

# Becoming Net Zero Carbon

Issued – February 2022

## 1. WHY IS THIS IMPORTANT TO YOUR BUSINESS?

There are obvious ethical reasons as to why we all need to contribute to protecting our planet for future generations. There are also legal and economic ones that will apply to all our businesses.

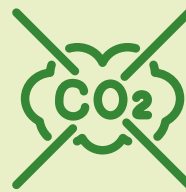
Because of this there are changes to the way that buildings are being built, and our clients, the contractors, will have to work to stricter targets to ensure their whole supply chain is contributing to a Net Zero Carbon future.

From small house builders to large scale contractors, every construction project will be delivered by a Net Zero Supply chain by 2050 in line with both Government and Construction Industry targets. Contractors and developers are adapting their procurement scoring to appoint scaffolding specialists that will contribute to this target.

NASC member businesses account for the vast majority of scaffold revenue in the UK and are in prime position to lead in decarbonising our industry, whilst preparing our businesses to be selected as part of the Net Zero Supply Chains of the future.

A sustainable business also increases efficiency and reduces costs.

This pack of information will help you:



1. Meet contractor requirements for a zero-carbon supply chain



3. Reduce material waste and costs.



2. Reduce energy use and costs.



4. Significantly reduce your carbon footprint and meet Net Zero Carbon targets you set.

## 2. GLOSSARY & FAQ

This section provides a summary of key terminology and answers some questions regarding Net Zero Carbon.

**This is a live document that is added to regularly based on questions asked by NASC members.**

**If you have a question that is not answered in this section, email us at [enquiries@nasc.org.uk](mailto:enquiries@nasc.org.uk) and we will answer your question and include it for reference for other members.**

### Why is everyone concerned about carbon reduction?

Earth's atmosphere is surrounded by a layer of gases which regulate the temperature of the planet by allowing in radiation from the sun while radiated heat from the planet is released out into space.

Human activity, such as burning fossil fuels, has accelerated changes in this cycle and altered the

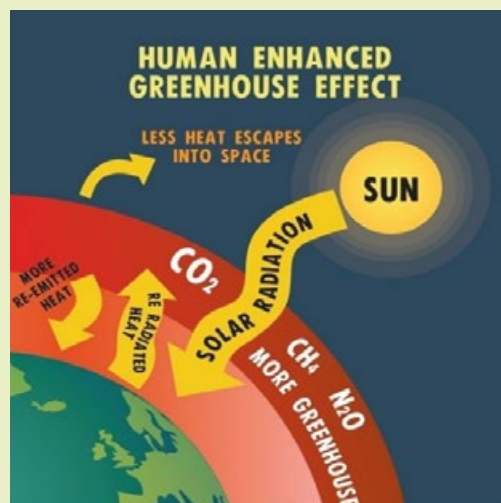
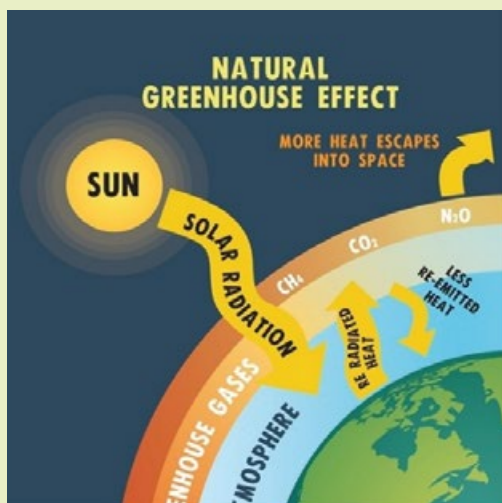
chemical composition of this layer of gases due to an increase in production of greenhouse gases – primarily Carbon Dioxide (CO<sub>2</sub>), but also Methane and Nitrous Oxide.

This results in less heat from the planet filtering back out through the layer into space, increasing the Earth's temperature and contributing to a change in our climate.

If no action is taken this will result in irreparable damage and irreversible change to the planet.

