Kinetic-ID

Carbon Net Zero Plan 2024-2029

1. Foreword

At Kinetic-ID, we recognise the critical need to address climate change and are dedicated to contributing to a sustainable future. Achieving Carbon Neutrality (CNZ) is not only a responsibility but a key part of our business strategy. The actions we take today will shape a better tomorrow for our business, communities, and the planet.

We are committed to reducing our carbon footprint across direct emissions (Scope 1), indirect emissions from purchased energy (Scope 2), and value chain emissions (Scope 3). Our **Carbon Reduction Plan** sets clear and measurable goals, which focus on energy efficiency, renewable energy, and sustainable supply chain practices.

Our targets include:
- **5%** reduction in emissions by Year 1,
- **15%** reduction by Year 3, and
- **25%** reduction by Year 5.

These milestones are aligned with our goal of achieving **net zero carbon emissions by 2050**, in accordance with global climate action initiatives. To reach these targets, Kinetic-ID will focus on transitioning to renewable energy sources, adopting electric vehicles, and implementing sustainable business practices. We will also engage employees, customers, and partners in supporting this transition.

We are committed to transparency and accountability. This report outlines our Carbon Reduction Plan and establishes the mechanisms for tracking progress, ensuring continuous improvement. Our plan is designed to deliver short-term results while building long-term sustainability and resilience.

By embracing sustainability, we aim to drive operational efficiencies, reduce costs, and foster innovation within our business. We believe that Kinetic-ID's leadership in environmental responsibility will not only reduce our carbon footprint but also create new opportunities for growth and success.

We are confident that through the collective efforts of our team and the support of our stakeholders, Kinetic-ID will meet its carbon neutrality goals and help create a more sustainable future.

Andrew Daly
Chief Executive Officer, Kinetic-ID
August 2024

2. Executive Summary

2.1 Introduction

2.1.1 Kinetic-ID is committed to reducing its greenhouse gas (GHG) emissions across Scope 1, 2, and 3, in alignment with sustainability goals and to mitigate its environmental impact. This report outlines the current emission levels, reduction targets, and recommendations for cutting emissions in the company's operations.

2.2 Scope 1 Emissions Overview

2.2.1 Scope 1 emissions refer to the direct emissions from Kinetic-ID's operations, which include stationary combustion (heating using natural gas), mobile combustion (petrol-powered company vehicles), and fugitive emissions (refrigerant leakage). In 2023, Kinetic-ID's total Scope 1 emissions amounted to 61.87 tonnes CO_2e. The majority of emissions came from mobile combustion, specifically the company's sales fleet, which contributed 45.01 tonnes CO_2e. Stationary combustion from natural gas heating in both the manufacturing plant and the sales office contributed 16.86 tonnes CO_2e. Fugitive emissions were not significant, as Kinetic-ID has minimal air conditioning and refrigeration.

2.2.2 **Reduction Estimate for Scope 1**

> **Year 1 – 58.78** tonnes CO_2e (5% reduction)

> **Year 3 – 52.59** tonnes CO_2e (15% reduction)

> **Year 5 – 46.40** tonnes CO_2e (25% reduction)

2.3 Scope 2 Emissions Overview

2.3.1 Scope 2 emissions, representing indirect emissions from purchased electricity, amounted to 40.54 tonnes CO_2e in 2023. These emissions are driven by electricity usage in the manufacturing plant (34.95 tonnes CO_2e) and sales office (5.59 tonnes CO_2e). The key to reducing Scope 2 emissions lies in transitioning to renewable energy sources and improving energy efficiency.

2.3.2 **Reduction Estimate for Scope 2**

> **Year 1 – 38.51** tonnes CO_2e (5% reduction)

> **Year 3 – 34.46** tonnes CO_2e (15% reduction)

> **Year 5 – 30.41** tonnes CO_2e (25% reduction)

2.4 Scope 3 Emissions Overview

2.4.1 Scope 3 emissions are the largest source of Kinetic-ID's overall carbon footprint, totalling 133.33 tonnes CO_2e. These emissions encompass activities across the company's value chain, including purchased goods and services (44.67 tonnes CO_2e), waste management (1.80 tonnes CO_2e), distribution (45.48 tonnes CO_2e), and employee commuting (41.38 tonne CO_2e). The significant contributions from distribution and commuting emphasize the need for operational changes in logistics and workforce mobility.

