



How to become a net zero carbon business in 5 years.

The facts are that the solutions to a low or even a zero- carbon business are within our grasp. Renewable energy is now well proven and readily available, there are many proven energy efficient technologies and the dynamism of supply chains and even the employment market (particularly in the UK) lends itself to effective and sustainable transformation.

Establishing an effective strategy towards a zero-carbon business relies on a commitment to an open approach to the problem and a genuine desire to change. However, it does not require excessive financial or time resources or an attitude of frugality and minimalism. In fact choosing to become a net zero carbon business within 5 (or maybe 10) years, is more likely to gain you significant market advantages both in terms of efficiencies and potential market opportunities.

That said there are major pitfalls - not all low carbon ideas are practical and not all developments support the sustainable growth of the business. Plus there is an ever present need to review priorities and support genuine thought and practical leadership.

In some ways society has been working to reduce its impacts for generations, however there have been many notable failings such as bio-fuels, palm oil production, carbon offsetting, nuclear power and high rise developments. All have virtues but are no silver bullets and if developed poorly without a more holistic vision result in significant damage.

This report will help to demonstrate that having a vision for a net zero carbon business with zero carbon products and services is both possible and practical. It is also a necessity for you to embrace as a priority and hopefully you will see the value in working with Earth-Rising.

Step 1. Understanding Carbon in your business

Carbon can be implicated in every product and service. It is connected to the air we breathe the energy we use, the food we eat, the products we make, the distance we travel, the time we spend and the actions we take. Of course, trying to identify all the carbon from your businesses perspective would be completely overwhelming and totally counter-productive.

In order to really tackle your carbon impact we need to differentiate between the low hanging and well understood effects and issues and those which are based upon very variable science, data manipulation and poor management processes.

Don't be under any doubt there is a whole industry related to carbon management, calculation and offsetting and it is in their interests, as in many developing trades to extend their reach, make the process complicated and burdensome and through the process become a valuable bureaucracy.

There are three main areas where carbon is reported by industry:-

Scope 1 – direct carbon emissions from the site/business such as via fuel used for vehicles and heating etc. This excludes fuels used by commuters (it is not generally a business cost).

Scope 2 - relates to electricity use which is a directly attributable to the carbon impact but which is emitted by the electricity provider.

Scope 3 - indirect carbon emissions. This covers everything else from commuting to supply chain, the embodied energy in materials, the carbon associated with other elements such as waste and water and could even include your employees own breathing!

The Earth-Rising app provides a great statistical framework for scope 1 and 2 emissions with some interesting options for transparent reporting by businesses.

Scope 3 emissions are open to broad interpretation and are undertaken to various levels by organizations in their carbon reports.

The most direct Scope 3 emissions might arise from supply chain partners and their factories. They are considered scope 3 unless you have control over their operations (in which case they would be classed Scope 1 emissions). If you are purchasing a wide range of products or have complicated supply chains identifying and establishing effective carbon figures is very difficult particularly if those supply chain processes change and you have little control.

Given a rapidly changing economic landscape Scope 3 emissions are extremely difficult to effectively quantify and are open to significant statistical abuse. We recommend an approach more attuned to transforming your supply chains using a low carbon road map and using carbon as an important part of supply chain decision making (see step2).

This has the advantage of simplifying the approach, ensuring that the data is comparable and consistent and still retaining the direction of travel towards a minimal carbon footprint and one planet living.

As a result the actions you need to take to identify your prime carbon impacts relate to gathering readily accessible information from your accountancy systems such as through energy bills, fuel costs, transport and mileage claims etc. Processing this data with us will yield a carbon figure based upon your use of direct and indirect energy as a business.

It is worth noting that there has been a change in convention from treating biomass as a zero carbon fuel to reporting carbon emissions from biologically sequestered carbon (biomass etc.) as a separate figure. There is an emission of NO₂ and CH₄ associated with this combustion which would not necessarily be emitted by natural decay and so it is not considered as green an option as it was 5 or 10 years ago.