Several Treaties have already been agreed by World Leaders to work together to control the amount of change by reducing the amount of greenhouse gases being produced.

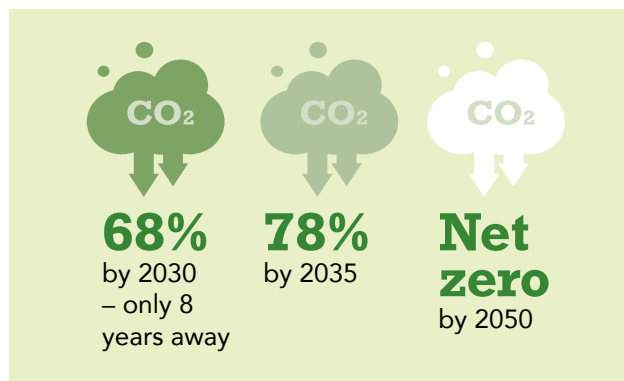
As the single biggest contributing factor, much of the focus is being placed on the reduction of carbon emissions.



<https://climatescience.org/advanced-greenhouse-gases>

### What are the UK's climate targets?

The UK Government has set legally binding commitments to reduce CO<sub>2</sub> emissions:



These targets will impact on all businesses and how we operate in the coming years.

### How do we measure our carbon emissions?

This is the starting point for your journey to net zero. Understanding the size and composition of your carbon footprint is essential in prioritising the changes you can make.

However, it is not easy to do yourself. Online calculators are generic and do not offer a validated measurement.

If you need an independently validated audit, we can connect you with our partner Engie to discuss further.

### What are Scope 1, 2 and 3 emissions?

Carbon emissions are categorised under 3 scopes:

<b>Scope 1: Direct Emissions</b>	Produced from our business activities, such as through our fleet and use of plant / machinery.
<b>Scope 2: Indirect Emissions</b>	Secondary sources such as electricity in our offices.
<b>Scope 3: Supplementary Emissions</b>	Sources such as those our supply chain is responsible for and employee travel to work.

These categories of emissions need to be understood as reductions in particular scopes impact your status towards net zero.

### What is Net Zero Carbon?

Net Zero Carbon is achieved when our businesses make significant reductions in all 3 scopes and offset the amounts that cannot be reduced.

Search for approved offset programmes. There are lots of interesting options from planning trees to supporting enterprises in developing countries.

Offsets however must be used on top of continuous reduction efforts. You cannot achieve NZC status if you are offsetting emissions that are possible to reduce or remove from your business.



### What is Carbon Neutral?

Carbon Neutral means that you have reduced the amount of CO<sub>2</sub> your business produces as much as possible based on what you can control and you offset the rest by financing projects that remove CO<sub>2</sub> from the atmosphere.

### What is Carbon Negative?

Carbon Negative can only be achieved once your business has become Net Zero Carbon.

Carbon Negative cannot be simply achieved by offsetting more CO<sub>2</sub> emissions than your business uses.

On top of having a zero carbon footprint, your business has to prove that it is additionally removing CO<sub>2</sub> from the atmosphere through its own operations.

There are products emerging that capture carbon from the atmosphere, including scaffold sheeting. As these products are tested and become more widely available, becoming carbon negative in the future may be a possibility for some businesses.

### What are offsets?

Offsets are approved projects that remove CO<sub>2</sub> from the atmosphere that you can contribute to financing.

Approved projects will allow you to finance the amount of CO<sub>2</sub> you need to offset and there are a wide variety to choose from both in the UK and in developing countries.

Examples include financing of re-forestation projects or the provision of energy efficient stoves in developing countries.

### Can I self-certify as Carbon Neutral or Net Zero Carbon?

No. You will need to provide evidence to an organisation that can certify your status with the Carbon Trust.

You will need to provide clear evidence of reduction in emissions under the relevant scopes over time and that the amount you need to offset is as minimal as possible under your current strategy.

