



Carbon Reduction Plan

Revision	Date	Details
1	July 2023	New document. Carbon Reduction Plan
2	Nov 2023	Updated predicted emissions target
3	April 2025	Full review, additional objectives, change in title and numbering due to change in management system numbering convention
4	August 2025	Inclusion of Loram UK Limited (LUKL) commitment to Science Based Targets
5	Sept 2025	Inclusion of method of calculation, alignment to UN Sustainability Development Goals
6	March 2026	Inclusion of SBTi validated targets

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This Carbon Reduction Plan contains strategies and initiatives aimed at reducing greenhouse gas emissions, particularly carbon dioxide (CO₂), to mitigate climate change and its impacts. This plan is the LUKL pledge and commitment to achieve net zero emissions by 2040 for activities and operations within the United Kingdom.

1 Purpose

The Carbon Reduction Plan forms part of the LUKL Environmental Management System (EMS) and supports the LUKL Sustainability Policy. The purpose of this document is to outline how LUKL will measure, monitor, report and manage its carbon output to achieve its commitment to reaching Net Zero by 2040. The key purposes of doing this are to:

- Mitigate climate change
- Protect the environment
- Promote public health
- Enhance energy security
- Foster economic opportunities
- Demonstrate leadership and responsibility
- Ensure long-term sustainability

2 Scope

P2.1 The arrangements and requirements of this Carbon Reduction Plan cover all LUKL locations under LUKL control, all LUKL operational assets, and activities. Carbon accounting and management encompasses all recognised greenhouse gas emissions including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and the group of fluorinated gases.

2.2. The scope of this Carbon Reduction Plan focuses on emissions which fall into Scope 1, 2 or 3 as defined in the Greenhouse Gas (GHG) Protocol Corporate Standard; adopted by the UK Government to align with Global climate agreements such as the Paris Agreement and supports national targets.

- **Scope 1 Emissions:** These are direct emissions from sources that are owned or controlled by LUKL. This includes emissions from combustion of fossil fuels in owned or controlled facilities, such as the use of diesel in locomotives.
- **Scope 2 Emissions:** These are indirect emissions associated with the generation of purchased electricity, heat, or steam that LUKL consumes. These emissions occur at the power plants or facilities where electricity is generated and are typically outside our direct control but are influenced by its energy purchasing decisions.
- **Scope 3 Emissions:** These are indirect emissions that occur in the value chain of LUKL, including both upstream and downstream activities. This encompasses emissions from sources such as purchased goods and services, transportation of products, employee commuting, business travel, waste generation, and other activities associated with LUKL's operations but occurring outside our direct control.

3 Commitment and Accountability

3.1 The Managing Director of LUKL, supported by the Senior Leadership Team (SLT) has committed LUKL to achieving Net Zero by 2040.¹

¹ LUKL is committed to achieving Net Zero within LUKL operational boundary defined with the SBTi and the GHG Protocol. Where LUKL provide a service to a supplier i.e. to maintain plant and equipment LUKL will work in collaboration with asset owners to develop net zero strategies for items outside of LUKL control or ownership.



- 3.2 LUKL has committed to Science Based Targets through the Science Based Targets initiative (SBTi). SBTi are the accreditation body who have established the Corporate Net-Zero Standard for what counts as a credible science-based greenhouse gas reduction target.
- 3.3 LUKL conforms its carbon accounting with the GHG Protocol Corporate Standard and relevant SBTi requirements. This includes an annual disclosure of emissions and progression towards validated targets.

4 Responsibilities

LUKL have identified the following roles/ departments who are required to be involved with Carbon reduction and management, using the RACI (Responsible (R), Accountability (A), Consulted (C), Informed (I)) below:

Role	Requirements				
	Gather company data and conduct carbon accounting following the GHG Protocol Standard and local guidelines.	Adhere to LUKL company procedures e.g., waste and recycling, fleet management.	Ensure records are available from emissions sources and suppliers.	Provision and undertaking of Environmental and Sustainability training.	Identify & implement efficiencies within the Supply Chain, operations and services.
Environment & Sustainability lead.	A/R	R	C/I	C/I	C
Head of Business Services	C	R	A/R		R
Head of Finance	C	R	R		A
Head of Supply Chain	C	R	A		A/R
Depot Support Manager	C	R	R		C/I
Head of HR				A	
All employees	I	R		R	I
Line/People Managers	I	A		R	I

5 Methodology

5.1 Baseline year

To understand our impact, LUKL undertook an initial baseline assessment for 2024. This provided a measurement of the total Carbon Dioxide Equivalent (CO₂e) of LUKL locations, and activities.