2.4.2   Reduction Estimate for Scope 3

> **Year 1 – 126.66 tonnes** CO_2e (5% reduction)

> **Year 3 – 113.33 tonnes** CO_2e (15% reduction)

> **Year 5 – 100 tonnes** CO_2e (25% reduction)

2.5   Main Recommendations for Carbon Reduction

2.5.1   **Distribution & Commuting Emission Reductions (Scope 3):**

> Switch to low-carbon vehicles for UK deliveries and prioritise sea freight over air freight for international shipping.

> Expand remote working options for staff and promote carpooling or the use of electric vehicles.

2.5.2   **Improve Energy Efficiency (Scope 1 & 2):**

> Upgrade heating systems and improve insulation in the manufacturing plant and sales office.

> Transition to electric or hybrid vehicles in the sales fleet to reduce mobile combustion emissions.

> Switch to 100% renewable energy, either through purchasing green electricity or installing on-site solar panels.

2.5.3   **Supply Chain Optimisation (Scope 3):**

> Consolidate shipments to reduce transportation emissions.

> Prioritise sourcing from local suppliers to cut international freight emissions.

2.5.4   **Reduce Waste and Promote Recycling (Scope 3):**

> Increase recycling rates and implement waste reduction initiatives to lower emissions associated with waste disposal.

2.6   Expected CO_2e Reductions

2.6.1   By implementing these strategies, Kinetic-ID is positioned to achieve the following emissions reductions:

> **Year 1 – 11.79 tonnes** CO_2e (5% reduction)

> **Year 3 – 35.36 tonnes** CO_2e (15% reduction)

> **Year 5 – 58.93 tonnes** CO_2e (25% reduction)

2.7   Conclusion

2.7.1   Kinetic-ID's total emissions in 2023 reached 235.74 tonnes CO_2e across Scopes 1, 2, and 3. By adopting the proposed measures and focusing on energy efficiency, fleet modernization, renewable energy, and waste reduction, the company can achieve significant reductions in its carbon footprint. With a clear plan for reducing emissions by 5% in Year 1, 15% by Year 3, and 25% by Year 5, Kinetic-ID is making steady progress toward a more sustainable and low-carbon future.

3. Introduction

3.1 Our Responsibility

3.1.1 At Kinetic we are acutely aware of the pressing need to address climate change and are committed to contributing to global sustainability efforts. As a innovator creating products for the Healthcare and Life Science sectors, we recognise the significant impact our operations can have on the environment. Therefore, we are proud to present our comprehensive Carbon Net Zero (CNZ) plan, which is designed to reduce our carbon emissions and promote a sustainable future for our company and our community.

3.1.2 Our CNZ plan is a roadmap to achieving carbon neutrality, reflecting our dedication to environmental stewardship, operational efficiency, and corporate responsibility. This plan outlines the steps we will take to minimise our carbon footprint through energy efficiency, renewable energy adoption, sustainable manufacturing practices, supply chain decarbonization, and innovative technological solutions. By implementing these measures, we aim to not only meet but exceed current environmental standards, setting a benchmark for small manufacturing companies worldwide.

3.2 Organisational Commitment to Net Zero by 2050

3.2.1 Kinetic-ID is fully committed to achieving Net Zero carbon emissions by 2050, in alignment with the UK government's target. As part of this commitment, we will take progressive steps to reduce our carbon emissions across all aspects of our operations, including manufacturing, logistics, and supply chain management. We will integrate sustainable practices and innovative technologies to minimise our environmental impact, ensuring that we contribute meaningfully to a low-carbon future.

3.3 Our Strategy

3.3.1 In 2024, we published our strategy which outlined five component that we would focus upon. This plan takes those five components and sets out our specific plans to reduce emissions through to 2029.