You cannot be 'business as usual' and simply offset your emissions.

### How do I find Carbon Offset Programmes?

A quick search online will introduce you to many organisations that offer offset programmes. But be cautious when choosing who you use.

Firstly ignore any claims that they can certify you as Carbon Neutral simply through using them to offset all of your emissions as this is incorrect.

Select an organisation where their offset programmes are approved by an accredited body such as The Carbon Trust, The Gold Standard and the Verified Carbon Standard.

### What is PAS 2060?

PAS 2060 is a specification standard detailing how to demonstrate carbon neutrality, produced and published by the British Standards Institution (BSI). Companies can self-certify to PAS 2060 or seek third-party verification.

PAS 2060 was developed by BSI (and other organisations such as Defra and Carbon Trust) to specify requirements to be met by an organisation seeking to demonstrate carbon neutrality through the quantification, reduction and offsetting of greenhouse gas (GHG) emissions and came into effect in April 2010.

### How does this link to ISO 50001 and 14001?

ISO 140001 – Environmental Management and ISO 14001 – Energy Management are excellent starting points on your sustainability journey.

You can achieve Net Zero without them, but they help you create policies that fit with the wider environmental and energy efficiency drive.

### Why does this affect temporary works?

Our path to Net Zero is not as challenging as some trades because we are temporary works. However, all operations within the construction supply chain need to contribute to reducing emissions where we can.

### Can we be Net Zero and still use steel?

The manufacture of iron and steel is responsible for 11% of global CO<sub>2</sub> emissions.

There is a misconception that our businesses can't achieve Net Zero Carbon whilst we use steel that is manufactured using fossil fuels. As this process is outside our businesses' control, this is not true due to the scope definitions our businesses' work towards.

Encouragingly, a growing number of steel manufacturers have made Net Zero pledges and there is active exploration and movement towards carbon reduction processes and carbon capture methods in steelmaking in Europe and even in China. The process used for manufacturing Aluminium (electrolysis) is also being investigated for use in steel making.

Demand from industry for carbon reduction will have a combined effect on manufacturers. As the cost of low-carbon materials fall our demand will increase.

So, in the future we will be able to establish Green Procurement Policies and it will become possible to procure more sustainably manufactured steel products.

### What is embodied carbon and does it apply in temporary works?

Embodied carbon means all the CO<sub>2</sub> emitted in producing materials. It is estimated from amount of the energy used to extract and transport raw materials as well as emissions from manufacturing processes.

The embodied carbon of a building can include all the emissions from the construction materials, the building process, all the fixtures and fittings inside as well as from deconstructing and disposing of it at the end of its lifetime.

Temporary works will be defined under the process of building so although we don't use materials that constitute part of the final build, the carbon emitted from the materials we use to support the build, may be included in an embodied carbon calculation.

A good example of this is in our scaffolding boards, where carbon is stored. This carbon will be held until the board degrades or is burnt. Purchasing boards encourages manufacturers to grow more trees.

As long as we dispose of waste timber correctly, carbon can be stored for many years. Concepts such as circular economies can extend carbon storage through reuse of the timber.

### **What are circular economies?**

Restorative material cycles in which waste for one process becomes food for the next; designed-in reuse, recycling, flexibility, ease of repair, and durability.

Examples of this would be recycling our timber.

### **What is product stewardship and how can our suppliers use it?**

Taking responsibility for a product across its entire lifecycle. Companies design their products and develop 'take-back' systems so they can be recycled/remanufactured.

(i.e. Buyback/recycle of waste sheeting).

### 3. QUICK WINS

Ideas to help you quickly reduce carbon usage.

#### Energy

- Changing electricity supplier to renewable energy supplier. Many large energy companies are now moving to sustainable sources of energy as their core provision.
- Review lighting systems in offices and warehouses and phase in LED systems.
- Introduction of motion sensor light switches in office and yard buildings.