LUKL reviewed and collated its data from internal and external sources such as energy suppliers, waste management organisations and third parties e.g., Landlord





This baseline assessment highlighted LUKL reliance on such things as fossil fuels, which produce high quantities of Scope 1 emissions and therefore there is an opportunity to move to cleaner resources.

The output of this assessment also provided LUKL with visibility of its carbon emissions impact across the organisation allowing LUKL to benchmark itself against industry and offered/offers opportunities for improvement as we move forward to be a proactive sustainable leader in our industry.

2024 Baseline year	
Emissions	TOTAL (tCO ₂ e)
Scope 1	9012.75
Scope 2	239.00
Scope 3	4246.62
Scope 1, 2 and 3 total emissions	13498.38

The 2024 baseline assessment was conducted with a limited scope of activities, due to lack of available information and active monitoring in the period. Subsequently, as part of continuous improvement LUKL have expanded the scope of monitoring to provide increased visibility and accuracy of reporting in the future.

5.2 Protocols and emission factor sources

When conducting carbon accounting, LUKL will ensure all greenhouse gas emissions will be calculated and reported in accordance with the GHG Protocol Corporate Standard. Where relevant, particularly for rail-specific operations and electricity use, emission factors will also align with the rail industry guidance for carbon accounting. This ensures consistency, transparency and comparability of emission data across the company’s activities.

Carbon factors are derived from the UK government GHG conversion factors (DESNZ & DEFRA) for company reporting. The UK government publishes updated conversion factors annually and may show slight changes over years due to external factors such as the change in quantity of green energy being used in the UK electrical grid. By using these published GHG conversion factors, LUKL aligns its reporting with all other companies completing carbon accounting across the UK.

5.3 Calculations and frequency

The source data/quantity must be credible, reliable, from a variety of sources, and available in a recognised format to calculate an appropriate emissions figure (CO₂e); this can be derived from the UK government GHG conversion factors. The following calculation is used for sources that produce emissions that fall within the remit of scope 1, 2 and 3:

$$\text{Activity data/quantities (Litres/KWh/tonnes) x Relevant emission factor (kg of CO}_2\text{e per unit) = Total activity emissions (kg CO}_2\text{e)}$$

It is important to note, that great care must be taken if quantity units are required to be converted into different units, for example litres into kilograms. Physical properties play a role in conversion factors like density and must be included for accurate results.



LUKL will produce a carbon emission dashboard and report quarterly for the calendar year. These quarterly reports will form the annual carbon emissions report, which will be disclosed publicly for transparency and accountability.

Where possible, primary data will be used in the calculation on emissions to produce the most accurate, reliable and transparent emission reporting. LUKL recognises that in some instances secondary data may be used where primary data is not available. This secondary data may take the form of spend based calculations or calculated industry averages. In all instances, LUKL will always report using the most accurate and recognised data.

6 Data collection and storage

6.1 Data sources

To ensure accuracy and reliability LUKL uses credible sources of data to work out quantities of activities e.g., driving a van is the activity, this activity would be measured using the primary data source of litres of fuel used in that vehicle (i.e., the quantity of the activity and, from this quantity of activity the emissions related to the activity of litres of fuel in a van can be calculated, along with the recognised carbon factor.

Data sources can include, but are not limited to, supplier invoices, fuel card accounts and waste transfer notes, where a favourable degree of reliability can be achieved. Where possible these sources will be cross referenced with other sources including internal logs allowing for quality assurance as the carbon accounting process takes place.

The Environment & Sustainability lead, acting as the carbon accountant, works in collaboration with multiple internal departments within LUKL, including but not limited to, supply chain, finance, and business services to collate its emissions figures, identify carbon reduction opportunities and ultimately reduce its carbon emissions and footprint.

