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# Getting started with Net Zero

Part of the  
Low Carbon Lincolnshire  
Programme



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We're working on behalf of  
Business Lincolnshire to deliver  
the Low Carbon Lincolnshire  
programme.



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# Low Carbon Lincolnshire

A programme to help small-medium businesses in Lincolnshire and Rutland with their journey to Net Zero.

- One-hour introductory webinars in February.
- Half-day workshops in Lincoln, Grantham and Market Rasen.
- Virtual workshops.

All open for registration on the Business Lincolnshire website now.



# The Net Zero Agenda



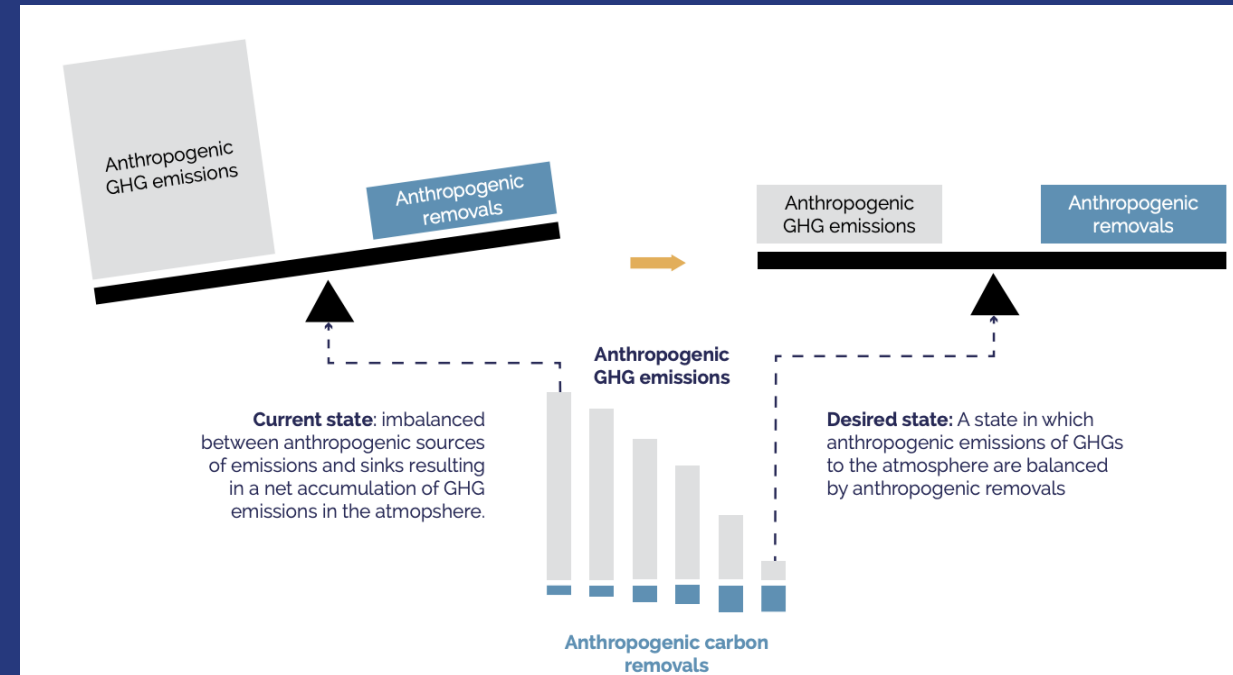
Paris Climate Agreement 2015 – to limit warming to well below 2°/1.5°C above pre-industrial levels

The UK has set, in law, their goal of becoming **Net Zero by 2050**.

- ‘Reaching Net Zero emissions; the activities within **the value-chain** result in **no net impact on the climate...**
- This is achieved by **reducing emissions... balancing** any remaining emissions through **carbon removals.**’

# What actually is 'Net' Zero?

- Ideally, we should be absolute zero carbon – no emissions produced
- We are still heavily reliant on fossil fuels – absolute zero shift is extremely difficult if not impossible
- Therefore, the only pathway for organisations is Net Zero emissions
  - Energy reduction as far as possible – what is realistic
  - Decarbonise remaining energy – ideally 90%
  - Offset remaining emissions – using carbon removals



# Relative terms – Similar, not the same

Companies, processes and / or products can become **carbon neutral** when the respective carbon emissions are calculated, and these emissions are compensated through offsets

Greenhouse gases going into the atmosphere are **balanced** by **removals** out of the atmosphere

All activities result in **no net effect on the climate system**, i.e., any GHG emissions or other activities with warming effects are fully compensated by GHG reductions or removals, or other activities with cooling effects (wider climate investment, etc.)

