

Scope 3 Category 4 Methodology Overview

Upstream Transportation and Distribution — Freight Emissions Accounting

This document describes how Customs Release Group calculates and reports freight-related greenhouse gas emissions for retail clients under GHG Protocol Scope 3, Category 4 (Upstream Transportation and Distribution). The methodology follows the GLEC Framework (Global Logistics Emissions Council), Version 3, which is aligned with ISO 14083 and recognized by CDP, GRI, and major ESG disclosure frameworks.

Calculation Approach

Emissions are calculated at the individual shipment level using activity data from booking records and bills of lading held by CRG. We do not use spend-based approximations. The unit output is tCO₂e per shipment, aggregated to tCO₂e per lane, per mode, and per quarter.

Data Inputs

Container count (TEU)	Booking confirmation / BL	FCL: actual TEU; LCL: weight-based equivalent
Lane distance (km)	GLEC port-pair database	Great circle distance; route-adjusted for Suez/Panama
Vessel type and size	AIS / carrier data	IMO category; GLEC defaults applied where unavailable
Load factor	Carrier AER reports / GLEC default	Default 70% where carrier AER not reported
Slow-steaming split	Voyage records	Adjusts fuel factor; ~15–20% reduction vs. design speed
Air freight (if applicable)	AWB / carrier kg data	GLEC air factor; tCO ₂ e per RTK

Outputs and Delivery

Each client receives a quarterly emissions summary showing total tCO₂e by lane, mode, and carrier, plus a year-end annual report formatted for inclusion in sustainability disclosures, supplier questionnaires, and CDP submissions. Data is delivered in Excel with a supporting methodology note and emissions factor source citations.

Scope and Limitations

Coverage is limited to freight legs managed by CRG. For legs outside CRG scope (e.g., last-mile delivery, inbound raw material transport), we document the gap and provide the methodology and GLEC emissions factors a client's internal team or other logistics providers can apply. This service is available to current CRG freight and brokerage clients; it is not offered as a standalone product.

Methodology questions and annual disclosure support: enquiries@customs-release.com