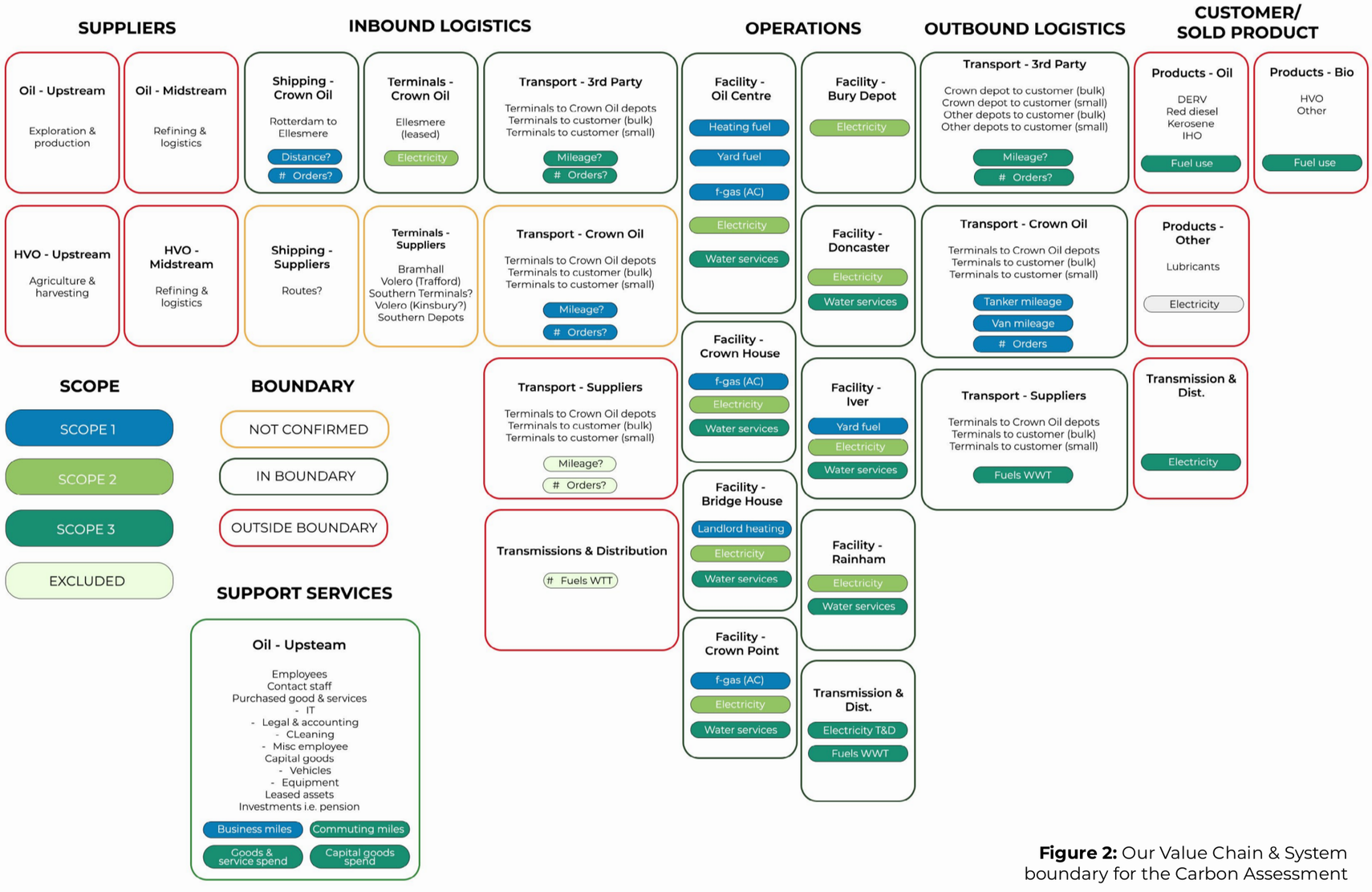


Figure 2: Our Value Chain & System boundary for the Carbon Assessment

Name of facility	The Oil Centre	Crown House	Bridge House	Doncaster	Oldbury	Iver	Rainham	Borden Way
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 Environmental Ltd
Location	Bury	Bury	Bury	Doncaster	Birmingham	London	London	Bury
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
Owned / Leased	Owned	Owned	Leased	Leased	Owned	Leased	Owned	Owned

Table 4: An overview of our locations and buidings

Carbon emissions methodology

Carbon emissions context

Carbon dioxide (CO_2) 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's more important than ever for business to reduce their GHG emissions.

We are committed to making 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 achieving net zero direct emissions

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's often achieved by calculating the total amount of GHG emissions produced per year and this amount is offset through credits to make up the difference between its emissions and a zero-carbon baseline.

According to ISO 14068:2014, carbon neutral is:

"The 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 greenhouse gas emissions associated with the subject [that which is being analysed for GHGs and carbon neutrality] 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 and aims to achieve net zero Scope 1 & 2 emissions by 2030.

Business activities

A business carbon assessment is based on data categorised into three scopes, as defined by The Greenhouse Protocol. For each year, the assessment provides detailed quantification of GHG emissions due to:

Scope 1: Direct emissions:
- Stationary combustion of fuels e.g. burning natural gas for heating
- Mobile combustion of fuels e.g. burning diesel in company-owned vehicles
- F-gases emitted to the atmosphere e.g. refrigerant leaks from air conditioning

Scope 2: indirect emissions from using energy:
- The emissions produced from the generation of purchased electricity used

Scope 3: Other indirect emissions:
- This includes both upstream and downstream business activities from a total of 15 business categories. For example, usage of water, business travelling, waste disposal, transportation and distribution, and the use of supplies such as food and drink

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 represent much less than 5% of the sold product and therefore responsibility lies with the upstream primary extraction and processing companies.

Limitations

It's important to understand the limitations of the carbon assessment that are inherently created by the use of certain assumptions required to calculate the GHG emissions. These assumptions and limitations are inevitable and essential when suitable quantified data is unavailable. The limitations undertaken to complete this assessment are as follows.

