SUPPLY CHAIN SUSTAINABILITY SCHOOL

Scope Busting in Carbon Footprinting & Reporting

Polly Chappell,

Action Sustainability

About Supply Chain Sustainability School

The School is delivered by **Action Sustainability**.

We don't just advise – we *empower* organisations with the tools, training, and expertise to drive sustainable growth and lasting impact.

For more information visit: actionsustainability.com

CONSULTANCY

Expert guidance in carbon reduction, modern slavery, social value, compliance, sustainable procurement, and crafting robust sustainability strategies.

TRAINING

Award-winning programmes through our Supply Chain Sustainability School, enhancing sustainability skills across diverse sectors.

TECHNOLOGY

Our Sustainability Tool offers comprehensive solutions for collecting, managing, and reporting sustainability data.

2022

Housekeeping

Slides and poll results will be shared afterwards

Your microphones have been muted

Questions? Use the Q&A feature

Use the ‘Chat’ function to share ideas/comments

Scope Busting Quiz!

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Agenda

- The concept of ‘scopes’ – sources of carbon and the GHG Protocol
- Setting Organisational Boundaries
- Setting Operational Boundaries
- Why we need them for reporting
- Quiz!

Introductions

Polly Chappell

Consultant

Expertise: *Carbon accounting and decarbonisation, Sustainability Strategy, Sustainable Procurement*

- Specialises in carbon and sustainability strategy across the built environment and corporate sectors
- Experienced in net zero planning, Scope 3 emissions, and sustainability strategy
- Supports clients with carbon footprinting, materiality assessments, and sustainability reporting

polly.chappell@actionsustainability.com

+44 (0) 7884666778

www.actionsustainability.com

Sources of Carbon Emissions from your Organisation

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Your Suppliers

- *Materials, goods and services,*
- *Capital goods,*
- *Delivery*
- *Utilities: electricity, waste and water*
- *Business travel*

"Embodied" Carbon
"Capital" Carbon - CapCarb

Your Business

- *Fuel and energy in company facilities*
- *Vehicles and plant.*
- *Chemical / biological processes, and*
- *Fugitive emissions*

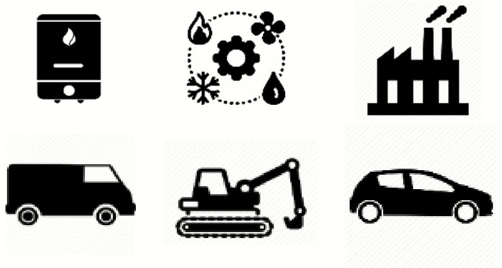
"Operational" Carbon - OpCarb

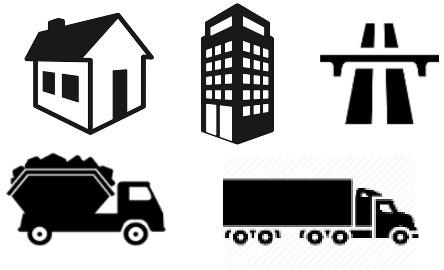
Your Client

- *In-use emissions from running the building / asset;*
- *End-of-life treatment*
- *Downstream distribution*