No GHG emissions produced through business activity. Essentially the business is zero carbon with the need for **offsets or balancing** – this is the end goal for all global activities

**Carbon neutral**

**Net Zero**

**Climate neutral**

**Absolute/true zero**

# Offsetting

Offsetting is the purchase of a 'credit' equal to 1 tonne CO<sub>2</sub>e

Offsetting directly funds an equivalent CO<sub>2</sub>e saving to match your annual emissions

Avoidance offsets reduce additional emissions and can be used to achieve carbon neutral, but Net Zero requires removal offsets where carbon is captured and stored

Avoidance offsets include a wide range of projects and are somewhat established, removals are not yet available at scale and bio-sequestration is limited and complex

There is no 'global' standard only an array of verification standards

Historically, offsets have seen a lot of negative press as validity and permanence have come under question

There is also risk that these can be seen as purchasing improvements through others, rather than investing and making the hard changes yourself



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# Offsetting

**Avoidance offsets do still have a role in a Net Zero pathway, but caution must be taken:**

1. Ensure good action plan supporting carbon reductions can be demonstrated
2. Ensure good quality offsets through verified sources
3. Always seek third-party verification to substantiate any claims of carbon neutrality
4. Carbon neutral is also an ambiguous term, organisational approach is better than product or service



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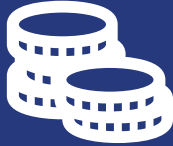




# Why Net Zero?



**Staff Engagement,  
Retention and  
Recruitment**



**Cost and  
Carbon Saving**



**Reduce Risk  
and Increase  
Resilience**



**Access New  
Opportunities**

# Why Net Zero? – Requirements now

## Government Reporting:

### ESOS – Energy Savings Opportunity Scheme

Large companies (listed, LLPs, PLCs) criteria includes >£36m turnover

Energy audits across buildings, industrial, processes, and transport

Outputs are a report on cutting energy consumption with costed recommendations

## Why is it important?

Consultations to discuss an extension to medium enterprises underway – may come into force in 2026

## UK PPN 06/21

### Procurement Policy Note 06/21

- Any supplier wishing to tender to Public Contracts in excess of £5m per annum
- Carbon Reduction Plans – include current carbon emissions and commitment to reducing emissions to achieve Net Zero
- Scope 1 and 2 mandatory, with some Scope 3 subsets required – to be reviewed and updated annually
- Disclosed on the website with historic plans readily available for review on request

## Why is it important?

Likely framework for SMEs to report carbon emissions and the potential for the note to apply to any tender amount

# Why Net Zero?

Climate changes likely to impact us all – both in terms of infrastructure but pressure on supply chains

Significant changes to carbon and climate related disclosures in both UK and EU – regulatory requirements for large organisations

Pressures are likely to be pushed through value chain – already seeing evidence of this

Strong indication that SMEs will be included in mandatory climate reporting

Starting Net Zero processes help to develop necessary framework to satisfy the above

Carbon reductions can lead to financial benefits – certainly will make organisation more attractive to investors

It is going to happen – get ahead while funding and support is readily available

# What you can do to get to Net Zero

1. Make a pledge by [joining the internationally recognised SME Climate Commitment](#).
2. [Measure your carbon emissions](#) using a [free carbon calculator](#).
3. Use the [Calculate the cost of your carbon emissions](#) page to find out how much you could save by switching to greener business practices.
4. Make a plan to reduce your carbon footprint
5. Reduce your carbon footprint now – you can take [no-cost or low-cost actions to reduce energy costs now](#)
6. **Involve your team**
7. [Get your team involved](#) to engage them in initiatives that reduce carbon and save on energy costs.



[UK Business Climate Hub - find advice on energy saving and net zero for SMEs](#)

# What is a Carbon Footprint?

Use of fossil fuels and gases emit Greenhouse Gases (GHGs) into the environment – the measure of these is our carbon footprint

Seven recognised GHGs – some naturally occurring, but continuous burning of fossil fuels puts significantly more into the atmosphere

GHGs each have a “Global Warming Potential” (GWP) which reflects the different impacts each has in terms of their contribution to the warming effect, both in damage and longevity

CO<sub>2</sub> is used as the reference gas with a warming potential of 1, and other GHGs are expressed as an equivalence to CO<sub>2</sub> – hence the term “Carbon” footprint (as a catch all)

Emissions are reported therefore as CO<sub>2</sub>'e' – 'e'quivalence representing the total GHG impact in our calculations



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1

Support the **aims of the Paris Agreement** – **direct decarbonisation in line with climate science**

2

Focus on immediate action, with **interim targets / milestones**  
Reaching Net Zero no later than **mid-century**

3

Inclusive of **all scopes\***

4

Only using removal offsets to *claim* Net Zero – and careful use of these (only residual)



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1

## Scope 1:

Direct GHG emissions from sources a company owns or controls.

