

A large, stylized graphic of a leaf shape, composed of numerous small icons related to sustainability, such as recycling symbols, wind turbines, solar panels, water drops, and globes. The icons are arranged in a pattern that forms the outline and internal structure of a leaf, pointing towards the top right corner of the page.

**Net Zero:  
A guide for SMEs  
working in the  
built environment**





## Who is this guide for?

The national effort to make the UK economy fully Net Zero by 2050 affects every sector and every business, and it will have huge implications for the built environment.

All built environment projects, large or small, new build or refurbishment, will need to take account of Net Zero. This means that consultancies which work with clients on these projects need to be able to support clients around this topic.

This guide is aimed at SME consultancies working in the built environment. It will support them on a topic which, unless you are a specialist carbon consultancy, can be complicated to get to grips with.

As well as helping you understand the Net Zero landscape, the guide will explore the relevant drivers affecting your clients' decision-making, and how you can prepare to seize the business opportunities in this space, while exceeding client expectations.



## 1. What is Net Zero?

Much of the terminology associated with Net Zero is often used loosely. When working with clients, or other parties such as other consultants, contractors, and local authorities, for example, it is vital to clarify and agree what the terms used mean in the context of a project.

The table overleaf, which summarises widely accepted definitions of commonly used phrases, may be useful.

| Term                                    | Widely accepted definition   | Examples in use   |
|---|--|---|
| Net Zero                                | Total GHG emissions are no greater than GHG removals from the atmosphere. Achieving this at global level is essential to limit the long term impacts of climate change.  |   |
| Net Zero – country level                | Territorial greenhouse gas emissions are equal or less to territorial GHG removals. UK government now includes UK share of international shipping and aviation emissions in this definition.   | <a href="#">UK Climate Change Act</a>   |
| Net Zero – organisation level           | There is no single definition of what Net Zero means at organisation or project level. Best practice is generally seen as maximising efforts to reduce embodied and operational emissions and ensuring that the project is aligned to a future Net Zero economy and using accredited offsets only as a last resort.  | <a href="#">UK Green Building Council</a>   |
| Carbon neutral                          | At a company/project level, usually means offsetting the full amount of emissions. Does not necessarily imply any effort to reduce emissions, however.   |   |
| 'Climate positive' or 'carbon negative' | Refers to an activity, project or organisation which removes more emissions from the atmosphere than it emits.   |   |
| GHGs                                    | Greenhouse gases – primarily carbon dioxide (CO <sub>2</sub> ), nitrous oxide (N <sub>2</sub> O), methane (CH <sub>4</sub> ) and ozone (O <sub>3</sub> ).  | <a href="#">US Environmental Protection Agency</a>  |
| CO <sub>2</sub> e                       | A carbon dioxide equivalent or CO <sub>2</sub> equivalent, abbreviated as CO <sub>2</sub> -eq is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.  | <a href="#">Eurostat</a>  |
| Embodied Carbon                         | Emissions from the creation and transport of construction materials.   | <a href="#">Construction Leadership Council (CLC)</a>   |
| Embodied Carbon                         |  | <a href="#">RICS</a>  |
| Offsetting                              | Offsetting is a way of paying for others to reduce emissions or absorb CO <sub>2</sub> to compensate for your own emissions.   | <a href="#">Smith School, University of Oxford</a>  |
| Oxford principles                       | Set of principles to define acceptable approaches to offsetting.   | <a href="#">Smith School, University of Oxford</a>  |
| Low Carbon                              | Emitting less carbon than traditional fossil fuelled equivalents   |   |
| Scope 1                                 | Direct emissions related to onsite fuel combustion or fleet vehicles.  | <a href="#">Green House Gas Protocol</a>  |
| Scope 2                                 | Indirect emissions related to the generation of purchased energy, such as heat and electricity.  | <a href="#">Green House Gas Protocol</a>  |
| Scope 3                                 | Other indirect emissions related to both emissions from upstream and downstream business activities.<br><br>Scope 3 emissions are usually larger and more complicated to measure. In claiming Net Zero emissions, a corporation needs to specify which scopes it is considering to ensure full transparency. When talking about a Net Zero strategy, all three scopes of emissions need to be addressed. | <a href="#">Green House Gas Protocol</a><br><br>Please see notes for more information on Scope 3. |
| Science based targets                   | Targets that are based on an appropriate contribution (for that sector or organisation) to global emission reduction scenarios   | <a href="#">Science based targets</a>   |



## What is the UK trying to achieve?

The Paris Agreement, a legally-binding treaty agreed at the COP meeting in 2015, required the signatory countries to set their “highest national ambition” in terms of emission reduction.