Estimated data used from assumptions in place of primary data

In certain circumstances, the data required to calculate the GHG emissions was 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. We will begin to make records for the data where assumptions have been used.

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 was 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 our carbon footprint, generate supplier specific spend based emission factors and understanding our plans to reduce emissions.

Emissions based on average emission factors

Currently, the emission factors used are best available from DEFRA 2022. For certain business activities, emission factors can vary significantly based on suppliers. For example, stainless steel from a supplier in China could be significantly worse than that from a supplier in Europe depending on multiple factors. Therefore, it is beneficial to begin working with the top 20% of suppliers used to collect accurate emission factors to improve accuracy and reduce emissions from collaboration on joint initiatives.

In addition 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 biodiesel which is a direct substitute for diesel, with a significantly lower emission factor, and therefore enables lower carbon emissions (Table 5).

HVO is derived from waste oils and crops to produce vegetable oil which is then hydrotreated to make biodiesel. Table 1 shows the emission factor for HVO as provided by both DEFRA and Crown Oil Ltd's current HVO suppler. Emission factors for fuels have two key components. The emission factor at end use from combusting the fuel (Scope 1) and emission factor for 'well-to-tank' so called as it accounts for the additional emissions to extract, process and transport fuels to the enduser (Scope 3). The supplier calculates the emission factor for 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). Please note that the emission factor for the Well to Tank for HVO from the supplier data was calculated incorrectly in previous reports. Previously, it was stated to be 0.000348 kg CO_2e / Litre, but an error in the calculation method was recently discovered.

Table 5: Emission factors for fuels used for mobile combustion as provided by DEFRA and supplier data

Fuel	Use of fuel kg CO_2e/litre	Well to tank kg CO_2e/litre	Total kg CO_2e/litre
Diesel	2.51279	0.60986	3.12265
HVO (supplier data)	0	0.52646	0.52646
HVO (DEFRA 24)	0.03558	0.55900	0.59458
HVO (used in calculations)	0.03558	0.52646	0.56204

Emissions data

In the assessment year 2023/24, Scope 1 emissions decreased significantly from 2,844 tCO_2e in the baseline year (2020/21) to 293 tCO_2e.

Scope 1 emissions make up 5.15% of the total emissions (Table 3).

Scope 2 emissions also saw a sharp reduction, from 201 tCO_2e in the baseline to just 22 tCO_2e in 2023/24, accounting for 0.39% of the total footprint.

Remaining emissions were quantified at **94.46% of the total footprint**, this was from indirect emissions categorised in Scope 3, which decreased by 509 tCO_2e from 2020/21.

In total, the carbon footprint in the assessment year was calculated to be 5,695 tCO_2e, a total emission decrease by 36.2% from the baseline year (FY 2020/21).

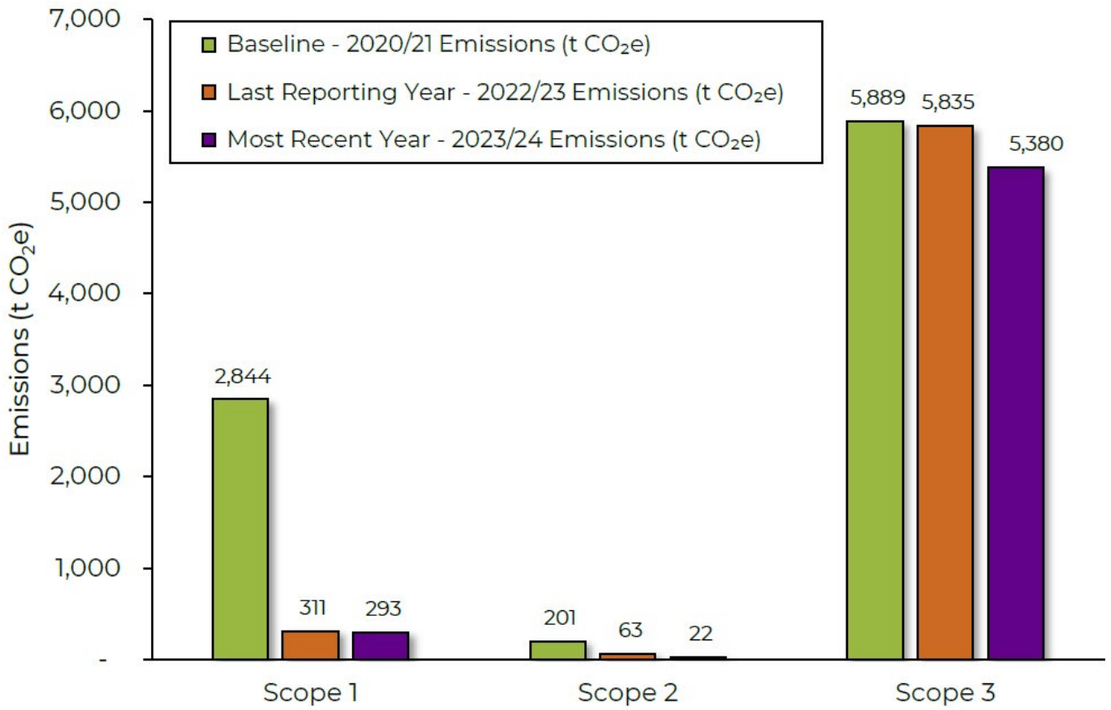


Figure 3: Our GHG for Scopes 1, 2 and 3 for both the baseline (202/21), the last reporting year (2022/23) and the more recent year (2023/24) years.

Scope	Baseline year 20/21 (tCO_2e)	21/22 (tCO_2e)	22/23 (tCO_2e)	Reporting year 23/24 (tCO_2e)
Scope 1	2,844	284	311	293
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Scope 3	5,888	5,118	5,835	5,380
Total	**8,934**	**5,522**	**6,209**	**5,695**
Turnover (litres)	487,800,727	570,785,377	538,233,185	566,538,829
Intensity ratio (tCO_2e/ml)	18.3	9.7	11.5	10.1

Table 6: Quantified annual emissions for Crown Oil categorised according to The Greenhouse as Protocol (GHG) Scopes.

