fwd FEDERATION OF WHOLESALE DISTRIBUTORS

Wholesale sector Net Zero roadmap

Delivering the sector's climate transition by 2040

in collaboration with

SCOTTISH WHOLESALE ASSOCIATION
The voice of the Scottish Food, Drink and Allied Trades

Foreword

This summer, United Nations Secretary General Antonio Guterres warned that the climate agenda is being undermined. “At a time when we should be accelerating actions, there is backtracking,” he said. The UN’s own emission gap report, which looks at how close are we to meeting UN climate targets, stated that to get on the right trajectory to be Net Zero by 2050 we need a 45% reduction in global greenhouse gas emissions in the next eight years, and they must continue to decline rapidly after 2030.

Wholesalers are responding to the net zero challenge with public commitments and strategies, and FWD members have pledged to work towards eliminating carbon emissions in their businesses by 2040, ahead of the UK’s net-zero 2050 target.

That’s why FWD, in conjunction with our friends at SWA, have developed this sector roadmap to help wholesalers, particularly those at the early stages of developing their net-zero strategy, with clear practical actions to take. With our partners 3Keel this report provides a greater understanding of the direct emissions of our sector, offers help to members in understanding their own emissions, and the roadmap for members contains interim pledges as well as key indicators such as the percentage of renewable energy or low-carbon refrigerants.

It is clear wholesalers are taking action across all areas of their business, but more help and encouragement is needed to enable the sector to fully measure progress towards net zero. This is no longer an added extra, it’s a business essential for a wholesale channel which is sustainable - in both senses of the word, and this ambitious project will help wholesalers along that journey.

James Bielby, CEO of FWD

AN EXTERNAL PERSPECTIVE: SECTOR COLLABORATION AND AMBITIOUS POLICY IS KEY TO DELIVERING A JUST CLIMATE TRANSITION

Alongside increasingly stark statisitics on the state of the global environment, we have seen a tangible shift in business perspectives in the past three years. The days of climate change being a peripheral consideration are gone. The impacts of a changing climate are being seen in supply chains today - and the expectations of employees, customers, investors and regulators continue to ratchet-up. And while the decarbonisation of some emissions sources remain technically and economically challenging - we are seeing increasing demand for zero carbon solutions driving innovation faster than ever before. To achieve the economic transformation required to stay within global emissions budgets will need co-ordinated action from business and policymakers. It’s incumbant on businesses of all sizes to play their part in addressing their own carbon footprint and catalysing action across the value chain through collaboration and integrating climate considerations into their core business decision-making.

Richard Sheane - Director, 3Keel

Climate advisors to the FWD Net Zero Roadmap

EXECUTIVE SUMMARY

The UK wholesale sector ambition: Net-Zero emissions by 2040

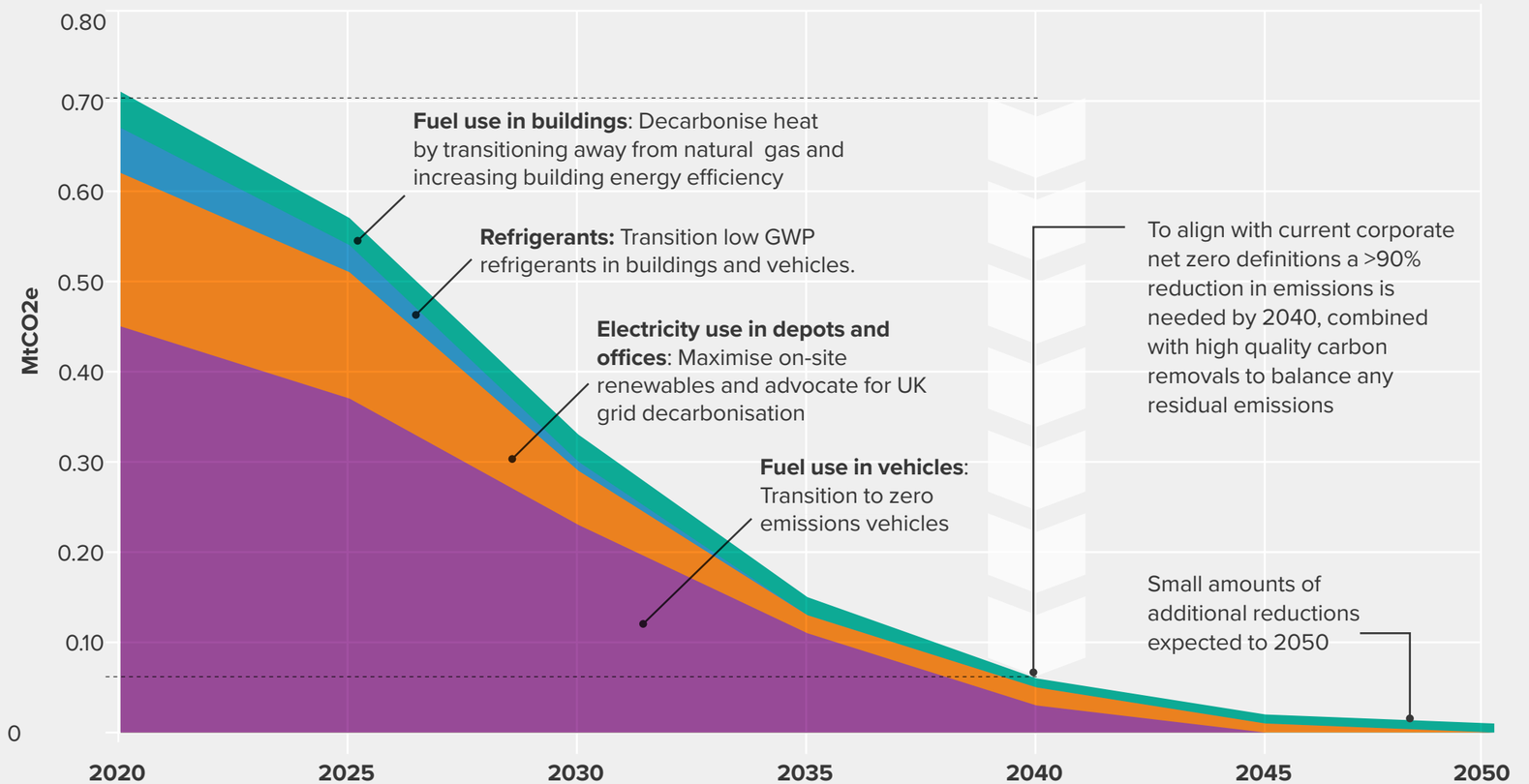
The climate crisis poses a serious threat to our planet and is already causing significant disruption to society. Companies operating in food and drink value chains are particularly vulnerable to the effects of a changing climate, including extreme weather events and supply chain shocks. To avoid the catastrophic impacts of climate change, greenhouse gas emissions must be significantly reduced, as quickly as possible.

In response to this urgent need for action, the UK wholesale sector, supported by the Federation of Wholesale Distributors, has set a sector-level ambition to reach net zero Scope 1, 2 and 3 emissions by 2040. This ambition aligns with other key partners from across the UK's food and drink sector.

Research conducted for the FWD net zero roadmap identified key sources of Scope 1 and 2 emissions are road transport, followed by electricity use in depots and offices. Other sources of Scope 1 and 2 emissions identified in the survey were fuel used to heat builldings and refrigerant leakage from storage and HGVs. To align with corporate net zero best practice at least a 90% reduction in emissions (see Figure E1) will be required. Similar levels of deep decarbonisation are needed for Scope 3 emissions through value chain engagement and advocacy for national and cross-sector climate action.

Business and policy action is needed against all Scope 1, 2 and 3 emissions sources. Five 'decarbonisation themes' are summarised on the next page and explored in detail in this roadmap document.

FIGURE E1: INDICATIVE WHOLESALE SECTOR PATHWAY TO 90% SCOPE 1 & 2 EMISSIONS REDUCTIONS BY 2040



EXECUTIVE SUMMARY

Business action: Deliver against 5 decarbonisation themes

The corporate climate landscape is increasingly complex. Countless standards, frameworks, and technical terms can leave companies confused and unsure of how to get started.

To help cut through the noise, this roadmap provides a simple and practical 'Getting Started guide' for wholesalers who are early in their climate action journey. The Getting Started guide is split into four stages, based on the structure of the UK's Transition Plan Taskforce's Implementation Guidance: 1.) baselining your company's current position, 2.) defining an appropriate level of ambition, 3.) developing a plan for reducing your emissions and 4.) ensuring internal accountability structures for delivery of your plan (see Figure E2, below).
In developing a credible transition plan wholesale sector businesses should address all releveant decarbonisation themes identified in this roadmap (see Figure E3, right)

FIGURE E2: TRANSITION PLAN DEVELOPMENT STEPS

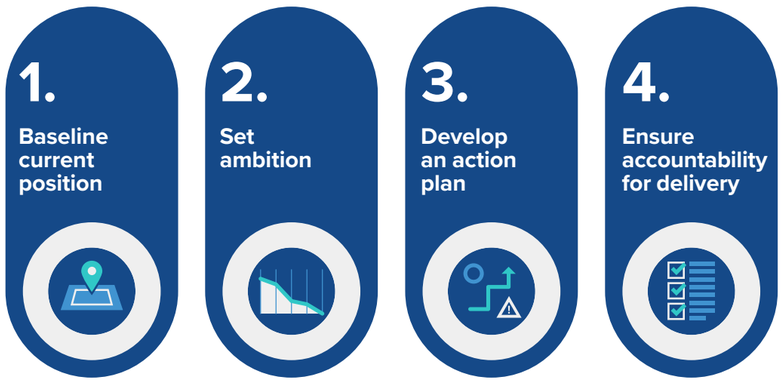


FIGURE E3: WHOLESALE SECTOR DECARBONISATION THEMES

ZERO EMISSIONS VEHICLES

Road transport, particularly HGVs, contributes c. 60% of the sector's Scope 1 and 2 emissions. Freight decarbonisation should be a key focus for climate action. Key to delivering deep decarbonisation will be country-wide roll-out of zero emissions vehicle infrastructure supported by ambitious policy measures.

RENEWABLE ELECTRICITY

Electricity use accounts for c. 25% of wholesale sector Scope 1 and 2 emissions. Due to electricity's increasing importance as an energy source for decarbonising transport and heat it will be critical to make energy efficiency and renewables procurement a key part of the sector's climate transition plans.

LOW CARBON REFRIGERATION

The ability to refrigerate products is a critical element of the food and drink supply chain, however F-gases can have a Global Warming Potential (GWP) many thousand times greater than CO2. These emissions can be tackled through actions such as using lower GWP altrernatives and reducing refrigerant leaks.

HEAT DECARBONISATION

Achieving deep decarbonisation of buildings represents a two-fold challenge: businesses need to both reduce the amount of fuel used, while also transitioning to low- and no-carbon energy sources. This will require the retrofitting of existing buildings and ensuring new construction meets high carbon standards.

VALUE CHAIN ENGAGEMENT

Indirect emissions from the value chain (known as Scope 3 emissions) make up c. 96% of a wholesaler's total carbon footprint. Ingredients in products sold by wholesalers - including emissions from deforestation risk commodities and agricultural processes

EXECUTIVE SUMMARY

Policy priorities: Government support is critical

A clear and consistent strategy for road freight decarbonisation

With road transport, particularly HGVs, contributing c. 63% of the wholesale sector's Scope 1 and 2 emissions, key to reaching net-zero by 2040 will be country-wide roll-out of zero emissions vehicle infrastructure supported by ambitious policy measures. A holistic government road freight decarbonisation strategy should encompass the rapid build out of UK recharging and refuelling infrastructure, a streamlined procedure for grid connection to facilitate depot-based charging and financial incentives for wholesale businesses to invest in zero emissions vehicles.

A long-term legislative plan for commercial/industrial building decarbonisation

Successful decarbonisation of warehouses will require energy efficiency measures and low carbon heating in existing buildings, as well as net zero building standards for new construction. Government's role should include support for innovative retrofitting and low carbon technology trials - including electricity, hydrogen and bioenergy technologies to explore all options for decarbonisation. Legislation to ensure new constructions comply with a net-zero commercial building standard should also be implemented.

Incentivisation of greater availability, consistency and quality of Scope 3 emissions data

As the vast majority of wholesalers' total climate impact lies in the value chain, access to accurate Scope 3 emission data will be critical to inform the sector's decarbonisation plans for reaching net-zero by 2040. Standardised corporate reporting requirements from government would ensure that wholesalers suppliers and customers are regularly publishing decision-useful emissions data. Such requirements should be accompanied by investment in climate literacy education initiatives.

Contents

ABOUT THIS ROADMAP

This roadmap has been designed to set out the UK wholesale sector's climate ambitions and to support wholesalers on their journey to net zero. The opening sections provide context on the need for urgent climate action, what reaching net zero means for companies and an analysis of the wholesale sector's emissions profile and hotspots. Based on this analysis, five key decarbonisation themes have been identified and are examined in-depth.

Companies can use the decarbonisation theme sections to understand the interventions required to deeply decarbonise their operations and value chains by 2040. The roadmap also highlights critical policy enablers for each decarbonisation theme. The final section provides a step-by-step climate action guide for wholesalers.

The following sections of the roadmap provide practical guidance for wholesalers on climate action:

- Business actions per decarbonisation theme (see pages 19, 24, 29, 32 & 35)
- The 'Getting Started Guide' (page 38)

Introduction

The climate crisis poses a serious threat to our planet and is already causing significant disruption to society. Companies operating in food and drink value chains are particularly vulnerable to the effects of a changing climate, including extreme weather events and supply chain shocks. To avoid the catastrophic impacts of climate change, greenhouse gas emissions must be significantly reduced, as quickly as possible.

In response to this urgent need for action, the UK wholesale sector, supported by the Federation of Wholesale Distributors, has set a sector-level ambition to reach net-zero Scope 1, 2 and 3 emissions by 2040. This ambition aligns with other key partners across the UK's food and drink sector (see Figure 1).

This roadmap delves into five key decarbonisation themes for wholesalers to tackle on their journey to net zero. These cover significant sources of direct operational emissions such as road fleet, building energy use and refrigerants, while also addressing wider value chain impacts.

