



Lee Valley Foods Ltd

Basic · Scope 1 & 2 Inventory

FY 2025 · REPORT ID c1b85587

Factor Pack v2.6.15 · USEEIO Supply Chain v1.3 (USD 2022) · EPA Hub 2025 · eGRID 2023 · EPA WARM v16 · EIA CBECS 2018 · EEA 2024 (EU grids) · DESNZ 2026 (UK) · SEAI 2025 (IE) · CO2emissiefactoren 2026 (NL) · NGA 2026 (AU) · IVL 2025 (SE) · EEA 2024 (BE) · Defra/Leeds 2023 (UK Scope 3) · CEDA by Watershed 2024/2025 (Scope 3 outside the US and UK)

Prepared by aisustainablefuture.com carbon engine 2.5 on behalf of Lee Valley Foods Ltd.

Organizational boundary: Operational control · Base year: 2025

This inventory has not been subject to third-party verification.

Sample report: the company, its ledger and its figures are fictional.

§ 0 EDITOR'S NOTE ON THE FY 2025 INVENTORY

auditor brief

This report documents a footprint of 314.0 tCO2e across the FY 2025 reporting period, decomposed and cited line by line in the pages that follow. Scope 1 (direct combustion) accounts for 73% of the total, driven principally by Natural Gas at 133.0 tCO2e. Of 178 classified rows, 0% used activity-based factors (±5-10% accuracy) and the balance used spend-based factors (±25-40%, an engineering estimate for the method - §7.3.2 sanctions economic-value data and does not quantify its error); spend-weighted, 0% of the total came from high-confidence vendor or category matches. The pages that follow carry the full factor provenance, the transaction-level ledger and the methodology - the material an assurance engagement would start from, not a substitute for one.

§ 0.1 EMISSIONS BALANCE · FISCAL YEAR SUMMARY

tCO2e

S1	Scope 1 STATIONARY + MOBILE COMBUSTION, OWNED & CONTROLLED SOURCES	229.46	73%
S2	Scope 2 PURCHASED GRID ELECTRICITY, LOCATION-BASED FACTOR APPLIED	84.51	27%
CLOSING BALANCE · FY TCO2E		314.0 tCO2e	

§ 1.1 SCOPE 1 · DIRECT COMBUSTION

tCO₂e by type

	CATEGORY	T CO ₂ E	SHARE
S1	Natural Gas SEAI KG CO ₂ /KWH, CO ₂ ONLY · PRICED AT THE OFFICIAL PRICE FOR THE PERIOD	132.98	58%
S1	Diesel SEAI KG CO ₂ /L, CO ₂ ONLY · PRICED AT THE OFFICIAL PRICE FOR THE PERIOD	87.75	38%
S1	Propane NAICS 324110 · LPG, STATIONARY COMBUSTION	8.73	4%

§ 1.2 SCOPE 2 · PURCHASED ENERGY

tCO₂e by type

	CATEGORY	T CO ₂ E	SHARE
S2	Electricity SEAI 2025 PROVISIONAL · GRID ELECTRICITY, PRICED AT THE OFFICIAL PRICE FOR THE PERIOD	84.51	100%

§ 1.4 SPEND DATA PROCESSED · FACTOR × \$ = EMISSIONS

kg CO₂e per USD

	CATEGORY	SPEND (USD)	FACTOR	T CO ₂ E
S1	Natural Gas	\$80,269	1.6566	132.98
S1	Diesel	\$48,974	1.7917	87.75
S1	Propane	\$4,147	2.1041	8.73
S2	Electricity	\$153,282	0.5513	84.51
TOTAL · CLASSIFIED SPEND		\$286,673		313.97

§ 2 METHODOLOGY & STANDARDS

per GHG Protocol

This inventory is compiled under the GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition) and the Corporate Value Chain (Scope 3) Standard. The hybrid methodology follows the §7.3.2 data hierarchy: Tier 2 activity-based factors where customer activity data was supplied; Tier 3 spend-based screening for the remainder.

Factor file version: **2.6.15-2026-10-05**. Spend-based factors carry an uncertainty band this report takes as $\pm 25\text{--}40\%$. That band is an engineering estimate for spend-based screening, not a figure published by the GHG Protocol: §7.3.2 sanctions the economic-value METHOD and does not quantify its error. Activity-based factors use EPA Emission Factors Hub Table C-1 for liquid fuels, EPA Stationary Combustion factors for natural gas and propane, SEAI 2025 provisional · 178.3 g CO₂/kWh, gross electricity supply (CO₂ only) grid intensity for electricity, and IPCC AR5 100-year GWP for refrigerant fugitive emissions. Activity factor file version: **1.8-be-eea2024-2026-09-30**. Activity-based accuracy: $\pm 5\text{--}10\%$.