"End User" Carbon UseCarb

Upstream | Company | Downstream

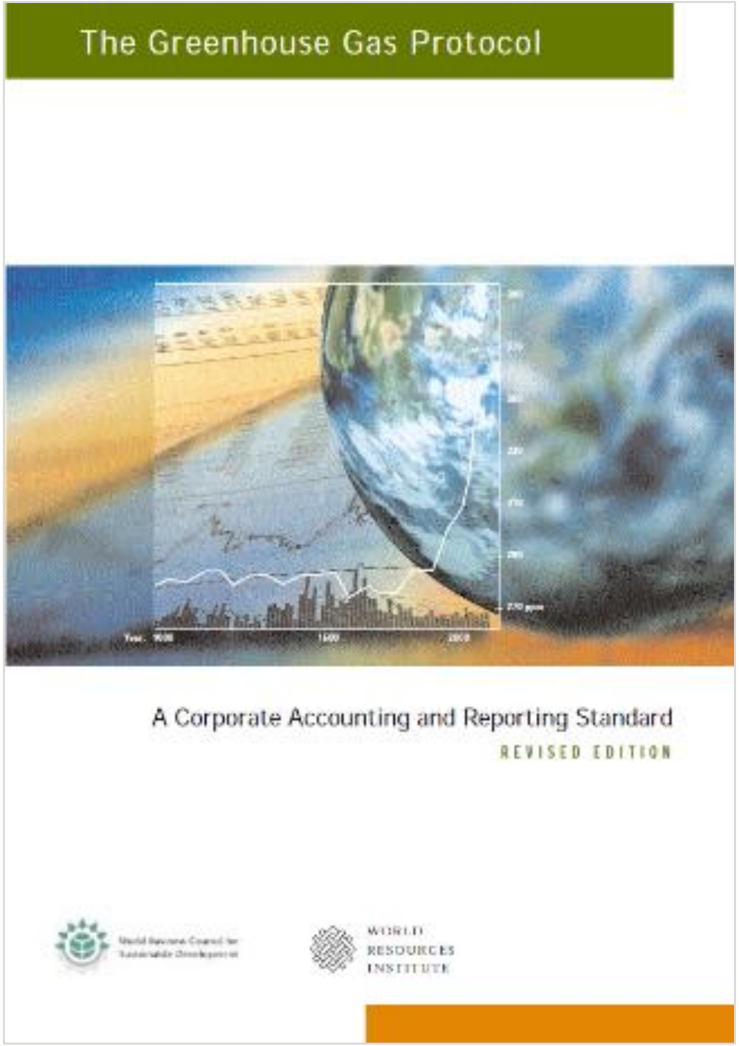




The GHG Protocol

GHG Protocol

- Accounting and Reporting of 6 greenhouse gases (Kyoto Protocol)
- GHG inventory using standardised approaches and principles
- Develop an effective strategy to manage and reduce GHG emissions
- Consistency and transparency in GHG Accounting and Reporting
- Construction-specific GHG Protocol - Encord



Organizational Boundaries: Consolidation approaches

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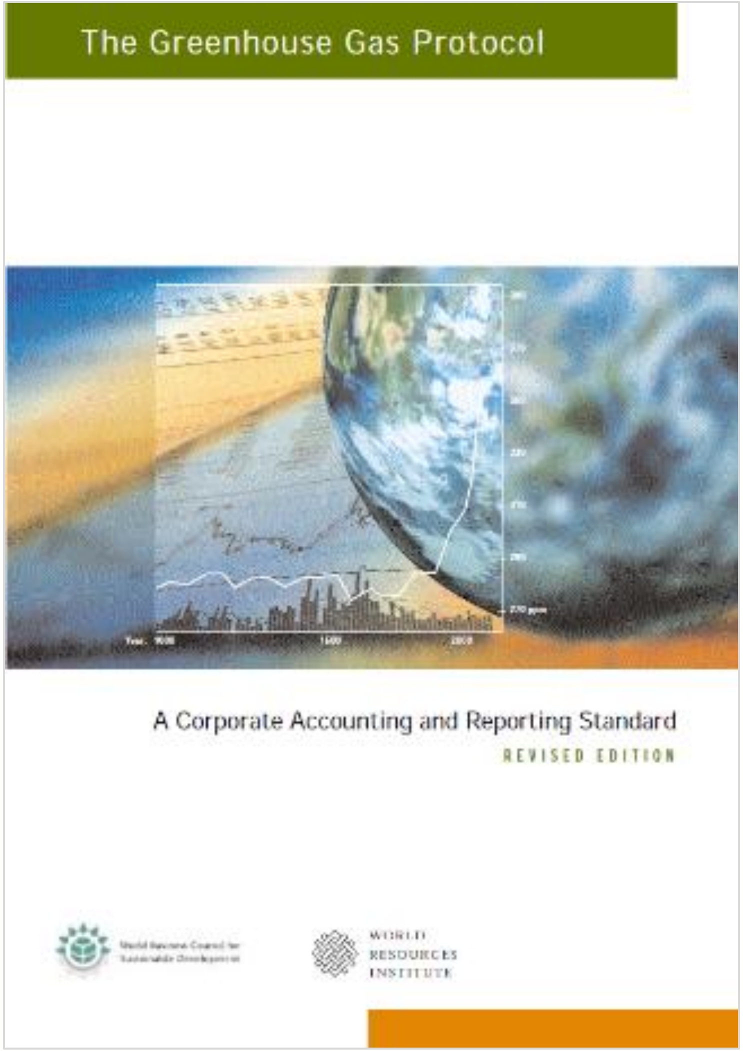
- Equity share approach
- Control approach
    - Financial control
    - Operational control



Equity share

- Under the equity share approach, **a company accounts for GHG emissions from operations according to its share of equity in the operation.**
- The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation.

