Carbon data collection

LRQA offers a suite of carbon data collection tools and methods that target a supply chain's Scope 1 and Scope 2 emissions and enable clients to better manage and report their Scope 3 emissions. Our offering includes standardized datasets of emissions factors and calculation functions to enable consistent and comparable reporting across supply chains.

Our robust methods provide verified, high-quality scope 3 emissions data to scale and that meet global GHG accounting standards.

Challenges with emissions tracking

Scope 3 emissions constitute the largest portion of a company's carbon footprint and have notoriously been more difficult to track, especially within complex global supply chains. With rising global temperatures and increasing pressure from governing bodies and various stakeholders to cut emissions and reduce carbon footprints, tracking and managing Scopes 1, 2, and 3 emissions are more crucial than ever.

Challenges with collecting Scope 3 carbon emission data include:

Data availability

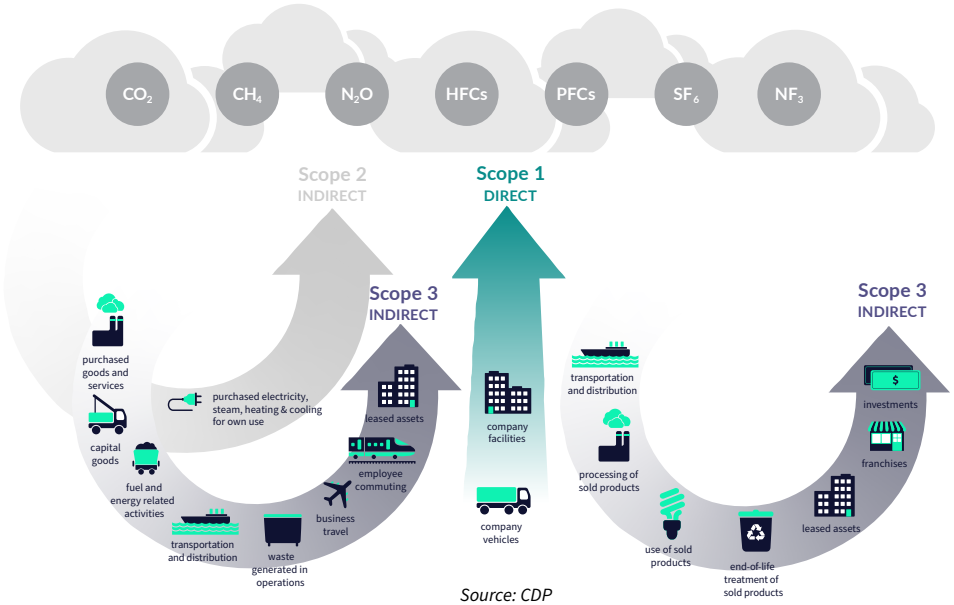
Dependency on suppliers' disclosures for emissions tracking can create challenges for full visibility over Scope 3 emissions.

Data quality

Disclosed and non-verified data may vary greatly in consistency, accuracy and completeness.

Resource intensive

tracking Scope 3 emissions requires personnel time, technical capabilities and financial investments.



Source: CDP

Our solution

Our carbon data collection utilizes a suite of tools built on a consistent framework and methodology. It also includes standardized datasets of emissions factors and calculation functions to enable consistent and comparable reporting across supply chains. With extensive on-the-ground presence, we engage directly with thousands of suppliers daily to enable highly **scalable** data collection across complex global supply chains.

Carbon data collection is embedded in the following core ERSA products:

ERSA Standard	ERSA Environment	ERSA SAQ	ERSA Carbon SAQ

Data will be calculated and categorized in alignment with the Greenhouse Gas Protocol.