Scope	Category	Baseline year 20/21 (tCO_2e)	21/22 (tCO_2e)	22/23 (tCO_2e)	Reporting year 23/24 (tCO_2e)
S1.1	Stationary combustion	24	36	4	6
S1.2	Mobile combustion	2,812	307	306	287
S2.2	Purchased electricity	179	120	63	22
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S3.14	Franchises				
S3.15	Investments				
	Outside of scopes	N/A	1,710,372	1,631,095	1,426,951
Total		**8,933**	**5,522**	**6,209**	**5,695**

Table 7: Emission data for our business operations from each year as categorised according to The Greenhouse Gas Protocol.

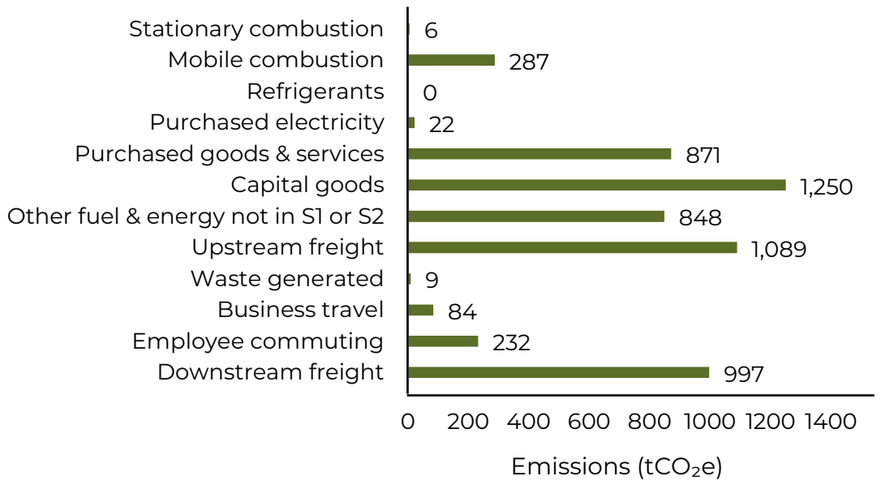

Figure 3: Graphical representation for the quantified emission categories (GHG Protocol) from 1st August - 31st July 2024.

Scope 1 emissions

The direct GHG emissions we produce and release include three major subcategories within Scope 1.

The first is stationary combustion of fuels within our facilities, for example burning natural gas in boilers to provide heating. We released 6.36 tCO_2e p.a. from stationary combustion, reflecting a 44% increase compared to the previous reporting period, which was 4.42 tCO_2e. However, this still represents **a significant reduction of 74% from the baseline assessment year of 24.1 tCO_2e.**

The primary source of emissions from stationary combustion arises from the use of kerosene for heating. For this reporting year, emissions from kerosene combustion at Borden Way only amounted to 5.08 tCO_2e. This use in kerosene represents a 59% increase compared to 3.67 tCO_2e recorded in FY 22/23.

It's important to note that the largest emissions from stationary combustion for FY 22/23 came from the use of kerosene for heating at the Oil Centre. The Oil Centre ceased using kerosene for heating, and emissions from this source at that location were eliminated. It should also be mentioned that Borden Way is a recently acquired facility by the Group.

Mobile combustion from company-owned (or leased) vehicles is the subcategory that contributes to the largest amount of Scope 1 GHG emissions. This is due to our large fleet of vehicles used to transport and distribute oil-based products across the UK. Our entire transport fleet includes cars, vans and trucks. The emissions from each transport category can be seen in Figure 5.

Our transportation fleet uses either Hydrotreated Vegetable Oil (HVO), petrol or diesel. Our trucks were the primary contributor to mobile combustion emissions in 2022/23, but their emissions have significantly decreased to 61.6 tCO_2e, down from 225 tCO_2e last year. This reduction can be attributed to the adoption of HVO and a decrease in the use of fossil fuels, despite an overall increase in total fuel consumption by trucks (Table 5).

Additionally, fuels used for refuelling vehicles with diesel and petrol at conventional pumping stations (tracked via fuel cards) continue to be a significant source of emissions, with 217 t CO2e reported for this year, an increase from 66.4 tCO_2e in the previous year. The emissions from mobile combustion can be seen further in Figure 5.

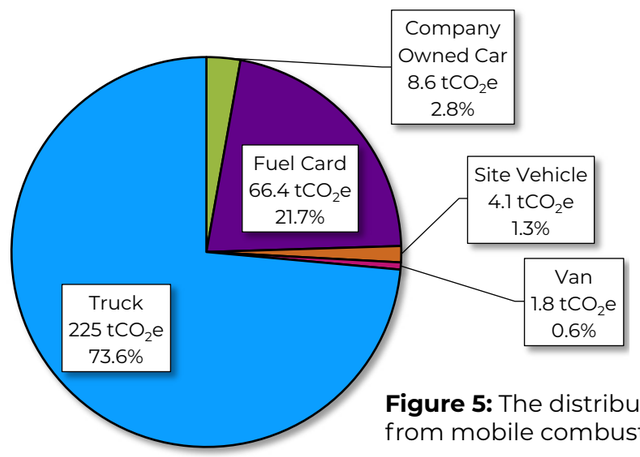

Figure 5: The distribution of carbon emissions from mobile combustion

	FY 22/23		FY 23/24	
	Usage (litres)	**Emissions (tCO_2e)**	**Usage (litres)**	**Emissions (tCO_2e)**
HVO	1,273,039	45	1,370,090	49
Fossil fuel	69,078	177	93,167	231
AdBlue	13,802	3	30,577	8

Table 8: A direct comparison of the carbon emissions and amount of fuel used

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.

Our Scope 2 emissions in the reporting year make up **0.39% of overall GHG emissions**: with all the emissions coming from purchased electricity, at **22.3 tCO_2e per year**.

This is a significant **88% reduction** in comparison to the 179 tCO_2e released from the generation of purchased electricity in 2020/21.

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 of our facilities in the financial years 2021/22 and 2022/23.

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 171 tCO_2e, reflecting the emissions based on average grid factors.