4. Scope 1 Plan

4.1 Introduction to Direct Emissions (Scope 1)

4.1.1 Scope 1 emissions include direct greenhouse gas (GHG) emissions from sources that are owned or controlled by the company. For Kinetic-ID, Scope 1 emissions primarily arise from **stationary combustion** (natural gas used for heating), **mobile combustion** (company-owned vehicles), and **fugitive emissions** (refrigerant leakage from air conditioning systems). These are essential areas for carbon reduction, as they represent the company's direct contribution to emissions from its operations during 2023 (baseline).

4.2 Scope 1 Emissions: Key Areas for Kinetic-ID

4.2.1 **Stationary Combustion** (On-site Fuel Consumption)

This category includes fuel burned on-site for heating and energy consumption in both the manufacturing plant and the sales office. Kinetic-ID uses natural gas for heating, and no backup generators are used.

> **Manufacturing Plant**
> — Natural Gas Consumption: 82,500 kWh/year
> — Emission Factor: 0.183 kg CO_2e/kWh
> — Total Emissions: 15.10 tonnes CO_2e

> **Sales Office**
> — Natural Gas Consumption: 9,600 kWh/year
> — Emission Factor: 0.183 kg CO_2e/kWh
> — Total Emissions: 1.76 tonnes CO_2e

> **Backup Generator** (Diesel) — Nil return: No backup diesel generators are used.

Total emissions from stationary combustion: 16.86 tonnes CO_2e.

4.2.2 **Mobile Combustion** (Company-owned Vehicles)

Kinetic-ID's mobile combustion emissions come from company-owned petrol-powered vehicles used by the field sales team. There are no delivery vehicles owned by the company.

> **Fuel Consumption for Sales Team** (7 vehicles) — Each vehicle travels: 30,000 miles/year
> — Fuel consumption per vehicle: 3,896.4 litres/year (calculated based on 35 miles/gallon)
> — Emission Factor: 2.31 kg CO_2e/litre
> — Total Emissions per Vehicle: 9.00 tonnes CO_2e

> **Total Emissions for 5 Sales Vehicles:** — 5 × 9.00 tonnes CO2e = 45.01 tonnes CO_2e

> **Company-owned Delivery Vehicles** (Diesel) — Nil return: No company-owned delivery vehicles are used.

Total emissions from mobile combustion: 45.01 tonnes CO_2e.

Summary of Total Scope 1 Emissions			
Source	Emission Factor	Estimated Use	Total Emissions (CO_2e)
Natural Gas (Heating/Manufacturing)	0.183 kg CO_2e/kWh	82,500 kW (Manufacturing)	15.10 tonnes
		9,600 kWh (Sales Office)	1.76 tonnes
Backup Generator (Diesel)	2.67 kg CO_2e/litre	Nil return	0 tonnes
Sales Vehicles (Petrol)	2.31 kg CO_2e/litre	3,896.4 litres/	45.01 tonnes
Delivery Vehicles (Diesel)	2.67 kg CO_2e/litre	Nil return	0 tonnes
Refrigerant Leakage (Air Conditioning)	Varies by GWP factor	Nil return	0 tonnes
Total Scope 1 Emissions			61.87 tonnes CO_2e

4.2.3 **Fugitive Emissions** (Refrigerants, Air Conditioning)

Fugitive emissions arise from the leakage of refrigerants used in air conditioning systems, which have a high Global Warming Potential (GWP). However, Kinetic-ID has minimal air conditioning use, and no refrigeration is used in manufacturing.

› **Air Conditioning Refrigerants** (Leakage)   — Nil return: No significant use of air conditioning or refrigerant systems.

Total emissions from fugitive emissions: 0 tonnes CO_2e

4.3 Reduction Targets for Scope 1 Emissions

4.3.1 To reduce Scope 1 emissions, Kinetic-ID can implement various strategies aimed at optimising fuel use and transitioning to lower-carbon options. The company has set the following reduction targets:

› **Year 1 (5% reduction)**   — Target emissions of **58.78 tonnes CO_2e**

› **Year 3 (15% reduction)**   — Target emissions of **52.59 tonnes CO_2e**

› **Year 5 (25% reduction)**   — Target emissions of **46.40 tonnes CO_2e**

4.4 Main Recommendations for Carbon Reduction in Scope 1

4.4.1 **Improve Energy Efficiency** (Stationary Combustion):

› **Reduce natural gas use:** Upgrade heating systems in both the manufacturing plant and sales office to more energy-efficient models or consider transitioning to electric heating options where feasible.