The UK Government asked the Committee on Climate Change (CCC) – the statutory advisory body set up under the Climate Change Act – to advise it on what the UK’s highest ambition could credibly be.

In 2019, the CCC [reported](#) that the UK could achieve Net Zero emissions by 2050. In one of Theresa May’s last decisions as Prime Minister, the Government formally accepted the advice and the previous target enshrined in the Climate Change Act Change – an 80% reduction of emissions between 1990 and 2050 – was changed to Net Zero by 2050.

Since Boris Johnson became Prime Minister, the Government has gone even further, including international aviation and shipping in the national target, and by confirming the CCC’s proposed [Sixth Carbon Budget](#), which provides a legally binding trajectory of emissions over the 2030s to keep the UK on track for Net Zero by 2050.

## What does the Net Zero target mean?

Territorial GHG emissions in 2050 must be equalled or exceeded by GHG removals from the atmosphere within the UK.

Many people have questioned why only emissions occurring within the UK are included, with emissions embodied within imported products not counted. The logic here is that the international climate change agreements require all countries to play their part in reducing emissions within their own borders, with international carbon border taxes sometimes suggested as a mechanism to further incentivise this.

While the national Net Zero target excludes ‘imported emissions’, many organisations who have global supply chains do include such emissions in their own Net Zero strategies and targets.

## How we will reach it?

UK emissions were 44% below 1990 levels in 2018, largely due to progress reducing emissions in electricity generation, waste and in the industrial sector<sup>1</sup>.

The First (2008 to '12) and the Second Carbon Budget (2013 to '17) have been met and the UK is on track to meet the Third (2018 to '22). However, it is not currently on track to meet the Fourth (2023 to '27) or the Fifth (2028 to '32). Crucially, these budgets were set against the previous target of an 80% reduction in emissions by 2050. The updated Net Zero target means that progress must accelerate, and the Government has recently adopted a Sixth Carbon Budget (2032 to '37) which incorporates a sharper decline.

An aerial photograph of a wind farm in a lush green field. Two large white wind turbines are visible, with a dirt path leading between them. The background shows rolling green hills under a clear sky.

## The CCC has summarised what the UK needs to do to meet Net Zero:<sup>2</sup>

- Resource and energy efficiency which reduces demand for energy across the economy.
- Societal choices that lead to a lower demand for carbon-intensive activities.
- Extensive electrification, particularly of transport and heating, supported by a major expansion of renewable and other low-carbon power generation.
- Development of a hydrogen economy to service demands for some industrial processes, for energy-dense applications in long-distance HGVs and ships, and for electricity and heating in peak periods.
- Carbon capture and storage (CCS) in industry, with bioenergy for GHG removal from the atmosphere, and very likely for hydrogen and electricity production.