Energy consumption (kWh)

Total energy consumption	2,788,687.56
Total non-renewable energy	2,573,520.56
Total renewable energy	215,167.00
Percentage of renewable energy	7.72%

Total GHG emissions ($kgCO_2e$) (before reductions and compensations)

Total GHG emissions (before reductions and compensations)	922,491.28
Scope 1 - Fossil fuel combustion emissions	348,209.78
Scope 2 - Purchased energy emissions (location-based)	574,281.50
Biogenic material combustion emissions	0

Refrigerants (kg)

Quantity of refrigerants added to existing equipment in the reporting year (kg)	12
Carbon equivalent of refrigerants added in the reporting year ($kgCO_2e$)	21,120
Percentage of carbon equivalent of refrigerants out of total **GHG emissions** (before reductions and compensations)	2.29%

Emissions reductions and compensations ($kgCO_2e$)

Emissions reductions and compensations by PPA & EACs	99,148.00
Emissions reductions by renewable energy PPAs	84,984.00
Emissions compensated for by EACs	14,164.00

Total GHG emissions ($kgCO_2e$) (after reductions and compensations)

Total GHG emissions (after reductions and compensations)	823,343.28
Total GHG emissions attributed to the client (after reductions and compensations)	362,271.04
Total normalized GHG emissions (after reductions and compensations)	0.45 $kgCO_2e$/unit

Carbon data will be incorporated and reported in LRQA's proprietary Supplemental Data Sheet (SDS) report for non-ERSA reports.

Audit

Products: SDS, ERSA, ERSA Environment

Suppliers report the energy consumption (excel)

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Onsite audit review and correction

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Reporting

SAQ (verified and unverified)

Products: ERSA SAQ, ERSA Carbon SAQ

Suppliers report the energy consumption (EiQ Assess - survey platform)

Desktop review | No review

↓

Reporting

Data review method

To verifiy scope 1 and 2 emissions data, auditors conduct onsite reviews using the following verification methods:

Document review

Records, contacts and invoices

- Routine tracking of energy usage
  - Gas cylinder inflation record
  - Refueling record for fuel vehicles
  - Entry and exit record for coal/biomass
  - Daily electricity usage
- Equipment maintenance records for:
  - Boiler/generator
  - Onsite solar photovoltaic
  - Cooling equipment
- Energy procurement agreements
- Energy procurement invoice (e.g. electricity bills)
- Power Purchase Agreement (PPA)
- Energy Attributes Certificates (EACs) (e.g. Renewable Energy Certificates (RECs), GECs, TiGRs)

Sole method for desktop review during verified SAQ

Employee interview

Responsible personnel

- Boiler/generator operators
- Mechanicians
- Electricians
- Engineer
- Warehouse manager
- Procurement manager
- Energy manager
- Site manager
- EHS manager / sustainability lead

Site tour

Physical observation and cross-checking

- Emission sources
  - Boilers, generators, vehicles, furnaces ets.
- Production areas, warehouses and cooking areas
  - Processes involve heating and combustion (e.g. casting molding and tensioning)
- Monitoring equipment
  - Meters, sensors and other monitoring devices for energy consumption (e.g. electricity, gas and steam)
- Building systems
  - HVAC
  - Compressed air
  - Refrigeration

Coverage

Basic site information

- Reporting year
- Production outputs of reporting year
- Unit of outputs

Refrigerant information

- Has the site added refrigerants to existing equipment in the reporting year?
- If yes, what are the top 5 refrigerants added?
- If yes, how much refrigerant was added or leaked in the reporting year? (kg)