› **Insulation and energy management:** Improve insulation and energy management in both the manufacturing and office buildings to reduce energy consumption for heating.

Targeted Reduction:

> **Year 1:** 5% reduction in stationary combustion emissions (~0.84 tonnes CO_2e)

> **Year 3:** 15% reduction (~2.53 tonnes CO_2e)

> **Year 5:** 25% reduction (~4.22 tonnes CO_2e)

4.4.2 **Transition to Low-Emission Vehicles** (Mobile Combustion):

> **Electric or hybrid vehicles:** Replace petrol-powered vehicles in the sales fleet with electric or hybrid models to reduce fuel consumption and emissions.

> **Carpooling and route optimisation:** Encourage carpooling among sales staff or optimise travel routes to reduce overall mileage.

Targeted Reduction:

> **Year 1: 5% reduction** in mobile combustion emissions (~2.25 tonnes CO_2e)

> **Year 3: 15% reduction** (~6.75 tonnes CO_2e)

> **Year 5: 25% reduction** (~11.25 tonnes CO_2e)

Estimated CO_2e Reductions in Year 1, Year 3, and Year 5

Area	Baseline Emissions (tonnes CO_2e)	Year 1 Reduction	Year 2 Reduction	Year 5 Reduction
Stationary Combustion	16.86	0.84 tonnes CO_2e	2.53 tonnes CO_2e	4.22 tonnes CO_2e
Mobile Combustion	45.01	2.25 tonnes CO_2e	6.75 tonnes CO_2e	11.25 tonnes CO_2e
Fugitive Emissions	0.00	N/A	N/A	N/A
Total CO_2e Reductrion	61.87	3.09 tonnes CO_2e	9.28 tonnes CO_2e	15.47 tonnes CO_2e

4.5   Conclusion

4.5.1   Kinetic-ID's total Scope 1 emissions amount to **61.87 tonnes CO_2e** annually. By implementing the recommended carbon reduction strategies—such as upgrading heating systems, switching to electric vehicles, and optimising fuel usage—the company can reduce its emissions by **3.09 tonnes CO_2e in Year 1, 9.28 tonnes CO_2e by Year 3, and 15.47 tonnes CO_2e by Year 5,** helping Kinetic-ID move closer to its sustainability goals.

5. Scope 2 Plan

5.1 Introduction to Indirect Emissions (Scope 2)

5.1.1 Scope 2 emissions are indirect greenhouse gas (GHG) emissions resulting from the purchase of electricity, heat, or cooling that the company consumes but does not produce directly. These emissions are generated from the production of energy by external suppliers, typically through fossil fuel combustion. For Kinetic-ID, Scope 2 emissions are primarily related to **electricity consumption** in the **manufacturing plant** and **sales office** 2023 (baseline).

5.2 Scope 2 Emissions: Key Areas for Kinetic-ID

5.2.1 **Electricity Consumption** (Manufacturing Plant and Sales Office)
Electricity consumption is a key source of Scope 2 emissions, as Kinetic-ID uses electricity to power its **manufacturing operations** and maintain its office environment.

The company uses grid electricity for both its manufacturing plant and sales office.

> **Assumptions** - The emission factor for UK electricity is 0.233 kg CO_2e/kWh (DEFRA 2023).

> **Electricity Usage** - Manufacturing Plant: 150,000 kWh/year
> - Sales Office: 24,000 kWh/year

5.3 Emissions Calculations

5.3.1 **Manufacturing Plant Electricity Consumption**

> **Electricity Consumption** 150,000 kWh/year

> **Emission Factor** 0.233 kg CO_2e/kWh

> **Total Emissions** 150,000 kWh**x**0.233 kg CO2e/kWh = 34,950 kg CO_2e
> **= 34.95 tonnes CO$_2$e**