- Emissions from boilers / furnaces
- Emissions from vehicles (fleet)
- Fugitive emissions of F-Gases /
- Process emissions

2

## Scope 2:

Indirect GHG emissions from purchased energy

- Electricity
- Heat (district heat network)
- Steam (less common)

3

**Scope 3:** All other GHG emissions from sources not owned or controlled by the reporting company but that the organisation indirectly impacts its value chain

- Procurement
- Waste management
- Business travel (public transport or grey fleet)
- Investments



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1

## Scope 1:

Natural Gas (meter / utility bills)  
Fuels – burning oil, LPG (invoices)  
Petrol / Diesel (invoices / fuel cards)  
Fleet mileage (expense claims)  
F-Gas (service notes / invoices)

2

## Scope 2:

Electricity (meter / utility bills)

3

## Scope 3:

Purchased goods and services (invoices)  
Capital goods (invoices)  
Upstream logistics (supplier)  
Waste streams (waste provider / estimate)  
Business travel (expense claims)  
Downstream logistics (supplier)



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# Organisational approach

## Senior Leadership

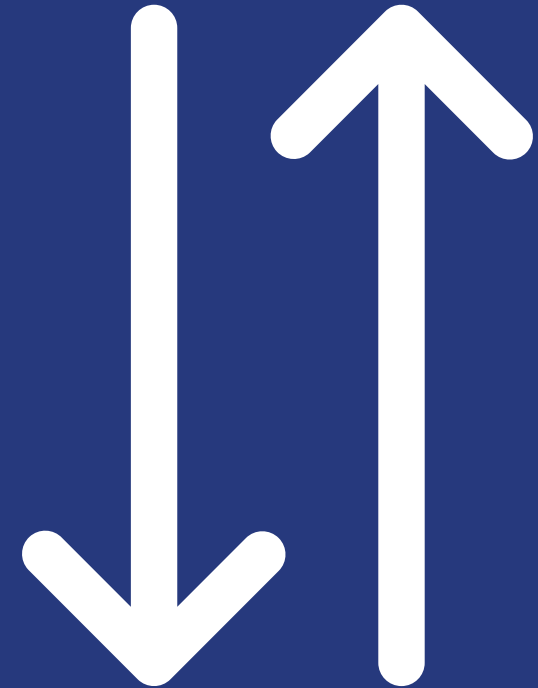
Supports sustainability integration, informs strategy, ensures resources are allocated as required, communicates Net Zero as a priority

## Management

Participates in developing strategy, analyses climate risk and opportunity against processes, ensures engagement at team level, including establishing roles and responsibilities

## Workforce Accountability

- **Procurement:** sourcing decisions
- **Design:** Redesign to low-carbon products
- **Logistics:** Low-carbon logistic shift
- **Commercial/ Marketing:** Customer and other external stakeholder communication
- **Operations/estates/facilities:** Operational sites decarbonisation
- **Finance team:** Funding, investment, budget management
- **IT:** supporting infrastructure – e.g. systems for monitoring and processing carbon data
- **Sustainability specialist/consultant:** Assistance with Net Zero plans and programmes and target setting



# Organisational approach

Each function of the organisation has a role to play in delivering Net Zero, but they need to be engaged to understand their responsibilities.

**Starts with the leadership team, driven by the management team and supported by the organisation**

**1**

**FRONT LOADED EMISSION REDUCTIONS**

Emissions should be brought down as much and as quickly/in the near-term as possible.

**4**

**COMPLEMENTARY TO WIDER SUSTAINABILITY**

**2**

**COMPREHENSIVE EMISSIONS REDUCTIONS WITH INTERIM TARGETS (e.g., 2030 and 2050)**

**5**

**TRANSPARENCY ON TARGET COVERAGE AND PROGRESS**

**3**

**CAUTIOUS USE OF REMOVALS AND OFFSETS**

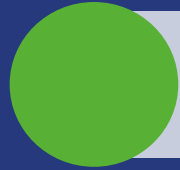
Removals and offsets not to be used as a proxy for emissions reduction

**6**

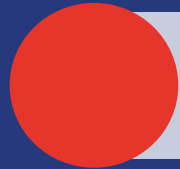
**SUPPORTED BY A DECARBONISATION PLAN**  
e.g., costings, investments, modelling