Step 2. Understanding your main impacts

In order to better understand your other carbon related impacts, it is worthwhile reviewing your main costs and use of resources. Costs alone do not necessarily relate to carbon impacts for a variety of reasons such due to the subsidy of carbon such as subsidised fuels, the inertia in the present economic system and poor management of resources in general.

There are common myths related to impacts and people can generally over inflate the issues for example the transport of materials as well as minimise the impacts related to human resources.

Resource mapping your business, the products and services you provide and identifying potential opportunities to reduce impacts will help you ensure you not only reduce the carbon impact of your business but also become more resilient in a rapidly changing world. This type of resource mapping can be useful in carbon mapping related to significant purchases for which there are industry estimates to convert spending into its likely carbon impact as a Scope 3 emission.

Processes involved in resource mapping can be simplified and made into a set of effective metrics bespoke to your own products and supply chain. As an influencer you can work to ensure these aspects reduce the carbon impact and set a vision for a product or service which drastically reduces your carbon footprint. It will also demonstrate your commitment to your stakeholders in a transparent way which will support greater buy in.

Step 3. Setting goals and developing a strategy

Having understood the nature of your carbon footprint, in both qualitative and quantitative terms you can now start to consider the best ways to de-carbonize. The main areas being Electricity, Heating and Transport as well as behavioural change.

Electricity

Electricity use has been the prime focus of action by Governments over the last 20 years and a market has been established related to both the provision of renewable tariffs and in the procurement of renewable technologies. There are some complications in that some old renewable electricity is not considered green. For example, some suppliers roll their renewables together into a green tariff which has not really been invested in new renewables. There are also arguments about how nuclear power might be considered a renewable fuel despite having long term and high carbon waste related issues.

A simple approach is best and although there is a marketplace for green certificates etc. it is open to significant criticism by some of the leading green energy suppliers in the marketplace.

At Earth-Rising we have developed a simple toolkit in our programme which avoids the complexities and politics of this marketplace.

As a general rule over the last 20 years the average carbon emission per kWh of electricity provided in the UK has reduced by around 50%. Analysing your past may actually reveal some carbon savings which might give you confidence in setting further more ambitious goals.

To achieve zero carbon within 5 years is ambitious and it achieve will depend completely on the nature of your business and the options available to you both directly and indirectly. It should be realized that if you are a significant electricity user there are some massive opportunities and ones which should be readily accessible.

Heating Fuels

The other significant issue relates to heating fuels and there is a growing and developing marketplace for green gas. Major investments are being made in the provision of renewably sourced natural gases and this forms the second major shift in carbon reduction in the UK.

Transport

Transport is another significant opportunity which can be addressed. It can be tackled through adjustments to mileage processes to favour greener choices as well as policy changes related to flying, the biggest issue in transport, and one which is still a long way from an effective solution.

Changing Behaviours

Setting goals and developing a plan to change behaviours is also key. Today much can be achieved through smart metering and staff teamworking setting tangible goals and rewards and celebrating successes as has been demonstrated through Earth-Rising programmes.

Any behaviour programme must be backed up with sound investments in efficient technology from more efficient appliances to improved controls. As with any team motivation this needs to be allied to a shared vision and management support.

A goal of zero carbon emissions is one which all staff can embrace but requires effective leadership and the recognition of the champions and laggards in order to embed positive behaviour. Because carbon is invisible it is important to establish effective systems and balances. Ultimately there should be no way to hide your consumptions whether you are the owner or the tea maker.

A behavioural audit will establish both the present use of energy and opportunities for short and long term savings. This should be aligned to an investment strategy to achieve the 5 (or 10 year) goal. For example staff can be reminded that lighting improvements are reliant on behaviour changes and that ultimately the technology alone will not deliver significant savings.

A 20% annual carbon reduction target will over 5 years result in a 70% reduction in carbon footprint. This is quite achievable without significant pain and the resource savings over that period can be reinvested in major changes such as green electricity, green gas or renewables.