5.3.2 **Sales Office Electricity Consumption**

> **Electricity Consumption** 24,000 kWh/year

> **Emission Factor** 0.233 kg CO_2e/kWh

> **Total Emissions** 24,000 kWh**x**0.233 kg CO_2e/kWh=5,592 kg CO_2e
> **= 5.59 tonnes CO$_2$e**

Summary of Total Scope 2 Emissions

Source	Electricity Use	Emission Factor	Total Emissions (CO_2e)
Manufacturing Plant	150,000 kWh/year	0.233 kg CO_2e/kWh	34.95 tonnes
Sales Office	24,000 kWh/year	0.233 kg CO_2e/kWh	5.59 tonnes
Total Scope 2 Emissions			**40.54 tonnes CO$_2$e**

5.4 Reduction Targets for Scope 2 Emissions

5.4.1 Kinetic-ID has set the following reduction targets to lower its Scope 2 emissions by adopting energy efficiency measures and shifting to renewable energy sources:

> **Year 1 (5% reduction):** Target emissions of **38.51 tonnes CO$_2$e**

> **Year 3 (15% reduction):** Target emissions of **34.46 tonnes CO$_2$e**

> **Year 5 (25% reduction):** Target emissions of **30.41 tonnes CO$_2$e**

5.5 Main Recommendations for Carbon Reduction in Scope 2

5.5.1 **Switch to Renewable Energy:**

> **Purchase renewable electricity:** Shift to 100% renewable energy from the grid or invest in on-site renewable energy generation (e.g., solar panels) to dramatically lower Scope 2 emissions.

> **Green tariffs:** Work with energy providers to switch to green tariffs, ensuring that the electricity consumed comes from renewable sources.

Targeted Reduction:

> **Year 1:** 5% reduction in electricity-related emissions (~2.03 tonnes CO$_2$e)

> **Year 3:** 15% reduction (~6.08 tonnes CO$_2$e)

> **Year 5:** 25% reduction (~10.14 tonnes CO$_2$e)

5.5.2 **Energy Efficiency Improvements:**

> **Upgrade lighting and equipment:** Install energy-efficient LED lighting, upgrade to energy-efficient appliances, and implement energy management systems to reduce electricity consumption in both the manufacturing plant and sales office.

> **Building insulation:** Improve building insulation and HVAC systems to reduce electricity consumption related to heating and cooling.

Targeted Reduction:

> **Year 1:** 5% reduction in electricity consumption (~2.03 tonnes CO$_2$e)

> **Year 3:** 10% reduction (~4.05 tonnes CO$_2$e)

> **Year 5:** 15% reduction (~6.08 tonnes CO$_2$e)

5.5.3 **Behavioural Changes:**

> **Employee engagement:** Encourage employees to adopt energy-saving behaviours such as turning off lights, equipment, and HVAC systems when not in use.

> **Energy audits:** Conduct regular energy audits to identify areas where additional energy savings can be made.

Targeted Reduction:

> Although behaviour change is more difficult to quantify, it could contribute an additional **1-2% reduction** in overall electricity consumption.

Estimated CO$_2$e Reductions in Year 1, Year 3, and Year 5

Area	Baseline Emissions (tonnes CO$_2$e)	Year 1 Reduction	Year 2 Reduction	Year 5 Reduction
Renewable Energy Adoption	40.54	2.03 tonnes CO$_2$e	6.08 tonnes CO$_2$e	10.14 tonnes CO$_2$e
Energy Efficiency Measures	40.54	2.03 tonnes CO$_2$e	4.05 tonnes CO$_2$e	6.08 tonnes CO$_2$e
Behavioural Changes	40.54	0.81 tonnes CO$_2$e	1.22 tonnes CO$_2$e	1.62 tonnes CO$_2$e
Total CO$_2$e Reduction	40.54	4.87 tonnes CO$_2$e	11.35 tonnes CO$_2$e	17.84 tonnes CO$_2$e

5.6 Conclusion

5.6.1 Kinetic-ID's total Scope 2 emissions amount to 40.54 tonnes CO$_2$e annually. By implementing the recommended carbon reduction strategies—such as switching to renewable energy, improving energy efficiency, and fostering energy-saving behaviours—the company can reduce its emissions by 4.87 tonnes CO$_2$e in Year 1, 11.35 tonnes CO$_2$e by Year 3, and 17.84 tonnes CO$_2$e by Year 5.