## What does this mean for the built environment?

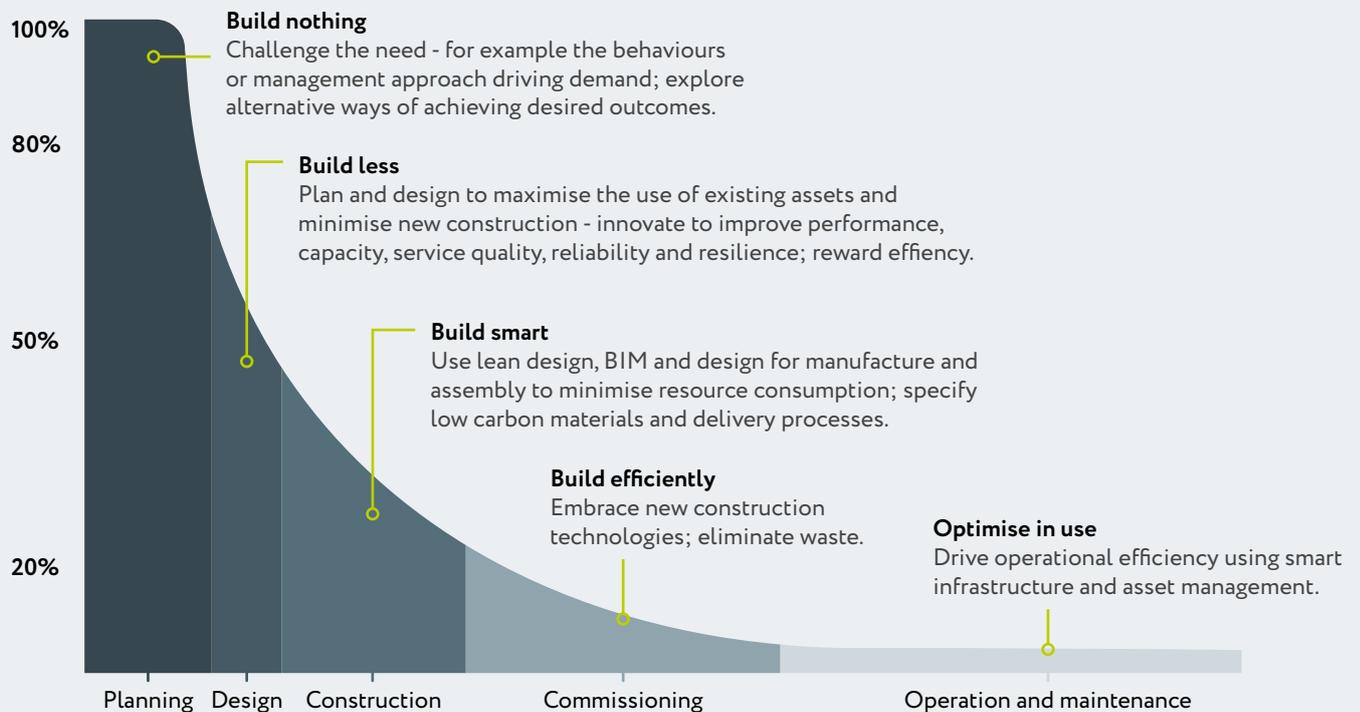
The built environment accounts for around 54% all UK emissions<sup>3</sup>.

This comes from a combination of:

| <b>Capital carbon<br/>(‘Capcarb’)</b>   | <b>Operational carbon<br/>(‘Opcarb’)</b>  | <b>User carbon<br/>(‘Usecarb’)</b>   |
|---|---|--|
| emissions embodied within the construction materials themselves, and emissions from the construction activity | emissions created by the operations of assets, for example heating, cooling and lighting of buildings | emissions created by those using the asset, for example, vehicles on a road, additional equipment in buildings |

To achieve Net Zero by 2050, all these types of emissions must be reduced to virtually nothing. In practice, this means exploring the following:

**Fig one: Carbon reduction potential**



Source: Infrastructure carbon review seven years on<sup>4</sup>

Note: The graphic is focused on economic infrastructure – for buildings the same principles apply but the scope for carbon savings in the ‘optimise in use’ area is greater than shown here.

Repurposing and refurbishing existing assets will become more prevalent as a way to reduce capital carbon. Assets that have high levels of operational and user carbon may become stranded in the future as investors are reluctant to hold them and regulatory change may make them unviable.

Some of these changes will be driven by regulation, others by consultants, clients and contractors demonstrating leadership. For example, the [CO<sub>2</sub>nstructZero campaign](#), launched in 2021 by the Construction Leadership Council (CLC), is championing the role of the broader construction sector in driving change.

## 2. Addressing your own emissions

Whatever your specialisms as an SME consultancy, you will need to demonstrate to your clients that you are living your values and are acting to minimise your own emissions as a business.

The steps to do this are:

### 1. Understand and assess your own emissions

As a professional services firm, your emissions are likely to mostly come from mostly from your offices and business travel. You will also be creating indirect emission, for example through the commuting that your staff do, or emissions linked to their home working.