*Adapted from Nature, The meaning of Net Zero and how to get it right, November 2021*

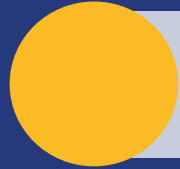
# Target setting - Baseline



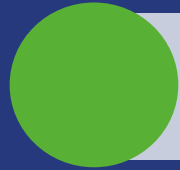
When planning for carbon management, you need to set your baseline carbon emissions footprint using a reference year – this does not have to be the most recent year



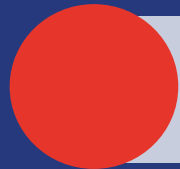
This allows carbon reduction targets and timescales to be selected from your starting position – allows you to track change over time



Various target frameworks make different suggestions, but one common methodology (SBT) requires a single target of Net Zero by a selected year, with an interim target part way through – 2050 Net Zero target, with 2030 interim point – popular for large organisations



An alternative is to have staged targets as this will help you to measure and track performance better, and the suggestion is in 5-year intervals



This should still be driven by annual targets, but the 5-year benchmarks allow time for changes to be made and monitored while smoothing out annual fluctuations



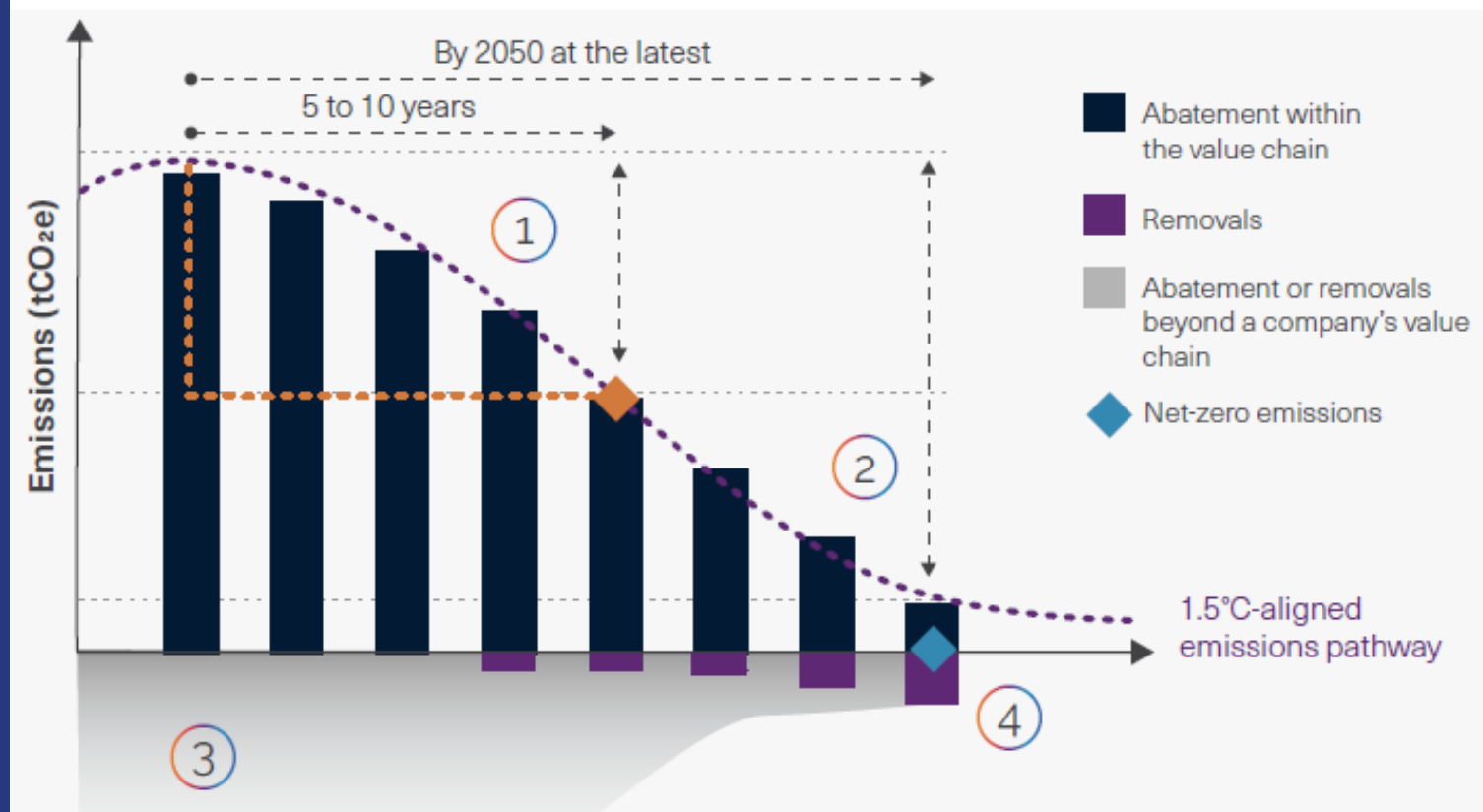
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# Science Based Net Zero – Timeline