Internal data collection, responsibilities and reporting are outlined in the LUKL Greenhouse Gas (GHG) Data Requirements, Ownership & Responsibilities document.

6.2 Data Storage and retention

All data included in the carbon accounting process such as reports, dashboards and data sources will be stored within LUKL HSQE SharePoint, organised into yearly and quarterly sections. Access to this area of the SharePoint will be limited to persons involved in the carbon accounting process only. Requests for access or information regarding this can be made to the Environment & Sustainability lead.

To ensure compliance with audit requirements LUKL will retain all carbon data involved in the carbon accounting process for a minimum of 6 years.

6.3 Correction of data error

Should a significant error be noted in reporting this will trigger a recalculation of relevant figures by the carbon accountant. There is no limit as to the data timeframe, but the recalculation will only go back to the baseline year i.e., 2024. Any errors in data or where data has been recalculated due to errors will be communicated to relevant parties and republished with the recalculation as an appendix in the interest of transparency and clarity. In the event of recalculation, this may require the re-evaluation of the SBT's with SBTi.



7 Science Based Targets (SBT)

Loram UK has the following validated Science Based Targets from SBTi:

Overall Net-Zero Target: Loram UK commits to achieve net-zero greenhouse gas emissions across the value chain by 2040.

Near-Term Targets: Loram UK commits to reduce absolute scope 1 and 2 GHG emissions 42.0% by 2030 from a 2024 base year. Loram UK also commits to reduce absolute scope 3 GHG emissions 25.0% within the same timeframe.

Long-Term Targets: Loram UK commits to reduce absolute scope 1 and 2 GHG emissions 90.0% by 2040 from a 2024 base year. Loram UK also commits to reduce absolute scope 3 GHG emissions 90.0% within the same timeframe.

Temperature alignment (based on scope 1 and 2 targets): 1.5°C

8 Objectives and Initiatives

An initial schedule of progression has been produced to support LUKL to achieve its validated SBTs. This schedule sets yearly targets for Scope 1 & 2 reductions, Scope 3 and overall emissions.

Year	Scope 1+2 Max (kg)	Scope 3 Max (kg)	Total Max (kg)
2024	9,251,750	4,246,620	13,498,380
2025	8,604,130	4,069,680	12,673,810
2026	7,956,510	3,892,740	11,849,250
2027	7,308,890	3,715,790	11,024,680
2028	6,661,270	3,538,850	10,200,120
2029	6,013,640	3,361,910	9,375,550
2030	5,366,020	3,184,965	8,550,985
2031	4,921,930	2,908,930	7,830,860
2032	4,477,840	2,632,900	7,110,740
2033	4,033,740	2,356,870	6,390,610
2034	3,589,650	2,080,840	5,670,490
2035	3,145,550	1,804,810	4,950,360
2036	2,701,450	1,528,780	4,230,230
2037	2,257,370	1,252,750	3,510,120
2038	1,813,340	976,720	2,790,060
2039	1,369,260	700,690	2,069,950
2040	925,175	424,662	1,349,837



To support the business in the understanding and reduction of emissions LUKL have published its Sustainability Strategy document and has established a five-year program of initiatives. These also align with the UN Sustainable Development Goals (SDGs) and RSSBs Sustainable Rail Blueprint (SRB).

Obj.	2025	2026	2027	2028	2029
A.	Undertake air quality monitoring in the RTC- improve efficiency of control systems and develop process in conjunction with our clients to reduce emissions from test programs (Scope 1)	Reduce emissions and roll out use of electric 08e Shunter. (Scope 1)	Reduce the use of solvent paint systems and increase water-based alternatives. (Scope 1).	Hydrotreated Vegetable Oil (HVO) fuels used. (Scope 1)	Lead industry wide collaborative initiative to recycle grind dust and waste steel as part of circular economy.
B.	Improve Loram’s contribution to the recycling management of waste at the RTC & Loram house offices. Zero waste to landfills. (Scope 3).	Energy saving & efficiency initiatives such as full use of LED lighting and rainwater collection. (Scope 2).	Eliminating single use plastics from the supply chain where reasonably practical. (Scope 3).	Introduction of Electric and Plug in Hybrid Electric Vehicles (PHEV) to the van fleet. (Scope 1 & 3).	Increase and protect biodiversity within our sphere of influence through adoption, sponsorship and direct action. (UN SDG)
C.	Procurement engagement with Supply chain – inclusion of commitment to Carbon reduction and sustainability in supplier onboarding and review process. (Scope 3).	Identify potential of carbon offset schemes for LUKL	100% renewable electricity supply. (Scope 2).	Achieved ISO 50001 Energy Management and/or ISO 14064-1 GHG management and reporting.	Establish carbon offset program in the community, improving our local environment as part of corporate social responsibility (CSR)

