

In the new era of a low carbon economy, it is quickly becoming a necessity to manage the carbon output of a business. Historically, there has been no pressure to measure, manage or reduce carbon emissions but this is quickly changing. While the introduction of regulatory programs such as cap and trade are still a long ways from directly impacting most organizations, pressure from customers and stakeholders is creating a requirement to report and reduce carbon emissions to compete and win in today's economy. While carbon presents a new challenge to business, it also offers tremendous opportunities for those who take a pro-active approach to addressing carbon emissions.

What is a Carbon Footprint?

Also known as a Greenhouse Gas (GHG) Inventory, a Carbon Footprint, formally defined, is the amount of Greenhouse Gas Emissions that are a direct or indirect result of an organization, individual, event or product. In other words, every activity that a business engages in throughout the value chain from the extraction of raw materials to the energy use through to the use and disposal of a final product all result in the direct or indirect discharge of carbon emissions. When an organization translates their activities into carbon emissions using standard multiplier approaches and aggregates all these emissions, they are left with an inventory of Greenhouse Gas emissions more popularly referred to as a Carbon Footprint.

Is There a Requirement to Report?

While most regulatory requirements to report are focused on the large emitters such as power generation plants, there is increasing pressure from customers and other external stakeholders to report and reduce carbon emissions. This presents an opportunity to help secure relationships with customers while attracting new customers seeking supply chain partners committed to environmental sustainability.

Are Recognized Standards Available?

Yes. The internationally recognized gold standard for Carbon Accounting and Reporting is the Greenhouse Gas (GHG) Protocol. This protocol was developed by the World Business Council for Sustainable Development and the World Resources Institute. Organizations, large and small all across the globe use this standard as a means for calculating and reporting their carbon footprint.

Benefits

- ✓ **Retain and attract top talent** – more and more individuals are looking to work with organizations committed to Sustainability and a commitment to measuring, managing and reducing carbon is a clear sign of this commitment
- ✓ **Meet Customer and Stakeholder Demands** – many retailers and larger organizations are now requiring organizations in their supply chain to report and improve their carbon footprint
- ✓ **Identify Areas of Opportunity** – carbon emissions represent waste and carbon footprinting highlights where the largest sources of waste lay in the organization
- ✓ **Future Recognition** – for those organizations who are voluntarily taking action today to reduce their carbon footprint through energy, material and waste reduction may receive future recognition under regulatory programs through the development of a carbon footprint today.
- ✓ **Manage Risk** – even though most organizations are not subject to regulatory requirements, regulations are constantly changing and developing a carbon footprint today allows organizations to analyze exposure to future regulatory programs

Getting Started

Developing a carbon footprint can be a complicated exercise but organizations are encouraged to start with the basic components and build from there. Here are 7 simple steps that organizations can take to develop a carbon footprint and begin to drive reductions.

1. Setting Organizational Boundaries: *An organizational boundary determines what constitutes the company for the purpose of consolidating GHG Emissions.* For smaller organizations with one facility this step can be skipped as there is only one facility to account for. For larger organizations with multiple facilities, determine which facilities and what percentage of each facility will be included in the footprint based on operational control or level of ownership in the facility. Either the control or ownership approach can be taken and is up to the facility unless required otherwise through regulation. I.e. Company A chooses ownership approach and has 50% ownership in Facility B would account for 50% of B's emissions.

2. Setting Operational Boundaries: Choose the scope of emissions that will be accounted for. There are 3 scopes of emissions:

Scope 1: *Direct emissions resulting from company owned and controlled assets.*

Scope 2: *Indirect emissions from purchased electricity or steam.*

Scope 3: *All other indirect emissions resulting from the operation of the organization.*

*Accounting for Scope 1 and 2 emissions is required. Scope 3 is voluntary at this point.

3. Setting Base Year: Determine the base year for which future years will be benchmarked against. Organizations are encouraged to choose a base year at least 3 years prior to the current year to allow for proper analysis and trends to appear.

4. Identifying Emission Sources: Determine the organizations sources of emissions for Scopes 1 and 2 along with Scope 3 if chosen to include this in the operational boundaries. Below are the typical emission sources for Scope 1 and 2:

Scope 1: Natural Gas, Propane, Refrigerants, Fuel from Company Vehicles, Process or Stack emissions.

Scope 2: Purchased Electricity or Steam

5. Gathering Activity Data: Gather usage data for each of the emissions sources from the base year forward. For example, gather monthly natural gas and electricity consumption from utility bills or fuel usage from pump receipts.

6. Calculating Emissions: GHG emissions are calculated by multiplying the activity data by the appropriate emissions factors for each. Use the **Carbon Footprint Calculator** provided to perform this step. Simply follow instruction for entering activity data and the calculator will complete the calculations automatically.

7. Documentation and Reporting: Document the above steps and the completed calculations using the **Carbon Footprint Reporting Template**.