	Usage (kWh)			GHG emissions (tCO_2e)		
	FY 21/22	FY 22/23	FY 23/24	FY 21/22	FY 22/23	FY 23/24
The Oil Centre	259,174	179,526	130,249	50	23	6
Crown House	141,122	143,182	118,689	27	11	0
Bridge House	52,508	37,850	54,026	10	7	0
Iver	70,699	58,850	49,770	14	11	10
Rainham	49,427	47,602	50,511	10	4	2
Oldbury	32,091	37,792	17,124	6	3	0
Doncaster	16,745	15,311	16,391	3	3	3
Borden Way	-	-	390,079	-	-	0
Total	**621,765**	**520,113**	**826,839**	**120**	**63**	**22**

Table 9: The amount of electricity purchased, and emissions released at each Crown Oil location.

Borden Way electricity usage was extremely high at 390,079 kWh due to invoicing errors charging two years' worth of electricity in one year. This shall be managed by reporting it all in this current reporting year, and in the future, the invoices shall be managed accordingly to avoid such discrepancies.

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 9 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.

Scope 3 emissions

Scope 3 emissions as those we indirectly produce (excluding Scope 2).

This includes all business activities from both upstream and downstream business activities as per the GHG Protocol.

In total, Scope 3 emissions are responsible for **94.46% (5,380 tCO_2e p.a.)** of our carbon footprint. A significant proportion are from capital goods (1,250 tCO_2e p.a.), fuel and energy related activities not included in S1 or S2 (848 tCO_2e p.a.) and upstream transportation and distribution (1,089 tCO_2e p.a.).

The changes in each Scope sub-category from the last reporting year (2022/23) to the current reporting year (2023/24) are displayed in Figure 6.

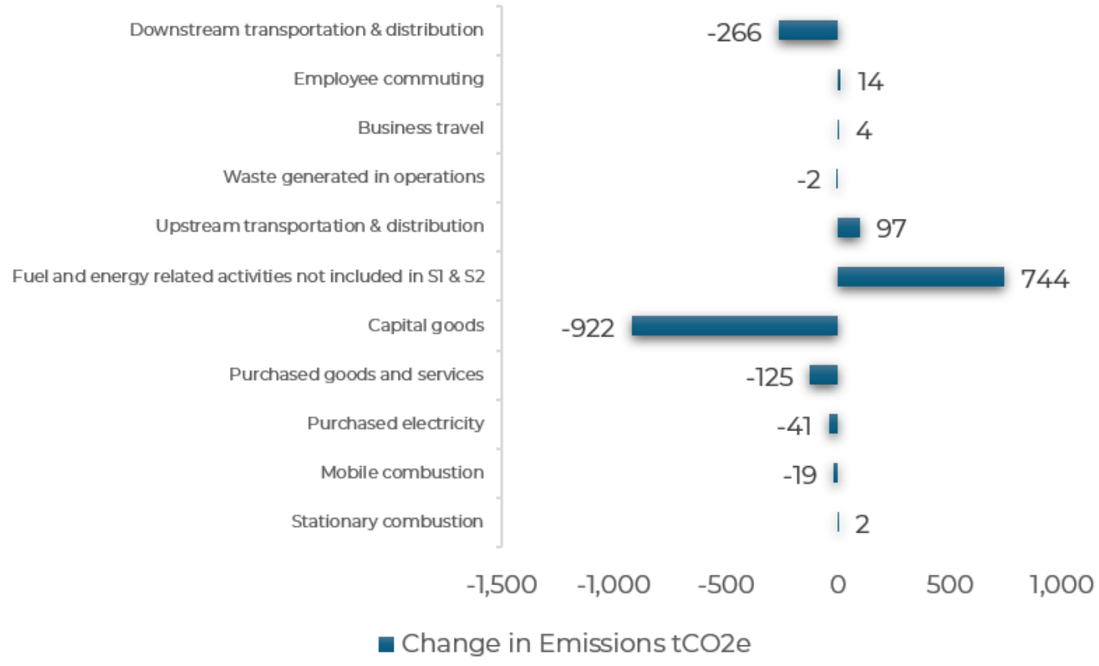

Figure 6: Graphical representation for the quantified change in emission categories (GHG Protocol) for Crown Oil from the last reporting year (2022/23) to the current reporting year (2023/24).

Out of scopes

We understand the impact of the products we sell on the environment. Thus, the impact that the life cycle of our products has on global warming is still measured and actively reduced via increased marketing of biofuels.

In the financial years 2022/23 and 2023/24, the use of products sold released 1,305,073 tCO_2e and 1,120,666 tCO_2e, respectively, while the processing of the sold products accounted for 322,801 tCO_2e and302,726 tCO_2e in emissions. This demonstrates a reduction in emissions across both categories over the course of the year.

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 year's 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, our use of HVO produces 3,329 tCO_2 per annum of biogenic emissions. The total value for out of scopes emissions in the reporting year 2023/24 was 1,426,951 tCO_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 2023/24 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 (tCO_2e/ML). In comparison to the baseline year, the intensity ratio has reduced by 43.83% due to our carbon footprint decreasing significantly, while simultaneously increasing the total amount of products delivered.

	Baseline year 20/21	21/22	22/23	Reporting year 23/24
Total (tCO_2e)	8,934	5,522	6,209	5,695
Total Product Delivered (Litres)	487,800,727	570,785,377	538,233,185	566,538,829
Intensity Ratio (tCO_2e/ML)	**18.3**	**9.7**	**11.5**	**10.1**

Table 10: Crown Oil's carbon intensity ratio.

Carbon reduction opportunities

We are already actively reducing our GHG emissions, resulting in a reduction of 3,238 tCO_2e in comparison to the baseline. This reduction is primarily due to the substitution of diesel with hydrotreated vegetable oil (HVO) and by obtaining REGO certifications for electricity use.

To become net zero carbon by 2030, we must reduce carbon emissions using all the feasible reduction opportunities and then offset the remaining emissions.