#### Waste

- Put in place a waste reduction policy to reduce use of products not just recycling. This would include reduction in paper usage and plastics.
- Digitalise processes to reduce paper consumption i.e. electronic invoicing, digital scaffold inspections etc.
- Source schemes to recycle what can be recycled such as timber. Even hard hats can be recycled: <https://www.yesrecycling.org/hard-hat-recycling>.

#### Fleet/Logistics

- Detailed journey planning to optimise logistics and reduce fuel consumption.
- Use of speed limiters on vehicles.
- Changing fuel supplier to 100% carbon offset (UK Fuels now offer this for £0.01 per litre)
- Consideration of vehicle replacement strategies.

#### People, Culture and Communication

- Influence staff through training and awareness campaigns to support environmental protection and improvement.
- Source local labour for projects wherever possible.
- Engagement of the workforce – encourage them to suggest innovation and development.
- Development of a set of simple toolbox talks that companies can use.

#### Travel

- Cycle to work schemes
- Encourage car share schemes
- Encourage staff to reduce business journeys or to combine journeys.

#### Materials/Operations

- Consider sustainable alternatives for hired in plant i.e. HVO or EV.
- Consider current recycling/disposal policies. An example would be to send waste base boards for recycling instead of burning.
- Extend the life of components through increasing servicing and maintenance schedules.



## 4. POTENTIAL INVESTMENTS TO PLAN FOR

Longer term changes that require investment and planning.

### Solar Energy

Solar power is a clean, renewable and sustainable energy source that creates zero harmful greenhouse gases. It works by converting energy from the sun into electricity and heat, even in cloudy climates.

Installation of Solar Panels can help businesses generate their own clean energy. There are two types of solar panels: Solar PV which generates an electric current and Solar Thermal that generates heat. The technology in both are lightly different.

The investment required is often a barrier to businesses using solar energy, but the panels work effectively for 25 years with the materials used being more widely recycled.

There are schemes that help businesses invest in solar such as PPA (Power Purchase Agreement) which can be used to cover the capital cost of materials and installation of solar panels, effectively giving you free solar panels at your premises. The installer will take a percentage of the electricity generated to cover the installation and maintenance costs.

### Hydrotreated Vegetable Oil (HVO)

HVO fuel can reduce CO<sub>2</sub> emissions by 91%. It is manufactured by hydrotreating waste fats and vegetable oils from sustainable and renewable sources. Check that suppliers have the International Sustainability and Carbon Certification before choosing who you purchase it from.

Being 100% hydrocarbon, HVO has better performance and stability than other biofuels, and is a popular green alternative available at the pump in many countries in Europe such as Sweden and Finland.

HVO Fuel can often be used without the requirement to change filters on your existing vehicles but do check with your vehicle manufacturer.

### Electric Vehicles

Electric vehicles are the future, and the Government are ensuring that charging infrastructure and incentives are in place to encourage more of us to move to electric or hybrid technology.

For company vans and cars this may be a nearer term option for many businesses. The technology for HGVs however needs improving before investment can be fully considered.

Businesses investing in EV may want to consider:

- Provision of charging points at the business locations which will also help employees who do not have a company vehicle but drive to work and want the option to purchase electric/hybrid cars.
- Use of electric forklift trucks within the yard.



## 5. GRANTS AND INCENTIVES

<https://www.ofgem.gov.uk/information-consumers/energy-advice-businesses/find-business-energy-efficiency-grants-and-schemes>

Ofgem provide a clear guide on what is available and what you need to do.

<https://www.fitariffs.co.uk/commercial-grant-funding/>

This website provides details on the grants and tariffs available to businesses.

<https://www.gov.uk/guidance/electric-vehicle-chargepoint-and-infrastructure-grant-guidance-for-installers>

The UK Government's Workplace Electric Vehicle Charging Scheme.

<https://www.engie.com/en/news/ppa-power-purchase-agreement-what-is-it>

Power Purchase Agreements – what they are and how to select one.

## 6. DRAFT POLICY STATEMENT TEMPLATE

Please see the appendix on Page 12.