Figure 2 Key elements of the Net-Zero Standard



1. Mandatory near-term targets
2. Mandatory long-term target (at least 90-95% of baseline)
3. Recommended investment in climate finance, including offsetting
4. Mandatory carbon removals for residual emissions

# Targeting to drive performance

**Science-based targets set the overall average annual carbon reduction target – but is linear, and that's not how business functions**

**Build a roadmap/glidepath to plan out what changes need to occur and at what points these are likely, given the length of your commitment**

**Consider absolute reduction where necessary, but also consider business changes using metrics against business activity**

**Key point - Use your data analysis and carbon interpretation to highlight your hotspots, and target each resource directly using general targets**

**Some reductions may be energy specific; others may be direct decarbonisation – energy efficiency; switching from gas to electric heating**

**Some emissions will be hard to decarbonise in the short term and need to be planned for accordingly**

**Need to consider investment plan, fuels consumed, and practical opportunities available to your business**

# Decarbonisation plans

A decarbonisation plan translates the GHG reduction target into a series of **actions** to **reduce** an organisation's **carbon footprint** and **impact** on the climate

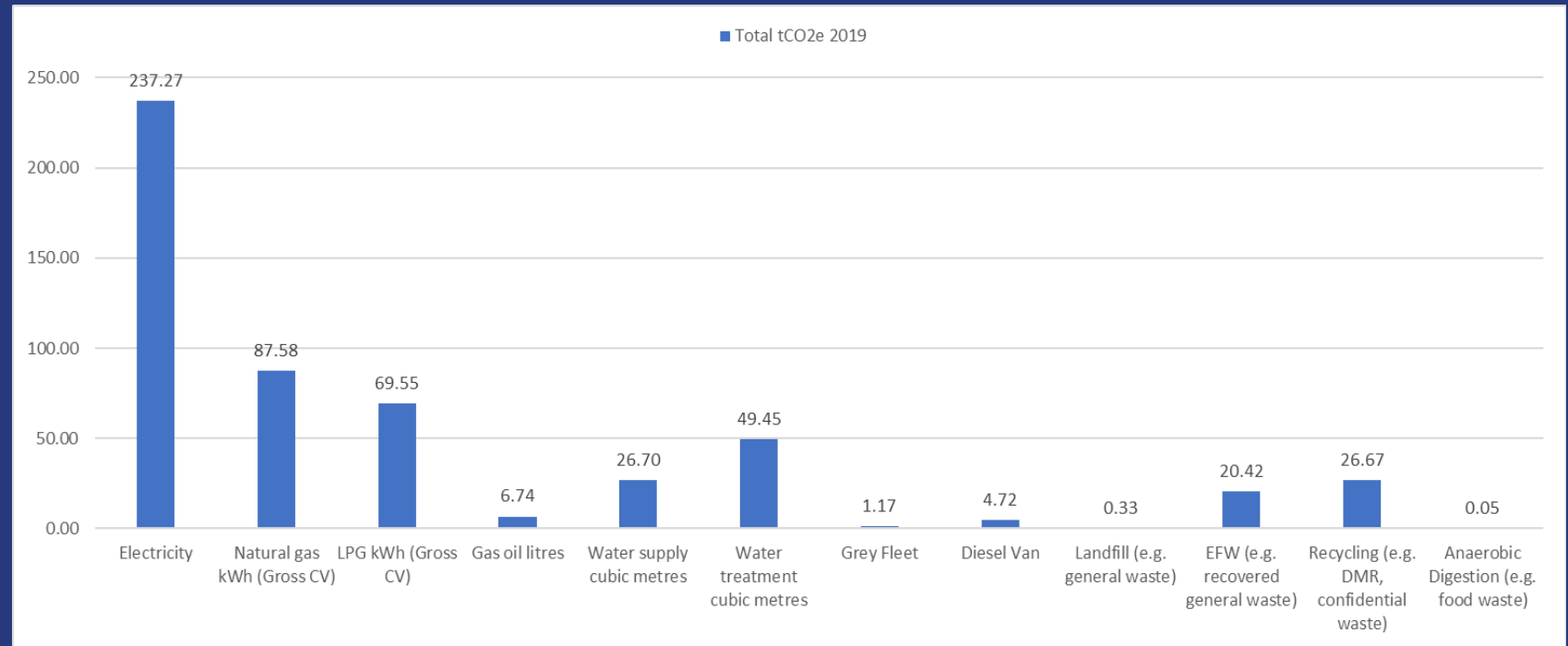
Calculate your carbon footprint (GHG inventory)