Emissions are divided into different 'scopes' to clarify how directly related to the business they are. You should use the [GHG protocol](#) to help understand your businesses' emissions.

### 2. Set a target

In the past, organisations tended to set relatively arbitrary targets in terms of emission reduction. Best practice is now is seen as setting a 'science-based target' with schemes such as the [Pledge to Net Zero](#) creating guidance to help you do this.

### 3. Decide whether to join a pledge scheme

As outlined below, there are a number of public pledge schemes relevant to consultancies. Decide which one best-fits your circumstances.

### 4. Provide annual reporting and progress against targets

Pledges and targets are not credible unless the business reports on progress against them, and proactively takes action to ensure they are met.

Fig. two: Public pledge schemes



Company's own Net Zero policy/statement. This should at least include some form of target for their own emissions.



Public pledge scheme for internal emissions only.  
For example, *Pledge to Net Zero* or the *Race to Zero*.



Public pledge to work with clients in a Net Zero way.  
For example, *Engineers Declare*.



Public pledge on internal and client emissions.  
For example, *CO<sub>2</sub>nstruct Zero Business Champion*

### 3. Business models and market opportunities

Ensuring your business and your approach to clients is 'carbon literate' will expand business opportunities. What these opportunities are will depend on your specialism and your positioning in the built environment 'eco-system', but key areas may include:

- **Retaining clients** – All built environment projects will need to factor in Net Zero considerations in the coming years. Even if carbon is not your specialism, understanding the role of Net Zero in your clients' landscape and being able to identify critical issues or constraints will enable you to deliver a better service and more rounded advice.

You may also be able to work more closely with other stakeholders in a larger project, For example a planning consultant who may be tasked with meeting carbon performance targets to get a project through the planning process.

- **Taking advantage of value-based business models** – Traditionally consultancy worked with a business model based on charging for time-based inputs. This is changing, with increasing interest in value-based models where consultants [are rewarded for the value they bring to a project](#). Net Zero factors, such as in-use energy performance or reductions in embodied carbon, will increasingly feature in these new reward models.
- **Supporting clients to access new government support** – The changes needed in the built environment are such that ongoing policy interventions including subsidy and grant schemes are likely to be used. For example, the recent Public Sector Decarbonisation Scheme, where public sector bodies could bid for funds for low carbon refurbishments of assets.

Likewise, the Scottish Government's Net Zero Public Sector Buildings Standard includes a role of 'project Net Zero Champion' – an opportunity for carbon-literate consultancies to position themselves at the heart of public sector projects.

- **Advising local authorities** – Nearly three-quarters of local authorities have declared climate emergencies<sup>5</sup>. While the major unitary and county authorities may have the resources to engage global consultancies to develop strategies to back up these 'declarations', this will not be true of smaller areas or towns who may turn to local SME consultancies.

In considering these opportunities, you will also need to consider your firm's capabilities and skills base, and whether you want to develop these through the investment of relevant skills, or through the partnering with specialised carbon consultancies.

## 4. Engaging with clients

How will Net Zero change what clients want or expect?

As an SME consultancy, you may be working with SME clients across a wide range of sectors, or you may be a sub-contractor providing specialist input to a major infrastructure project. It is important to understand the drivers behind a client's attitude to Net Zero, in order to better meet their expectations.

These could include:

- **Corporate reputation** – The company could be a signatory to a public pledge scheme, or it has made its own public commitments, or simply that it wishes to be seen as a “better than usual” company in its sector or in its local community around Net Zero issues.
- **Sector Net Zero plan** – The firm may be a member of a sectoral trade association which has a published a Net Zero plan to which all its members are either required or strongly encouraged to adhere to.
- **Customer pressure through supply chain** – Many large corporates now enforce certain carbon policies/standards throughout their supply chains. This can often be on a global, rather than national basis. Alternatively, the firm may need to meet certain standards to tender for public sector work, for example.
- **Regulatory compliance** – The firm may need to adhere to Government regulations such as the forthcoming Future Buildings Standard<sup>6</sup>.
- **Investor pressure** – The firm may need to reassure its investors of its Net Zero credentials, or to meet certain standards to access finance.
- **Public sector** – Public sector projects are expected to follow the Construction Playbook which emphasises the need to achieve Net Zero, making clear that, “All contracting authorities should set out strategies and plans for achieving Net Zero GHG emissions by or ahead of 2050 for their entire estate/infrastructure portfolio.”<sup>7</sup>

# Construction Innovation Hub's Value Toolkit

Developed in partnership with over 200 experts from across government and industry, the Value Toolkit is a government backed initiative designed to change the way the construction industry thinks about and measures value.