These measures will help Kinetic-ID significantly lower its Scope 2 emissions and move towards a more sustainable, energy-efficient future.

6. Scope 3 Plan

6.1 Introduction to Scope 3 Value Chain Emissions

6.1.1 Scope 3 emissions are the indirect greenhouse gas (GHG) emissions that occur throughout a company's value chain, such as those resulting from purchased goods and services, waste management, employee commuting, and distribution. Although these emissions are indirect, they make up a significant portion of a company's total carbon footprint. For a small and medium enterprise (SME) like Kinetic-ID, tackling Scope 3 emissions is critical for achieving overall carbon reduction and sustainability goals.

6.1.2 Kinetic-ID has identified key areas that contribute to its Scope 3 emissions: purchased goods and services, waste management, distribution (transportation of goods), and employee commuting. These areas have been chosen for analysis because they represent the main sources of emissions for the company and provide clear opportunities for carbon reduction against the 2023 (baseline).

6.2 Scope 3 Emissions: Key Areas for Kinetic-ID

6.2.1 **Supply Chain** (Purchased Goods and Services)

This category includes emissions from goods sourced locally and internationally. Emissions were calculated based on transportation methods such as road transport within the UK and sea freight from China.

> **UK Supply Chain:** 43.96 tonnes CO_2e

> **International Supply Chain:** 0.71 tonnes CO_2e (0.39 tonnes CO_2e from European shipments, 0.32 tonnes CO_2e from Chinese shipments)

Total emissions from purchased goods and services: 44.67 tonnes CO_2e

6.2.2 **Waste Management**

Kinetic-ID generates both landfill and recycled waste, and the emissions were calculated using typical waste densities and emissions factors.

> Landfill waste emissions: 1.75 tonnes CO_2e

> Recycled waste emissions: 0.052 tonnes CO_2e

Total emissions from waste: 1.80 tonnes CO_2e

6.2.3 **Distribution** (Transporting Goods)

Distribution emissions include UK deliveries and international shipments.
The relevant emission factors for road transport, air freight, and sea freight were used.

> **UK deliveries:** 9.11 tonnes CO_2e

> **Other deliveries** (air): 31.02 tonnes CO_2e

> **European deliveries:** 4.46 tonnes CO_2e

> **Other deliveries** (sea freight): 0.89 tonnes CO_2e

Total emissions from distribution: 45.48 tonnes CO_2e

6.2.4   Employee Commuting

Kinetic-ID's 25 staff members commute to work based on the following distribution: 70% live within 10 miles, 20% within 30 miles, and 10% work from home. Emissions were calculated assuming most employees commute by car.

> **Staff living within 10 miles:** 22.57 tonnes CO_2e

> **Staff living within 30 miles:** 18.81 tonnes CO_2e

> **Staff working from home:** 0 tonnes CO_2e (excluded from emissions)

Total emissions from commuting: 41.38 tonnes CO_2e

Summary of Total Scope 3 Emissions	
Catergory	Total Emissions (CO_2e)
Supply Chain	44.67
Wwaste Management	1.80
Distribution	45.48
Emplyee Commuting	41.38
Total Scope 2 Emissions	133.33

6.3   Reduction Targets for Scope 3 Emissions

To achieve a steady reduction in carbon emissions, Kinetic-ID has set the following targets for Scope 3 emission reductions:

> **Year 1 (5% reduction):** Target emissions of **126.66 tonnes CO_2e**.

> **Year 3 (15% reduction):** Target emissions of **113.33 tonnes CO_2e**.

> **Year 5 (25% reduction):** Target emissions of **100 tonnes CO_2e**.

6.4   Main Recommendations for Carbon Reduction with Estimated CO_2e Reduction Levels

6.4.1   Supply Chain Optimisation

> **Consolidate shipments:** Reducing the frequency of small, fragmented shipments from international and UK-based suppliers can lower emissions from transportation.

> **Local sourcing:** Shifting sourcing from international to local or regional suppliers, particularly for high-emission goods from China, will significantly reduce transport-related emissions.