For this report, **0** of **178** classified rows (**0%**) used activity factors; **178** used spend-based factors. Activity rows take precedence over spend rows for the same emission category - no double-counting.

Scope 1 captures direct emissions from owned or controlled sources; activity data supplants spend where supplied, else the spend-proxy method applies and is disclosed as such. Scope 2 captures purchased electricity. Scope 2 electricity is converted to kWh at the official price for the period and multiplied by SEAI 2025 provisional · 178.3 g CO₂/kWh, gross electricity supply (CO₂ only).

Energy is priced where and when it was bought. Each electricity, natural gas and road fuel purchase is converted to a quantity (litres, gallons, therms or kWh) at the official price for your country in the period of the transaction (European Commission Weekly Oil Bulletin, Eurostat nrg_pc_203 and Eurostat nrg_pc_205), net of any VAT or GST the business recovers. The quantity is then multiplied by the physical emission factor or the grid intensity. The quantity and price used are printed against each row of the transaction ledger.

Part of Scope 1 (propane, 4% of it) is still anchored to US fuel prices. The spend-based Scope 1 factors in this pack are kg CO₂e per dollar, derived as a published physical factor divided by a US retail price - \$3.50 a gallon for motor gasoline, \$4.00 for diesel, \$1.00 a therm for natural gas. Applying them to spend in a country with different fuel prices implies a quantity of fuel that is wrong by the ratio of the two prices, and the error runs the same way for every affected row. Where local fuel is dearer than in the US - which is most of Europe - this OVERSTATES your Scope 1, materially and outside the uncertainty band quoted above. The fix is exact and takes one number off your fuel invoice: enter litres, gallons, kWh or therms of fuel purchased rather than what you paid. The physical factors are combustion chemistry and do not vary by country, so a quantity gives a correct answer everywhere. Until then, treat that part of Scope 1 as an upper bound; the rest is priced at your country's official

prices for the period.

Boundary, base year and recalculation. Organizational boundary: **Operational control**. Base year: **2025**. Where either is unstated the customer did not supply it, and this report makes no assumption on their behalf; both are required for a conforming inventory and both are collected at upload. Recalculation policy: the base year is restated when a structural change (acquisition, divestment, outsourcing), a methodology change, or a discovered error alters base-year Scope 1 + 2 by more than 5%. That threshold is this report's declared significance threshold per GHG Protocol Chapter 5; a screening inventory has no prior period to restate, so the policy governs from this year forward.

Gross figures, biogenic carbon and per-gas reporting. Every total in this report is GROSS: no purchased offsets, renewable energy certificates or allowances have been deducted, and the engine has no field in which to enter them. Biogenic CO₂ is not separately quantified - a spend-based screening cannot distinguish the biogenic fraction of a fuel or material purchase from its fossil fraction, so no biogenic figure is claimed either way. Per-gas: Scope 1 combustion is reported as CO₂ and non-CO₂ (CH₄ and N₂O combined) because the EPA Hub publishes the combustion factor as CO₂ with a single non-CO₂ uplift; splitting CH₄ from N₂O would require per-gas factors this engine does not carry, and inventing the split would be worse than declining it. Spend-based rows are blended CO₂e by construction and cannot be decomposed at all. No PFC or SF₆ sources were identified.

Amounts were in EUR. Non-USD amounts were converted to USD using static FX rates (vintage: **February 2026**) before emission factors were applied. Conversion details appear in the Transaction Ledger.

Calculation. For spend-based rows: $\text{tCO}_2\text{e} = (\text{spend USD}) \times (\text{factor kg/USD}) \div 1,000$. For activity-based rows: $\text{tCO}_2\text{e} = (\text{physical quantity}) \times (\text{per-unit factor}) \div 1,000$. Refrigerant fugitive emissions: $\text{tCO}_2\text{e} = (\text{refrigerant kg}) \times (\text{GWP}_{100}) \div 1,000$.

Rows were classified on the deterministic keyword path (vendor names, account names and descriptions mapped to EEIO commodity codes); Claude was not used for this upload. Vendor name takes precedence over expense_category when both are present. This report was generated on **05 October 2026**.

Sensitivity. The range below is asymmetric because the two error sources are. Factor uncertainty for spend-based screening is taken as $\pm 25\text{-}40\%$ and cuts both ways; incomplete coverage only ever understates. Applied to the inventory total (**314.0 tCO₂e**), the range is **188.4-439.6 tCO₂e**. **What this range does NOT cover:** misclassification. A row assigned to the wrong category moves by the **RATIO** of two factors, not by a percentage, and the factors in this pack span roughly two orders of magnitude - so a single misrouted row can exceed the whole band. The per-row factor and mapping logic in the transaction ledger are there to make that checkable. Substituting activity data for spend in

high-impact categories tightens the factor half toward $\pm 5\text{--}10\%$.

