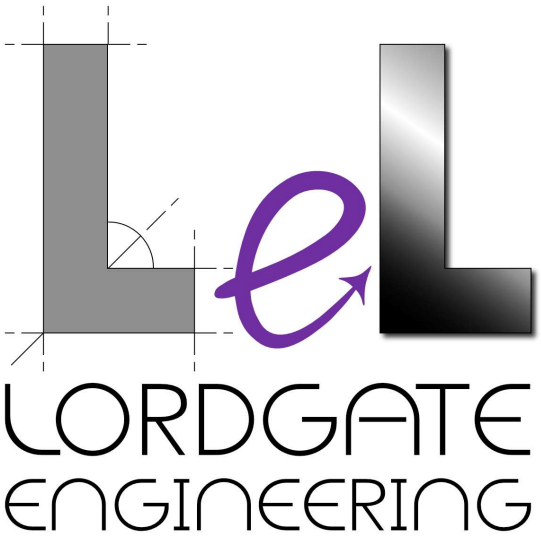

2024 Annual Sustainability Review

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ABSTRACT

Enclosed within this document are the comprehensive annual figures for emissions, water consumption and the general sustainability practises of Lordgate Engineering Ltd.

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Business Compliance Engineer

Contents

Introduction

Lordgate Engineering Limited publishes these annual reports to remain transparent with its customers. This report grants greater perspective on the efforts by Lordgate Engineering Ltd to increase its sustainability.

Definitions

A range of specialised industry specific terms and metrics of measurement are used throughout this report. This is done to remain in-line with relevant industry standards surrounding emission reporting. Listed below are the specific terms that will be used throughout this report within relevant sections.

Greenhouse Gases

Greenhouse gases are harmful pollutants that are released during many processes such as combustion. This includes Carbon Dioxide, a common byproduct during combustion. These gases are often abbreviated to GhG.

Carbon Inventory

This is a comprehensive stored database of the company's emissions. This source provides much of the data used within this report

tCO_2e

tCO_2e is a unit of measurement related to emission reporting. It stands for "Tonnes of Carbon Dioxide equivalent emissions". It describes the level of emissions across many different types of greenhouse gases as a proportional amount of carbon. This allows for simple and comprehensive comparison across various sources of emissions.

Ecovadis

Ecovadis is an internationally accredited body whose purpose is to assess the environmental, social and fiscal responsibility of the company. Their website has been used to calculate certain metrics where referenced.

Scope 1 Emissions

Scope 1 emissions refer to emissions produced natively on-site by the operation of the company. For Lordgate Engineering Ltd. this describes the emissions produced due to the burning of natural gas for the purposes of central heating system and the burning of fuel in company vehicles.

Scope 2 Emissions

Scope 2 emissions refer almost exclusively to emissions produced by the company due to the purchase of electrical power from a provider. This represents the emission factor of the electricity the company uses.

Scope 3 Emissions

Scope 3 emissions refer to the emissions that are considered "downstream" and "upstream" of the company within the greater supply chain in operation. For the purposes of Lordgate Engineering Ltd., this refers almost exclusively to the emission output due to the smelting of raw material and the lifetime emission factor of manufactured parts.

Methodology

The techniques used during this report have been chosen to provide an accurate outlook of the company's emissions. The way the data was both collated and analysed remains consistent throughout this report:

- Data is collected by aggregating utility bills, purchase records and maintenance documentation.
- Stored data on the company's carbon inventory system is interpreted and analysed to produce a range of insightful statistics.
- Relevant figures are published annually within this report.

Limitations

Whilst Lordgate Engineering Ltd have done their due diligence in verifying the accuracy of all figures presented in this report, we cannot warrant the absolute certainty of all information provided herein. This is in part due to the difficulty in measurement of certain metrics such as Scope 3 emissions whose calculation relies on the extrapolation of numerous statistics over an extensive range of sectors throughout our supply chain. It is for this reason specifically, that Lordgate Engineering Ltd has chosen to rely on estimations of Scope 3 emissions provided by Ecovadis.

Emissions data

Scope 1

Year	Gas Usage (kWh)	CO2e (t)	(%)
2023	138305	25.3	100
2024	136934	25.1	99.0
Change	-1371	-0.3	-1.0

Table 1:Table depicting the consumption of natural gas. The value for g/kWh CO2e for the consumption of natural gas was found to be 185g/kWh CO2e (BritishGas, 2025)

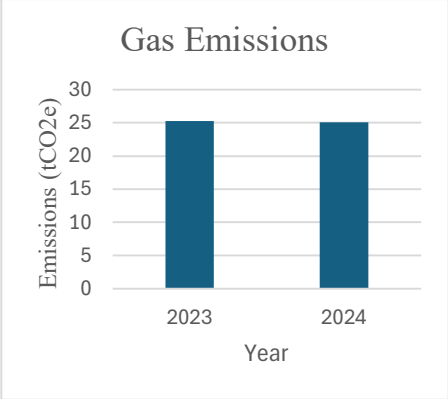

Figure 1: The change in natural gas consumption of Lordgate Engineering

Year	Distance travelled (km) Vehicle A	Vehicle B	Total (km)	CO2e (t)	(%)
2023	90163	11829	101992	27	100
2024	40939	0	40939	10.8	40
Change	-49224	-11829	-61053	-16.2	-60