> **Supplier engagement:** Engage with key suppliers to encourage them to adopt greener production methods and renewable energy, potentially reducing emissions from the manufacturing of purchased goods.

Targeted Reduction:

> **Year 1:** 5% reduction in supply chain emissions (~2.23 tonnes CO_2e)

> **Year 3:** 10% reduction (~4.47 tonnes CO_2e)

> **Year 5:** 20% reduction (~8.93 tonnes CO_2e)

6.4.2 Waste Reduction

> **Increase recycling rates:** By increasing the proportion of waste that is recycled, emissions from landfill disposal can be significantly reduced.

> **Reduce waste generation:** Implement strategies to reduce waste at the source, such as optimising packaging and production processes, reducing the volume of materials going to waste.

Targeted Reduction:

> **Year 1:** 10% reduction in waste emissions (~0.18 tonnes CO_2e)

> **Year 3:** 20% reduction (~0.36 tonnes CO_2e)

> **Year 5:** 30% reduction (~0.54 tonnes CO_2e)

6.4.3 Distribution Improvements

> **Switch to low-carbon transport:** Implement the use of electric or hybrid vans for UK deliveries to reduce emissions from local transport.

> **Sea freight over air freight:** Prioritise sea freight for international shipments (particularly to the US and Australia) as it emits significantly less CO_2e than air freight.

> **Optimise delivery routes:** By consolidating deliveries or improving logistical efficiency, Kinetic-ID can reduce both UK and international transportation emissions.

Targeted Reduction:

> **Year 1:** 7% reduction in distribution emissions (~3.18 tonnes CO_2e)

> **Year 3:** 15% reduction (~6.82 tonnes CO_2e)

> **Year 5:** 25% reduction (~11.37 tonnes CO_2e)

6.4.4 Commuting Emission Reductions

> **Increase remote working:** Expanding the remote work policy can reduce the commuting emissions of staff who live far from the office.

> **Carpooling and alternative transport:** Encourage staff to carpool, use public transportation, or switch to electric vehicles where possible, further reducing commuting emissions.

Targeted Reduction:

> **Year 1:** 5% reduction in commuting emissions (~2.07 tonnes CO_2e)

> **Year 3:** 15% reduction (~6.21 tonnes CO_2e)

> **Year 5:** 25% reduction (~10.35 tonnes CO_2e)

Estimated CO$_2$e Reductions in Year 1, Year 3, and Year 5

Area	Baseline Emissions (tonnes CO$_2$e)	Year 1 Reduction	Year 2 Reduction	Year 5 Reduction
Supply Chain	44.67	2.23 tonnes CO$_2$e	4.47 tonnes CO$_2$e	8.93 tonnes CO$_2$e
Waste Management	1.80	0.18 tonnes CO$_2$e	0.36 tonnes CO$_2$e	0.54 tonnes CO$_2$e
Distribution	40.54	3.18 tonnes CO$_2$e	6.82 tonnes CO$_2$e	11.37 tonnes CO$_2$e
Employee Commuting	41.38	2.07 tonnes CO$_2$e	6.21 tonnes CO$_2$e	10.35 tonnes CO$_2$e
Total CO$_2$e Reduction	**133.33**	**7.66 tonnes CO$_2$e**	**17.86 tonnes CO$_2$e**	**31.19 tonnes CO$_2$e**

6.5   Conclusion

6.5.1   By implementing these strategies, Kinetic-ID can achieve meaningful reductions in Scope 3 emissions, amounting to **7.66 tonnes CO$_2$e in Year 1, 17.86 tonnes CO$_2$e by Year 3**, and **31.19 tonnes CO$_2$e by Year 5**. These reductions align with the company's overall target to reduce emissions by 5% in Year 1, 15% by Year 3, and 25% by Year 5, ensuring Kinetic-ID makes steady progress towards a more sustainable and low-carbon future.