Alongside this roadmap on the UK wholesale sector, sits a complementary Scottish Wholesale Association (SWA) report, providing additional insights tailored to the Scottish context. Based on primary data collected in a SWA member survey, the publication analyses the Scottish wholesale sector's emissions profile and explores decarbonisation barriers and motivations.

FIGURE 1: UK FOOD & DRINK SECTOR ROADMAPS CLIMATE COMMITMENTS

Organisation	Net Zero by 2040?
Food and Drink Federation (FDF) The FDF roadmap provides guidance for food & drink manufacturers on decarbonising their operations to reach net zero by 2040.	✔
National Farmers Union (NFU) The farming industry is a critical actor in mitigating climate change. The NFU's roadmap identifies actions across three pillars: productivity, carbon storage, renewables & bioenergy.	✔
British Retail Consortium (BRC) With the support of over 80 major retailers, the BRC aims to achieve their net zero target via 5 reduction pathways requiring innovation across all aspects of retail businesses.	✔
UK Hospitality UK Hospitality, in collaboration with the Zero Carbon Forum (ZCF) and British Beer & Pub Association, developed a guide on matching net zero ambition with a credible climate strategy.	✔

This report aims to...

...INFORM STAKEHOLDERS

To set out the case for acting on climate change, highlight the key issues facing the wholesale sector, and how the sector can respond and play its part in the transition to a low-carbon economy.

...OUTLINE AMBITION

To establish the UK wholesale sector's ambition to achieve net zero by 2040, 10 years ahead of the UK's 2050 target and aligned with other major initiatives in the UK food and drink sector.

...DRIVE ACTION

To outline the actions wholesale businesses need to take to decarbonise their operations and value chains - and highlight key government policy needed to support a climate transition.

1. Delivering Net Zero

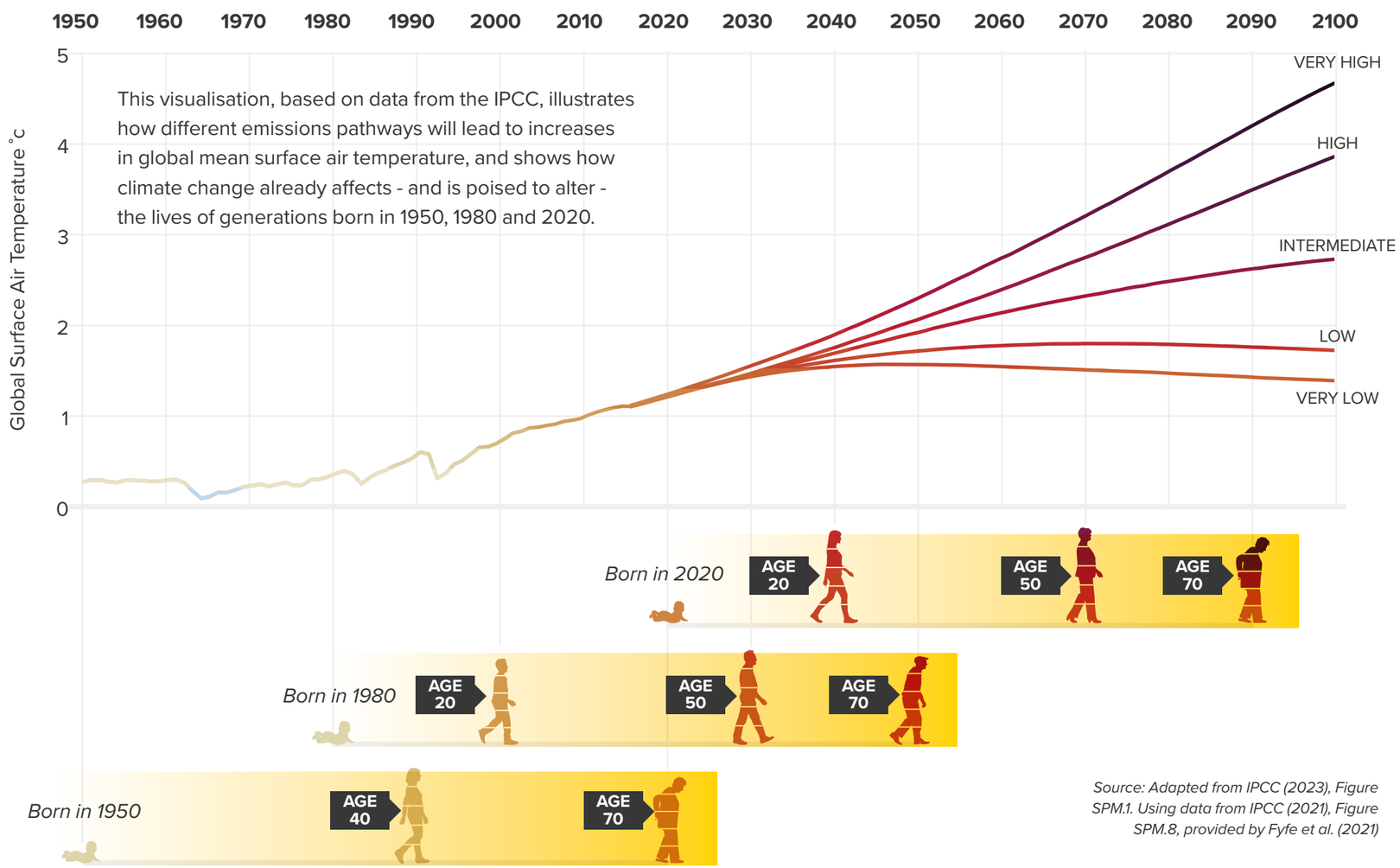
Climate change impacting the UK wholesale sector

The need for urgent climate action in the UK wholesale sector is driven by the significant risks climate change poses to the food and drink supply chain. Changing weather patterns, such as increased heatwaves, floods, and storms, can disrupt transportation and logistics, leading to delays and shortages in the availability of food products (European Commission, 2015). Extreme weather events can damage infrastructure, affecting the storage and distribution of perishable goods (NCCEH, 2023). The consequences of these events will not only have significant financial and operational impacts to businesses, but also may exacerbate existing and create new social challenges surrounding rising food costs. Although action is increasing, even if current commitments are fully realised it would not be sufficient to mitigate the effects of climate change and will still result in a 10% increase in emissions by 2030 (UNFCC, 2022). Therefore, taking action now is crucial to ensure the resilience and reliability of the UK's food and drink supply chain in the face of climate challenges.

Additional resources on the science of climate change:

- Climate Change Committee (2021): Independent Assessment of UK Climate Risk
- Intergovernment Panel on Climate Change (2023): AR6 Synthesis report

FIGURE 2: TEMPERATURE CHANGES & GENERATIONAL IMPACTS UNDER DIFFERENT EMISSIONS SCENARIOS



Source: Adapted from IPCC (2023), Figure SPM.1. Using data from IPCC (2021), Figure SPM.8, provided by Fyfe et al. (2021)

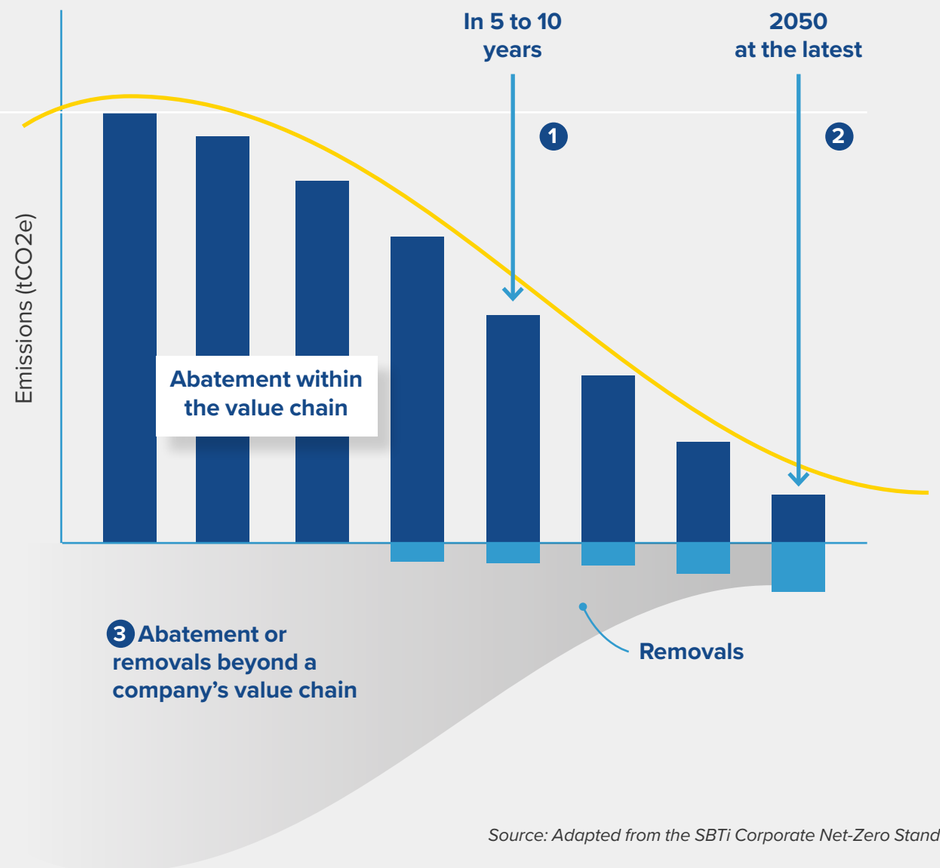
Setting net zero targets for business

Setting near-term and long-term emissions reduction targets are the foundation of a credible businesses climate transition plan. A truly robust and science-based net-zero target, visualised in Figure 3, refers to the deep decarbonisation of a company's value chain and the removal of residual emissions. Most businesses are expected to reduce their absolute emissions by at least 90% to reach net zero, however exact requirements vary between sectors. Targets are described as 'science-based' when they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C (SBTi, 2022). The most widely adopted method of corporate climate target-setting is to follow guidance from the Science Based Targets initiative (SBTi), a global non-profit initiative. The SBTi offers a range of target-setting options depending on a company's sector and size:

- **Company size** – The SBTi offer a streamlined SME target route for businesses with less than 500 employees.
- **Sector** – Larger businesses operating within agricultural value chains must use sector-specific methods for agricultural emissions. This is applicable for companies in the wholesale, retail and food service sectors.

See the 'Getting Started Guide' for more details and resources on target setting.

FIGURE 3: KEY ELEMENTS OF CORPORATE NET ZERO TARGETS



1. To set near-term SBTs
5–10 year emission reduction targets in line with 1.5°C pathways.

2. To set long-term SBTs
Target to reduce emissions to a residual level in line with 1.5°C scenarios by no later than 2050.

3. Beyond value chain mitigation
In the transition to net-zero, companies should take action to mitigate emissions beyond their value chains. For example, purchasing high-quality, jurisdictional REDD+ credits.

4. Neutralisation of residual emissions
GHGs released into the atmosphere when the company has achieved their long-term net zero target must be balanced through the permanent removal and storage of CO_2 from the atmosphere.

Source: Adapted from the SBTi Corporate Net-Zero Standard: https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf

CARBON NEUTRAL VS NET ZERO.

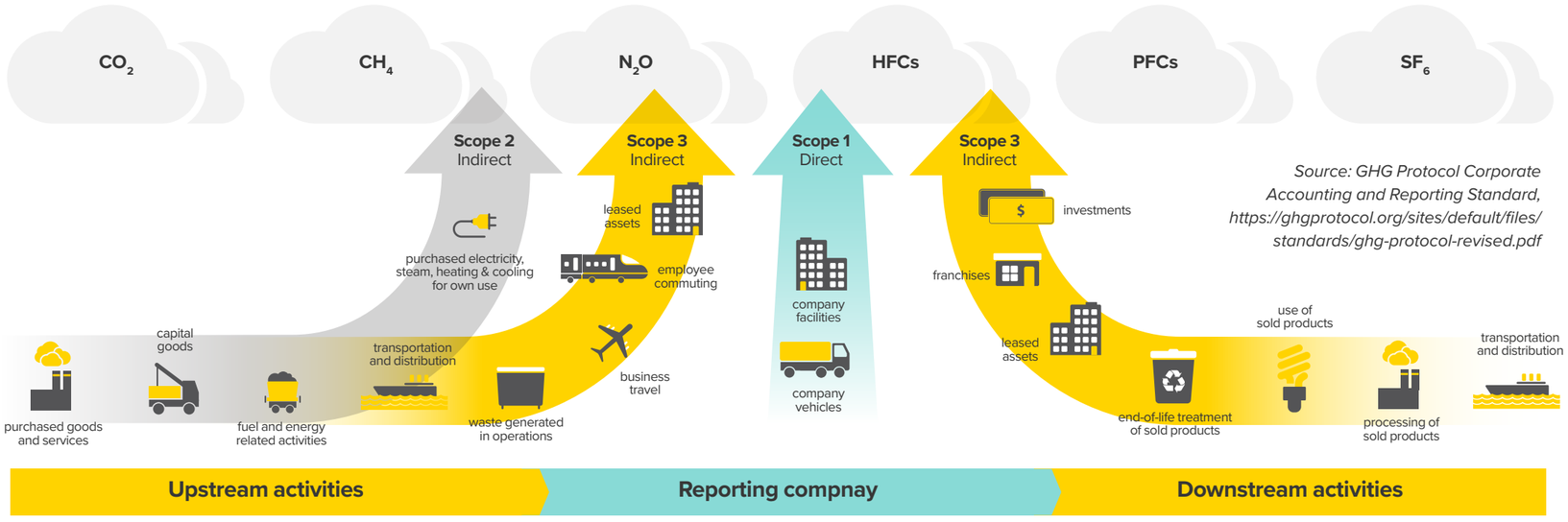
These two terms are often used interchangeably, however it is important to understand the difference. Net zero refers to a substantial reduction in value chain emissions in conjunction with carbon removals (see Figure 3), whereas carbon neutrality is commonly achieved in the short term through purchasing carbon credits from voluntary carbon markets.