Changing Behaviours – A Case Study

The first demand side electricity management project in the UK in Shetland in the 1990s revealed the significant behaviour changes which could yield savings through regular information and targeted support and monitoring. A group of over 100 householders delivered double the energy savings associated with insulation upgrades through a process of self monitoring.

Step 4. Net zero and Carbon offsetting

Net zero is the balancing of a carbon impact with a carbon reduction which could support an overall zero carbon plan and is typically carried out through the use of carbon offsets. Carbon offsets are investments in renewables or carbon capture projects outside the business itself. They may be related to community development, habitat creation or renewable technology.

Any business which makes a point of promoting a target of net zero in the medium or long term or even promoting itself as “carbon positive” through over reliance on these investments or planned investments is in danger of being tarnished as being a “Greenwash”. Interestingly there are some very significant brands which have committed to net zero through these mechanisms however this tends to expose inherent supply chain related weaknesses and inability to take strong leadership decisions in favour of marketing spin.

As we approach a significant recession many of the most exposed brands might be able to highlight very significant carbon reductions through shrinkage and online developments which may not articulate a genuine zero carbon strategy. However leading thinking brands and businesses can use this as an opportunity for a holistic review of the values of the business and the future position of their organisation in a low carbon future.

Step 5. An unseen future and an uncompromising past

There is no doubt that the world has been through a tumultuous few years and even before the current COVID crisis we were sleep walking into climate catastrophe. One thing to be assured of is that assuming the world will remain the same is a false supposition. It is obvious that the next generation want to see a positive and low carbon future. Young people are both responsible, talented and focused and that they are increasingly aware of their power to make a positive change. They are ready and willing to support positive causes and a sustainable future and are becoming very familiar with false claims and mis information. That said there is still a herd like mentality which can be both a blessing and a curse. How you gain from this relies on you providing practical, honest and well articulated sustainable reporting and messages about your product and/or service. Failing to do this adequately will open you to criticism and the coming transition will affect everyone.

Summary

This report provides some ideas for you to action in your business. However, to be able to put in place a comprehensive plan may take more work to look at consumptions as well as your business and marketing plans. As a specialist company, Earth-Rising can provide practical support to you becoming be a low carbon business.

The rewards are excellent, the market place is growing rapidly, the cost savings are significant and tangible and there is a ready supply of young talent excited to work for a progressive business with ambitious sustainability goals.

About Earth-Rising

Earth-Rising's founder Jon Proctor has over 30 years experience of environmental energy and carbon audits. From undertaking the first demand side energy management project in Europe with SSE in Shetland, helping to establish the carbon trust in Scotland through to creating the Green Tourism programme of sustainable transformation, Jon is focused on the commercial delivery of measurable environmental improvements. Whether renewables, energy efficiencies, technology improvements or changing behaviours and operational procedures we are focused on delivering tangible benefits to business and reducing waste and costs

- 1 million tonne carbon saving across 2500 businesses throughout the UK amounting to a reduction in energy intensity of over 30% and saving many millions of pounds.
- Property carbon intensity reductions in properties by over 80% and a number even becoming carbon positive outweighed their own carbon footprints.
- A £7.5 million pound per annum saving on a 43 hotel chain (£150,000+ per hotel) with a payback of only 2 years on investments.
- Some of these investments related to renewables, much to energy efficiencies and technology improvements and a significant amount related to changing behaviour with staff and to standard operating procedures which lead to significant wastes and costs.

Some of our services:

- Carbon certification on your business for any or all of the last 3 years.
- Green team development and coaching programmes
- Net Zero carbon appraisals.
- A site audit to help you identify potential savings and plan a zero carbon future
- Coaching programme to help you progress your strategy and team to zero carbon



EARTH-RISING
People. Planet. Passion.

Contact: Jonathan Proctor, Earth-Rising Ltd
New@earth-rising.co.uk 01738 787076
Aspen House, Dunkeld Rd, Bankfoot. PH1 4AJ