

Where to begin? A cost-driven approach to creating a practical net zero action plan

No-cost, low-cost and high-cost pathways are all valid approaches for businesses starting out on their net zero journey

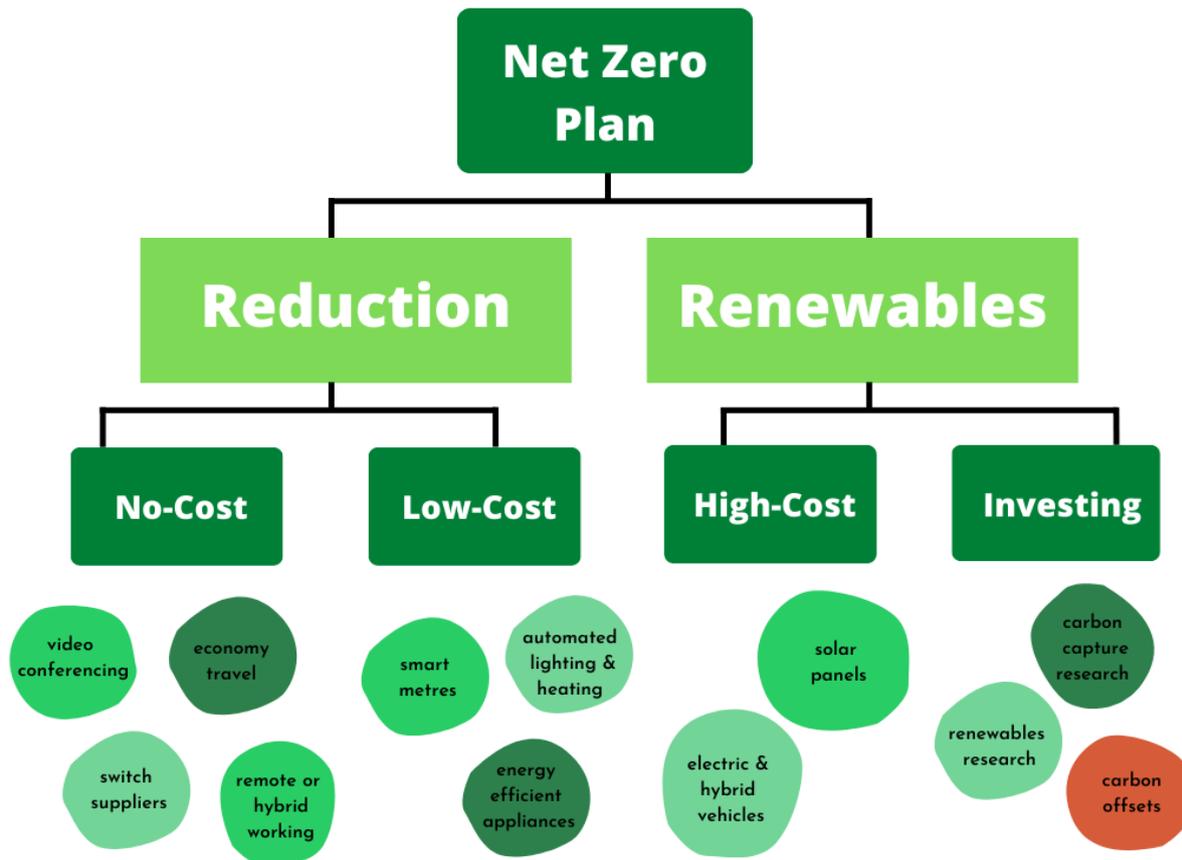


Image: Net Zero Plan.

You've started your business' net zero journey by collecting enough data to establish a base year calculation of carbon emissions, from which future emissions will be compared. From this, you've also agreed and set your carbon emission reduction targets for the year ahead. Likely these are gradual emission reduction targets - about 7 - 10% per year, to achieve approximately 50% net zero by 2030 and 100% by 2050. But how on earth do you get there?

Creating an actionable net zero plan is a potentially complex and even overwhelming task. However, replacing fossil fuel use with renewable alternatives and/or reducing energy consumption are the overarching strategies which apply in most businesses' net zero plans.

There are many options at varying price points to make these broad goals possible. To decide on the specific measures you will take, it is helpful to first consider your business' budget for

achieving net zero, as well as the potential cost savings which may result from emission reduction measures. Over time you will likely need to implement a combination of possible measures, but knowing which cost pathway is best for your business in the near term provides you with a critical starting point.