Quantifying a business's carbon footprint

To set emissions reductions targets it is critical to first develop a corporate greenhouse gas inventory (sometimes called a corporate carbon footprint). By quantifying the direct and indirect emissions associated with a business's operations it is possible to identify strategic decarbonisation priorities and develop a climate transition plan. The calculation of a company's annual carbon footprint involves converting data on activities such as product procurement and energy use into a quantity of greenhouse emissions. Emissions are typically reported in tonnes of "carbon dioxide equivalent" (tCO2e).

The Greenhouse Gas Protocol publishes widely used standards for companies to account for and report their emissions from their own oeprations and value chain. It categorises corporate emissions into three "Scopes", summarised in Figure 4 below. Scope 1 covers emissions occuring from a wholesaler's operations (e.g. fuel used in HGVs). Scope 2 mainly covers the emissions from electricity purchased by the wholesaler. Scope 3 covers all other indirect emissions in the business's value chain e.g. emissions associated with the production of goods purchased by a wholesaler. Further carbon footprinting guidance can be found in the 'Getting Started Guide' section.

FIGURE 4: CORPORATE GHG ACCOUNTING AND REPORTING FRAMEWORK



Source: GHG Protocol Corporate Accounting and Reporting Standard, https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

KEY DEFINITIONS

Definitions and acronyms that are essential to understanding the core elements of climate change and corporate climate disclosure and target setting.

- **Absolute emissions** - The total quantity of greenhouse gases emitted by a company in a given time period. Commonly expressed in tonnes of carbon dioxide equiavelents (tCO2e)
- **Carbon dioxide equivalent (CO2e)** - A metric used to compare the emissions from various greenhouse gases on the basis of their global-warming potentials
- **Climate Transition Plan** - A time-bound action plan that clearly outlines how a company will change its assets, operations, and business model towards a trajectory that aligns with climate science
- **Global Warming Potential (GWP)** - A term to describe the relative potency of a greenhouse gas. CO2 is the gas of reference and is given a GWP of 1.
- **Greenhouse gases** - Gases such as carbon dioxide, nitrous oxide and methane that cause climate change
- **Greenhouse gas intensity** - The relative amount of emissions per unit of ativity e.g. per case or per £ business turnover

Business's role in advocating for ambitious climate policy

Decarbonising at the scale and pace required to reach net zero currently presents a number of key challenges for wholesale sector companies. High upfront investment costs, regulatory uncertainty, a lack of supportive infrastructure and slow technological advances have acted as a barrier to wholesale sector climate action. An enabling policy environment is crucial to overcome such hurdles. Governments can support through the provision of financial support, investment in public infrastructure and clarity of long-term policy direction.

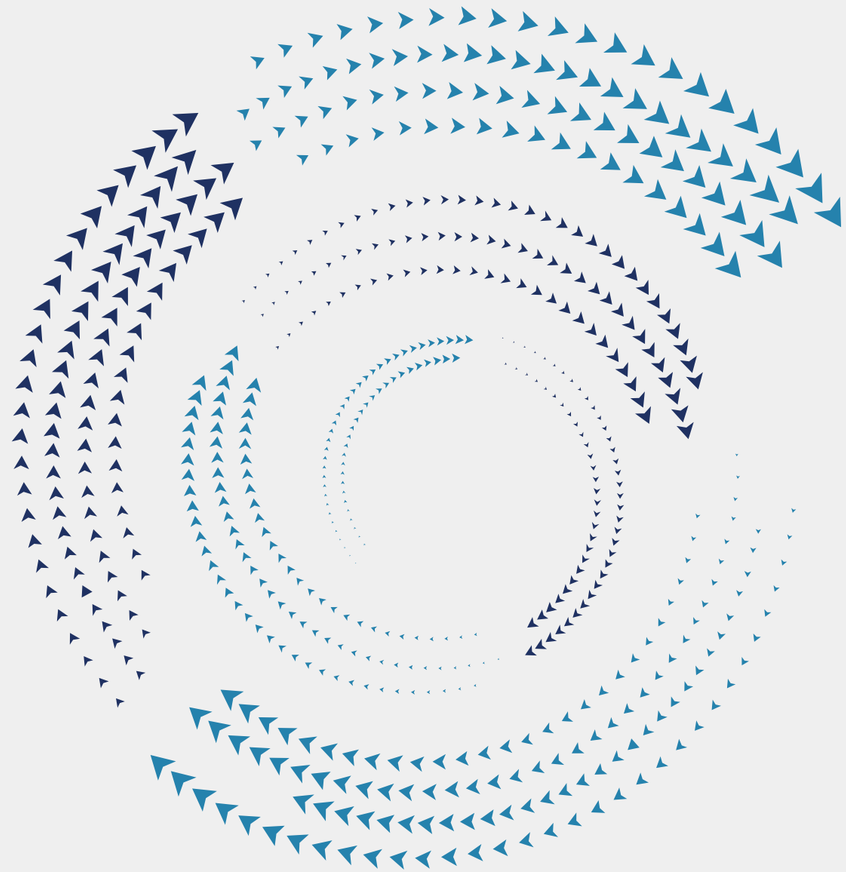
Through the FWD and via direct advocacy activities, wholesale sector businesses should seek to influence UK net-zero policy. The concept of the Government-Business Climate Ambition Loop (We Mean Business, 2018) establishes that if companies make bold net-zero commitments, this sends strong signals to government that business is supportive of ambitious climate policy. With this vote of confidence, governments can advance ambitious policy that, in turn, provides companies with the clarity and confidence they need to unlock further investments in climate solutions - thereby continuing a positive ambition feedback loop (see Figure 5, right).

In this report, key policy enablers for each of the wholesale sector's five main decarbonisation themes are outlined. Additionally, the Scottish Wholesale Association accompanying report provides an examination of the specific Scottish policy context and enablers.

FIGURE 5: BUSINESS - POLICY AMBITION LOOP

Government Climate Policy

- Clear, ambitious targets and policy
- Predictable regulatory environment
- Incentives and infrastructure
- Long-term market signals
- Support for research, development, and deployment
- Clear plans and timelines for full transition to a zero-carbon economy



Business Climate Action

- Ambitious, science-based targets
- Public updates on progress
- Investments and growth strategies aligned with a zero-carbon future
- Commercial demand for zero-carbon energy, zero-carbon transportation and zero-carbon land use
- Responsible policy engagement (individually and through trade associations)

Source: We Mean Business, 2018

2. Wholesale sector emissions

Wholesale sector emissions

Research conducted for the FWD net-zero roadmap estimated that the UK wholesale value chain was responsible for approximately 18 MtCO2e in 2020. Approximately 4% of these emissions occur in the operations of wholesale businesses, with 96% occuring upstream and downstream (see Figure 6).

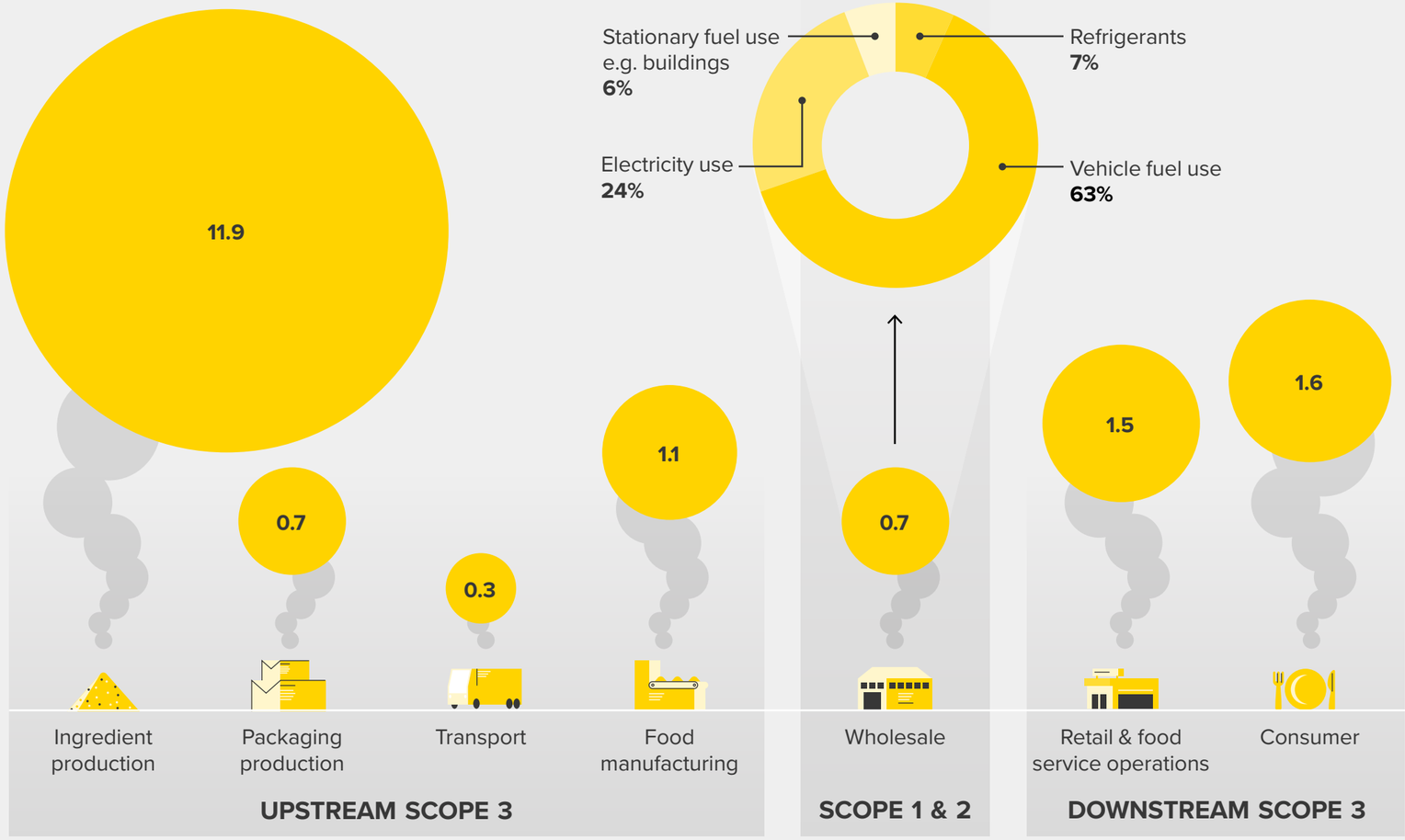
Key sources of Scope 1 and 2 emissions are road transport, followed by electricity use in depots and offices. Other sources of Scope 1 and 2 emissions identified in the survey were fuel used to heat builldings and refrigerant leakage from storage and heavy goods vehicles (see Figure 6).

Key sources of Scope 3 emissions are upstream emissions from the production of ingredients and manufacturing of products and downstream emissions in retail and service sector operations and emissions associated with storage and preparation of food in end consumer homes.

METHODOLOGY

Wholesale sector Scope 1 and 2 emissions were estimated from a surveys of 15 FWD and SWA members covering 56% of sector, by turnover. See appendices for more details.. Scope 3 (value chain) emissions were estimated using WRAP research on the UK's food and drink emissions (WRAP, 2022) and data on the wholesale sector's contribution to the UK food & drink sector economy.

FIGURE 6: UK WHOLESALE SECTOR SCOPE 1, 2 AND 3 EMISSIONS (MtCO2e)



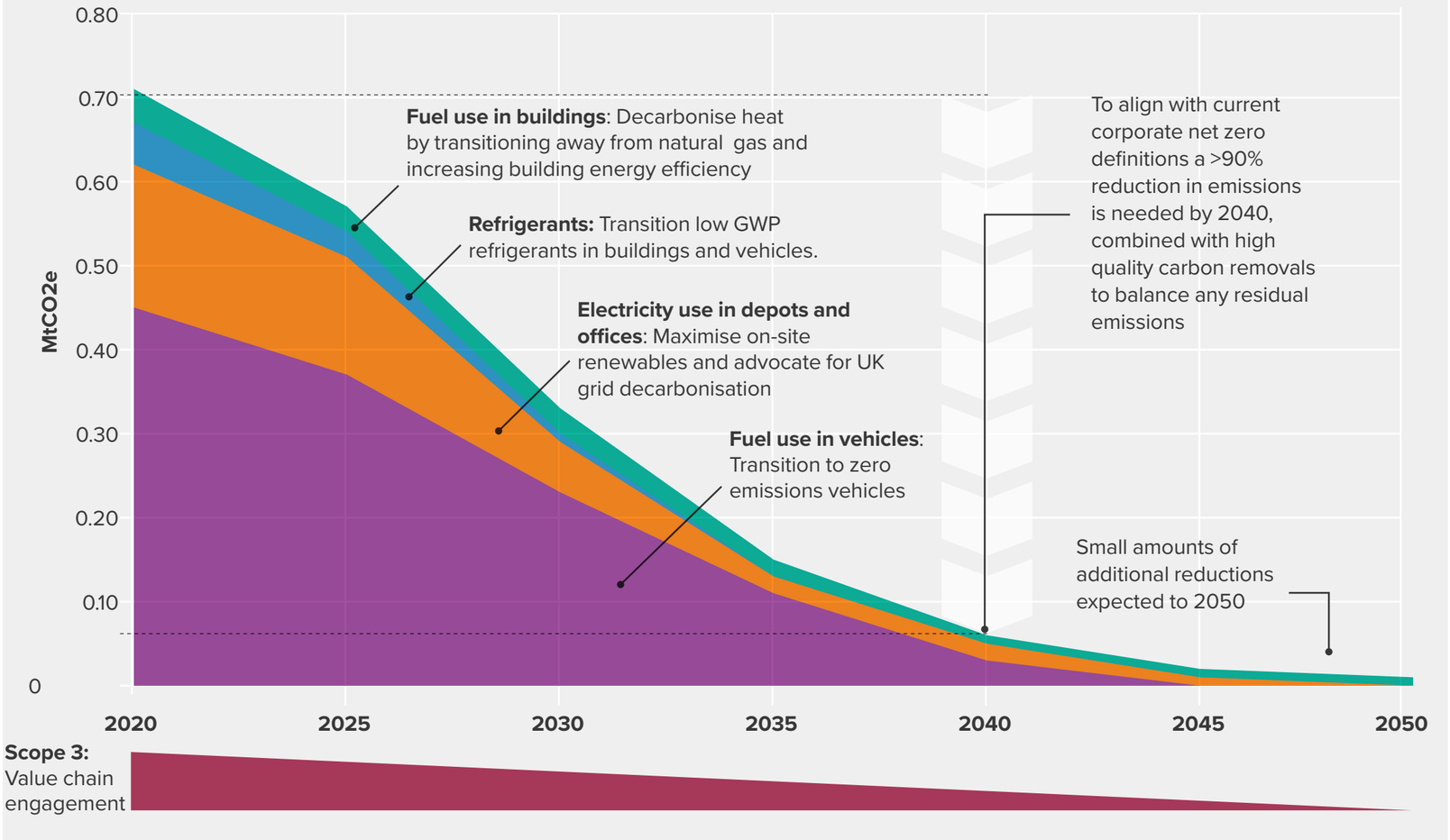
3. Decarbonisation themes

The UK wholesale sector ambition: Net Zero emissions by 2040

The wholesale sector has committed to work together with customers, suppliers and policymakers to achieve net-zero emissions for the UK wholesale sector by 2040. To align with corporate net zero best practice this means at least a 90% reduction in emissions (see Figure 7). Similar levels of deep decarbonisation are needed for Scope 3 emissions through value chain engagement and advocacy for national and cross-sector climate action. To achieve the net-zero ambitions action by FWD members in five decarbonisation themes are needed. These are explored in the rest of this section and address:

- **ZERO EMISSIONS VEHICLES**
- **RENEWABLE ELECTRICITY**
- **LOW CARBON REFRIGERATION**
- **HEAT DECARBONISATION**
- **VALUE CHAIN ENGAGEMENT**

FIGURE 7: WHOLESALE SECTOR'S INDICATIVE PATHWAY TO 90% SCOPE 1 & 2 EMISSIONS REDUCTIONS BY 2040



ZERO EMISSIONS VEHICLES

Transport is now the highest emitting sector of the UK economy (BEIS, 2022). Despite industry action to increase asset and vehicle efficiency, limited emissions reductions have been seen in UK road freight since 1990 due to increased demand. Overall, the wholesale sector makes up c. 2% of the UK's HGV emissions. Research by FWD has estabished that road transport, particularly HGVs, contributes c. 63% of the sector's Scope 1 and 2 emissions. It is therefore a key focus for climate action within this climate roadmap. Decarbonising road transport, particularly heavy goods vehicles, poses significant technology and infrastructure challenges for all sectors of the economy that rely on logistics. To ensure a just transition, particular consideration is also needed for those distributors - many of whom are SMEs - serving communities in remote parts of the country. Key to delivering deep decarbonisation by 2040 will be country-wide roll-out of zero emissions vehicle infrastructure supported by ambitious policy measures.

2%
of UK HGV emissions occur in wholesale sector businesses

Road vehicle transition

The vast majority of surface transport deep decarbonisation will be delivered through transition to zero emissions vehicles (ZEVs) (CCC, 2020). While the dominant pathway for LGVs is very likely to be electrification - there remains continued uncertainty over technology pathways for HGVs, with much research expecting a mix of electrification and the use of cryogenics, e.g. hydrogen (ECTA (2021), BRC (2022), WEF (2021). MPP (2022)). Although HGV model availability and Total Cost of Ownership trends are going in the right direction, delivering 90% reductions in emissions by 2040 will need ambitious and urgent policy enablers to be put in place - particularly on infrastructure availability and capital financing.

KEY POLICY ENABLERS

Rapid and co-ordinated build out of UK recharging and refuelling infrastructure

➔ Develop UK 2040 roadmap for infrastructure roll-out

➔ Identify priority zero emissions nodes and corridors through engagement with freight sector

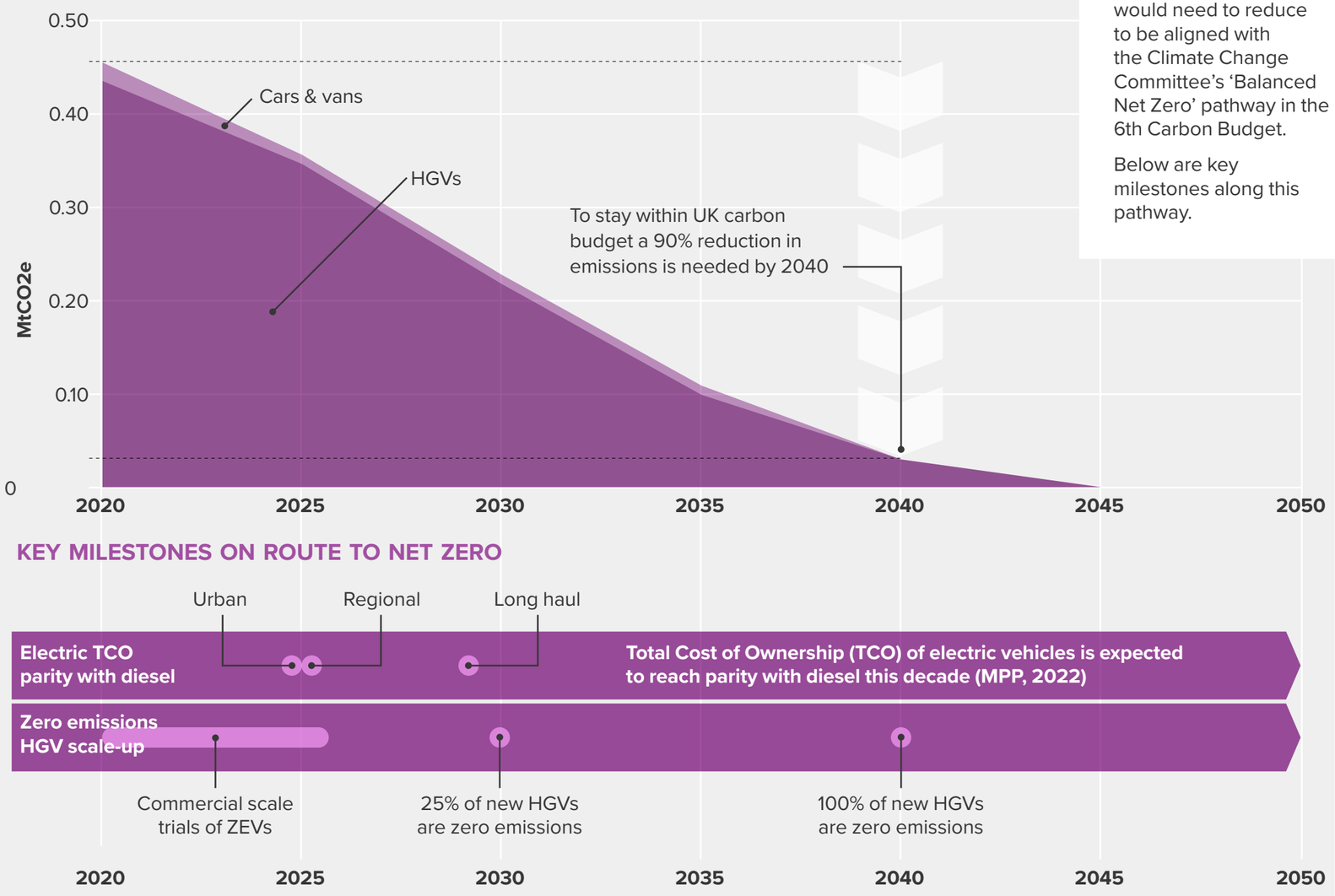
➔ Streamline and standardize procedure for grid connection to facilitate depot-based charging e.g. a second round of the Rapid Charging Fund (RCF)

Financial incentives for wholesale businesses to invest in zero emissions vehicles

➔ Grants and tax breaks for charging infrastructure and purchasing of zero emissions vehicle

➔ Clear policy framework on future HGV vehicle emissions standards

FIGURE 8: INDICATIVE REDUCTION PATHWAY FOR WHOLESALE SECTOR TRANSPORT EMISSIONS



PATHWAY ASSUMPTIONS

The reductions, left, show how wholesale sector vehicle emissions would need to reduce to be aligned with the Climate Change Committee's 'Balanced Net Zero' pathway in the 6th Carbon Budget.

Below are key milestones along this pathway.

Business actions on zero emissions vehicles

To support the wholesale sector climate transition, action on road transport emissions by business is essential. Key action areas are outlined below.

Reduce demand and increase efficiency of existing network and fleet

In the short-term improved efficiency through good fleet management practice is likely to deliver the most significant emissions reductions. For example, by adopting best practices set-out in the Smart Freight Centre's "Smart Truck Fleet Management" guidance (see resources, right) i.e. manage demand, use multi-modal options, share assets and ensure fleets are as energy efficient as possible.

Test zero emissions vehicle options and develop long term plan for transition

Deep decarbonisation will only be possible with a shift to zero emissions vehicles. Agree roadmap for transitioning with cars and LGVs to electric, making use of current and future financial support e.g. government grants for plug-in EVs (see resources, right). For HGVs, seek out opportunities to participate in electric and hydrogen vehicle trials that emerge in the coming years.

Engage with peers, suppliers and policymakers to create market pull for ZEVs

Given the uncertainty and novelty of zero emissions HGVs it is essential to build internal capacity. This can be achieved by engaging with a growing number of relevant UK and global road freight initiatives (see examples below). Participating in these initiatives also offers opportunities to create a greater market 'pull' for technologies and innovation.

Collaboration and engagement opportunities

EV100+. Companies committed to kickstarting the transition to zero-emission heavy-duty vehicles.

Sustainable Freight Buyers Alliance. Unites freight buyers and freight decarbonisation initiatives to shift to zero emissions freight transport.

HGVZero. Action group for sharing best practice and participating in collaborative projects.

Further resources

The following research and guidance can support wholesale sector businesses to understand and develop a transition plan for road emissions:

- BRC (2022) Getting UK Retail to Net Zero Vehicle Logistics by 2035.
- Cold Chain Federation (2022) Cold chain net zero project. Includes
- Department for Transport (2022) Future of Freight. Includes policy themes and priorities
- Energy Saving Trust's Fleet Review programme and Freight Portal
- Mission Possible Partnership (2022) Making Zero-Emissions Trucking Possible
- Smart Freight Centre (2017) Smart Truck Fleet Management

FWD will support by...

Partnering with existing logistics and retail sector zero carbon HGV initiatives to ensure alignment and wholesale sector involvement in commercial scale pilots and infrastructure planning.

CASE STUDY:

Lomond Fine Foods electrify their fleet

Lomond Fine Foods is a family wholesale business delivering chilled, frozen, and ambient food across Scotland. Their main operation is located in Glasgow, with additional depots further north in Inverness and Aberdeen.

Highly committed to taking action on climate change, they have implemented a number of measures to reduce their environmental impact and have ambitions to achieve net zero carbon emissions by 2025.

Having begun their transition to low carbon transport in 2016, they initially introduced hybrid refrigeration in two of their commercial trucks. Today, all 23 of their 3.5 – 7.2-ton trucks run with hybrid refrigeration systems. Sales vehicles were replaced with electric cars from 2017 onwards. A 7.2-ton electric van has also been introduced for deliveries in the Glasgow area.

In combination with introducing route rationalisation, making sure that routes are as efficient as possible, the company calculates that their efforts saved 71.3 tonnes of CO2 in 2021-22 compared to 2018-19. These changes have allowed them to benefit from the increasing number of tenders coming to market that are demanding sustainable practices.

They are not stopping here. A further three 18-ton trucks with electric refrigeration are on their way, as are plans to explore other new low carbon technologies, such as hydrogen fuel cell. Installation of 270 PV panels which will generate 120kwh of electricity has recently been completed. This is expected to reduce electricity consumption from the grid by 20%.

For Lomond Fine Foods, transitioning vehicle fleets starting with company cars, is a very well-worth investment, which also brings tax savings. In their view, the growing pressure from Government and clients to decarbonise also means that the necessary changes must now be made.

“Failing to embrace transition should be seen as a bigger threat than the new technology.”

SAM HENDERSON,
MANAGING DIRECTOR, LOMOND FINE FOODS

CASE STUDY:

Sysco drives the future of British foodservice delivery

Sysco's businesses in Great Britain have begun to make customer deliveries in a range of zero-emissions vehicles as part of a programme to understand the challenges and opportunities for decarbonising Britain's largest foodservice fleet.

The GB initiative sees a range of temperature-controlled electric vehicles, including two 19-tonne HGVs, one emblazoned with the 'climate stripes' logo, and two electric vans, across Brakes, Fresh Direct and Medina Foodservice depots. Sysco hopes to provide a model for zero emission foodservice deliveries as it tests the performance of the vehicles and batteries; collects data and builds understanding around the complexity of charging and route planning; and identifies the infrastructure required.

The project has already been in development for several years as Sysco has worked in partnership with manufacturers to create a viable delivery solution. Each zero-emission multi-temperature HGV will save around 70 tonnes of carbon each year.

However, there are still many barriers to converting the entire fleet – primarily cost and infrastructure. While innovation in electric vehicles and battery technology is moving incredibly fast, and vehicle range is no longer the biggest barrier, to convert Sysco's entire British fleet would require significant investment in the UK's charging infrastructure. Despite these challenges, Sysco GB remains committed to pioneering the technology that will transition transport towards zero emissions.

"Our vision is to be the most sustainable foodservice operator – carrying sustainably sourced produce from depots powered with renewable energy on a zero emissions fleet. These first electric vehicles are an important step towards that."

PETE STATHAM, HEAD OF SUSTAINABILITY & GOVERNMENT RELATIONS

RENEWABLE ELECTRICITY

Electricity use accounts for approximately 25% of wholesale sector Scope 1 and 2 emissions. It is likely that electricity demand in the sector will significantly increase over the next 20 years as it is used as key lever for decarbonising heat and transport emissions outlined in the other sections of this document. Due to electricity's increasing importance as an energy source it will be critical to make energy efficiency and renewables procurement a key part of the sector's climate transition planning. In addition to work by businesses on their own operations, there is a key role for the wholesale sector to continue to be a strong advocate for continued decarbonisation of the UK electricity grid. The UK has been a global leader in grid decarbonisation - but a faster transition to low carbon energy sources is needed to enable the wholesale sector and wider food value chain to meet sector net zero targets.