This draft is intended for screening, supplier-disclosure response (CDP, Walmart Project Gigaton, Microsoft Supplier Sustainability), and management decision support. For formal regulatory filings or third-party assurance, supplement with primary activity data across material categories and engage an ISO 14064-3 reviewer.

§ 2.1 SCOPE BOUNDARY STATEMENT

This inventory declares **Scope 1** and **Scope 2** emissions only. Cloud services, logistics, travel, office supplies, professional services, and other indirect categories are Scope 3 and are not included in this draft. Of 238 line items, 42 were classified as Scope 1 or 2. Those rows carry 40.6% of the \$705,490 of spend this draft was able to classify. A further 136 line items were recognized as Scope 3 and are not priced in this draft. 60 were excluded as non-emission (payroll, tax, rent and similar). Of the spend uploaded, 26.2% carries an emission factor, 73.9% is non-emitting and was deliberately excluded (payroll, tax, rent and similar), and 0.0% could not be identified. Only the last of those three understates your footprint.

§ 2.2 DATA INTAKE DECISIONS · STRUCTURAL

auto-detected

Before parsing the upload, the engine inspected its structure and auto-detected the settings below. Each decision normalizes the data to a consistent internal format before emission factors are applied, preserving the ability to reconcile each line against your general ledger.

File encoding	UTF-8
Decimal convention	US (1,234.56)
Negative amount format	Hyphen (-1234.56)
Date convention	DD/MM/YYYY (day-first)
Localized column headers mapped	Date→date, Contact→vendor, Account Name→category

Additional notes. Mapped localized column headers: 'Date'→date, 'Contact'→vendor, 'Account Name'→category; Detected date format: DD/MM/YYYY (based on 238 date cells with majority-vote convention)

§ 3 DATA QUALITY · CONFIDENCE & PROVENANCE

rows classified

Top 3 vendors represent 100% of Scope 1 spend (3 distinct vendors total) - reduction effort concentrated on those three accounts has the highest leverage. **Note.** 42 of the 178 rows that carry a factor (24%) were matched on weaker evidence than a direct vendor hit (<0.8). Common causes: partial vendor names, ambiguous expense categories, or contradictory vendor/category pairs. Cleaner vendor names or activity-data overrides would tighten these rows. Rows that could not be matched at all are a separate figure and are reported in § 2.1 as uncovered spend.

Classification method	GHG Protocol spend-based (automated)
Emission-factor source	Scope 1 and 2: SEAI 2025, priced at European Commission Weekly Oil Bulletin, Eurostat nrg_pc_203 and Eurostat nrg_pc_205; US EPA factors at US prices for propane, which has no price series here; Scope 3: CEDA by Watershed (Open CEDA 2025, CC BY-SA 4.0, adapted); factor pack v2.6.15-2026-10-05
Rows uploaded	238
Rows priced into the totals	178
High-confidence mappings	136
Items for review	42
Total transactions flagged	0

Industry-standard estimation per GHG Protocol Corporate Standard (2015 Revised). Spend items were classified via automated mapping with keyword and vendor recognition. For tighter accuracy, supply actual activity data (kWh, litres, km) where available.