The no-cost reduction pathway



Photo: Aerial view of a [person working on a laptop](#). Credit: Rawpixel Ltd (Flickr)

There are several measures to reduce carbon emissions which may have no upfront costs and may even translate to cost savings. For example, adopting remote working and giving up an office, or alternatively, adopting hybrid working and transferring to a part-time co-working space can reduce emissions derived from employee commuting as well as the emissions associated with a full-time office. However, it is worth noting that this may merely transfer emissions from an office to employee homes and in turn this may increase a business' indirect impact, whilst decreasing its' direct impact. This can be calculated¹ and the net effect assessed prior to committing to this change.

Likewise, reducing business travel and hotel stays where possible by holding meetings on video conferencing software is a further option. Where business travel remains necessary, creating travel policies which encourage economy rather than business and first class travel lowers the carbon emissions associated with each journey. This works because an economy seat takes up less space and is therefore more carbon efficient, as more people share the carbon emissions attributable to that journey.

There are some considerations to be made however; some investment in remote working software and hardware, and organising old and new lease contracts may be necessary. Additionally,

balancing the benefits of face-to-face working against cost and carbon savings is required. Furthermore, prioritising employee buy-in through education, communication, and incentives is important to make this work.

Finally, assessing your supply chain, requesting carbon emission information from your suppliers and partners, and switching to those that are more carbon efficient can lower emissions you are not directly responsible for, which can lower your overall emissions. Careful planning and due-diligence should be taken to ensure minimal disruption and cost to your business if doing so.

The low-cost reduction pathway



Photo: [Energy meter](#). Credit: Edinburgh Greens (Flickr).

Smart metres monitor and show precise electricity or gas use and can be installed relatively cheaply by your energy supplier at your business premises. Awareness of energy consumption typically prompts lower consumption through mindful behavioural changes. It also highlights possible changes to implement to improve energy use and conservation. This may be done by for example, creating office policies to turn off equipment and lights overnight and when not in use where possible, installing energy efficient appliances and lighting, and installing automated lighting and temperature systems.

This monitoring approach is particularly useful in shared premises to quantify your precise energy consumption, and improve the accuracy of your data collection. In turn, this can reduce energy costs, as providing energy companies with exact readings can prevent their overestimating consumption, which may previously have been inaccurately based on total space occupied within

a building. Typically, smart metres update energy companies automatically, without you needing to provide a reading.

It is important to note that whilst second-generation smart metres enable agile switching between utility suppliers, first-generation smart metres may take longer to switch over and require manual readings in the interim.

The high-cost renewables pathway



Photo: [Solar panel](#) on roof. Credit: Marufish (Flickr)

Once you have reduced your energy consumption and made it as efficient as is feasible for your business, you may need to transition to renewable energy sources for your remaining energy consumption in order to achieve net zero. This may be more costly and complex than reduction measures. However, it is particularly relevant as a first measure if a large portion of your emission portfolio is created through use of fossil fuels and fossil-fuel-generated electricity in your buildings, production processes, and transport.

Unlike the above energy reduction measures, emissions can be reduced regardless of energy consumption, by investing in renewable energy, most commonly solar power. Product and installation may be purchased upfront in full by your business, or through a number of structured payment agreements. A traditional low-interest business loan may spread the cost over an agreed period of time at monthly intervals.

Alternatively, through entering into a Power Purchase Agreement (PPA) with an investor or dedicated PPA provider, your business can provide roof space for solar panels to be installed, purchased by the PPA provider, at no upfront cost to your business. The provider then sells you electricity based either on usage, or a fixed monthly amount, to be agreed between both parties. After an agreed time, usually 20-25 years, ownership of the panels typically transfers to your business for the remainder of the solar panels' lifespan, in which time electricity is provided free of cost. A business themselves may purchase panels and act as a PPA provider to other building occupants. When installing solar panels, landlord permissions, planning permissions, length of planned building occupancy and return on investment should all be considered.