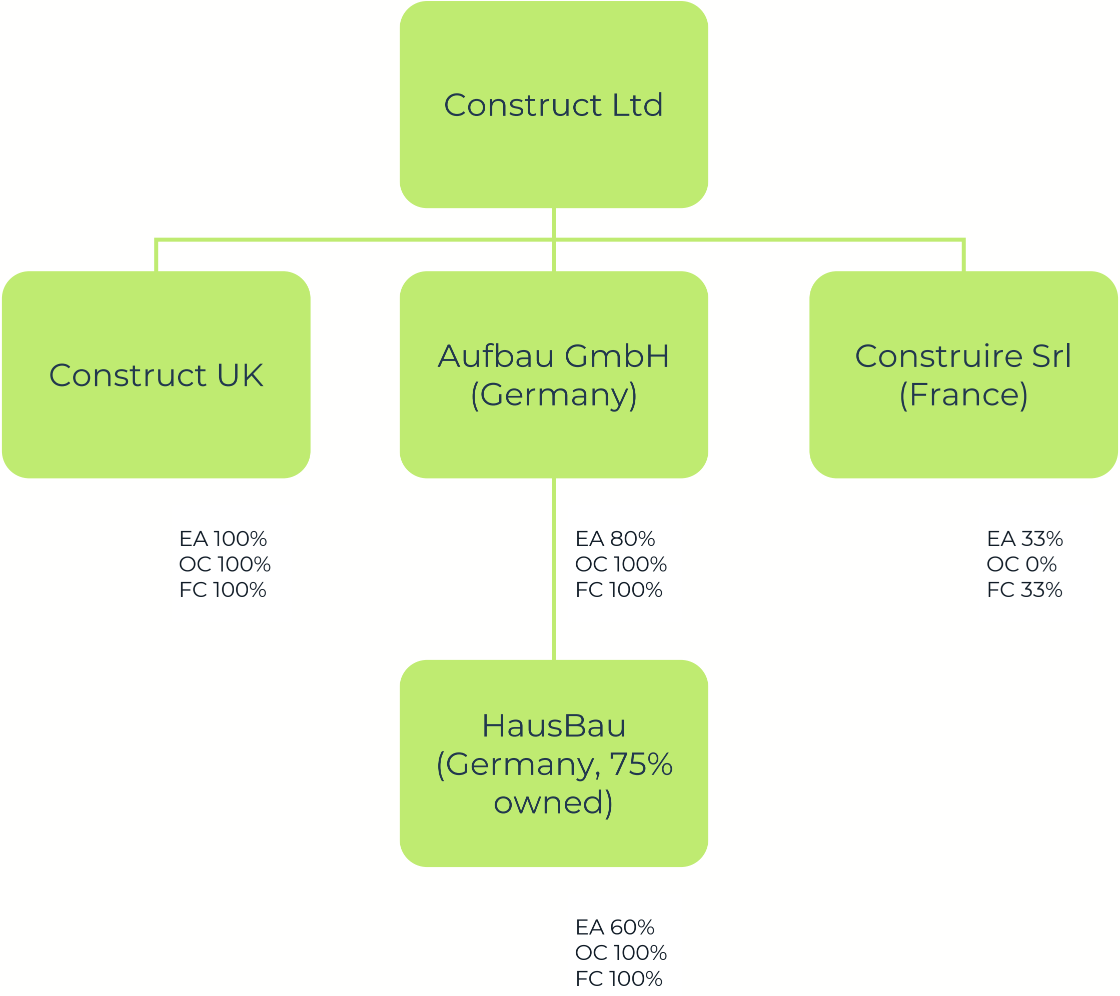
Financial control

- Under the financial control approach, **a company accounts for 100% of the GHG emissions over which it has financial control.**
- It does not account for GHG emissions from operations in which it owns an interest but does not have financial control.