§ 5 AUDIT TRAIL · SAMPLE

top 20 by spend

REF	VENDOR	CATEGORY	CONF.	USD
R-71	Rational Ireland	Equipment Purchases [S3] · SPEND f=0.2214 · 3.539 tCO2e · CEDA by Watershed 2025 IE Exact keyword: 'machinery' → equipment_purchases	Strong	\$15,984 EUR 14,800
R-82	Electric Ireland	Electricity [S2] · SPEND f=0.5365 · 7.620 tCO2e · 42,738 kWh @ 0.308 EUR/kWh 2025-05 Partial keyword: 'electricity' → electricity	Good	\$14,203 EUR 13,151
R-139	Electric Ireland	Electricity [S2] · SPEND f=0.5664 · 7.840 tCO2e · 43,970 kWh @ 0.291 EUR/kWh 2025-08 Partial keyword: 'electricity' → electricity	Good	\$13,843 EUR 12,817
R-38	Electric Ireland	Electricity [S2] · SPEND f=0.5365 · 7.242 tCO2e · 40,618 kWh @ 0.308 EUR/kWh 2025-03 Partial keyword: 'electricity' → electricity	Good	\$13,498 EUR 12,498
R-122	Electric Ireland	Electricity [S2] · SPEND f=0.5664 · 7.631 tCO2e · 42,799 kWh @ 0.291 EUR/kWh 2025-07 Partial keyword: 'electricity' → electricity	Good	\$13,474 EUR 12,476
R-61	Electric Ireland	Electricity [S2] · SPEND f=0.5365 · 6.981 tCO2e · 39,153 kWh @ 0.308 EUR/kWh 2025-04 Partial keyword: 'electricity' → electricity	Good	\$13,011 EUR 12,047
R-217	Electric Ireland	Electricity [S2] · SPEND f=0.5664 · 7.118 tCO2e · 39,921 kWh @ 0.291 EUR/kWh 2025-12 Partial keyword: 'electricity' → electricity	Good	\$12,568 EUR 11,637
R-158	Electric Ireland	Electricity [S2] · SPEND f=0.5664 · 7.059 tCO2e · 39,592 kWh @ 0.291 EUR/kWh 2025-09 Partial keyword: 'electricity' → electricity	Good	\$12,464 EUR 11,541
R-19	Electric Ireland	Electricity [S2] · SPEND f=0.5365 · 6.656 tCO2e · 37,330 kWh @ 0.308 EUR/kWh 2025-02 Partial keyword: 'electricity' → electricity	Good	\$12,405 EUR 11,486

R-4	Electric Ireland	Electricity [S2] · SPEND f=0.5365 · 6.549 tCO2e · 36,728 kWh @ 0.308 EUR/kWh 2025-01 Partial keyword: 'electricity' → electricity	Good	\$12,205 EUR 11,301
R-181	Electric Ireland	Electricity [S2] · SPEND f=0.5664 · 6.869 tCO2e · 38,522 kWh @ 0.291 EUR/kWh 2025-10 Partial keyword: 'electricity' → electricity	Good	\$12,128 EUR 11,229
R-99	Electric Ireland	Electricity [S2] · SPEND f=0.5365 · 6.432 tCO2e · 36,074 kWh @ 0.308 EUR/kWh 2025-06 Partial keyword: 'electricity' → electricity	Good	\$11,988 EUR 11,100
R-200	Electric Ireland	Electricity [S2] · SPEND f=0.5664 · 6.511 tCO2e · 36,515 kWh @ 0.291 EUR/kWh 2025-11 Partial keyword: 'electricity' → electricity	Good	\$11,496 EUR 10,644
R-170	Odlums Flour CANONICAL · ODLUMS	Food Manufacturing [S3] · SPEND f=0.2872 · 3.196 tCO2e · CEDA by Watershed 2025 IE Substring-match → 'odlums' (score 95): Flour milling	Strong	\$11,130 EUR 10,305
R-11	Odlums Flour CANONICAL · ODLUMS	Food Manufacturing [S3] · SPEND f=0.2534 · 2.690 tCO2e · CEDA by Watershed 2025 IE Substring-match → 'odlums' (score 95): Flour milling	Strong	\$10,616 EUR 9,830
R-29	Odlums Flour CANONICAL · ODLUMS	Food Manufacturing [S3] · SPEND f=0.2549 · 2.628 tCO2e · CEDA by Watershed 2025 IE Substring-match → 'odlums' (score 95): Flour milling	Strong	\$10,311 EUR 9,547
R-90	Odlums Flour CANONICAL · ODLUMS	Food Manufacturing [S3] · SPEND f=0.276 · 2.781 tCO2e · CEDA by Watershed 2025 IE Substring-match → 'odlums' (score 95): Flour milling	Strong	\$10,075 EUR 9,329
R-230	Odlums Flour CANONICAL · ODLUMS	Food Manufacturing [S3] · SPEND f=0.2866 · 2.846 tCO2e · CEDA by Watershed 2025 IE Substring-match → 'odlums' (score 95): Flour milling	Strong	\$9,930 EUR 9,194

R-208	Odlums Flour CANONICAL · ODLUMS	Food Manufacturing [S3] · SPEND f=0.2829 · 2.672 tCO ₂ e · CEDA by Watershed 2025 IE Substring-match → 'odlums' (score 95): Flour milling	Strong	\$9,443 EUR 8,743
R-30	Dairygold Food Ingredi CANONICAL · DAIRYGOLD	Food Manufacturing [S3] · SPEND f=0.2549 · 2.363 tCO ₂ e · CEDA by Watershed 2025 IE Substring-match → 'dairygold' (score 95): Dairy ingredients	Strong	\$9,272 EUR 8,586

* = outlier or missing vendor · Strong/Good/Review = vendor-match confidence · [S1/S2/S3] = scope tag · ACTIVITY / SPEND = factor class · FX rates: static (February 2026) · f= = emission factor applied · Resolved = identified by you, not by the engine