20%
of current power demand could be met through on-site solar

Electricity transition

The major driver of decarbonisation will be the greening of the UK grid - however, there are significant opportunities for wholesale sector to drive new renewables generation through the use of on-site renewables and higher quality off-site renewables purchasing (CCC, 2020). Warehouses offer a unique opportunity for solar power installation as they provide a significant amount of accessible roof space close to industrial and residential centres. The ROI period for solar has recently decreased to 4-6 years (UKWA, 2022) and the financial case for on-site installation is expected to increase as transport and heat electrification increases warehouse electricity use.

KEY POLICY ENABLERS

Extend financial support on capital investments to ensure maximal deployment of renewables on warehousing

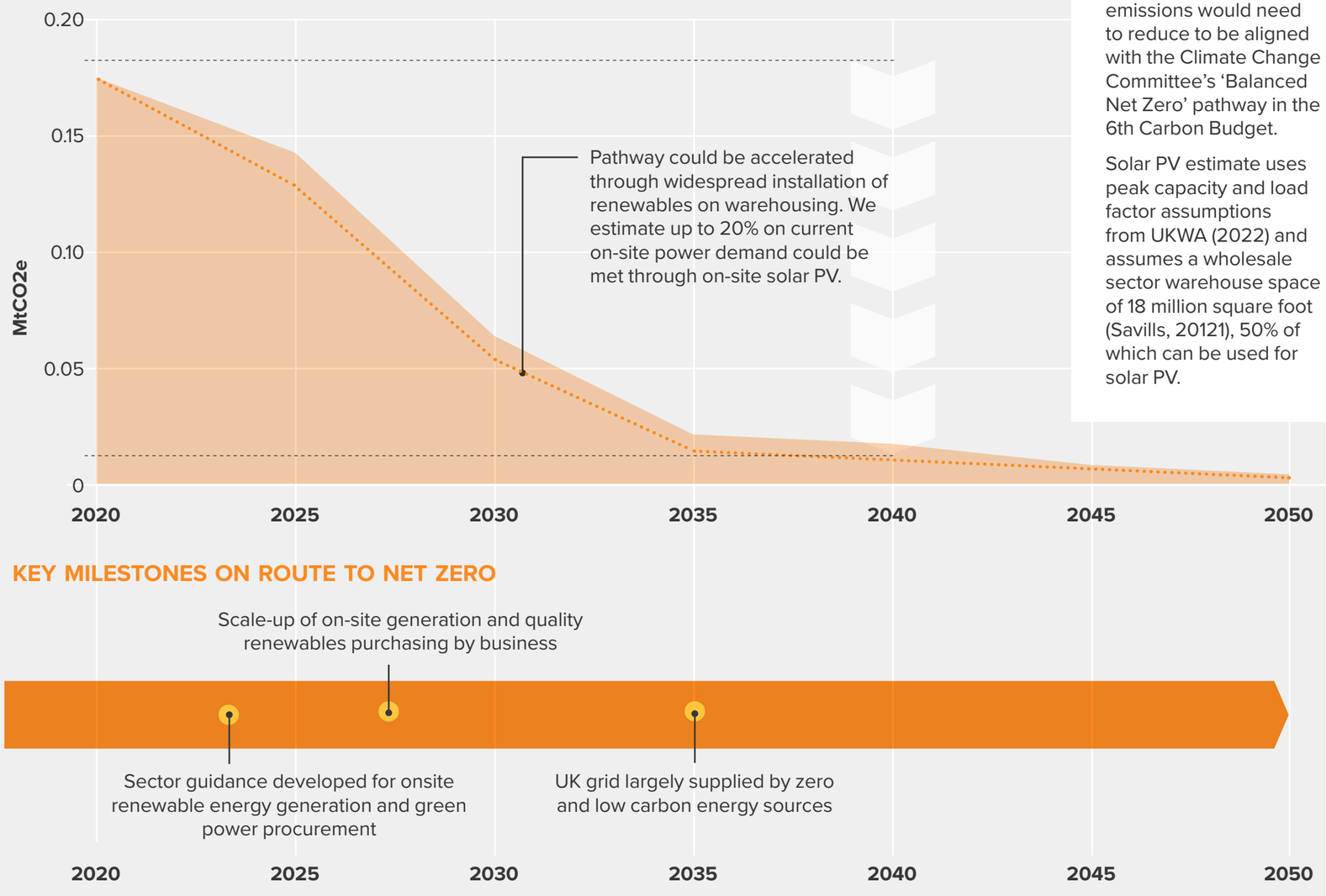
➔ Capital cost is a significant barrier to onsite renewable energy;

➔ With appropriate investment, EVs could be charged at warehouses outside periods of peak demand: a flexible system could be created.

Ensure local planning system and grid connection permitting do not slow deployment of renewables on warehousing.

➔ Significant grid infrastructure improvements will be required in order to facilitate increased electricity supply from warehouse roof solar power installations.

FIGURE 9: INDICATIVE REDUCTION PATHWAY FOR WHOLESALE SECTOR ELECTRICITY EMISSIONS



PATHWAY ASSUMPTIONS

The reductions, left, show how wholesale sector electricity use emissions would need to reduce to be aligned with the Climate Change Committee's 'Balanced Net Zero' pathway in the 6th Carbon Budget.

Solar PV estimate uses peak capacity and load factor assumptions from UKWA (2022) and assumes a wholesale sector warehouse space of 18 million square foot (Savills, 20121), 50% of which can be used for solar PV.

Business actions on renewable electricity

To support the wholesale sector's journey to net zero, companies must invest in renewable electricity. Key action areas are outlined below.

Purchase high quality renewable electricity

There are a variety of mechanisms which can be used to directly or indirectly increase the generation of renewable electricity. Onsite renewables represent the best option, but market mechanisms are also available: Power Purchase Agreements can be used to directly invest in renewables (for more detail see pg. 44). Another option is the purchasing of renewable energy certificates (RECS).

Invest in renewable generation capacity on warehouse sites

The wholesale sector is in a unique position of having warehouse roof space for solar power generation, which could help to meet increased demand driven by the electrification of logistics. Opportunities for renewable electricity generation at wholesale depots should be fully considered and maximised, with the most likely option being solar power.

Make a plan to accommodate flexibility in energy demand

Wholesalers should look to accommodate intermittent electricity supply by: 1) charging electric vehicles off-peak thereby reduce demand during peak hours and 2) using cold storage as batteries, by lowering freezer temperatures during low demand periods - when demand increases, freezers do not need to consume as much electricity to remain cold enough (Cold Chain Federation, 2022).

Collaboration and engagement opportunities

RE100 brings together businesses committed to 100% renewable electricity, helping to overcome current barriers to renewables globally.

The UK government **Solar Taskforce** is working on increasing solar panels on roofs, including on warehouses

Further resources

The following research and guidance can support wholesale sector businesses to understand and develop a transition plan for renewable energy.

- The Cold Chain Federation (2022) - Part Four – The Cold Store Of 2050: Maximising Efficiency To Reduce Emissions And Drive UK Energy Transformation
- RE100 - Renewable electricity technical guidance
- Food and Drink Federation (FDF) Net Zero Handbook
- British Retail Consortium(BRC) 2040 Net Zero Roadmap
- UK Warehousing Association (UKWA) Solar capacity on warehouses research
- Climate Change Committee - Sixth carbon budget Electricity Generation report

FWD will support by...

- **Assessing the potential of, and developing best practice for, on-site renewable power generation**
- **Exploring the potential for multi-buyer power purchasing opportunities for the sector**
- **Work with UKWA and UK Solar Taskforce to align policy asks and best practice**

CASE STUDY:

Greencity Wholefoods save with solar

Greencity Wholefoods is a wholesaler of ethically sourced food and drink based in Glasgow.

Ten years ago, a 10kWp solar PV array was added to the offices to help the business, which operates as a workers' cooperative, become more energy efficient. More recently, Greencity switched to LED lights throughout the premises, thanks to support from Business Energy Scotland, which offers free support to Scottish SMEs.

With rising fuel costs affecting the company's profitability, Greencity recently contacted Business Energy Scotland again to help investigate the feasibility of further solar panels on the warehouse. A survey of the warehouse was carried out by their specialist consultants, who then produced a detailed report.

It showed that Greencity could save more than £3,500 a year with an additional small amount of income generated through the Smart Export Guarantee from the use of solar PV panels. Switching to solar energy would also reduce carbon emissions by seven per cent, equivalent to 7,784 average car miles.

"We are always trying to adapt and become greener. We want to be able to future-proof ourselves for future generations. By making the move to solar panels, we will also be able to reinvest more into the business."

SCOTT ERWIN, BUSINESS DEVELOPMENT MANAGER

CASE STUDY:

Bidfood shines a light on its sustainability progress

For many years, Bidfood have generated renewable energy via their solar panels at Chepstow depot. However, as part of their carbon reduction plan, aimed at achieving net zero by 2045, a much wider roll-out of solar panels has been planned across their estate. So far, five sites have been commissioned and installed as part of Phase 1 of the initiative. This means 6,850 panels with the potential to generate 2.9MW of power, which based on existing consumption and cost data, would mean up to a fifth of the sites' combined electricity consumption and a saving of 600 tonnes of CO2e per annum.

Phase 1 has involved huge investment and commitment, however Bidfood's ambitions don't stop there and they have a further 17 possible depots in their sights. Phase 2 will look to see further Bidfood depots, as well as Bidfresh and Caterfood Buying Group sites benefit from the initiative.

The project hasn't run without the odd hitch, including supply chain delays, adverse weather conditions and even seagulls! Each installation brought its own unique challenges, such as building age, structure, roof condition, and whether it is freehold or leasehold. The teams involved overcame all of these, and managed to coordinate the roll-out whilst our sites were fully operational, minimising any impact on customers. The installation of solar panels has been a fantastic collaboration between our Estate Services, Procurement, and local depot teams and Photon Energy, who supplied the panels.

"We're really excited about the prospect of getting more accurate information on how much the [solar panel] systems can generate in savings, and reductions in our carbon emissions as part of our overall plan to achieve Net Zero emissions."

JULIE OWST, HEAD OF SUSTAINABILITY AT BIDFOOD

LOW CARBON REFRIGERATION

The ability to refrigerate products is a critical element of the food and drink supply chain, enabling greater consumer choice and reducing food waste. However leakages from refrigeration units are a considerable source of emissions, accounting for 2% of all emissions in the UK food value chain (WRAP, 2021). In the wholesale sector this equates to 7% of Scope 1 and 2 emissions, according to research conducted by FWD.

The primary method for refrigeration is through the use of F-gases, or fluorinated gases, which can have a Global Warming Potential (GWP) of up to 26,000 times greater than CO_2 due to their ability to trap heat (CCC, 2020). This creates a significant source of emissions, despite being released in smaller quantities compared to other GHGs. The majority of F-gas emissions are from Hydrofluorocarbons (HFCs) which can have a GWP ranging from 1 to 3,922 (FDF, 2017). Companies will need to transition to the use refrigerants with a GWP of below 150 to reduce their emissions in line with a net zero trajectory.

Refrigerant transition

Unlike many other emissions sources, the use of F-gases have been subject to regulatory requirements since 2006 (DEFRA, 2022), therefore considerable progress in this area has already been achieved by the food & drink sector. Adherence to existing policy is predicted to see F-gas emissions decline by 86% until 2036, however, further action is required to reach net zero (a 90% reduction) by 2040. To achieve this, phasing down HFCs should remain the focus for the wholesale sector. Additionally, as the uptake of heat pumps increases, it risks increasing emissions from refrigerants as F-gases are used in the heat exchange process. This will further support the need to ensure substitution of F-gases is so essential to the decarbonisation of refrigerant emissions.

KEY POLICY ENABLERS

Extension of regulation for the phase out of F-gases to 2050

➔ Enshrining a net zero pathway into policy beyond the existing Kigali Amendment which expires in 2036.