Our roadmap to net zero

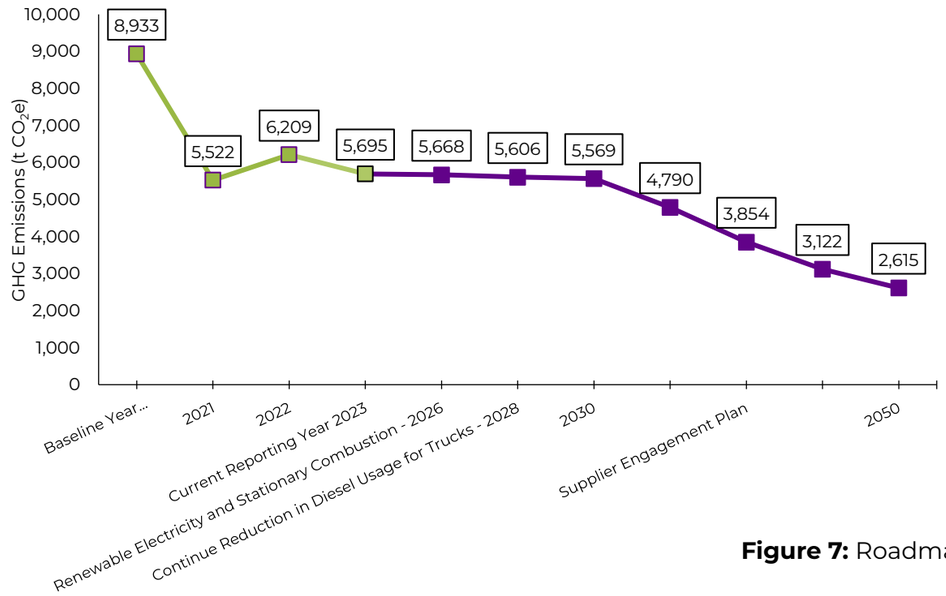

Figure 7: Roadmap to net zero

Figure 7 outlines the chosen carbon reduction strategies that will enable us to become net zero carbon. From the 2020/21 baseline year, 70.7% of the total emissions can be reduced through the implementation of the strategic carbon reduction initiatives.

Whilst reduction strategies are recommended, at this stage in our journey, the most significant emission reductions are only achievable through Supplier Engagement Plans. Activities such as raising carbon awareness and the implementation of supplier requirements to include a carbon reduction plan in procurement terms are becoming increasingly popular. The necessary residual emissions that remain could be offset to achieve net zero carbon.

Specific projects to achieve these goals include:

- Switching all fleet fuel from diesel to renewable HVO fuel
- Switching van and car fleet vehicles to electric
- Using heat recovery ventilation systems
- Installing onsite Solar PV
- Improving heating controls
- Switching from oil to electric heating
- Switching yard equipment (such as forklifts) to electric
- Installing additional insulation and draught proofing
- Upgrades to fuel pump motors
- Replacement of lighting with LED lights
- Installation of automatic lighting controls

While these projects are very important in terms of energy saving and reducing Scope 1 and 2 emissions, it is also recommended that we develop a Scope 3 reduction program by collecting Scope 3 data in more detail.

Currently, the spend-based method is used to calculate GHG emissions from purchased goods and services and capital goods. Although this method is considered appropriate for this carbon assessment, it does not provide the granularity required to develop a targeted carbon reduction plan for Scope 3 emissions. The following opportunities have been identified to reduce the emissions above.

Further emission reduction opportunities

2026 - Alternative heating

Invest in renewable sources: We have already made significant strides in reducing our emissions from purchased electricity. To further minimise our carbon footprint, we can invest in renewable energy sources (self-generation or by procuring REGO-certified electricity) for the remaining locations, then the market based calculates would see a reduction of 14 tCO_2e per year in comparison to the current carbon footprint.

Replace kerosene heater with electric alternative or renewable gas: Calculations have been conducted by using the current reporting footprint and removing the emissions from the kerosene heater. The removal of kerosene heating could save a further 15 tO_2e per year.

Overall, the next step in reducing emissions aimed at reducing both stationary combustion and emissions from electricity generation would reduce emissions by 29 tCO_2e per year.

2028 – Continue reduction of diesel usage in trucks

We must continue to reduce mobile combustion from the use of diesel fuel for trucks and from Harvest Energy Fuel Cards. Therefore, continuing the push towards HVO and electric vehicles is pivotal.

This can only be achieved by enabling processes that promote drivers to refuel at our depot. If we managed to reduce the emissions from diesel use in our master fleet of trucks and replace it with HVO then we would reduce emissions by 129 tCO_2e. This includes a reduction in Scope 3 category 3, from fuel and energy related activities not included in S1 or S2.

We can further reduce emissions by incentivising a reduction in business travel and employee commuting by incorporating competitions for employees to win prizes by choosing methods of travel with sustainability in mind and reducing emissions.

Supplier engagement plan

Reducing emissions from Capital Goods and Purchased Goods and Services can be difficult when using the Environmentally Extended Input-Output (EEIO) spend-based model with SIC codes. This is because the EEIO model is based on economic input-output data, which is often aggregated at a high level and may not accurately reflect the specific emissions associated with a particular product or service.

Additionally, SIC codes are a classification system for industries, and may not accurately capture the emissions associated with suppliers within an industry. This can make it difficult to accurately quantify emissions and implement effective reduction strategies.

Scope 3 emissions emanating from Capital Goods and Purchased Goods and Services represents 36.44% of our annual emissions. To attain net zero, we need to find a strategic plan for our supply chain.

A Supplier Carbon Reduction Plan can support this, which introduces a methodical process for calculating emissions at a supplier-specific level. This plan involves a categorisation of suppliers into four distinct quadrants (Figure 8), allowing focus on emission-intensive partners.

Following this categorisation, a targeted survey will be disseminated to our top-tier suppliers, aiming to gain insights into their current carbon footprint and ascertain their commitment to future emission reduction goals. Additional work with suppliers and subcontractors to understand their goals will enable us to accurately forecast the reduction of Scope 3 emissions.