It is intended to provide a structured process to help clients and their advisers optimise the social, environmental and economic outcomes from projects, programmes and portfolios, tackling difficult questions head on, and enabling more balanced, informed investment decisions.

Encouraging clients to use the Toolkit right from the start of your engagement with them can ensure that Net Zero issues are considered at an early stage in project planning, along with financial goals and broader types of value such as social value and wide sustainability factors.

The Toolkit is currently in beta testing phase. [Visit their website to find out more.](#)

**Fig. three: Value Toolkit in action**

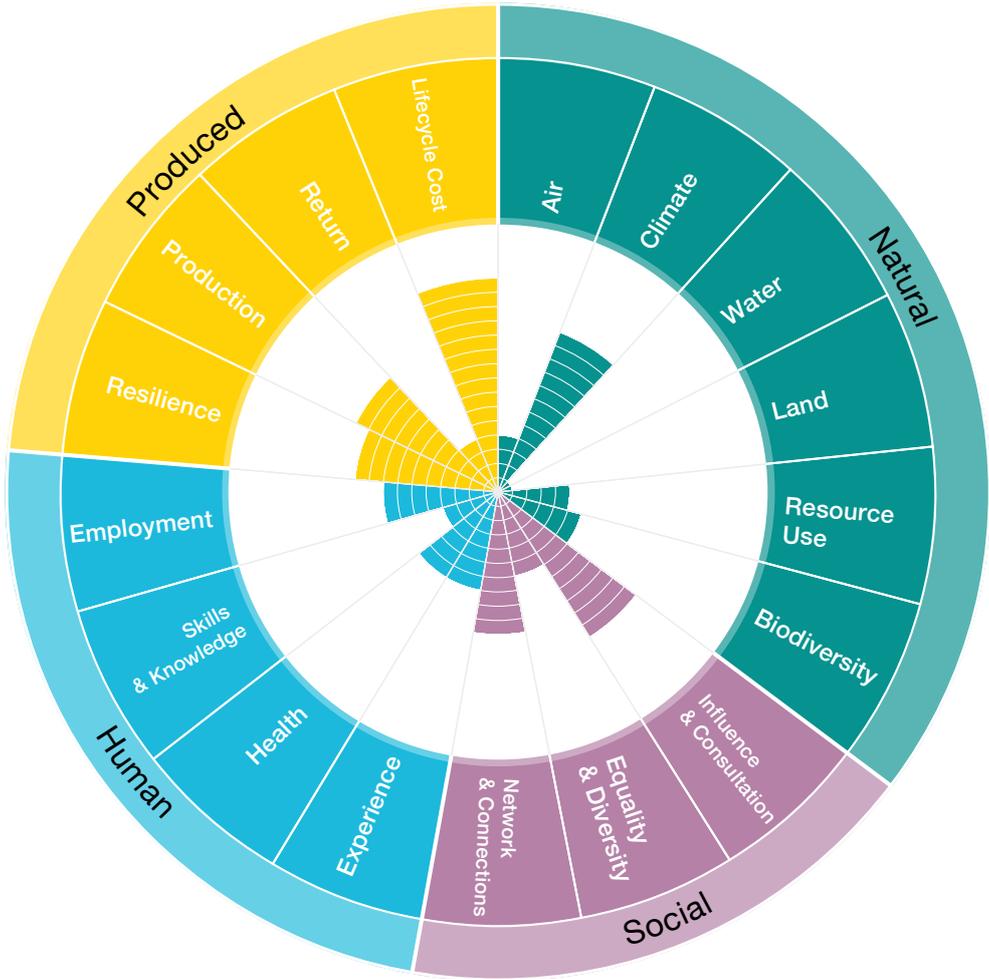
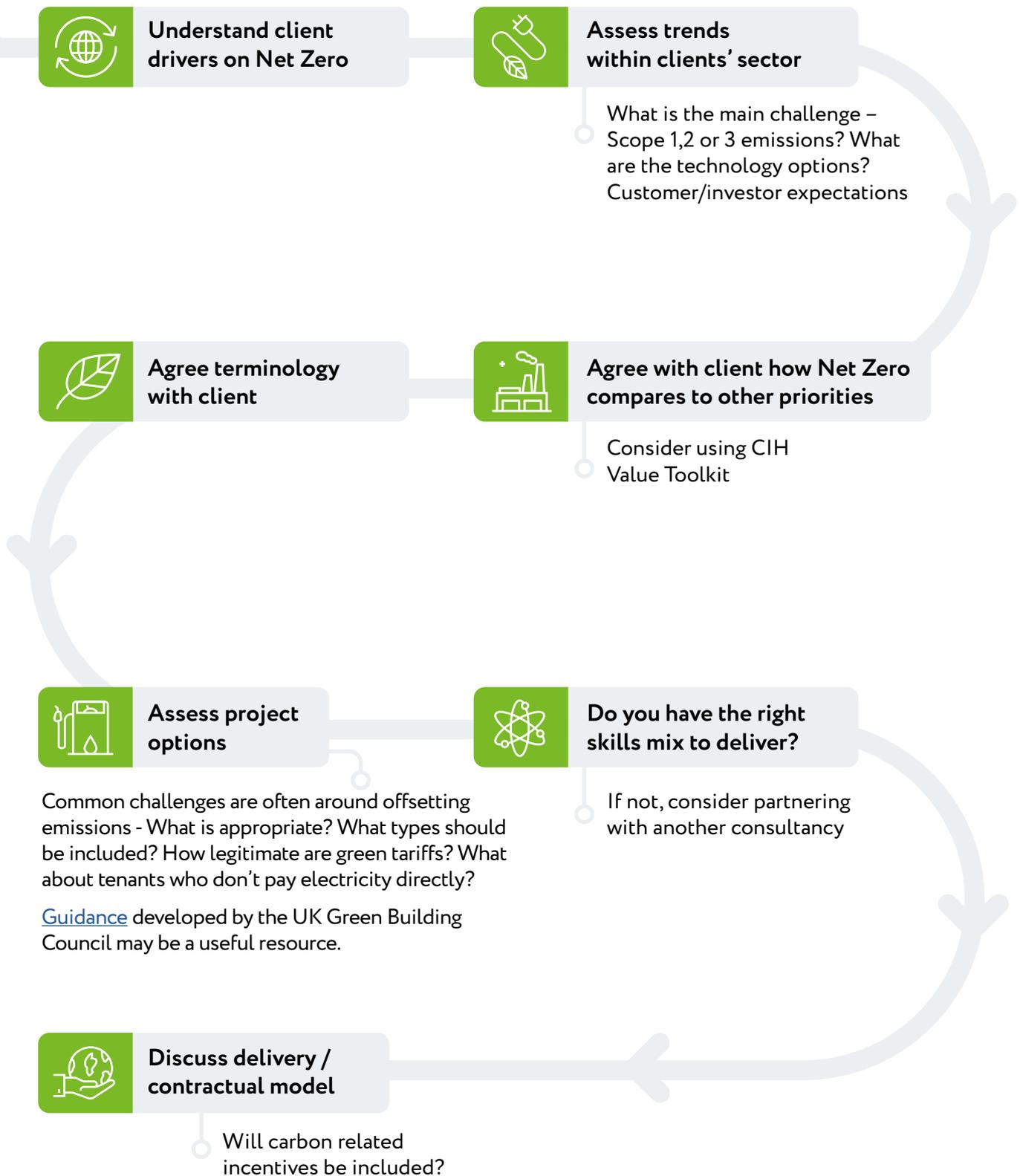


Fig. four: Generating an agreed approach with a client



## 5. Notes and more information

### Policy/regulatory landscape

#### Building standards:

- [Future Buildings Standard](#) - Proposed new standard for energy efficiency in non-domestic buildings

#### Public-sector client Net Zero strategies:

- [Construction Playbook](#)
- [NHS](#)
- [Network Rail](#)

#### City-wide strategies:

- [London](#)
- [Manchester](#)
- [Birmingham](#)

### Pledge schemes in built environment

Below is a list of the main Net Zero pledge schemes relevant to the built environment.