Identify GHG hotspots

Plan

# Decarbonisation plans

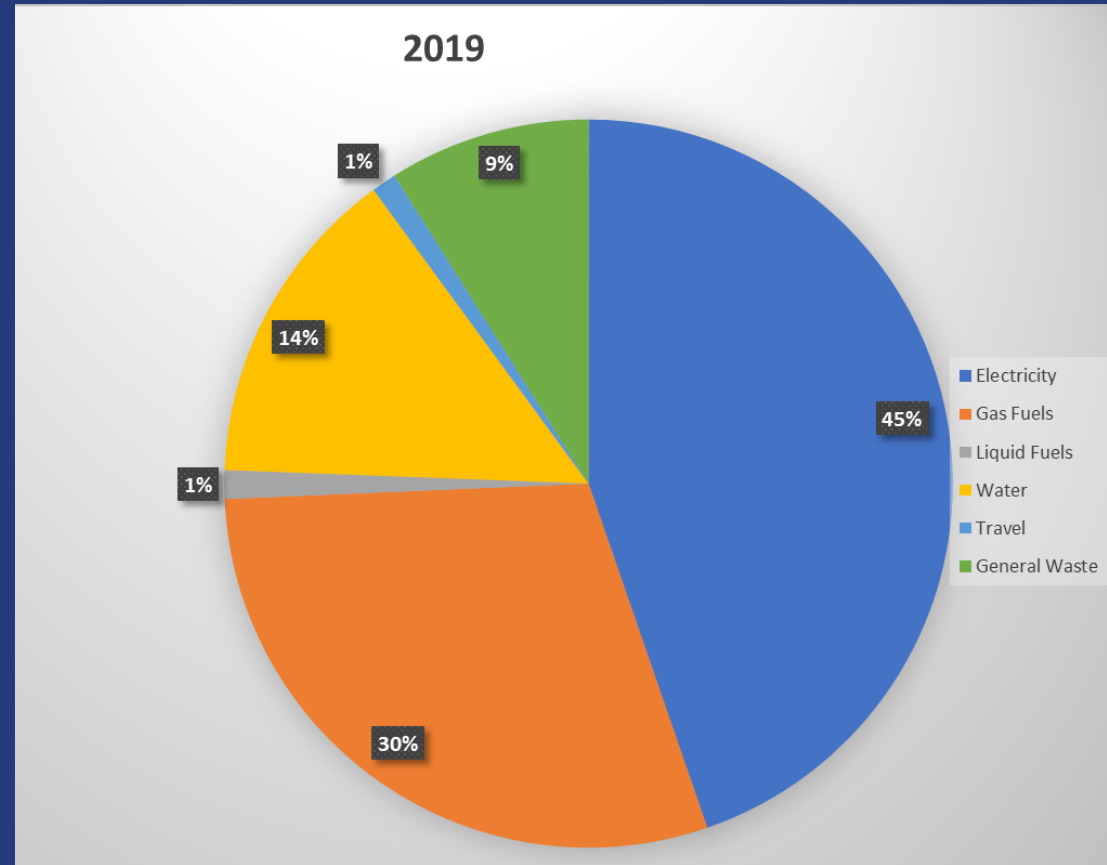
Calculate your carbon footprint (GHG inventory)