7. Our Approach to Monitoring, Measuring & Reporting

7.1 Introduction

7.1.1 As an SME, Kinetic-ID is committed to reducing its carbon footprint across Scope 1, 2, and 3 emissions, in alignment with its sustainability goals. To ensure that the targets set in our **Carbon Reduction Plan** are met, we will implement a robust system for monitoring, measuring, and reporting our progress. This approach will not only help us track the effectiveness of our carbon reduction initiatives but also enable transparency and accountability, which are critical in maintaining stakeholder trust.

7.2 Monitoring Emissions

7.2.1 Monitoring will be a key aspect of ensuring that we stay on track with our carbon reduction goals. For a company of our size, simplicity and accuracy are paramount, and as such, we will focus on developing a streamlined system that integrates data from key areas of our operations.

> **Scope 1 Monitoring:** We will monitor direct emissions from **stationary combustion** (natural gas used for heating) and **mobile combustion** (petrol-powered vehicles). For natural gas consumption, we will rely on utility bills and smart meters, ensuring that the data is regularly collected and reviewed. Mobile emissions will be tracked through vehicle mileage logs maintained by the sales team, and petrol usage will be cross-referenced with fuel receipts to ensure accuracy.

> **Scope 2 Monitoring: Electricity consumption from our manufacturing plant** and **sales office** will be monitored through energy bills and smart meters, which provide real-time consumption data. Transitioning to renewable energy sources will be monitored by verifying green energy contracts and ensuring energy providers are certified to supply 100% renewable energy.

> **Scope 3 Monitoring:** For Scope 3 emissions, which include **purchased goods and services, waste disposal, distribution**, and **employee commuting**, we will work closely with suppliers, transportation partners, and employees to gather data. Supplier questionnaires and carbon assessments will be used to track emissions from upstream activities, while commuting and business travel will be tracked through employee reporting systems, encouraging remote work where feasible. Additionally, waste generation will be monitored through records of landfill and recycling tonnage.

7.3 Measuring Emissions

To measure our emissions accurately, Kinetic-ID will use established emission factors from reliable sources such as the **DEFRA emission factors database.** By applying these factors to our energy usage, fuel consumption, and other tracked data, we can convert activity data into **CO_2e (carbon dioxide equivalent)** emissions.

> **Scope 1 & 2 Measurement:** Emission factors specific to natural gas and electricity consumption in the UK will be applied to the data from our utility bills and vehicle fuel usage. These calculations will provide us with regular updates on our Scope 1 and 2 emissions.

> **Scope 3 Measurement:** Measuring Scope 3 emissions requires collaboration with suppliers and partners. We will leverage industry-specific emission factors for transport, waste disposal, and material usage. Additionally, we will track supplier emissions based on their reported data, ensuring we measure emissions accurately from purchased goods and services.

7.4 Reporting Emissions

7.4.1 Reporting will occur regularly, providing both internal and external stakeholders with updates on our progress. As an SME, we aim to maintain a balance between thorough reporting and operational efficiency.

> **Internal Reporting:** Progress will be reviewed quarterly by the sustainability team, which will consolidate data from various departments into a comprehensive report. This report will highlight areas where we are meeting targets and identify where additional actions may be necessary. These internal reviews will ensure that the team stays on track with the carbon reduction goals set for Year 1, Year 3, and Year 5.

> **External Reporting:** As we grow, we will seek to produce a bi-annual **Sustainability Report**, detailing the emissions reductions achieved across Scope 1, 2, and 3. This report will be shared with key stakeholders, including employees, customers, and partners, providing transparency on our progress. It will also include details on the impact of implemented initiatives, such as energy efficiency improvements and the transition to electric vehicles.

7.5 Continuous Improvement

7.5.1 Finally, we recognise that sustainability is a dynamic process, and Kinetic-ID will remain committed to **continuous improvement**. Annual audits of our carbon data will be conducted to ensure accuracy and identify new opportunities for reduction. We will also update our reporting tools and systems as necessary, ensuring that we can scale our efforts and integrate new technologies as they become available.

7.5.2 By establishing a clear and systematic process for monitoring, measuring, and reporting, Kinetic-ID will not only meet its carbon reduction commitments but also foster a culture of sustainability within the organisation. This approach will ensure that we remain accountable and transparent in our journey toward carbon neutrality.

Kinetic-ID