Operational control

- Under the operational control approach, **a company accounts for 100% of the GHG emissions over which it has operational control.**
- It does not account for GHG emissions from operations in which it owns an interest but does not have operational control.

Example



Biz Units	Structure	Equity	Control
Construct UK	Incorporated Company	100%	OC 100% FC 100%
Aufbau GmbH	Incorporated Company	80%	OC 100% FC 100%
HausBau	Subsidiary of Aufbau GmbH 75% owned	60%	OC 100% FC 100%
Construire SrL	Non-incorporated Joint Venture	33%	OC 0% FC 33%

Operational Boundaries – Scopes

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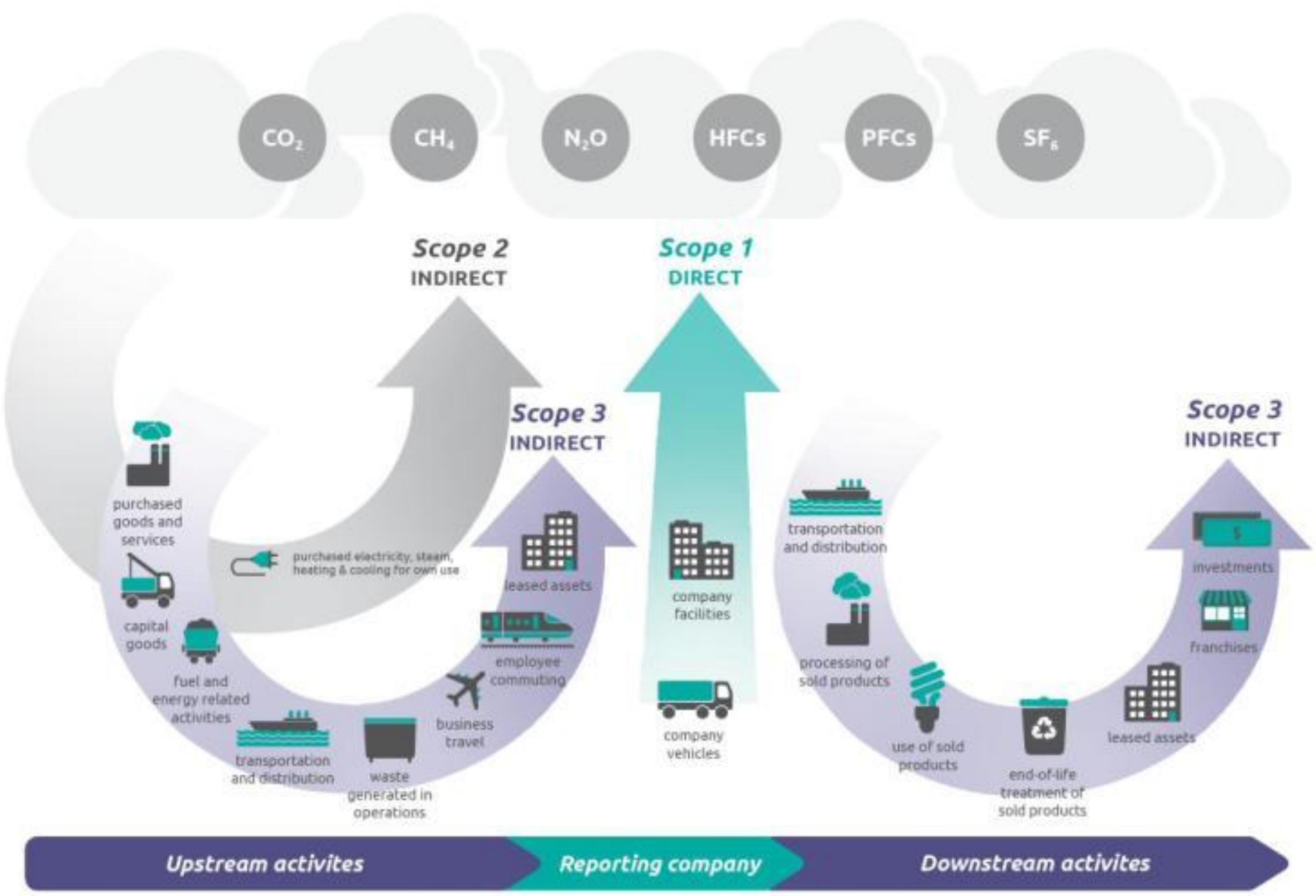
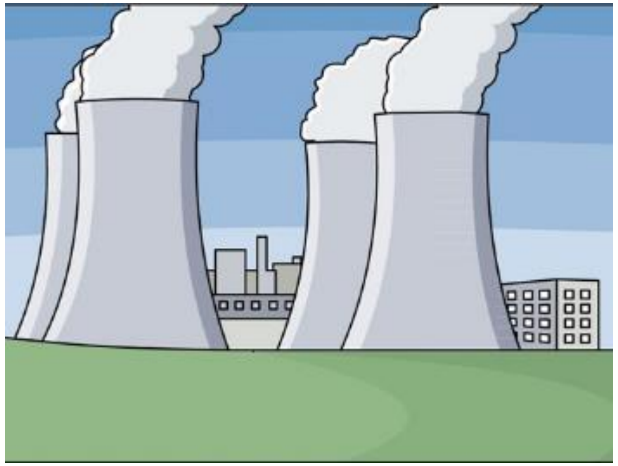
Figure [1.1] Overview of GHG Protocol scopes and emissions across the value chain



