Carbon Footprint Reduction Strategies

A commitment to reduce your carbon; a plan to deliver Carbon Neutral or Net Zero over a specified period. It's not just about the emissions that are directly in your control, or even in your supply chains. A serious plan for reducing your carbon footprint must take all systems, factors, and potential Smart Technologies in to account.

In 2001, the Greenhouse Gas Protocol identified the Three Scopes of emissions. These are three categories of emissions that require different approaches to reduce your CO_2 emissions. In the corporate world, reporting on Scope 1 and 2 Emissions is mandatory, whereas Scope 3 reporting is voluntary. There is mounting evidence though that companies that report Scope 3 Emissions will gain a sustainable competitive advantage.

Scope 1, 2 and 3 Emissions

Firstly, Scope 1 emissions (Direct Emissions) are those that your company makes directly during its normal operations. For example, while running its boilers and vehicles.

Then there are Scope 2 emissions (Indirect Emissions – Owned), emissions produced on your behalf during the production of purchased energy. In most cases, Scope 2 emissions will be those produced by your electricity supplier.

Scope 3 emissions (Indirect Emissions – Not Owned) are the emissions associated not with your company itself, but which the organisation is indirectly responsible for up and down your value chain. For almost all carbon or other greenhouse gas reduction plans, Scope 3 is the biggest contributor to emissions.

Scope 1 emissions reduction requires commitment and wide engagement throughout your organisation. However, the success or otherwise of these reduction plans is in your hands. For most businesses, Scope 2 requires engagement with your electricity supplier, or indeed a switch of supplier(s) if necessary. The reduction Scope 3 emissions is the most difficult to deliver but the largest contributor to your Carbon Footprint. So, the need to address these can produce the greatest rewards.

Scope 3 Emissions

Scope 3 includes emissions both ‘upstream’ and ‘downstream’ from your activities. Upstream activities are those required for your processes to take place, for example the extraction of raw materials for a manufacturing process or the operation of your sales activities. The downstream process in this example involves processing these materials into a finished product, including the actual sale of that product to your customers.

Upstream Activities

Upstream activities include the purchase of goods and services either directly related to your products or services, or indirectly related such office supplies and IT services.

Capital goods such as plant, machinery, and buildings, are also reportable as Scope 3 emissions. In this case, the emissions are not amortised across the life of the machine or building, but as a single amount.

In many cases, the largest upstream contributor to emissions is business travel – air, rail, taxis, or business mileage by car. For example, a return journey from London to Glasgow by small car would produce three or four times the emissions of a typical train or coach journey. This can be six to eight times the emissions by plane and perhaps ten to 15 times using an SUV.

Employee travel to and from work can also be reported as Scope 3 emissions. Transport and distribution emissions can be produced both upstream (through suppliers) and downstream (though customers).

Downstream Activities

The emissions generated by your customers using your goods and services are scope 3 emissions. Emissions of carbon and other greenhouse gasses during disposal at the end of a product's life are reported as 'waste generated during operations'.

These customer generated emissions are the most difficult to quantify. However, the amount of emissions required for disposal can be minimised if most or indeed all of your product is recyclable.

Summary

The progress and ultimate success of strategies for Carbon Footprint reduction for Stage 1 emissions are basically in your control. They require commitment, education, and engagement but the amount of data available to you will give you plenty of agency. You can quantify your emissions, monitor progress as changes are implemented and continue to give insights to enable continuing progress towards your ultimate carbon and greenhouse gas emission goals.

Stage 2 emission reduction will usually involve continuing dialogue with your energy suppliers, but Stage 3 – the largest contributor to your Carbon Footprint – requires engagement with suppliers and customers. Any design and development decisions you make for your products and services could have a profound effect on product use and end of life emission levels.

A particular area that can have a large impact on reducing your carbon footprint is changes in your business and indeed employee travel.

- More efficient use of company vehicles, through route and load planning for shipments, maintaining vehicles correctly and perhaps car sharing.
- Encourage public transport use, cycling and walking.
- Hold virtual meetings to avoid travel by any means.
- Move to more efficient vehicles or switch to alternatives to fossil, fuels such as Electric Vehicles.

These activities can be reinforced by installing supporting infrastructure like EV chargers and encouraging or subsidising staff to switch.

So, reduce fossil fuel use and avoid flying! All the changes and more will help your organisation take those first steps on the Road to Net Zero.

Steve Newcombe

Sales Manager

Further reading: Carbon Footprint, Sustainability and ESG