Table 2: The change in driving habits of Lordgate Engineering. The carbon emission factors of the vehicles were found to be 53g/tkm (DVLA, 2024)

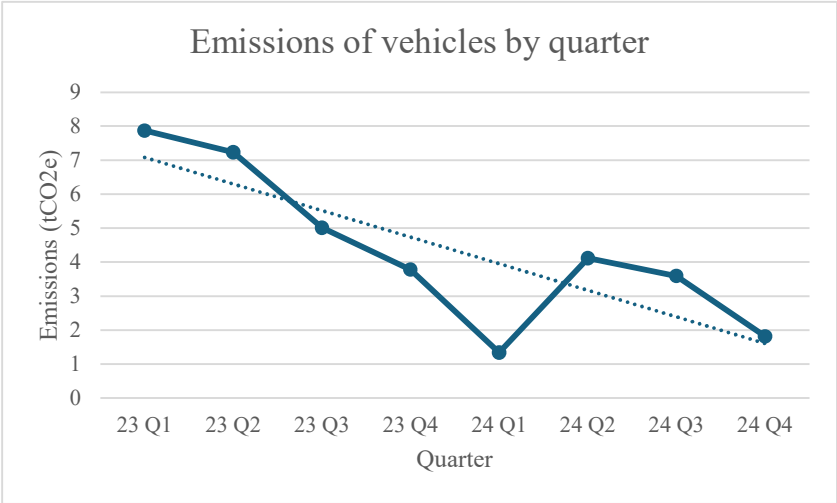

Figure 2: Reduction in vehicle emissions over the 23/24 period

Scope 2

Year	Usage (kWh)	CO2e (t)	(%)
2023	393,822	116.6	100
2024	358,743	106.2	91.1
Change	-35,079	-10.4	-8.9

Table 3: A table depicting the total electricity emissions due to the power we have bought.

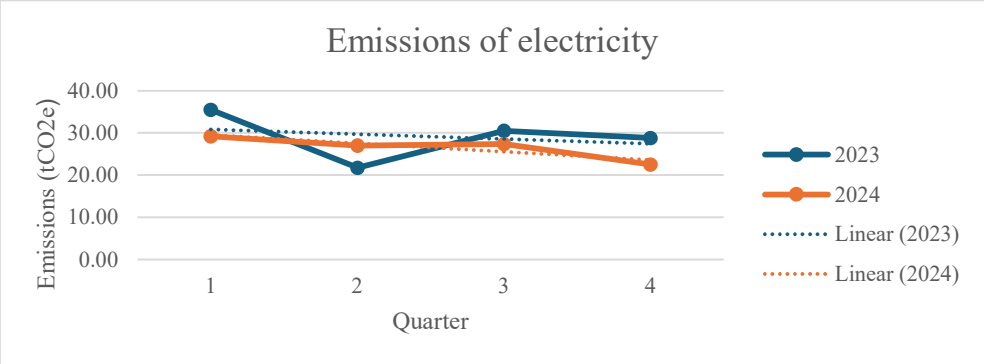

Figure 3: A graph depicting the usage of energy throughout the last two years. The carbon factor was found to be 293g/kWh CO_2e (Nenergy, 2024)

Scope 3

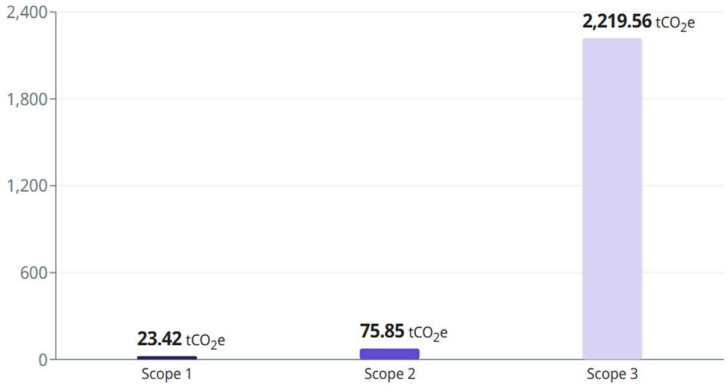

Figure 4: An estimation of Scope 3 emissions - (Ecovardis, 2025)

There has been no recorded change in Scope 3 emissions thorough the 23/24 period.

