



GREENHOUSE GAS **Accounting Methodology**

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CARBON REDUCTION INSTITUTE

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Carbon Audit Methodology

The methodology underpinning our audits has been adapted from the World Business Council for Sustainable Development (WBCSD) Greenhouse Gas (GHG) Accounting Protocol.

Greenhouse Gas (GHG) Protocol

The protocol contains universally recognised accounting methods and boundaries that can be applied to different levels, sizes and types of organisations when creating their GHG inventory. This includes multinational organisations, energy intensive primary industry, as well as small to medium enterprises (SME). The protocol defines boundaries and emissions scopes to ensure that emissions do not become double counted when companies start accounting for their emissions on a national, state or industry level. On an organisational level, emission scopes and boundaries are important when compiling a GHG inventory, as they give organisations consistency and clarity when charting their emissions liabilities.

Emissions Boundaries

There are two 'types' of boundary that must be set when compiling a GHG inventory; an organisational boundary and an operational boundary. Organisational boundaries allow an entity to distinguish between GHG emitting activities that are attributable to their organisation, and those that are not. Operational boundaries allow an entity to define the emissions that they own or control and categorise them into different scopes (as either direct or indirect). Dividing emissions up into different scopes allows an organisation to determine opportunities for emission reductions, as well as providing knowledge as to where their emissions are occurring along the value chain.

Organisational boundaries

When setting organisational boundaries, CRI applies a control rationale, which states that organisations/entities account for emissions generated from activities over which they have direct control, rather than an equity share. The GHG protocol prescribes 2 methods when defining control; operational and financial. CRI defines control using the operational control method. The GHG protocol defines operational control as:

A company has operational control over an operation if the former or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.

Operational control covers activities where an organisation has authority to directly alter its emissions patterns, be it through the implementation of policy (a purchasing policy, staff travel, OH&S, recruitment etc), technology change or direct authority.

CRI uses this rationale as it believes that the consumer is responsible for the products and services that they purchase, and that the purchase is an endorsement of the methods used to produce the goods and services consumed. The emissions from any spend made directly by an organisation in its operations have been assigned to the organisation's greenhouse gas inventory.

In some instances however, an organisation will have elements of financial control over activities without there necessarily being evidence of a dollar spend within its financial accounts. A good example of such an instance is staff travel, where organisations can encourage a greater use of public transport and carpooling systems by providing yearly public transport passes for staff, or linking employees that live close together for car-sharing. CRI includes staff travel because of this; and because of the educational benefit gained by staff by incorporating their travel behaviour into the audit.

The emissions accounting methodology described above are applied to all organisations audited within the CRI NoCO2 certification program.

The GHG protocol describes Scopes 1 and 2 as mandatory reporting categories, and Scope 3 as a voluntary reporting category. Scopes 1 and 2 are defined within the protocol to ensure that 2 or more companies will not account for the same emissions under the same scope.