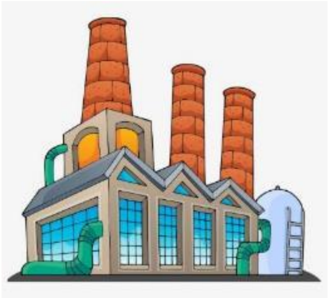
- **Direct emissions** are emissions from sources that are owned or controlled by the reporting company
- **Indirect emissions** are emissions that are a consequence of the activities of the company but occur at sources owned or controlled by another company

Who’s responsible for what – electricity



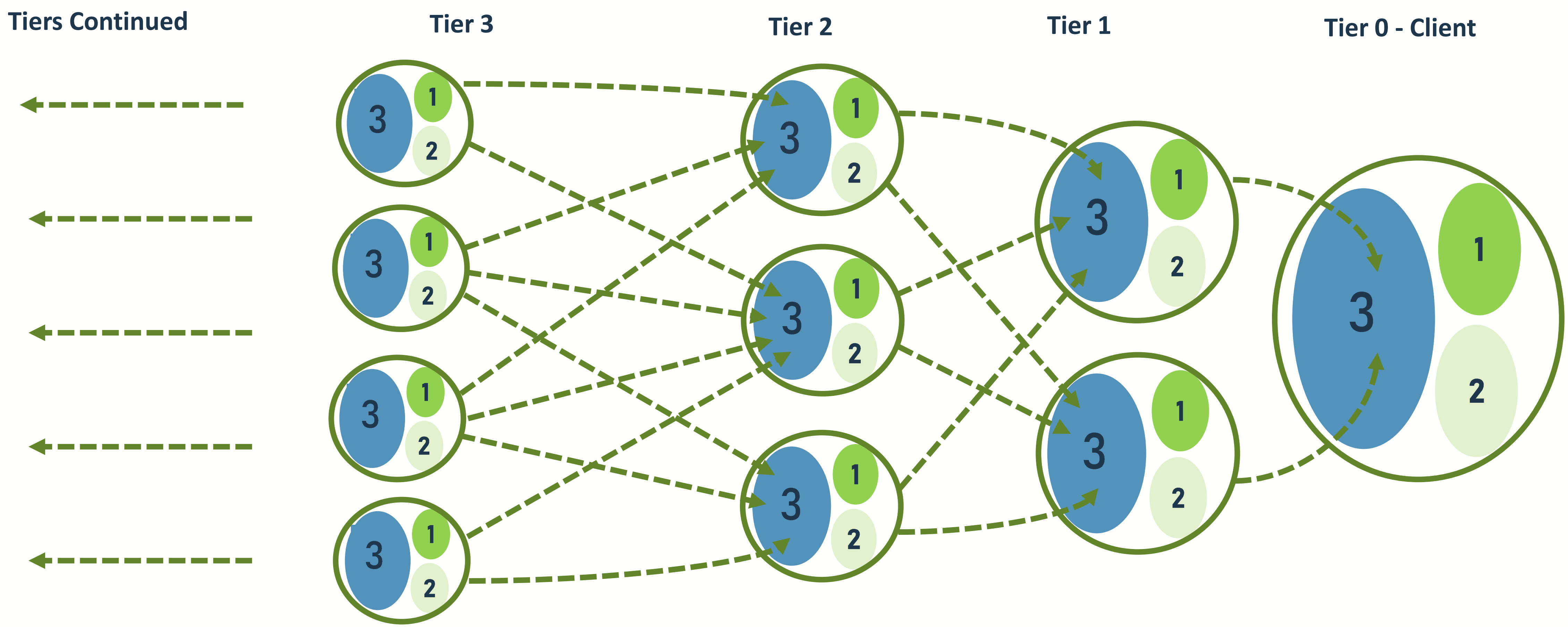
Energy company generating electricity from gas: **Scope 1**