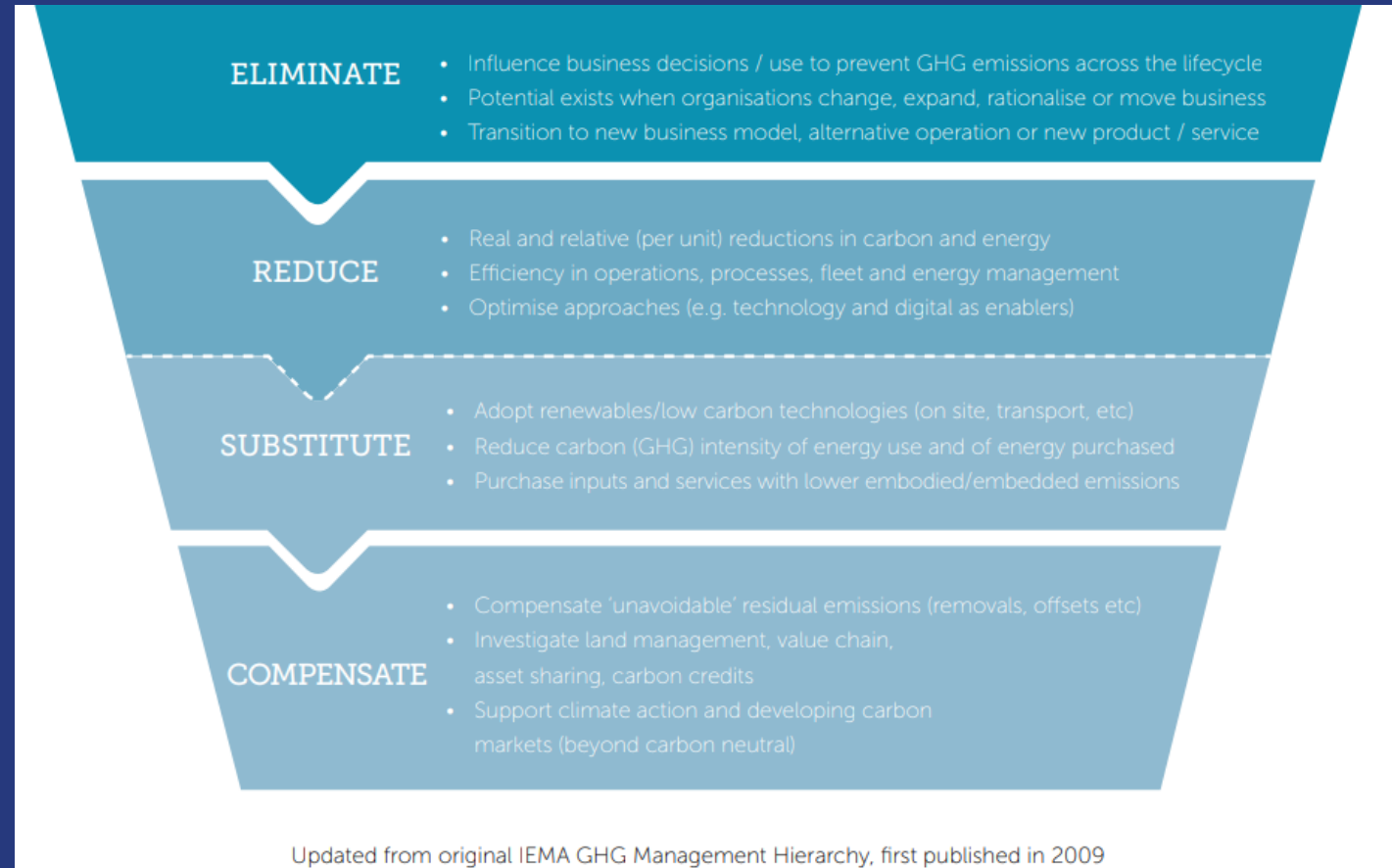
# Decarbonisation plans

Identify  
GHG  
Hotspots



# Decarbonisation plans

Plan



# Decarbonisation strategy

## What should be in a decarbonisation plan?

### Short-term actions 1–5 years

#### Set clear delivery dates with responsibilities

- Actions likely to be fully costed
- Needs to be suitably ambitious to ensure 'front loading' of emissions reductions
- Likely will have some existing plans and programmes

Required emissions reductions:

4.2%

Annual emissions reduction minimum

### Medium-term actions 5–10 years (or up-to near-term science-based target)

#### Set approximate delivery dates with responsibilities

- May only have approximate costings (this can vary)
- Longer-term investments
- Should still rely on established techniques, technologies

42%

5-10 years' emissions reduction minimum

### Longer-term actions

until Net Zero target date

#### Set outline

- Likely to have approximate costings
- Can start to invest in trials (for residual emissions) – if not, consider a similar
- Plans may not yet be fully developed for this time-horizon
- Plan may utilise technologies which are still at limited/pilot stage
- energy

90+%

Absolute emissions reduction  
90/95% before 2050

OPTIONAL



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# Short term planning

- 1** Establishing GHG inventory and target
- 2** Develop decarbonisation actions years 1-5
- 3** Breakdown your plans into targets and milestones
- 4** Setting specific targets for hotspot areas
- 5** Scope 3: focus on immediate opportunities

# Medium term planning

Innovate

New business model innovation development and implementation

Evaluate

Evaluate progress in new context (improved solutions and technologies)

Re-adjust

Set more aggressive targets over time according to the context

Removals

Investments in carbon removals closer to Net Zero target date

# Considering uncertain futures

## Planning

- Make robust financial forecasts that set a path to meet the publicly announced commitments (i.e., 1.5oC trajectory) and show different scenarios (e.g., with vs without future external funding)

## Disclosure

- Using metrics – regularly update progress and demonstrate any past progress made
- Investors in particular will likely want to know what's been achieved versus the plan, and how the organisation compares against peers.