- [Race to Zero](#) – UNFCCC-led ‘umbrella’ campaign.
- [Pledge to Net Zero](#) – helping organisations from the environmental sector to take a leadership role in the transition to a Net Zero carbon economy.
- [CO<sub>2</sub>nstructZero Business Champion](#)
- [UKGBC Net Zero Carbon Buildings Commitment](#)

## Sector plans

An increasing number of sectors have published plans or ‘roadmaps’ for how they will achieve Net Zero. These are often produced through bodies such as sector trade associations.

| Sector              | Plan                           | Owner   |
|---------------------|--------------------------------|---|
| Construction        | CO <sub>2</sub> nstructZero    | <a href="#">Construction Leadership Council (CLC)</a> |
| Water               | Net Zero 2030 Routemap         | <a href="#">Water UK</a>                              |
| Retail              | Climate Action Roadmap         | <a href="#">British Retail Consortium</a>             |
| Steel               | Net Zero Steel Pathway Project | <a href="#">Steel producers</a>                       |
| Aviation            | Jet Zero                       | <a href="#">Jet Zero Council</a>                      |
| Homes               | Future Homes Taskforce         | <a href="#">Home Builders Federation (HBF)</a>        |
| Food                | Roadmap to Net Zero            | <a href="#">Food &amp; Drink Federation</a>           |
| Hospitality         | Zero Carbon Forum              | <a href="#">UK Hospitality</a>                        |
| Concrete and cement | Roadmap to Beyond Net Zero     | <a href="#">Mineral Products Association</a>          |

## Scope 3 emissions

Scope 3 emissions, or emissions indirectly related to the organisation through upstream or downstream activities, present challenges on deciding what should be in and out of scope, and how different types of emissions should be calculated.

Guidance on the categories as a whole and how each one can be calculated can be [found here](#). The GHG Protocol divides Scope 3 emissions into 15 categories as follows:

1. Purchased goods and services
2. Capital goods
3. Fuel- and energy-related activities
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased assets
9. Downstream transportation and distribution
10. Processing of sold products
11. Use of sold products
12. End-of-life treatment of sold products
13. Downstream leased assets
14. Franchises
15. Investments



## Endnotes

<sup>1</sup> Committee on Climate Change (CCC), [www.theccc.org.uk](http://www.theccc.org.uk)

<sup>2</sup> Committee on Climate Change (CCC), [www.theccc.org.uk](http://www.theccc.org.uk)

<sup>3</sup> Institution for Civil Engineers, ICE Carbon Project, 2020 update against Infrastructure Carbon Review prepared by Dr Jannik Gieseckam, [www.ice.org.uk/eventarchive/2020-unwin-lecture-zero-carbon-webinar](http://www.ice.org.uk/eventarchive/2020-unwin-lecture-zero-carbon-webinar)

<sup>4</sup> Construction Leadership Council (CLC), Infrastructure Carbon Review Seven Years On, [www.constructionleadershipcouncil.co.uk/wp-content/uploads/2021/04/Infrastructure-Carbon-Review-seven-years-on\\_March-2021.pdf](http://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2021/04/Infrastructure-Carbon-Review-seven-years-on_March-2021.pdf)

<sup>5</sup> Edie (13 November 2020), [www.edie.net/news/9/Majority-of-local-authorities-have-declared-climate-emergencies](http://www.edie.net/news/9/Majority-of-local-authorities-have-declared-climate-emergencies)

<sup>6</sup> Future Building Standards, [www.gov.uk/government/consultations/the-future-buildings-standard](http://www.gov.uk/government/consultations/the-future-buildings-standard)

<sup>7</sup> Construction Playbook, [www.gov.uk/government/publications/the-construction-playbook](http://www.gov.uk/government/publications/the-construction-playbook)

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