The Householder using their washing machine: **Scope 2**



The Manufacturer & the Retailer: **Scope 3** (use of sold products)

The links between Scope 1, 2 and 3 carbon emissions in the Supply Chain



Scope 1 – Direct Emissions from owned or controlled sources
Scope 2 – Indirect emissions from generation of purchased energy
Scope 3 – All other indirect emissions that occur in a company's value chain

Streamlined Energy & Carbon Reporting (SECR)

- In force as of: 1st April 2019 (and replaces the CRC)
- Qualification:
    - All quoted companies: LSE, EEAS, NYSE, NASDAQ *(builds on Mandatory GHG Reporting – Director's Report)*
    - Large unquoted companies (LUQC) & Limited Liability Partnerships (LLP): ≥ £36m turnover, balance sheet ≥ £18m, ≥ 250 or more employees (2 of 3)
- Scopes and Process:
    - Calculate Scopes 1 and 2 from for which they are responsible
    - Location-based Scope 2 electricity is mandatory; market-based is optional if using renewable power sources
    - Scope 3 business travel for LUQC & LLP responsible for purchasing fuel. Other scope 3 encouraged
    - Include underlying energy of gas, electricity, fuels and transport
    - Global for quoted; UK for LUQC & LLPs
- Additional requirements:
    - At least one intensity ratio (productivity), e.g. emissions per £ turnover, or GIFA, etc

Streamlined Energy & Carbon Reporting (SECR)

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- Additional requirements, cont.:
  - Previous year's energy, GHG and intensity figures for comparison (but not for first year)
  - Calculation method, e.g. GHG Protocol, ISO 14064
  - Info on energy efficiency actions taken, e.g. smart metering, more efficient equipment, installation of renewables, training
- Reporting:
  - Annually for FY starting on or after 1st April 2019
  - In Director's Report filed with Companies House
  - No obligation to audit / verify carbon and environmental reporting, but strongly encouraged
- Exceptions/ Voluntary reporting:
  - Energy use less than 40MWh per year
  - Subsidiaries below qualification threshold may be exempt
  - Scope 3 is voluntary (see above)
- URL: https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance

Energy Savings & Opportunities Scheme (ESOS)

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- In force as of: 17th July 2014, from EU Directive 2012/27/EU
- Qualification:
  - Large undertaking: ≥ 250 or more employees, or ≥ £44 million turnover and a balance sheet ≥ £38 million, or
  - Is part of a larger organisation which meets the above criteria and the highest UK parent acts as a ‘responsible undertaking’ and ensures the whole group complies.
  - An overseas company with a UK registered establishment which has 250 or more UK employees
- Scopes and Process:
  - Calculate energy use from assets and activities for which they are responsible, i.e. buildings, industrial processes and transport (scopes 1 and 2)
  - Identify significant areas of consumption, covering 90% of consumption
  - Appoint a lead assessor to carry out ESOS assessment, an employee or a third party, but they must be a member of an approved professional body listed in the ESOS lead assessor register
  - Audit criteria: 12 months’ continuous data; analyse energy consumption and efficiency; identify energy saving opportunities that are practicable and cost effective to implement (estimated whole life costs & benefits – cost per unit energy saved); and include a representative sample of site visits