As a start point for members who are new to this area we have supplied a draft policy statement that can be tailored to your individual business needs.

Please update your specific company details and your individual plans and commitments for carbon reduction.

## 7. SOURCES OF USEFUL INFORMATION

### **ConstructZero**

<https://www.constructionleadershipcouncil.co.uk/workstream/co2nstructzero/>

### **Greenhouse Gas Protocol**

<https://ghgprotocol.org/>

### **Pledge to Net Zero**

<https://www.pledgetonetzero.org/>

### **Government 10 Point Plan**

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/936567/10\\_POINT\\_PLAN\\_BOOKLET.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf)

### **Supply Chain Sustainability School**

[www.supplychainschool.co.uk](http://www.supplychainschool.co.uk)

### **The Carbon Trust**

<https://www.carbontrust.com/>

*“The Carbon Trust offers businesses free, independent advice on efficient energy usage and installing sources of renewable energy. Use their Green Business Directory to find suppliers they have accredited. The National Energy Foundation YouGen website offers a similar tool”*

### **Federation of Small Business**

<https://www.fsb.org.uk/resources-page/transition-to-net-zero-with-the-zero-carbon-business-portal.html>



## 8. NET ZERO CARBON POLICY STATEMENT

**BUSINESS NAME** understands its moral and legal duties in protecting the environment and moving towards a long term sustainable business model which removes or minimises negative impacts on the planet.

The Business is committed to reducing the amount of carbon and other greenhouse gas emissions generated by its scaffolding operations and activities and is working towards a position of net zero carbon by 20XX (based on current legislation).

As part of this commitment it will ensure that it has a clear and methodical understanding of its current carbon emissions levels to provide the basis for specific and meaningful reductions targets and setting of key milestone dates.

The Company will ensure that all aspects of operations are considered including fixed and mobile site facilities, purchasing, transportation, site operations, waste production and management, resource provision and usage, training and development and office based activities.

It will consider and understand direct, indirect and supplemental emissions affected by the business and will ensure the development of strategies for reductions in all 3 scope areas.

It will ensure appropriate training and communications across the business operations to ensure that all employees, and others working for and on behalf of the business, understand these fundamental commitments and how they can implement changes and improvements in their areas of operations.

The company is committed to – **(examples only)**

1. Replace existing Euro 5 engine wagons with Euro 6 vehicles by July 2023
2. Switch energy supply to a renewable energy provider by June 2022
3. Install motion sensors in office building to reduce annual electric consumption by 15%
4. Carry out internal training on carbon reduction across entire workforce by December 2022

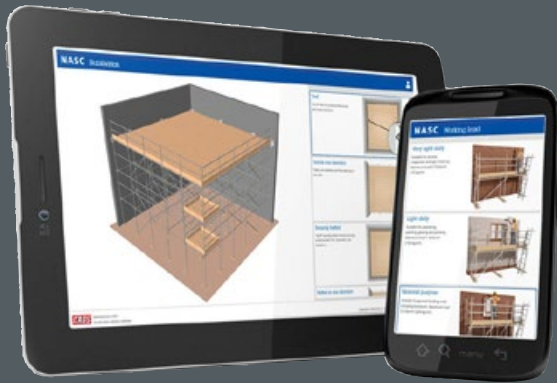
This policy and the objectives and targets developed from it will be reviewed at least annually.

J Smith

**Title**

**Date**

# Guidance that makes a difference



- Comprehensive industry guidance, recognised by the Health & Safety Executive (HSE)
- Targets all safety and commercial risks, ensuring your business remains safe and profitable
- Meticulously researched and written by experienced professionals, focused on improving the scaffolding industry
- Aimed at the busy general manager with user friendly, step-by-step advice
- Cutting edge technical guidance on best practice, including ePortal and compliance sheets, that could save you thousands of pounds
- Guidance used by the whole industry – but NASC members receive much of it free and the rest at a huge discount of up to 82%.

***“Setting the Standard for Scaffolding”***



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