## Research and development

- Ensure adequate investment in R&D for carbon removals techniques and decarbonisation technologies

## Partnerships and collaboration

- Sector-specific collaborations, industrial clusters, multi-lateral partnerships with governments, investors and stakeholders



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# Decarbonisation through Green Tariffs

*UK example: one REGO is issued for every megawatt hour (MWh) of gross renewable electricity.*

Danger of '**greenwash**', e.g., where the renewable energy certificates can often be cheaply bought separate from the associated renewable energy.

This leads to confusion around 'Green' tariffs and organisations claiming zero emissions.

REGOs cannot be claimed twice – generator holds the REGO and can claim zero emissions

You (the purchaser) still needs to show grid-based emissions (location) alongside purchased 'Green' emissions (market based)

Only on-site generation can be fully classed as zero emissions



# Reporting

-  Internal reporting on progress is a useful tool to engage with stakeholders, including employees, board members, SMT, etc.
-  External reporting on progress is useful tool to engage with clients and wider stakeholders
-  Reporting should consider your plan and track progress from baseline, against annual performance, and against future targets / milestones
-  Also, consider business activity and/or external conditions that could / would affect your targets through the use of normalisation metrics
-  Keep your reports honest and simple – avoid jargon to ensure all stakeholders can be engaged
-  Consider producing fuller report and summary report, particularly for employees who are more likely to engage with summary items

# Communicating Net Zero



## Competition & Markets Authority (CMA) and Green Claims Code

- ▶ Be truthful and accurate
- ▶ Be clear and unambiguous
- ▶ Not omit or hide important information
- ▶ Only make fair and meaningful comparisons
- ▶ Consider the full lifecycle of the product
- ▶ Be substantiated



# More information & support

## Low Carbon Lincolnshire webpage:

[Low Carbon Lincolnshire | Make Savings to Grow | Business Lincolnshire | Business Lincolnshire](#)

Our full workshop schedule and resources

## Business Lincolnshire Specialist Advisor:

Tony Neul, Low Carbon Specialist



**Tony Neul**

Low Carbon Specialist

Contact

# Examples of further support

**zellar**

## Lincs Zellar programmes

Business Lincolnshire and North Kesteven District Council have launched programmes with Zellar to support local businesses on their sustainability journeys. 400 businesses are invited to claim free access to Zellar's online sustainability platform to enable them to reduce their carbon emissions and save up to £4,100 in energy bills. Scan the QR codes to visit the sign-up page.

North Kesteven



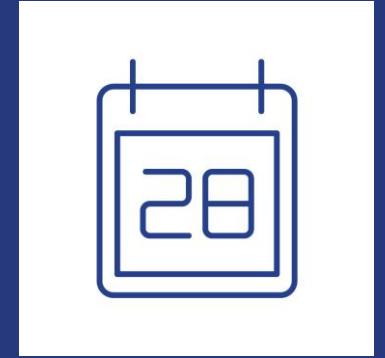
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## Investors in the Environment (iE)

PECT's flagship iE programme supports businesses to get started or elevate their sustainability journey - and become recognised for it! With over 300 members across the UK in all sectors and sizes, we offer a proven framework for organisations to save time and money and reduce their impact on the environment. Find out more at [www.iie.uk.com](http://www.iie.uk.com).

# Coming up next...



## Webinars:

- ~~Net Zero – Thursday 1st February 2024, 12-1pm~~
- Decarbonisation – Wednesday 7th February 2024, 12-1pm
- Energy Management - Wednesday 21st February 2024, 1pm-2pm
- Supply Chains - Thursday 29th February 2024, 9am-10am

## Upcoming workshops:

- Net Zero – **Lincoln** – AM Tuesday 16th April 2024
- Decarbonisation – **Lincoln** – PM Tuesday 16th April 2024
- Net Zero - **Grantham** – AM Thursday 4th July 2024
- Decarbonisation - **Grantham** – PM Thursday 4th July 2024
- Net Zero - **Market Rasen** – AM Tuesday 10th September 2024
- Decarbonisation - **Market Rasen** – PM Tuesday 10th September 2024