Energy Savings & Opportunities Scheme (ESOS)

- Scope and Process:
  - Submit an online *Notification of Compliance* to Environment Agency and keep records (no set format)
  - The Environmental Regulator can impose civil sanctions and fines for non-compliance
- Reporting:
  - Every 4 years. 3rd compliance period (ESOS phase 3): 06.12.2019 – 05.12.2023. 4th compliance period (ESOS phase 4): 06.12.23 – 05.12.2027.
  - Organisations report to the Regulator for the country where their offices are registered: Environment Agency for England, Natural Resources Wales, Northern Ireland Environment Agency, and SEPA in Scotland
  - Fines can be applied for failing to: Notify the Regulator, maintain records, undertake an audit, or making a misleading statement
- Exceptions:
  - If your organisation fully has ISO 50001 Energy Mgmt. you comply with ESOS - you only need inform the EA. Display Energy Certificates (DECs) also recognised
- URL: https://www.gov.uk/guidance/energy-savings-opportunity-scheme-esos

Science Based Targets Initiative (SBTi)

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- Purpose:
  - A partnership between CDP, the UN Global Compact, the World Resources Institute and the World Wildlife Fund
  - A method for any organisation to set carbon emissions reduction targets in line with the Paris Climate Agreement
  - Identify opportunities to reduce carbon and cost, and report to your clients
- Scopes and Process:
  - Select a suitable trajectory pathway (absolute or sectoral) and targets within the SBT method, depending on sector and own circumstances.
  - Covers scopes 1 and 2. Include Scope 3 if it accounts for ≥40% of total scope 1, 2 and 3 emissions
  - Develop plan to hit reduction target in the 5 – 10-year timeframe: what actions will be taken to reduce emissions, as well as those of supply chain.
  - Capture and analyse data for your business – report
  - There is also an SME route with a streamlined process for smaller businesses. Under this route, SMEs can immediately set a SBT for scope 1 and 2 emissions but are not required to set a target for scope 3. SMEs must commit to measure and reduce scope 3 emissions.
- Reporting:
  - Annual. Provide carbon emissions data and actions undertaken

Scope Busting Quiz!

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Menti question 1

Which scope does your consumption of grid electricity fall in to?

- Scope 1
- Scope 2
- Scope 3

Menti question 2

Which scope does your consumption of natural gas, such as in a boiler, fall in to?

- Scope 1
- Scope 2
- Scope 3

Menti question 3

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Which scope does business travel, such as by train or plane, fall in to?

- Scope 1
- Scope 2
- Scope 3

Menti question 4

We have a chemical process in our factory that emits carbon dioxide as a by-product. Which scope does that fall in to?

- Scope 1
- Scope 2
- Scope 3

Menti question 5

We buy in and use a lot of materials like concrete and plasterboard. Which scope do they fall in to?

- Scope 1
- Scope 2
- Scope 3

Menti question 6

We've commissioned and handed over the asset to the client, they determine how much energy is used in running it. Which scope?

- Scope 1
- Scope 2
- Scope 3 upstream
- Scope 3 downstream

Menti question 7

We get our HVAC system checked and topped up every so often due to small leaks in the pipework. Which scope do these fugitive emissions fall in to?

- Scope 1
- Scope 2
- Scope 3

Menti question 8

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We lease some of our assets to tenants who then run the facilities as they need to. Which scope do these emissions fall in to for us?

- Scope 1
- Scope 2
- Scope 3 upstream
- Scope 3 downstream

Menti question 9

We use waste services and consume water. Which scope do the emissions from these services fall in to?

- Scope 1
- Scope 2
- Scope 3

Menti question 10

One of our facilities is leased from a landlord. We control how much gas we use and pay the bill for it. Which scope is this for us?

- Scope 1
- Scope 2
- Scope 3 upstream
- Scope 3 downstream

Thank you for your time

For more information, please contact

Polly Chappell

E: polly.chappell@actionsustainability.com

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Please take a moment to complete our short form:

Feedback Form:

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Code: 6623

National Highways SDF - Supply Chain School Virtual Event Feedback Survey

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Questions