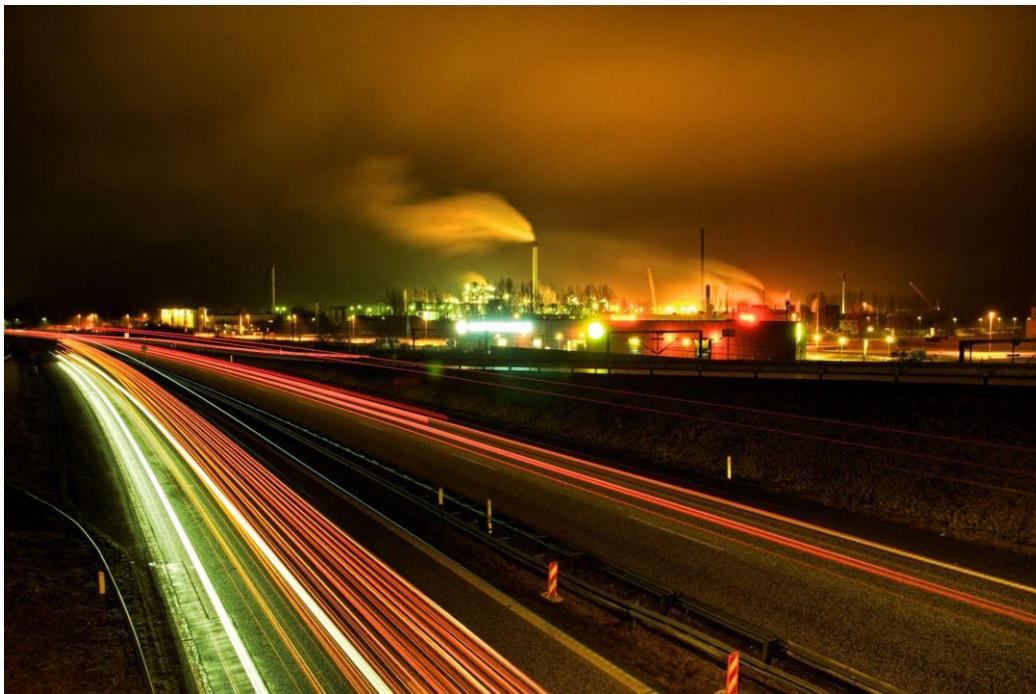
Photo: [Plug In Electric Vehicle](#) Charging. Credit: Noya Fields (Flickr)

In addition to buildings, vehicles represent a potentially key source of carbon emissions. Transitioning company vehicles towards being renewable, through replacing entirely fossil-fuelled fleet vehicles with plug-in battery electric, plug-in hybrid or self-charging hybrid vehicles is one option to reduce emissions. This works because electricity can be supplied fully or partly from renewable sources for plug-ins, or from energy captured during braking in self-charging hybrids, lowering fossil fuel consumption. Different models may have different mileage and this may be a deciding factor in which type of electric vehicle you choose. The installation of charging infrastructure for plug-in electric vehicles must be considered prior to purchase.

When considering exchanging a vehicle in your fleet, it is important to also consider where in its life cycle the vehicle sits. This is because the production of electric vehicles emits a lot of carbon, so replacing a fossil fuel powered vehicle with an electric vehicle too early can have a detrimental carbon impact overall. The best option typically is to replace vehicles that are naturally due to come out of a set number of years' service in the company fleet, with electric or hybrid vehicles. This additionally minimises costs in transitioning a fleet.

Governmental assistance with financing electric vehicles is available in a number of forms. Firstly, Enhanced Capital Allowance² (ECA) applies to electric cars and equipment for electric charging sites. ECA allows businesses to deduct the full cost of the product from profits, before profits are taxed. The Workplace Charging Scheme³ is an additional voucher-based grant which may cover up to 75% of the purchase and installation of electric vehicle charging points. There are also low-emission vehicle grants⁴ available towards the cost of government-approved electric vehicles, the cost granted varying by vehicle type, and given directly from the government to dealerships and manufacturers on behalf of the buyer.

Offsets and green investments



Picture: [Motorway](#) in front of factories at night. Credit: Troels Dejgaard (Flickr).

Lastly, it is tempting to offset any remaining carbon emissions from your business. However, carbon offsets are very much a final and potentially futile option. This is because the complexity of carbon systems and the years it may take for sequestering components such as trees to mature, make it difficult to immediately and accurately balance a carbon budget at the planet level. Equally, the lack of regulation in this sector makes it difficult to ensure that well-intentioned businesses' money is spent on legitimate and impactful projects.

Instead, investing in reduction and renewables should be prioritised in your net zero plan, because this is the only way to reduce carbon emitted into the atmosphere. From a financial standpoint, businesses which choose to reduce their emissions are additionally more resilient against the increasing risk of carbon taxes. If emission reduction is not possible, investing in renewables and carbon capture technologies which may assist the societal transition to net zero may be a better



alternative than offsetting. Read more about offsets, risk of carbon taxes and investing on our website.

Learn more about the work of Carbon Responsible, check out our carbon measurement tools, and get in touch via our website to further discuss your business' net zero needs.

Sources:

1. [Homeworking Emissions Whitepaper 2020.pdf \(eco-act.com\)](#)
2. [Claim capital allowances: First year allowances - GOV.UK \(www.gov.uk\)](#)
3. [Workplace Charging Scheme](#)
4. [Low-emission Vehicle Grants](#)