Investment for research into lower-GWP refrigerants

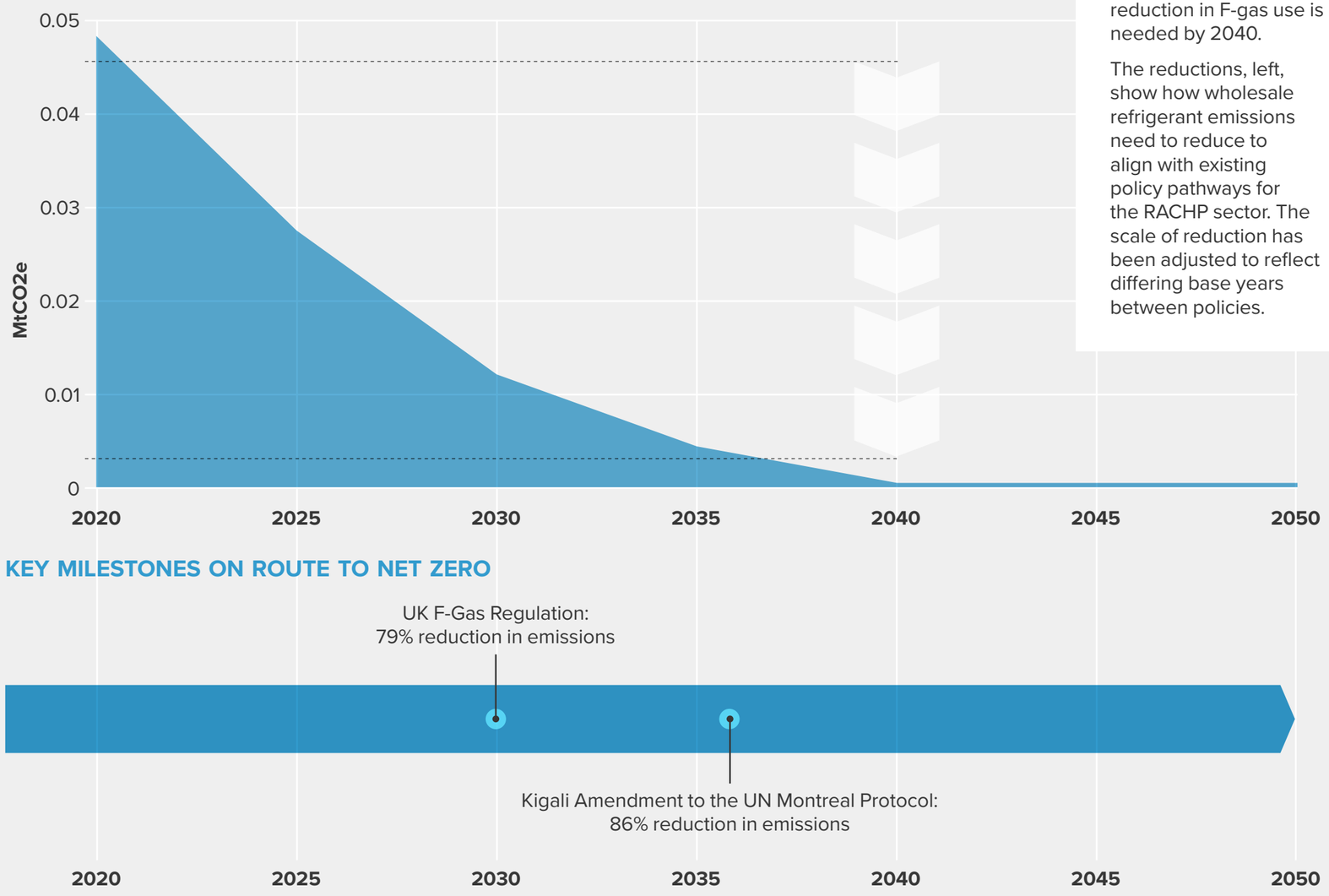
➔ Focusing research on commercial heat pumps

Introduction of minimum efficiency standards for refrigerated vehicles

➔ This should cover both temperature monitoring mechanisms and adequate trailer insulation

➔ Inclusion of emissions from Transport Refrigeration Units within transport reporting and regulation.

FIGURE 10: INDICATIVE REDUCTION PATHWAY FOR WHOLESALE REFRIGERANT EMISSIONS



PATHWAY ASSUMPTIONS

To achieve net zero emissions from refrigeration, significant reduction in F-gas use is needed by 2040.

The reductions, left, show how wholesale refrigerant emissions need to reduce to align with existing policy pathways for the RACHP sector. The scale of reduction has been adjusted to reflect differing base years between policies.

Business actions

To support the wholesale sector climate transition, companies should tackle refrigerant emissions. Key action areas are outlined below.

Replacing refrigerants with lower GWP alternatives

Replacing traditional F-gases with refrigerants that have a GWP of below 150 is the most effective way to reduce emissions. There are a number of low carbon alternatives available. The application and age of equipment should be taken into consideration when deciding which is the most suitable replacement, due to variety in thermodynamic and safety properties (European Commission, 2023).

Reducing refrigerant leaks through better monitoring and efficiency measures

Introducing maintenance systems and upskilling staff on best practice related to creating 'leak-tight' refrigeration installations. To embed robust leak prevention systems in the business, an individual or specified team should be assigned responsibility for implementing such measures.

Reduce cooling energy requirements and use waste heat efficiently

Reducing the volume of energy a refrigeration unit consumes helps reduce emissions. This could involve installing efficient support technologies, such as adding transparent doors to open display systems, and ensuring regular maintenance (BRC, 2020). Investing in systems that utilise heat generated from running cooling units will also reduce Scope 1 emissions.

Collaboration and engagement opportunities

Refrigerants, Naturally! - Global initiative enables greater investment in low carbon refrigerant technology.

REAL Zero and REAL Alternatives - Refrigerant containment campaign led by the Institute of Refrigeration.

Further resources

The following research and guidance can support wholesale sector businesses to understand and develop a transition plan for refrigerant emissions

- The Cold Chain Federation (2022) Shaping the Cold Chain of the Future
- Energy Technology List (BEIS, 2023) Equipment that qualifies for an Enhanced Capital Allowance tax benefit
- Scottish Industrial Energy Transformation Fund (SIETF) - Scottish equivalent
- US Environment Protection Agency (2013) Refrigerant Leak Prevention Checklist
- REAL Zero Refrigerant Containment booklets - Institute of Refrigeration
- UK Parliament (2021) - Sustainable Cooling
- GreenChill Industry Resources - Extensive list of food sector specific resources

FWD will support by...

- **Developing a decarbonisation plan for refrigerants specific to the wholesale sector. This will involve undertaking a detailed review of the most common F-gases, applications and assessment of alternatives.**

DECARBONISATION OF HEAT

Buildings are a significant source of corporate emissions, with commercial buildings alone responsible for roughly 5% of the UK's footprint (CCC, 2019). Emissions from building fuel use - mainly natural gas - contributes 6% of the wholesale sector's total Scope 1 and 2 emissions.

Achieving deep decarbonisation of buildings represents a two-fold challenge: businesses need to both reduce the amount of fuel used, while also transitioning to low- and no-carbon energy sources. Implementing energy efficiency measures and low carbon heating will require the retrofitting of existing buildings and ensuring new construction meets high environmental standards.

The UK Government has set out potential legislative changes to decarbonise the building stock. These include changes to Energy Performance Certificates (EPC) requirements and the potential introduction of a performance-based rating system for large non-domestic buildings standards (BEIS, 2021).

Building heat transition

Delivering significant decarbonisation in buildings will be achieved through a combination of energy efficiency measures and low carbon heating in existing buildings, and net zero building standards for new construction.

Reductions will need to be made through increased energy efficiency, with the government expecting a 20% increase in energy efficiency by 2030 amongst business and industry. Reducing emissions from heating in commercial buildings will likely involve a mix of low carbon district heating and electrification of heat.

KEY POLICY ENABLERS

A long-term legislative plan for energy efficiency, retrofitting and construction standards.

➔ Development of a net zero commercial building standard and implementation of a performance-based building rating system.

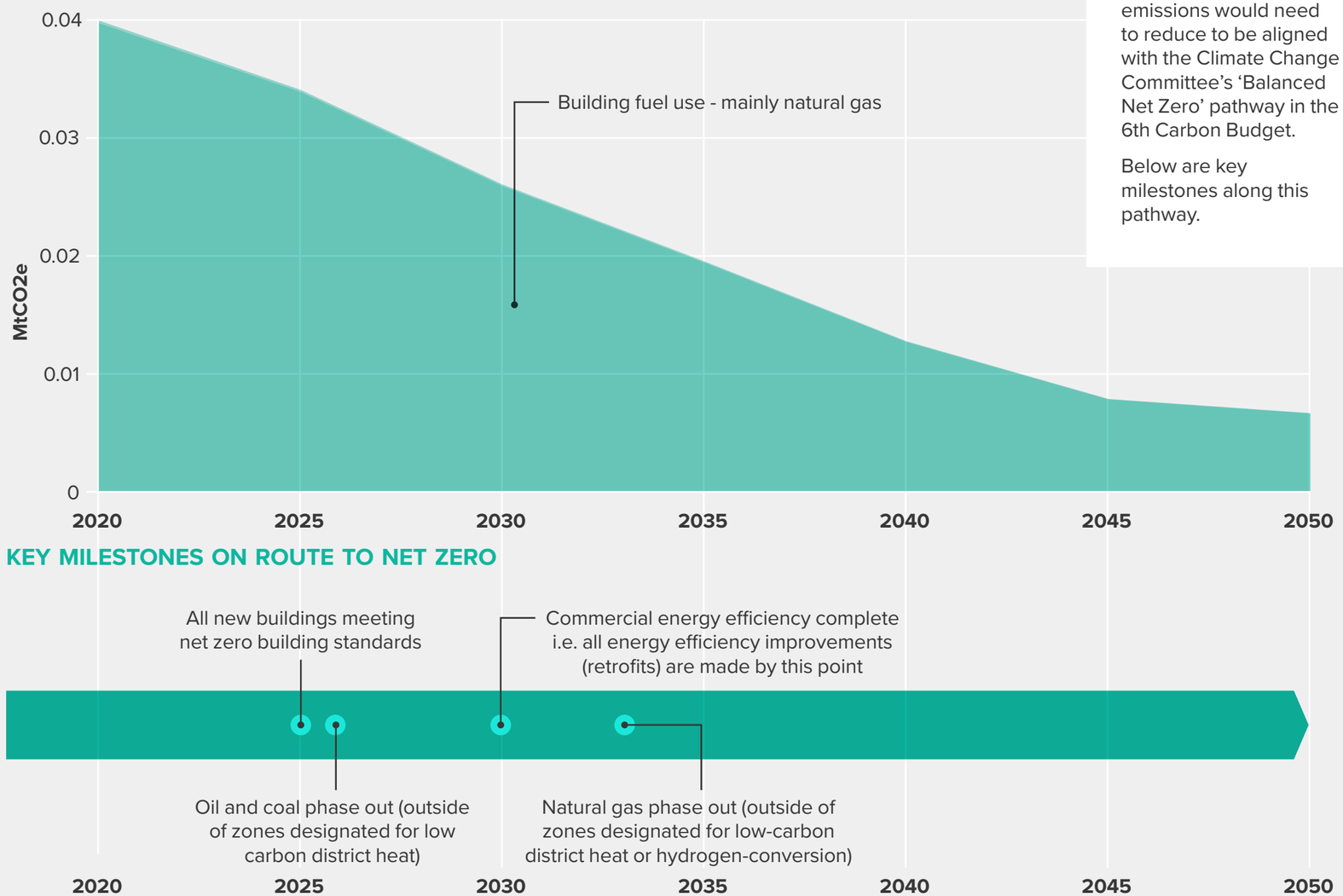
➔ Sectoral collaboration to continue developing energy efficiency and low carbon heating solutions, through R&D and commercialisation trials.

A government fiscal plan to support businesses in decarbonising their properties.

➔ Subsidies, grants or favourable credit facilities to support investment low-carbon heating solutions for warehouses.

➔ Investment in innovative retrofitting and low carbon heating trials.

FIGURE 11: INDICATIVE REDUCTION PATHWAY FOR WHOLESALE SECTOR BUILDING HEATING EMISSIONS



PATHWAY ASSUMPTIONS

The reductions, left, show how wholesale sector building fuel emissions would need to reduce to be aligned with the Climate Change Committee's 'Balanced Net Zero' pathway in the 6th Carbon Budget.

Below are key milestones along this pathway.

Business actions on zero carbon heat

To support the wholesale sector climate transition, efforts to reduce emissions from commerical buildings are critical. Key action areas are outlined below.

Plan for transition to zero carbon heating solutions in existing building stock

Implementing low carbon heating solutions to decarbonise the existing building stock will be a significant and important step in the next decade – see the BRC's & Mitsubishi's guide in the resources section, right, for further guidance. Many of the technological solutions required already exist, but there remains significant demand for trials to understand the most effective solutions.

Reduce energy demand and increase efficiency in existing building stock

From simple interventions such as employee energy saving initiatives to more complex retrofits to improve insulation and building management systems, there is considerable potential to decrbonise through increased energy efficiency. By reducing the amount of energy consumed on site, and coupling this with other decarbonisation efforts, building emissions can be reduced effectively.

Specify zero fossil fuel heating in new builds and when leasing new depots and offices

Attention must also be paid to the standards being implemented for new construction. It is imperative that any new construction aligns with sustainability building principles and practices in order to reduce both their associated emissions. See the work being undertaken by the UK GBC on a Net Zero Carbon Buildings Framework linked in the resources section for more information.

Collaboration and engagement opportunities

UK Green Building Council - a membership-led industry network seeking to transform the sustainability of the built environment.

EP100 - brings together businesses committed to increasing energy productivity, and reporting any energy efficiency improvements they make.

Further resources

The following research and guidance can support wholesale sector businesses to understand and develop a transition plan for their buildings:

- Carbon Trust (2019) Warehousing and logistics guide
- BRC & Mitsubishi Electric (2023) Step-by-step Guide to: Energy efficiency and carbon reduction in retail warehousing
- Energy Saving Trust (2022) A guide to energy efficiency for employees
- Department of Business, Energy and Industrial Strategy (2021) Heat and Buildings Strategy
- UKGBC's Net Zero Carbon Buildings Framework

FWD will support by...

- **Pushing for government financial support for the decarbonisation of existing buildings**
- **Providing guidance to members on how to decarbonise heat with real-world implementation.**

VALUE CHAIN ENGAGEMENT

Indirect emissions from the value chain (known as Scope 3 emissions) make up c. 96% of a wholesaler's total carbon footprint. Ingredients in products sold by wholesalers - including emissions from deforestation risk commodities and agricultural processes - represent a key value chain emissions hotspot. Investors and government increasingly expect companies to take responsibility for their value chain emissions. However, businesses face challenges in Scope 3 quantification and reduction, including a lack of access to accurate data and limited ability to influence actions of customers or suppliers (SBTi, 2023). Such challenges may be exacerbated by wholesalers' complex, multi-tiered supply chains. Effective collaboration is therefore crucial: companies must leverage their procurement power to incentivise supplier action and work closely with peers and customers to drive change.

Value chain transition

The majority of wholesalers' value chain decarbonisation potential lies in lowering emissions associated with ingredients in products distributed. Increasing agricultural productivity both in the UK and overseas represents a key reduction mechanism. This would include improvements in fertiliser use efficiency, livestock diets and soil carbon storage (CCC, 2020). Tropical deforestation driven by risk commodities such as soy, palm oil and beef will also need to be eliminated before 2030. Downstream, behaviour change such as shifting to the Eatwell Guide's lower-carbon diet and reducing food waste in households and hospitality, will be crucial in order to significantly reduce emissions (WRAP, 2021).