9 Reporting and disclosure

LUKL will produce an internal annual report, which will be published on the HSQE SharePoint and briefed to the Senior Management Team. The annual report consists of a Carbon Dashboard and covers all LUKL activities.

In the interest of transparency, continued collaboration with SBTi, and to demonstrate our commitment, LUKL shall publicly report and disclose our carbon emissions covering all three scopes for the previous calendar year, this will be detailed within a full carbon emissions report. This will be published on the LUKL external website.

Where required LUKL will work in collaboration with its clients to produce contract specific carbon reduction plans, reporting on these during the appropriate contract review meetings.

10 Training and awareness

LUKL takes a structured approach to environmental training including carbon literacy. Individual competence and understanding may include but are not limited to, GHG protocol,



carbon emissions/ factors. Awareness and training requirements are depending on roles and requirements.

Awareness communication and learning will take the form of toolbox talks and alerts issued to all employees within LUKL.

LUKL will maintain a dedicated subject matter expert (SME) for environment and sustainability subjects, including carbon accounting, in the form of an Environment and Sustainability lead. They will be appropriately qualified and competent to conduct their duties and will assist in the awareness and training of those within LUKL.

11 Monitoring and Audit

Progression of initiatives will be monitored through inspection and audit regimes by the HSQE department. External bodies will undertake audits are required to ensure LUKL remains accountable. Progression towards SBTs will be tracked through LUKL carbon accounting dashboard.

12 References

- RSSB Sustainable Rail Strategy & Blueprint
- Rail Carbon Tool (RSSB & AECOM)
- Department for Energy Security and Net Zero (DESNZ) (annual report) – UK Government GHG conversion factors for company reporting.
- Procurement Policy Note 06/21: Taking account of Carbon Reduction Plans in the procurement of major government contracts.
- GHG Protocol Corporate Standard.
- GHG Protocol Corporate Value Chain (Scope 3) Standard
- GHG Protocol Scope 2 Guidance
- Science Based Targets initiative



13 Briefing Sheet/Record of Change

Document details			
Reference:	LUKL- PRO-HSQE-002		
Name:	Carbon Management		
Revision Number	6	Supersedes Doc/Rev. No	LUKL- PRO-HSQE-002 Rev 5
Update date:	September 2025		
Loram UK departments Affected (Select all that apply)			
<input checked="" type="checkbox"/> Rail Operations - Train Drivers UK <input checked="" type="checkbox"/> Rail Operations - Shunters UK <input checked="" type="checkbox"/> Rail Operations - Operational Control UK <input checked="" type="checkbox"/> Rail Grinding <input checked="" type="checkbox"/> Rail Grinding - Field Support Engineer UK <input checked="" type="checkbox"/> Apprentices <input checked="" type="checkbox"/> Maintenance <input checked="" type="checkbox"/> New Build / Projects <input checked="" type="checkbox"/> Supply Chain & Logistics <input checked="" type="checkbox"/> Engineering Services <input checked="" type="checkbox"/> HSQE <input checked="" type="checkbox"/> Commercial Sales & Marketing <input checked="" type="checkbox"/> Finance <input checked="" type="checkbox"/> Business Services <input checked="" type="checkbox"/> HR <input checked="" type="checkbox"/> SMT <input checked="" type="checkbox"/> IT			
Reason for update			
Inclusion of SBTs validated by SBTi.			
Summary of Key Changes			
Addition of SBTs by SBTi and emissions reduction schedule.			