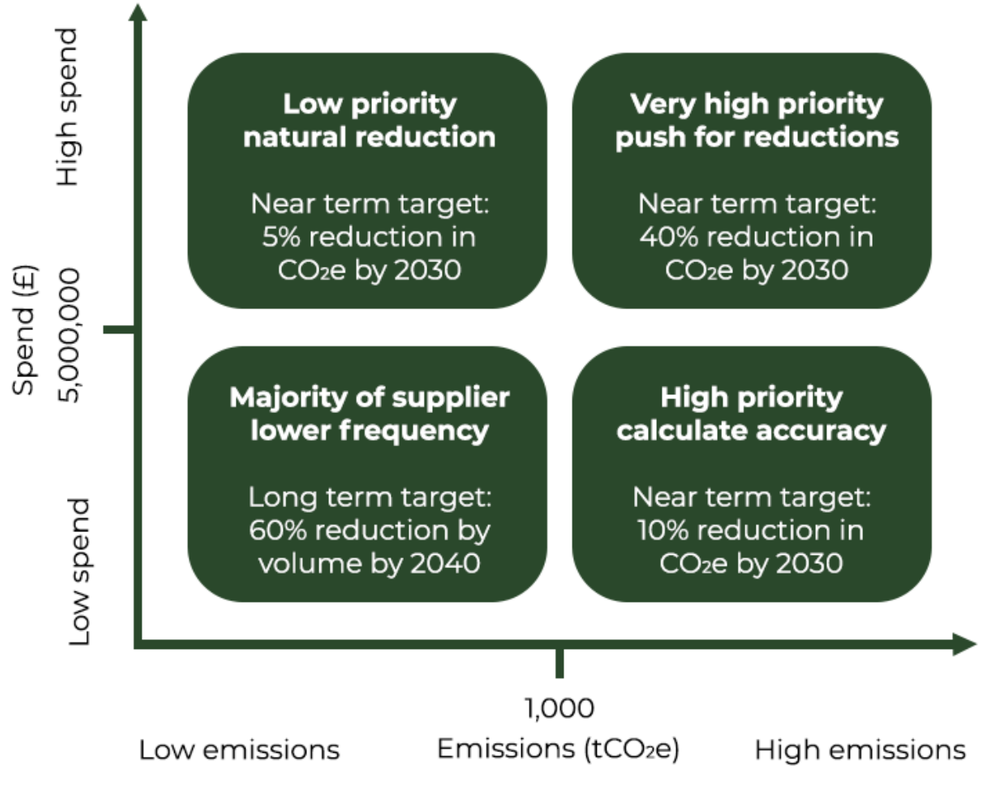

Figure 8: Four-quadrant matrix used for suppliers and subcontractors categorisation based on amount spend (£) and emissions (tCO_2e).

The 4 quadrants

1. **Low Spend, Low Emissions**: This quadrant typically encompasses a multitude of suppliers and subcontractors with whom the company has minimal financial transactions and who contribute a small fraction to the overall emissions. Most companies find an abundance of suppliers and subcontractors in this category. It is often more practical to reduce the frequency of transactions with these suppliers and subcontractors, and focus on consolidating spend with fewer, more strategic partners.

2. **Low Spend, High Emissions:** Suppliers and subcontractors in this quadrant represent those with whom the company spends less but which have a disproportionately high emissions profile. These suppliers and subcontractors should be approached cautiously, as the company's limited purchasing power offers less leverage to influence their emission reduction practices. The goal here is to accurately calculate emissions and understand the company goals to sustainability.

3. **High Spend, Low Emissions:** Suppliers and subcontractors falling into this category are significant in financial terms but are responsible for lower emissions. While these suppliers and subcontractors are important from a procurement standpoint, they can be temporarily set aside to concentrate on suppliers and subcontractors with higher emissions impact.

4. **High Spend, High Emissions:** This quadrant is typically reserved for a select few suppliers and subcontractors with whom the company has substantial financial dealings and who are also responsible for a large share of emissions. These key suppliers and subcontractors should be treated as partners in sustainability, working collaboratively to set and achieve tangible emission reduction targets.

In essence, the strategy is to focus efforts where they will have the most impact. By concentrating on suppliers and subcontractors that fall into the two high emissions quadrants, we can more feasibly manage our supplier relationships and implement effective measures to achieve our sustainability objectives.

Stage 2 focuses on enhancing the accuracy of carbon emissions tracking by transitioning from spend-based calculations to activity-based data, while also engaging suppliers and subcontractors through carbon reduction plan surveys to gain insights into our sustainability initiatives, challenges, and strategies for reducing emissions.

The following questions should be asked to help us transition away to more accurate calculations.

Carbon reduction plan survey example

1. Carbon metrics - What is Scope 1, 2 and 3?

Baseline year – [Insert Baseline Year]

Scope 1	Scope 2	Scope 3
[Insert Scope 1 tCO_2e]	[Insert Scope 2 tCO_2e]	[Insert Scope 3 tCO_2e]

Current year emissions

Scope 1	Scope 2	Scope 3
[Insert Scope 1 tCO_2e]	[Insert Scope 2 tCO_2e]	[Insert Scope 3 tCO_2e]

2. Targets

Scope 1	
Scope 2	
Scope 3	

3. Do you have a carbon reduction roadmap?

Yes If yes, please provide a copy

No

4. Milestones Plan (12-month look-ahead – Provide a separate milestone plan document if applicable)

Ref #	Activity	Start date	End date
1			
2			
3			

5. Financials: (Please provide past 3 years annual turnover)

Ref #	[Insert year]	[Insert year]	[Insert year]
Turnover	[Insert turnover]	[Insert turnover]	[Insert turnover]
Carbon spend % V turnover	[Insert %]	[Insert %]	[Insert %]

Following the supplier survey, effective communication with the supply chain is crucial to foster collaboration towards achieving sustainability goals. A clear and engaging communication strategy is essential to ensure supplier understanding and cooperation in the implementation process. The initiative may begin with a strong message, outlining the importance of sustainability and our prioritisation within the company.

This initial communication would demonstrate our commitment to sustainability, set the context for the initiative, clarify expectations, and provide resources to help suppliers and subcontractors understand the requirements. Subsequent updates and reminders would be delivered regularly by procurement or sourcing teams, who serve as the primary points of contact for suppliers and subcontractors. These communications should reinforce the significance of carbon reduction targets, provide clear timelines and deliverables, address common questions, and direct suppliers and subcontractors to additional resources as needed. This structured approach will ensure effective and ongoing engagement with suppliers and subcontractors throughout the process.