KEY POLICY ENABLERS

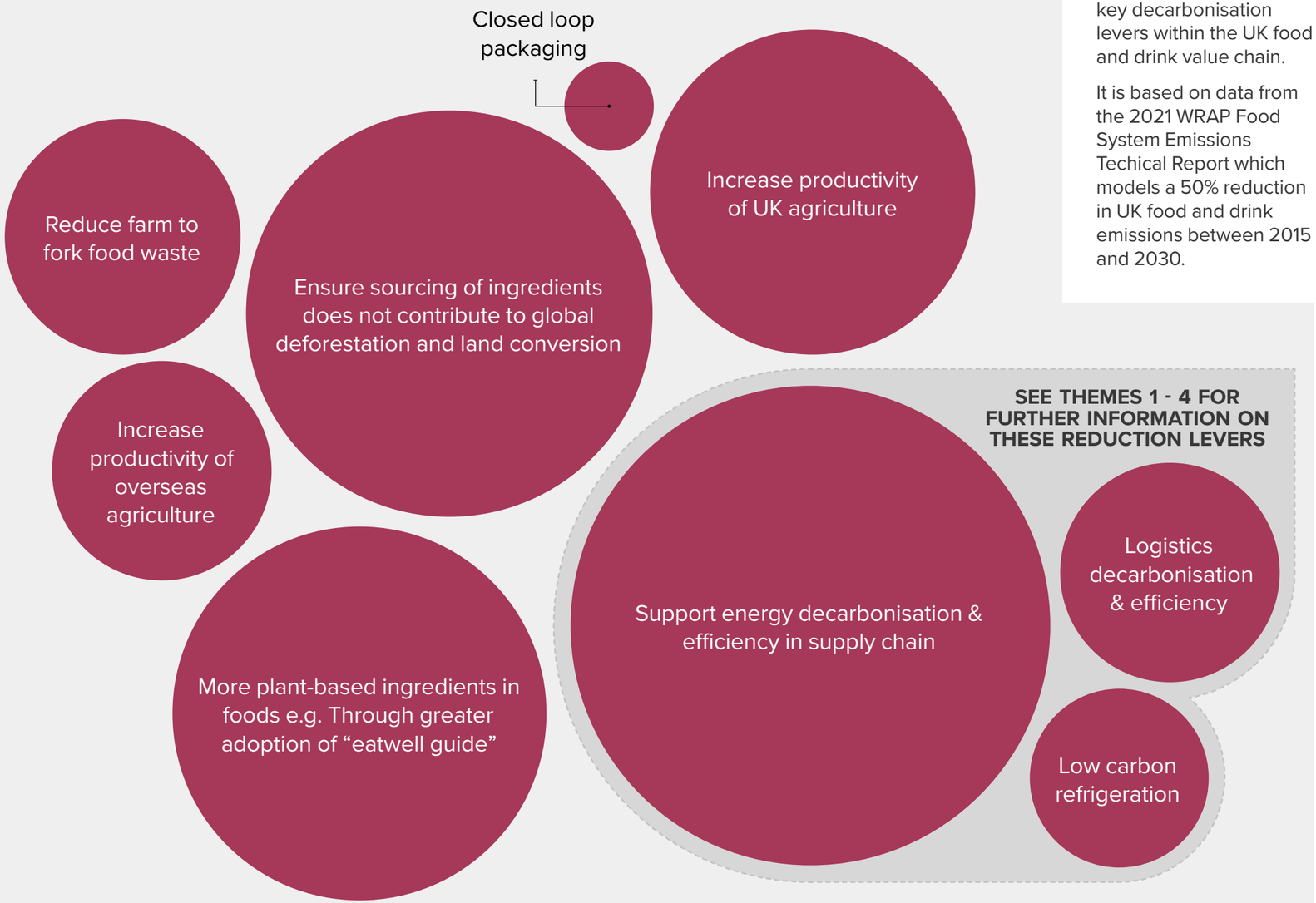
➜ **Standardised corporate reporting requirements** to ensure greater availability, consistency and quality of Scope 3 emissions data.

➜ **Support for UK farmers & growers to implementing low carbon farming practices** via new UK agricultural policies, such as the Environmental Improvement Plans and Environmental Land Management schemes.

➜ **Consistency of policies across trade, investment, and development activities** to eliminate deforestation and conversion from production of forest risk commodities including palm oil, soy, beef.

➜ **Promote shift to lower carbon diets** through incentivising farm-to-fork food waste reduction and adoption of Eatwell plate nutritional guidelines.

FIGURE 12: RELATIVE CONTRIBUTION OF LEVERS TO FOOD VALUE CHAIN DECARBONISATION



ASSUMPTIONS

This visualisation depicts the relative emission reduction potential of key decarbonisation levers within the UK food and drink value chain.

It is based on data from the 2021 WRAP Food System Emissions Techical Report which models a 50% reduction in UK food and drink emissions between 2015 and 2030.

Business actions

To support the wholesale sector's value chain decarbonisation, collaboration with stakeholders will be crucial. Key action areas are outlined below.

Improve visibility of value chain emissions

You can't manage what you don't measure. It is therefore important to form an understanding of emissions hotspots across the value chain. These insights can inform the development of a supplier engagement programme which targets key suppliers and uses the power of procurement to drive urgent climate action. See 'Getting started' guide for more information on quantifying Scope 3 emissions.

Make a zero deforestation sourcing commitment

As a first step to tackle supply chain emissions arising from the production of risk commodities, FWD members should develop and implement deforestation and conversion-free sourcing policies. These should be based on internationally recognised guidance, such as that of the Accountability Framework Initiative (see resources, right).

Collaborate with customers to shift demand & reduce food waste

Wholesalers should work closely with both hospitality and retail customers to jointly drive behaviour change. This could include educational campaigns to reduce the 9.5 million tonnes of food, worth over £19 billion, which is wasted in the UK each year (WRAP, 2023) and promotion of lower-carbon dietary choices using The Eatwell Guide (see resources, right).

Collaboration and engagement opportunities

WRAP Courtauld Commitment 2030: Includes resources for businesses tackling climate change and waste

Eating Better: working to accelerate the transition to a healthier and more sustainable food system

Commodity coalitions: Palm Oil and Soy Transparency Coalitions enable alignment on reporting and policies

Further resources

The following research and guidance can support wholesale sector businesses to understand and develop a value chain decarbonisation plan:

- WRAP (2021) Pathway 2030: Delivering a 50% reduction in the GHG footprint of UK food and drink
- GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard
- UN Global Compact (2022) Scope 3 webinar series
- Public Health England (2018) The Eatwell Guide
- SME Climate Hub: 1.5C Supplier Engagement Guide
- Accountability Initiative Framework company guidance on best practice in developing zero deforestation policies
- CCC (2020): The Sixth Carbon Budget Agriculture and land use, land use change and forestry

FWD will support by...

- **Engaging with policymakers and food sector peers on Scope 3 data alignment and best practice**
- **Organising member training on deforestation due diligence and promoting participation in sectoral transparency initiatives**

CASE STUDY:

Booker's sustainable sourcing strategy

Forests play a critical role in tackling biodiversity issues and climate change. As the UK's leading wholesale provider, Booker wants to play their part in tackling deforestation and is committed to the sustainable sourcing of all commodities in its supply chain. Their efforts are focused on working to eliminate deforestation and ecosystem conversion from the company's key forest risk commodities: soy, palm, and timber.

The Palm Oil Transparency Coalition, Soy Transparency Coaltion, and EFECA foodservice groups facilitate a more joined-up discussion on sustainable sourcing between companies in the sector, by identifying common challenges and working on industry-wide solutions focused on palm oil and soya. On an annual basis, Booker engages all own brand suppliers on commodity reporting for soy and palm oil through a collective approach similar to the retail industry. This process is conducted by an independent third party, 3Keel, who coordinate collection and validation of supplier data for reporting on both palm oil and soy.

Booker's first palm oil survey was in 2019. Since then, they have seen year-on-year improvement in supplier engagement and sustainable palm supply reported.

Gathering this data has enabled Booker to develop and implement clear palm oil policies. Focus now is on their soy footprint, the majority of which is indirect use as soymeal in animal feed. In line with their Zero Deforestation Soy Sourcing requirements and UK Zero Deforestation Soy Transition Plan, Booker continuously engage all suppliers to ensure that they are aligned for the upcoming transition to sourcing only deforestation and conversion-free soy by 2025.

"We are making progress and we know there is more we can do. We will continue to drive action, both within our own sourcing policies and by working in collaboration with wider industry to advocate for better forest governance."

CATH MARSTON, HEAD OF SUSTAINABILITY, BOOKER

CASE STUDY:

Castell Howell's seasonal supply chain

Food miles and Scope 3 emissions are inextricably linked. Selling local, seasonal produce and working in collaboration with hospitality providers to adjust menu options are therefore effective measures to reduce value chain impact. In the summer of 2022 Castell Howell collaborated with growers Blas Gwent, Food Sense Wales, and Cardiff Council, to deliver locally grown vegetables to the Summer Food & Fun programme, as part of a initiative to develop seasonal supply chains. Castell Howell worked with numerous stakeholders to bring courgettes grown near Cardiff to 22 schools.

Phase 2 of the 'Courgette Project' will extend beyond Cardiff Council to include Monmouthshire and Carmarthenshire. Vegetables grown in 2023 will be used for the Summer Food & Fun project across the three authorities, with a longer term project at Monmouthshire extending across their Autumn/Winter menus.

Forecasting vegetable yields to align with menus is essential, and the suppliers engaged have begun to undertake this work. It is recognised that although seasonality is important, the practicalities of managing the supply chain to utilise produce harvested outside school terms requires a nuanced approach. Authentic Foods (Hirwaun) have been introduced to the project, to set up conversations with local authorities on these complexities, with further improved outcomes expected for the 2024 harvest.

"Castell Howell are collaborating with supply chain partners and stakeholders, demonstrating our ambition to work towards a sustainable supply chain and sustainable diets."

EDWARD MORGAN, GROUP CSR & TRAINING MANAGER

5. Getting started guide

Getting Started Guide: Introduction to transition planning

The corporate climate landscape is increasingly complex. Countless standards, frameworks, and technical terms can leave companies confused and unsure of how to get started.

To help cut through the noise, the following pages provide a simple and practical guide for wholesalers who are early in their climate action journey.

The guide is split into four key stages, based on the structure of the UK's Transition Plan Taskforce's Implementation Guidance: 1.) baselining your company's current position, 2.) defining an appropriate level of ambition, 3.) developing a plan for reducing your emissions and 4.) ensuring internal accountability structures for delivery of your plan.

At each stage, the guide outlines a checklist of key actions for companies and signposts users to supporting resources such as e-learning courses, corporate climate standards and guidance documents. To cater to businesses who are further along their climate journey, additional advanced actions and relevant resources are also included.

Stage one of the guide includes a deep dive into carbon footprint calculations, pointing to a tool which has been designed specifically by FWD to allow members to identify their key emissions hotspots and benchmark against industry averages. Guidance on assessing climate-related risks and opportunities in line with the recommendations of the TCFD (Taskforce for Climate Related Financial Disclosures) is also provided.

1. Baseline your current position

Key actions checklist:

- [ ] **Calculate your corporate carbon footprint:**

Understanding your company's GHG emissions inventory is a critical first step on the journey to Net Zero. The following page provides an overview of an emissions calculator tool which was developed specifically for FWD members, along with guidance for how to use it.

- [ ] **Assess relevant climate-related risks and opportunities:**

A changing climate and the resulting economic and regulatory shifts have wide-reaching impacts on businesses, especially those operating in the food sector. FWD members should perform a stocktake on their potential exposure to climate-related risks and opportunities - see Page 40 for guidance.

KEY RESOURCES

- DEFRA: Guidance for small business on how to measure and report greenhouse gas emissions
- GHG Protocol Corporate Accounting & Reporting Standard
- SME Climate Hub emissions calculator

ADVANCED RESOURCES

- TCFD risk management resources
- Corporate Scope 3 Accounting & Reporting Standard
- Transition Plan TaskforceImplementation Guidance

Advanced actions:

- [ ] **Assurance of GHG emissions inventory:**

In response to stakeholder demands, companies are increasingly obtaining external assurance or auditing of their carbon footprints. More information can be found in Chapter 2.3: Audit, assurance and verification considerations of the TPT Implementation Guidance. It is normal to get your Scope 1 and 2 emissions assured as a first step.

- [ ] **Inclusion of supplier/product-specific data in carbon footprint:**

Over time, companies should strive to improve the accuracy of their Scope 3 calculations by incorporating primary emissions data related to their specific product portfolio or supplier base. See SBTi Supplier Engagement Guidance for further details.

Climate data management

The ongoing management of climate-related data is a perennial issue for companies. It is important to invest in the internal infrastructure required to streamline and standardise the data collection and reporting processes. This will include the improvement of climate literacy and GHG footprinting skills amongst relevant staff and the use of emissions reporting platforms which integrate with your business' data management processes.

1. Baseline your current position

Getting started with footprint calculation

FWD, in collaboration with 3Keel, has developed an emissions hotspot calculation tool. This tool is designed to help wholesalers to kickstart the carbon footprint calculation process and to identify the most emissions-intensive parts of their business. It is a simple, easy-to-use Excel based spreadsheet which allows members to calculate their direct (Scope 1 and 2) emissions and provide an initial estimate on their indirect value chain (Scope 3) emissions.

The tool outputs are a range of visual charts showing your company's total estimated emissions, how you compare to the sector average (calculated from a survey of FWD members' emissions data) and your top three emissions hotpots, with advice on priority decarbonisation actions per hotspot.

When opening the tool for the first time, it is recommended to navigate first to the "User Guide" tab which provides an overview of how best to input company information and should hopefully answer any of your questions. A short guidance video demonstrating how to use the tool will also be distributed to FWD members.

1. Baseline your current position

Climate-related risks and opportunities

Regulation, such as the UK Government's implementation of mandatory climate risk reporting for certain businesses, and changing stakeholder expectations make it increasingly important for companies to understand their exposure to climate-related risks and opportunities. The Taskforce for Climate-related Financial Disclosures (TCFD) provides a helpful framework for companies to carry out such an assessment.