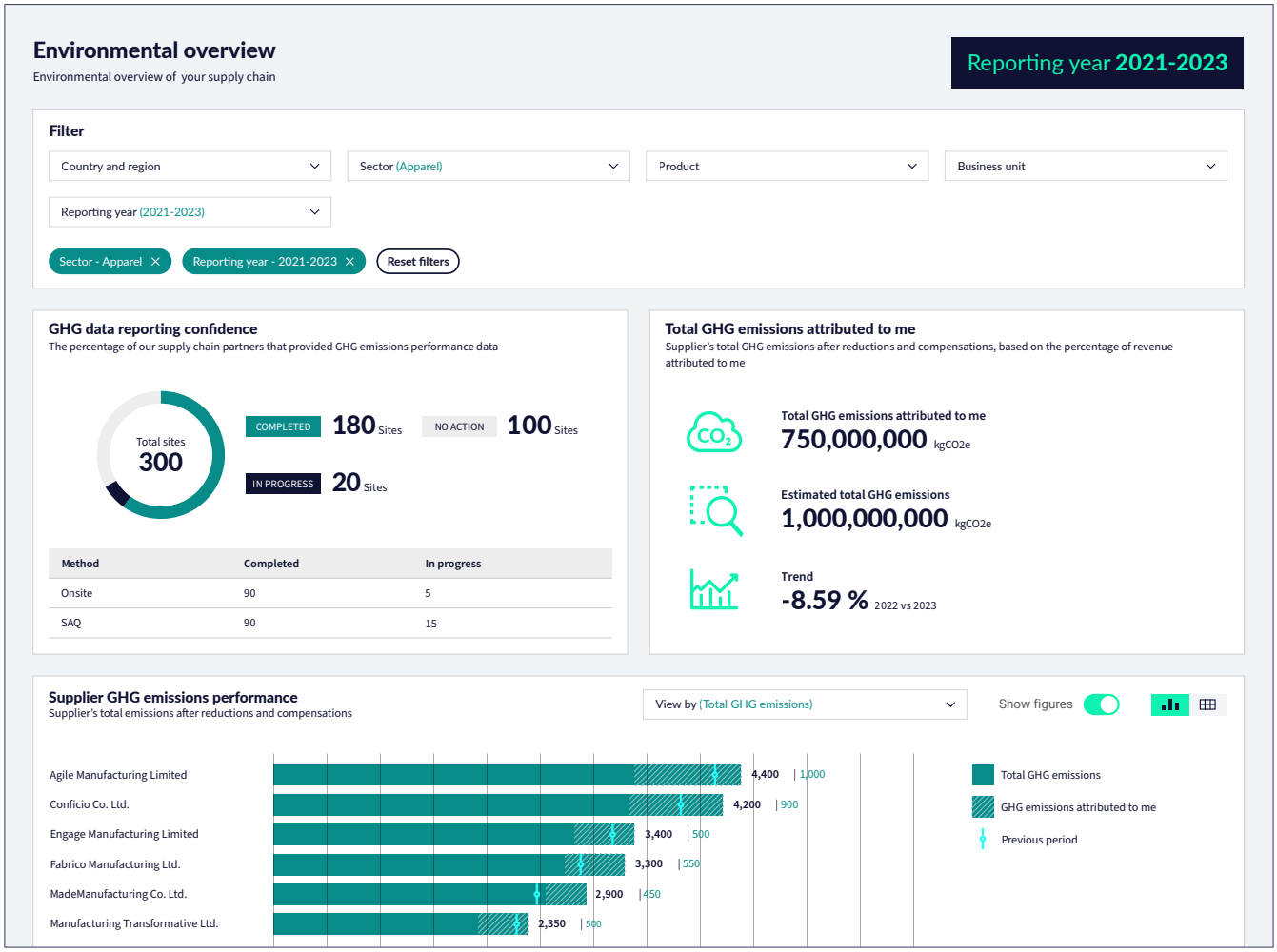
Source of energy

Onsite (Direct emissions)			**Offsite** (Indirect emissions)
Biodiesel	Fuel oil	Petrol	Chilled water (Purchased)
Biogas	Hydro	Propane	Electricity (Purchased) on-grid
Biomass general	LNG	Solar photovoltaic	Geothermal (Purchased)
Biomass wood	LPG	Solar thermal	Heating (Purchased)
Coal	Micro hydro	Wind	Purchased renewable energy off-grid
Diesel	Natural gas		Steam (Purchased)

Carbon data will be available on our EiQ due diligence platform. Users can view their Scope 1 and 2 GHG emissions data and can customize filters for flexible reporting.

Our customizable grouping capabilities empower tailored insights across:

- Countries
- Timeframes
- Products



Why LRQA prioritizes carbon data collection

An increasing number of countries are mandating supply chains accurately report their environmental impact and carbon emissions. Tracking a supply chain's carbon footprint and GHG emissions helps companies identify vulnerabilities and develop strategies to mitigate climate-related risks. Providing transparent and accurate carbon data demonstrates a commitment to sustainable responsibility and will support organizations in meeting stakeholder expectations.

Get in touch

Visit **eiq.ai** for more information

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