Carbon Inventory

As a sum of the previous constitute parts, the total carbon equivalent emissions of Lordgate Engineering Ltd in tonnes are as follows:

Year	Scope 1	Scope 2	Scope 3
2023	52.3	116.6	2219.56
2024	35.9	106.4	2219.56
Change (%)	-31.4	-8.9	0

Table 4: Scope based reporting

Emissions analysis

As clearly depicted in *Figure 1* there has been negligible change in gas usage between the years of 2023 and 2024. Overall, consumption of natural gas decreased by 1%. As this represents such a small difference within the timeframe measured, it is likely disingenuous to present this as an overall change in activity or behaviour and is instead likely representative of minute differences in usage of central heating over this period. It is for this reason, Lordgate Engineering Ltd cannot claim that it has managed to reduce its emissions with respect to natural gas consumption as the amount used over the year falls well within expected variation year-on-year.

Indicated by *Figure 2*, there is substantial evidence to conclude that there has been a large, 60% reduction in Lordgate Engineering Ltd.'s emissions regarding fuel consumption. This has been brought about by the proportionally reduced total amount of driven kilometres as shown in *Table 2.* All in all, this represents a comprehensive effort on behalf of the company in reducing its total driven miles and thereby the emissions it generates in doing so.

As evidenced in *Table 3*, there has been a moderate reduction in yearly electricity consumption. As the total volume of machine-based work has not changed significantly over the measured period, it is reasonable to suggest that the reduction in usage of electricity has been almost entirely as a result of increased efficiency. This trend conforms with company expectations of energy usage based on the purchase of a modern, more efficient laser in Q3 of 2024. This singular change within the company has led to significantly reduced consumption of energy as depicted in *Figure 3.* During the fourth quarter of 2024, the business used 21.8% less electricity than metered in the year previous. This shrinkage in energy expenditure has led to a moderate decrease in emissions.

Finally, as previously stated under *Figure 4* there has been no recorded change in Scope 3 emissions. This is not surprising as the network of companies within Lordgate Engineering Ltd.'s supply chain has not changed significantly within the assessed time frame.

Looking at *Table 4*, a more general Scope-based approach, there is greater clarity in the magnitude of change from 2023. Evidently, while throughout the year the consumption of gas has not changed, the substantial reduction in miles driven has led to our total Scope 1 emissions reducing by 31.4%. This represents a significant achievement on behalf on the company in the combat against climate change. It remains to be seen whether this trend can continue into the next year as now that miles travelled have been reduced, it could be significantly harder to find further sources of "carbon savings".

Emissions summary

In summary of this year's annual sustainability report, there are multiple areas of significant carbon emission reduction. As a collective they represent a significant step towards the company's emission goals. This demonstrates the continual commitment of Lordgate Engineering Ltd in the combat of climate change. As reductions in Scope 1 and 2 emissions sit at 31.4% and 21.8% respectively, we can announce with confidence that we are ahead of schedule in our mission to reduce our Scope 1 emissions by 40% and our Scope 2 emissions by 30% by 2030 as underlined in our emission reduction pledge.

Water usage

Year	Total water usage (m3)
2023	735.663
2024	674.72
Change (%)	-8.3

Table 5: Water Usage in years in last two years

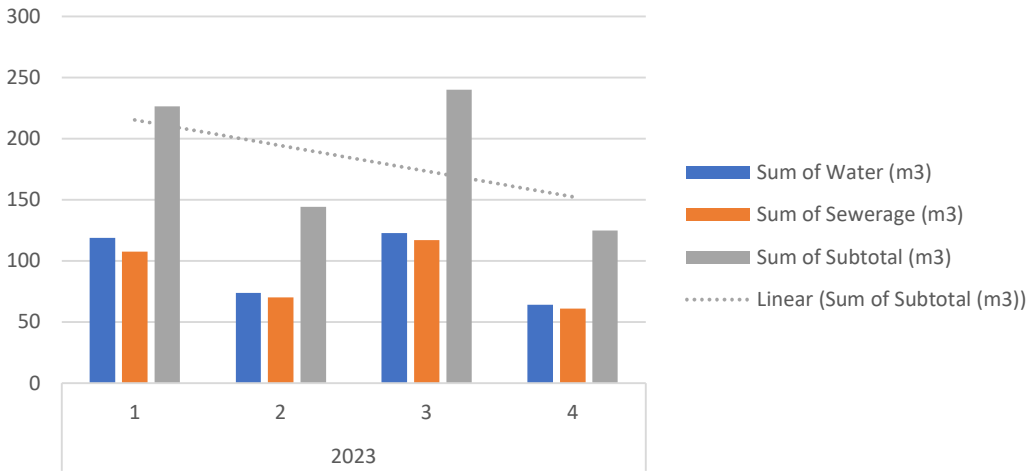

Figure 5:Decrease in water consumption

Water analysis

As indicated in table 5 there was a significant reduction in water usage between the years 2023 and 2024. A reduction of 8.3% follows the trend outlined over the past five years of a steady moderate reduction year-on-year. This is a positive outcome, as water consumption greatly impacts the sustainability of the company. A significant proportion of this change can be attributed to the purchase of a new, more efficient milling machine which utilises less water.

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