Implementing effective carbon pricing

For the company

Carbon pricing can significantly complement and enhance our efforts on energy efficiency programs, renewable energy adoption, and emissions reduction targets - by creating a clear financial incentive for further emissions reductions and by ensuring that sustainability goals are integrated into our financial decision-making.

By adopting a carbon pricing mechanism, such as an internal carbon fee, carbon tax, or emissions trading system, we can internalise the environmental cost of our emissions, driving more sustainable decision-making across our operations. An internal carbon price would help us assess and integrate the environmental impact of our activities into financial decision making, such as capital investment, product pricing, and resource allocation.

For example, when evaluating new projects or investments, we could apply a carbon fee to the emissions associated with each option, incentivising the selection of low-carbon alternatives. This would encourage investments in energy efficiency, renewable energy, and low-carbon technologies, all of which are crucial for reducing emissions and advancing toward net-zero goals.

Implementing carbon pricing also fosters long-term cost savings by identifying areas of inefficiency, such as energy-intensive processes or high-emission materials, which can be optimised or replaced with more sustainable options. On a long term basis, this can result in lower operational costs, improved energy efficiency, and enhanced resilience to rising carbon prices and potential future carbon regulations.

Moreover, carbon pricing strengthens our alignment with global climate policies and helps to future-proof our operations against regulatory changes. Carbon pricing provides a proactive way to prepare for carbon taxes or emissions trading schemes that could affect costs in the future. By integrating carbon pricing now, we position ourselves as a leader in sustainability, improving our competitiveness in a market that is increasingly prioritising climate action.

Finally, adopting carbon pricing aligns financial and environmental objectives by directly linking emission reductions to business value. As we reduce our emissions, it not only contributes to global climate goals but also unlocks financial benefits from improved resource efficiency, innovation, and risk mitigation. This strategy can play a critical role in helping us achieve net zero emissions by guiding business decisions towards more sustainable practices, reducing operational and supply chain emissions, and supporting innovation in green technologies.

For our supply chain

We could go one step further in mitigating our emissions from our supply chain by implementing an effective carbon pricing within its supply chain. This would serve as a key strategy to reduce GHG emissions and support its long-term sustainability goals to achieving net zero emissions.

By adopting an internal carbon pricing mechanism, we can incentivise our suppliers to adopt more sustainable practices, reduce emissions, and innovate in low-carbon technologies. For instance, we could introduce a carbon fee based on the carbon intensity of goods and services purchased from suppliers and subcontractors. This would encourage our supply chain to reduce their carbon footprints.

This approach offers several long-term benefits - first, by internalising the environmental costs of emissions, we will be able to drive cost-effective emissions reductions throughout our supply chain. As carbon pricing creates a financial incentive for suppliers to reduce their emissions, it ensures that both financial and environmental goals are aligned. Over time, suppliers that fail to reduce emissions may face higher costs or lose business, thus encouraging widespread adoption of low-carbon solutions across the supply chain.

Carbon pricing provides a clear pathway to net-zero by pushing our company and our suppliers to actively seek emission-reduction opportunities, through process improvements, energy efficiency measures, or innovation in new, cleaner products. As suppliers adjust to the carbon price, we will see a reduction in our Scope 3 emissions, which constitutes our largest carbon footprint. By applying carbon pricing, we will also be better prepared for potential future carbon regulations, such as carbon taxes or emissions caps.

Additionally, the transparency created by carbon pricing encourages better measurement and reporting of emissions data, enabling us to monitor progress toward our net zero targets more accurately. This aligns with best practices for climate risk management and helps position us as a leader in sustainability, enhancing our reputation and ensuring our competitiveness in an increasingly carbon-conscious market. By applying carbon pricing to our supply chain, we will need to engage suppliers to track and report their emissions accurately. Implementing carbon pricing across the supply chain is feasible, but it
requires cooperation from suppliers and the ability to manage complex data. If this can be achieved, carbon pricing implementation could create a powerful financial incentive for emissions reductions, stimulate innovation, and align our business strategies with our environmental goals.

Carbon offsetting

For the purposes of achieving “Carbon Neutral” to ISO 14068-1 in the financial year 2023/24, we purchased 5,828 tCO_2e in offsets. This includes purchasing and retiring a diverse portfolio of carbon credits, to adhere to the stringent criteria outlined in Chapter 11 of the BS ISO 14068-1:2023 standard.

Carbon credits purchased

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.

- AM: 143782 - 208623 (Jradzor Small Hydroelectric CDM project). Project Number: 1835. Provider: ANI OJSC - 2,000 tCO_2e
- IN: 319013967 - 319062508 (Bundled Waste Processing Facilities in India). Project Number: 3248. Provider: Indo Enviro Integrated Solutions Private Limited - 2,000 tCO_2e
- KR: 187162252 - 187177778 (Kowepo Small Hydroelectric CDM Project in Taean). Project Number: 3833. Provider: Korea Western Power CO., Ltd - 1,000 tCO_2e
- PE: 7423971 - 7487255 (8 de Agosto). Project Number: 8204. Provider: Generacion Andina S.A.C. - 696 tCO_2e

United Nations
Framework Convention on
Climate Change

Date: 11 FEBRUARY 2025
REFERENCE: VC36521/2025

VOLUNTARY CANCELLATION CERTIFICATE

Presented to
Crown Oil Group
Project
Jradzor Small Hydroelectric CDM project
Reason for cancellation
I am offsetting greenhouse gas emissions for my company

Number of units cancelled

2,000 CERs

Equivalent to 2,000 tonne(s) of CO_2

Start serial number: AM-5-177449-2-2-0-1835
End serial number: AM-5-179448-2-2-0-1835

Monitoring period: 11-07-2010 - 09-07-2019

The certificate is issued in accordance with the procedure for voluntary cancellation in the CDM Registry. The reason included in this certificate is provided by the cancellor.