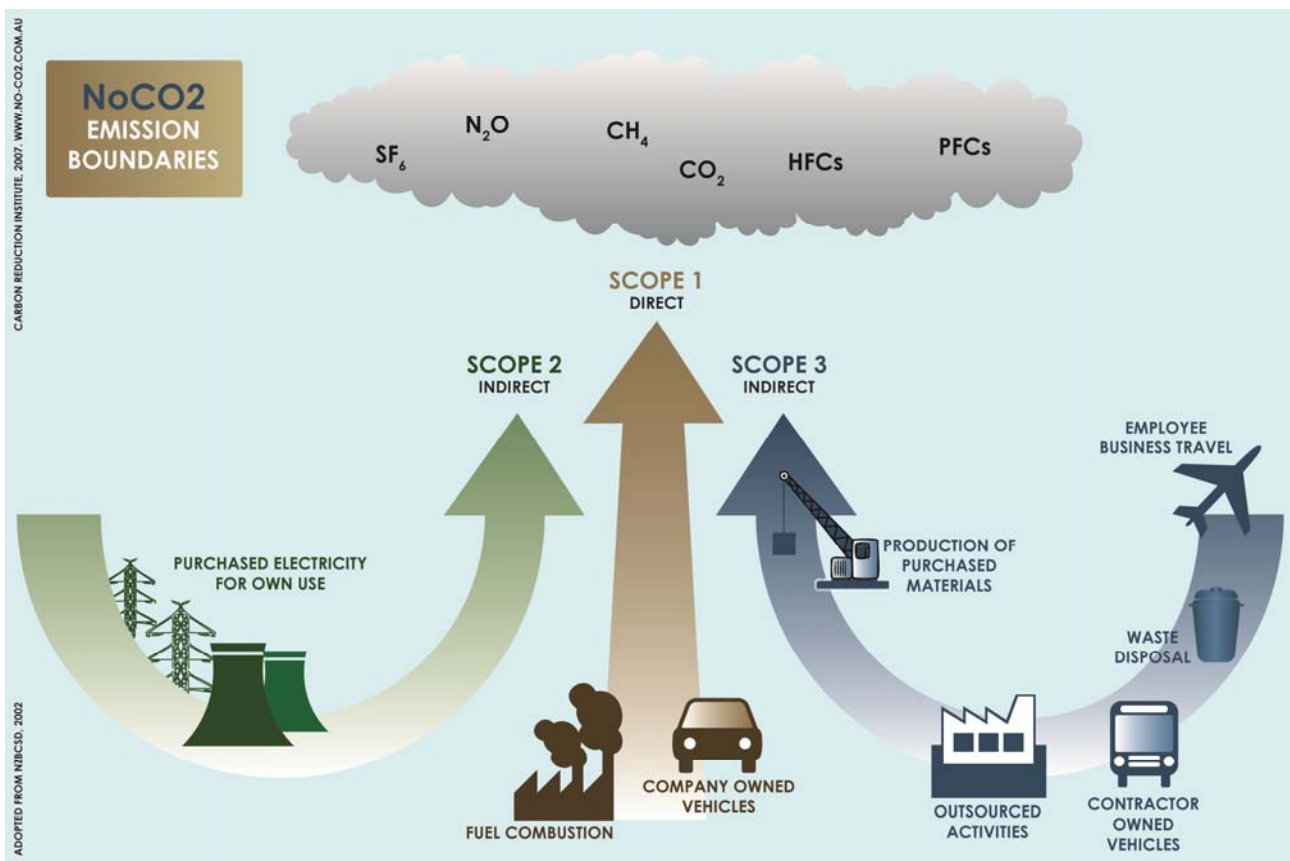
Operational Boundaries

The main function of operational boundaries is to create different scopes for organisations to separate and define the emissions produced from their operations.

- **Scope 1: Direct GHG emissions** - Emissions that occur from sources that are owned or controlled by the company, for example, emissions from combustion in owned or controlled boilers, furnaces and vehicles.
- **Scope 2: Electricity indirect GHG emissions** - Emissions from the generation of purchased electricity consumed by the company.
- **Scope 3: Other indirect GHG emissions** – Emissions that are a consequence of the activities of the company, but occur from sources not owned or controlled by the company. These include emissions from waste, the extraction and production of purchased materials; transportation of purchased fuels and transportation of employees to and from work.

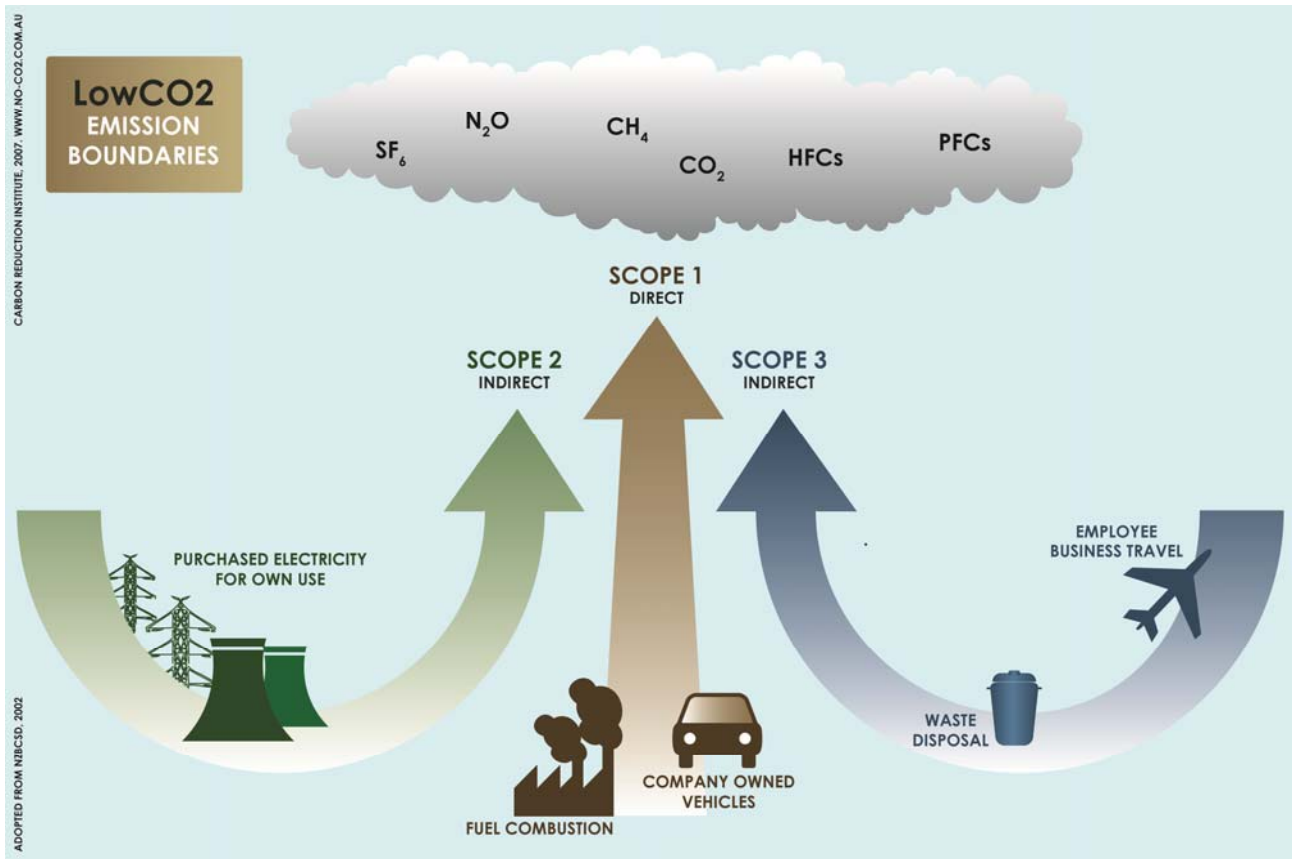
The NoCO2 emissions boundaries chart below graphically depicts the three scopes of emissions covered in a NoCO2 audit.

Figure 1 - NoCO2 Emissions Boundaries



The LowCO2 emissions boundaries chart below graphically depicts the three scopes of emissions covered in a LowCo2 audit.

Figure 2 - LowCO2 Emissions Boundaries



For more information on the data requirements for each audit (including NoCO2, LowCO2, Products and Events) please refer to the Data Collection Section of this document.