The TCFD framework can be used to identify climate-related risks that could impact a company's operations, supply chain, or financial performance. This includes physical risks (e.g. extreme weather events) and transition risks (e.g. policy changes). Material risks should be assessed in terms of their likelihood and potential financial impact. A similar process should be followed for climate-related opportunities.

This is a complex area and how companies assess, manage, and report on their climate-related risks and opportunities will evolve over time. The resouces below provide further information to support you in this process.

KEY RESOURCES...

- CDSB (2021) TCFD Good Practice Handbook
- TCFD (2017) Recommendations of the Task Force on Climate-related Financial Disclosures
- TCFD Publications & Guidance

Transition risks
In moving to a low carbon economy, the extensive technological, legal, policy and market changes that may occur to enable this are referred to as 'transition risks'. There are four key types:

Policy & Legal e.g. implementation of a GHG emissions tax

Technology e.g. cost of implementing lower carbon technologies

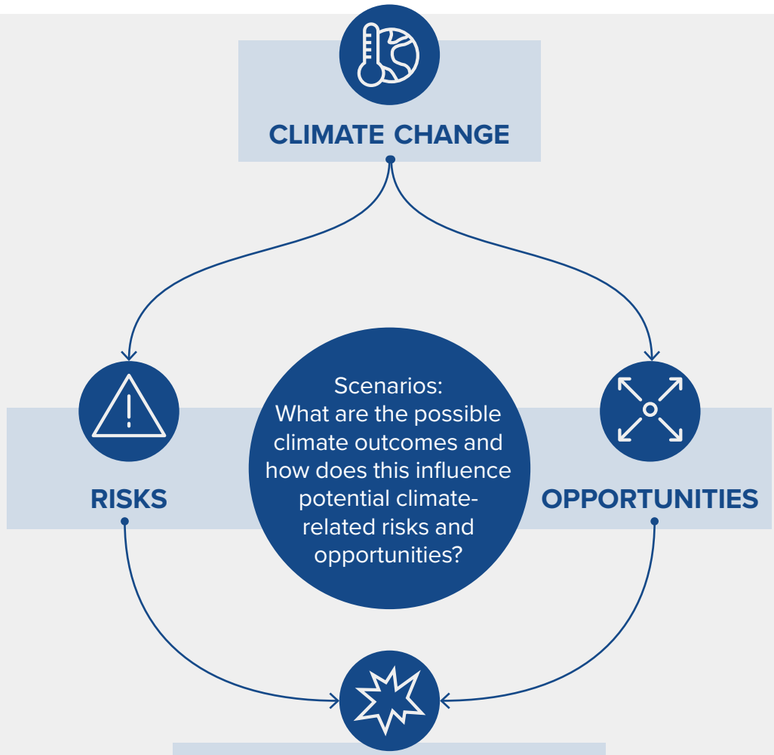
Market e.g. consumer preferences trend towards 'greener' options

Reputation e.g. carbon-intensive activities are stigmatised

Physical risks
Climate change will lead to physical risks for businesses that will be either event-driven (acute) or reflect longer term changes (chronic) in climate patterns.

Acute e.g. severe flooding disrupts UK agricultural supply chains

Chronic e.g. sea level rise intensifies coastal hazards and threatens coastal physical assets



Opportunities
The transition to a lower carbon economy and any associated work to mitigate and adapt to climate change also presents businesses with opportunities. These will vary depending upon a business' geography, markets and industry, but could offer significant opportunities in the following areas:

Markets e.g. increased demand for an EV logistics option in the last mile

Consumers e.g. meeting consumer preferences for greener products / services by developing green logistics fulfilment options

Resilience e.g. implementing energy efficiency measures to reduce energy use and operating costs

Products / Services e.g. developing new 'green' logistics services to support customers to reduce their emissions.

2. Set Ambition

Key actions checklist:

- [ ] **Select a base year:**

The meaningful and consistent tracking of climate ambition requires the establishment of a base year GHG emissions inventory. Your company should select a recent base year for which there is accurate data available across all emissions scopes and which is also representative of your typical emissions profile.

- [ ] **Set near-term emissions reduction target:**

Near-term targets cover a time horizon of 5 - 10 years. Separate targets for direct (scope 1 & 2) and indirect (scope 3) emissions may be set. It is viewed as best practice to validate your targets against the requirements of the Science-Based Targets Initiative (SBTi) - see resources section for further guidance.

- [ ] **Set long-term net-zero emissions reduction target:**

In addition to near-term targets, companies should also set a long-term target to deeply decarbonise their value chain and neutralise any remaining emissions with an equivalent amount of carbon removal, thereby reaching ‘Net Zero’.

Advanced actions:

- [ ] **Set other climate-related targets:**

Alongside emissions reduction targets, companies should also explore setting quantitative targets on areas such as the use of renewable energy, waste management or increased investment in R&D for low-carbon innovations.

KEY RESOURCES

- Science Based Targets initiative (SBTi) Corporate Manual
- SME route FAQs
- SME Climate Hub commitment
- UNGC short e-learning course:Setting Science Based Targets

ADVANCED RESOURCES

- UNGC e-learning course: SBTi Net-Zero Standard
- SBTi Forest Land and Agriculture (FLAG) Guidance

Carbon removals

In the long-term, to reach Net Zero, companies will need to Invest in high quality projects that remove carbon dioxide from the atmosphere to balance residual emissions. There is currently a lack of consensus on what constitutes a robust strategy for removals investment. It is therefore recommended that companies stay abreast of the latest removals guidance from the GHG Protocol and SBTi as it becomes available.

3. Develop an Action Plan

Key actions checklist:

- [ ] **Identify key stakeholders across business functions:**

To successfully develop and deliver your climate strategy, it is crucial that decision-makers from across the business are engaged in the process from an early stage. These may include representatives from departments such as finance, operations, procurement and communications.

- [ ] **Identify priority interventions across the 5 wholesale sector decarbonisation themes:**

Using the information outlined in section 3 'Decarbonisation Themes', assess which levers are at your own company's disposal to reduce emissions from different sources. Considerations of emissions savings potential and cost can help inform the prioritisation of interventions.

- [ ] **Engage with suppliers, customers and peers:**

Active collaboration with other organisations from your value chain can be a powerful driver of climate action. This could include working with suppliers to improve primary emissions data, joining sector initiatives to shift demand signals or jointly working with customers to reduce emissions from use of sold products.

Advanced actions:

- [ ] **Implement carbon pricing to fund decarbonisation initiatives:**

When an internal carbon price is set, a cost is assigned to each ton of carbon used so this can be factored into business and investment decisions. Money raised through an internal carbon tax can be directed to investments in initiatives which reduce emissions. See further guidance in resources section.

KEY RESOURCES

- UNGC Transition Plans webinars
- Exponential Roadmap Supplier Engagement Guide
- Financial support guide: Options for SMEs to find financial support on the journey to NZ
- Business in the Community: Seven Steps for Climate Action

ADVANCED RESOURCES:

- UK Transition Plan Taskforce's Implementation Guidance
- Carbon pricing guidance from CPLC

Purchasing renewables

Purchasing renewable electricity can play a key role in a company's cliamte action plan. The most direct method of doing so is through Power Purchase Agreements (PPAs). PPAs are agreements directly with the supplier of renewable energy. While PPA may be challenging to negotiate, multi-buyer or aggregated PPAs, can help to spread costs and negotiation among multiple buyers.

4. Ensure Accountability for Delivery

Key actions checklist:

- [ ] **Define KPIs & publicly report progress annually:**

It is vital to define metrics for measuring success to keep your climate journey on track. These should include GHG emissions figures as well as operational and financial metrics. As best practice, these metrics should be publicly reported against on an annual basis to provide transparency for your stakeholders.

- [ ] **Assign clear roles and responsibilities:**

To ensure there is oversight of your company's Net-Zero plan and a clear accountability structure for its delivery, climate-related roles and responsibility should be explicitly assigned throughout the business. An individual at Director/C-Suite level should ultimately be responsible for effective delivery of a climate strategy.

- [ ] **Build climate capacity across the business:**

It is important that employees across your company are equipped with the skills required to achieve your Net Zero transition plan. Building capacity may include the development of internal or external training programmes or even the hiring of new staff with specific technical skills.

Advanced actions:

- [ ] **Connect executive remuneration to climate KPIs:**

According to the TPT Framework, it is best practice for companies to link their compensation programme for senior staff to the achievement of climate-driven objectives. This helps to align interests and gives leaders a clear definition of success.

KEY RESOURCES

- ClimateFit: Free online SME training course
- CDP & SME Climate Hub:SME Disclosure Framework
- Business in the Community: Building Green Skills Routemap

ADVANCED RESOURCES:

- Cambridge Institute for Sustainability Leadership: Sustainability Essentials for Business Course
- UK Government Report: Skills for a Green Economy
- TCFD Workshop: Governance
- Chapter Zero: Climate Board Toolkit

Climate Policy advocacy

For most companies, a successful climate transition will depend on an accommodative policy landscape. In parallel to the development of an internal climate action plan, FWD members should advocate for climate-positive policies that impact the UK food and beverage sector and should lobby against policies which could hamper their ability to transition - see the Global Standard of Responsible Climate Lobbying guidance.

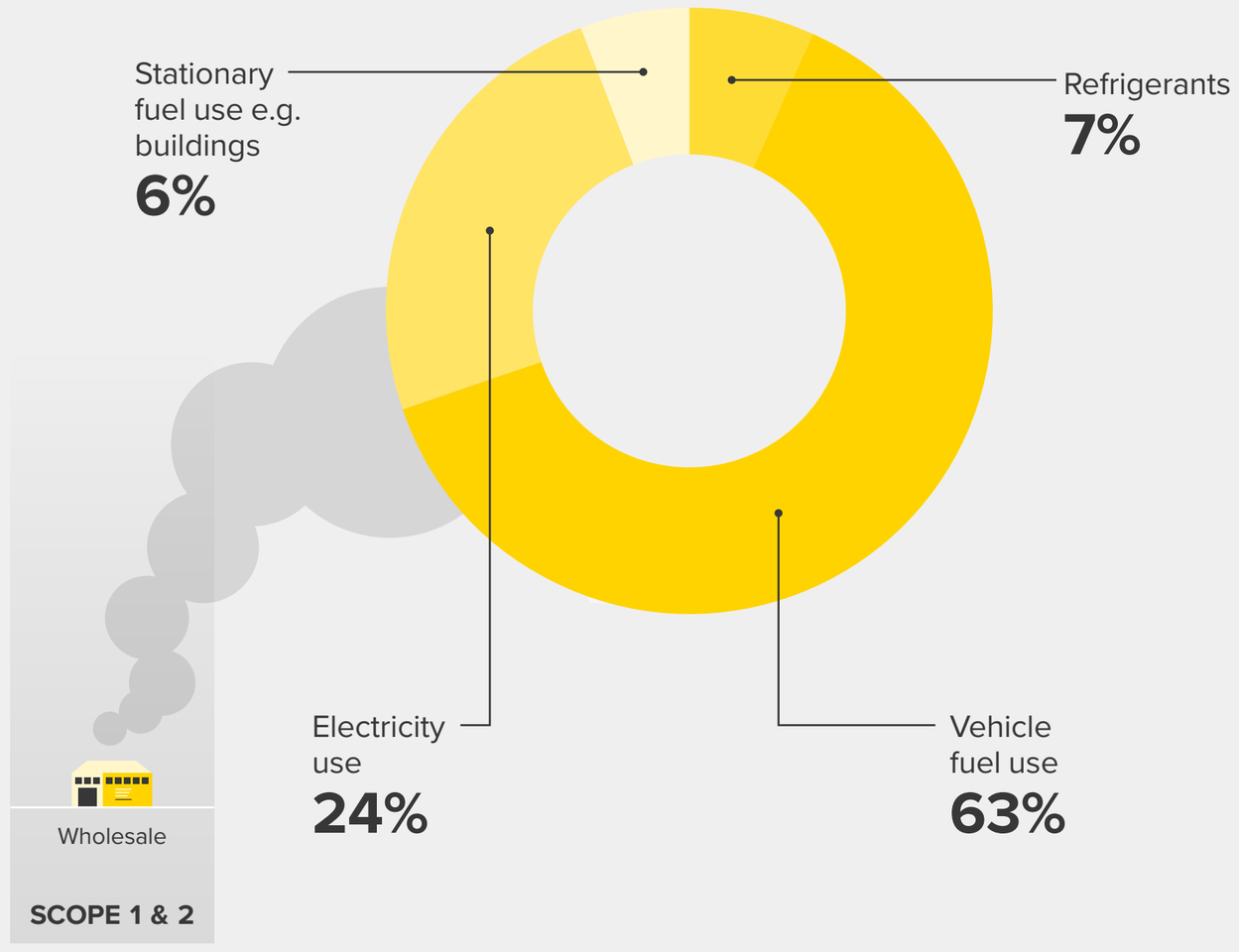
Appendices

Wholesale sector Scope 1 & 2 methodology explainer

A combination of primary and secondary data sources were used to calculate the emissions of the UK wholesale sector. A detailed survey was sent out to FWD members. The survey contained fields to collect data on respondents' operations, their emissions or energy use activities, and their climate policy.

In total, 15 members responded, providing either Scope 1 and 2 emissions figures or fuel and electricity data. One additional member's data was collected via CDP. These responses were then cleaned and aggregated, to derive a total Scope 1 and 2 emissions figure for the members surveyed. To estimate the emissions for the entire sector, we scaled up this figure based on the revenue generated by the responding members and the overall revenue generated by the sector in 2021 (Cebr, 2022). The responding wholesalers' represent 56% of the UK wholesale sector's total revenue. Scope 1 emissions were broken down by emissions source, using an average of the percentage splits reported by all the members who provided reliable, granular, data on their emissions or activities. Secondary data sources were used to estimate Scope 3 emissions (which many FWD members do not currently measure in full). Using the GVA split of the UK food and drink sector (DEFRA, 2021), wholesale was taken to represent 11% of the total UK food and drink sector emissions data (WRAP, 2021; 2022). The total emissions include both operational and indirect emissions from the wholesale sector.

FIGURE: WHOLESALE SECTOR SCOPE 1 AND 2 EMISSIONS



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