United Nations
Framework Convention on
Climate Change

Date: 11 FEBRUARY 2025
REFERENCE: VC36523/2025

VOLUNTARY CANCELLATION CERTIFICATE

Presented to
Crown Oil Group
Project
KOWEPO SMALL HYDROELECTRIC CDM PROJECT IN TAEAN
Reason for cancellation
I am offsetting greenhouse gas emissions for my company

Number of units cancelled

1,000 CERs

Equivalent to 1,000 tonne(s) of CO_2

Start serial number: KR-5-187162252-2-2-0-3833
End serial number: KR-5-187163251-2-2-0-3833

Monitoring period: 01-01-2012 - 24-11-2020

The certificate is issued in accordance with the procedure for voluntary cancellation in the CDM Registry. The reason included in this certificate is provided by the cancellor.

United Nations
Framework Convention on
Climate Change

Date: 11 FEBRUARY 2025
REFERENCE: VC36524/2025

VOLUNTARY CANCELLATION CERTIFICATE

Presented to
Crown Oil Group
Project
Bundled Waste Processing Facilities in India
Reason for cancellation
I am offsetting greenhouse gas emissions for my company

Number of units cancelled

2,000 CERs

Equivalent to 2,000 tonne(s) of CO_2

Start serial number: IN-5-319013968-2-2-0-3248
End serial number: IN-5-319015967-2-2-0-3248

Monitoring period: 01-01-2020 - 26-06-2020

The certificate is issued in accordance with the procedure for voluntary cancellation in the CDM Registry. The reason included in this certificate is provided by the cancellor.

United Nations
Framework Convention on
Climate Change

Date: 11 FEBRUARY 2025
REFERENCE: VC36522/2025

VOLUNTARY CANCELLATION CERTIFICATE

Presented to
Crown Oil Group
Project
8 de Agosto
Reason for cancellation
I am offsetting greenhouse gas emissions for my company

Number of units cancelled

696 CERs

Equivalent to 696 tonne(s) of CO_2

Start serial number: PE-5-7423071-2-2-0-8204
End serial number: PE-5-7424666-2-2-0-8204

Monitoring period: 01-01-2016 - 31-12-2020

The certificate is issued in accordance with the procedure for voluntary cancellation in the CDM Registry. The reason included in this certificate is provided by the cancellor.

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 from the 1st August 2023 and the 31st July 2024 reporting year at Crown Oil.

Category	In scope?	Justification if out of score	Data score average	Data improvement recommedations
Stationary combustion	In		1	
Mobile combustion	In		1	
Refrigerants	In		3	Provide written evidence of no refrigerant leakage
Purchased heat	In		1	
Purchased electricity	In		2	Improvements to be made at Engine Street
Purchased goods & services	In		6	Supply chain engagement
Capital goods	In		6	Supply chain engagement
Fuel & energy related activities not included in S1 & S2	In		1	
Upstream transportation & distribution	In		2	
Waste generated in operations	In		1	
Business travel	In		3	
Employee commuting	In		3	
Upstream leased assets	Out	Buildings leased included in scope 1 & scope 2 categories	N/A	
Downstream transportation & distribution	In		16	Collect primary data from suppliers delivering products
Processing of sold products	Out	Little to no downstream processing of sold products, no control	N/A	
Use of sold products	Out	Minimal stake compared to product value (<5%), & limited control	N/A	
End of life treatment of sold products	Out		N/A	
Downstream leased assets	Out	Crown Oil lease tanks to customers with limited control	N/A	
Franchises	Out	No franchises in the business	N/A	
Investments	Out	No significant active revenue investments	N/A	

Data accuracy & uncertainty assesment

All the raw data provided to Tunley Environmental were 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 bandbased 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	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 error 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 indicators	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 ISO 14064-1 “The organization shall quantify direct GHG emissions separately for CO_2, CH_4, N_2O, NF_3, SF_6 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 of our direct greenhouse gas emissions.

Table A5: Direct GHG emissions detailed separately for Scope 1 and Scope 2 showing CO_2, CH_4, N_2O emissions in tonnes of CO_2e

Item	Emissions (tCO_2e of CO2)	Emissions (tCO_2e of CH_4)	Emissions (tCO_2e of N_2O)
Stationary combustion	6.33	0.02	0.01
Mobile combustion	283.80	0.12	3.15
Purchased electricity	22.08	0.10	0.13
Total	**312.21**	**0.23**	**3.29**

Emission data report to ISO 14064-1

To encourage completeness, consistency, and readability ISO 14064-1 recommends that the GHG quantification should be reported using the full descriptive categories provided. Therefore, this is fully displayed and categorised in Table A6.

Table A6: Complete ISO 14064-1 data categorisation table

Category		Emissions (tCO_2e)
1	**Direct GHG emissions & removals in tCO_2e**	**293**
1.1	Direct emissions from stationary combustion	6
1.2	Direct emissions from mobile combustion	287
1.3	Direct process emissions and removals arising from industrial processes	-
1.4	Direct fugitive emissions arising from release of GHGs in anthropogenic systems	-
1.5	Direct emissions and removals from land use, land use change, and forestry	-
2	**Indirect emissions in tCO_2e**	**22**
2.1	Indirect emissions from imported electricity	22
2.2	Indirect emissions from imported energy	
3	Indirect GHG emissions from transportation	2,402
3.1	Emissions from upstream transportation and distribution	1,089
3.2	Emissions from downstream transportation and distribution	997
3.3	Emissions from employee commuting & teleworking	232
3.4	Emissions from client and visitor transport	-
3.5	Emissions from business travel	84
4	**Indirect GHG emissions from products used by the organisation**	**2,129**
4.1	Emissions from purchased goods	871
4.2	Emissions from capital goods	1,250
4.3	Emissions from the disposal of solid and liquid waste	9
4.4	Emissions from the use of assets	-
4.5	Emissions from the use of services that are not described in the above subcategories	-
5	**Indirect GHG emissions associated with the use of products from the organisation**	**0**
5.1	Indirect GHG emissions associated with the use of products from the organisation	-
5.2	Emissions from downstream leased assets	-
5.3	Emissions from end-of-life stage of product	-
5.4	Emissions from investments	-
6	**Indirect GHG emissions from other sources not specified**	**848**

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