Factsheet

Climate change and energy.

Why It Matters.

Climate change is one of the biggest challenges facing the world and as a result has been identified as one of our most material issues. The planet is currently on track to warm by almost three degrees by the end of the century[1] with serious consequences for humanity. The effects of climate change have the potential to threaten our own business operations, the operations of our suppliers' businesses and the livelihoods of the farmers and workers in our supply chains, in addition to changing the way customers shop and eat. We must all play our part to decarbonise. We are taking action and aim to have climate neutral operations by 2035 and be net zero by 2050, aligned to a 1.5-degree trajectory.

Relevant Sustainable Development Goals (SDGs).

Many of the Sustainable Development Goals (SDGs) are impacted by climate change, those listed below are ones most relevant to our climate strategy and net zero ambitions.

SDG 7 Affordable and Clean Energy aims to ensure access to affordable, reliable and sustainable energy for all. Achieving our climate goals depends on becoming more energy efficient and reliant on renewable energy and our actions are well aligned with the Targets within SDG 7.

SDG 13 Climate Action calls for urgent action to combat climate change and its impacts. We have a longstanding commitment to tackling climate change and our accelerated net zero ambitions recognise the urgency with which action is required.

SDG 17 Partnership for the Goals recognises the importance of collaboration. Our net zero climate strategy has been developed with the input, knowledge and expertise of our colleagues, suppliers and NGO partners including WRAP, WWF, the Aldersgate Group and The Climate Group and we will continue to collaborate with these groups as we develop our Scope 3 strategy and its implementation.

Highlights.

- 52% reduction in Scope 1 & 2 GHG emissions across the Group vs 2015
- Accelerated target of carbon neutral operations across the Group by 2035
- Launched first commercially used fully electric HGVs in the UK, Hungary and the Czech Republic
- Expanded Group net zero target to include full value chain (Scope 1,2 and 3), aligned to 1.5C trajectory

[1] UNEP

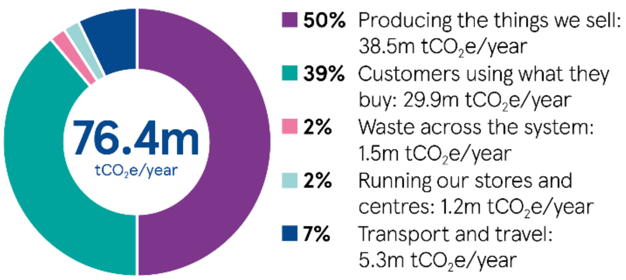
Our Approach.

In September 2021 we announced we will be carbon neutral in our Group operations by 2035 and extended our commitment to be net zero across our value chain, aligned to a 1.5-degree trajectory by 2050, covering all indirect Scope 3 emissions.

This builds on our leading approach to tackling climate change since 2009 when we became the first business globally to set an ambition of net zero by 2050. Our refreshed commitments are informed by updating our Group carbon footprint to align with new methodology developments and the inclusion of new data points such as deforestation and land conversion.

Through this process, we have been able to identify our material emissions hotspots throughout our full value chain. Having switched to **100% renewable electricity in 2020**, our own operations emissions (Scope 1 and 2) now come primarily from refrigeration, heating and transport, but the majority of our total footprint, more than 90%, is in our value chain (Scope 3) where we can influence but not directly control. Our 2019/20 carbon footprint covering Scope 1, 2 and 3 emissions is summarised below.

Our total emissions footprint



To reach our ambitions, our climate strategy will focus on continuing our work to decarbonise our own operations, whilst modelling decarbonisation interventions to address key hotspots throughout our value chain. Our value chain modelling will be concluded in 2022/23 and support the revalidation of our **expanded Science Based Targets (SBTs)**.

Scope 1 emissions

Our Group Scope 1 emissions account for around 1 million tonnes of CO_2 equivalent (tCO_2e). We are taking action to transform our processes and operations towards a low carbon future. We are:

- **Reducing emissions from logistics and home delivery vans** by maximising fuel efficiency across load, route planning and driver behaviour. We have installed Lightfoot® telematics in our home delivery vans and continued to use Fleetboard in our distribution fleet. Both systems improve driver efficiency and Miles Per Gallon (MPG), with our home delivery vans reporting a 7% saving in MPG.
- **Switching to decarbonised transport** by pledging to the Clean Van Commitment and EV100, aiming to have a fully electric UK home delivery fleet by 2028. So far, we have rolled out almost 50 electric vans.
- **Addressing transport emissions associated with our distribution fleet**, trialling fuel alternatives while working directly with manufacturers on even more sustainable long-term solutions. This year we launched the UK's first commercially used fully electric heavy goods vehicles (HGVs), replacing around 65,000 diesel-fuelled road miles with electricity, removing 87.4 tonnes of CO_2e per year. We also have similar vehicles serving our businesses in Hungary and the Czech Republic.
- **Addressing emissions from heating, ventilation and air conditioning (HVAC)** by trialling low carbon alternatives to gas boilers, such as heat pumps and heat reclaim systems.
- **Improving refrigeration efficiency and reducing refrigerant emissions** in our stores and distribution centres by installing aerofoil technology and switching to natural refrigerant systems that have significantly lower emissions and lower leakage rates.

Scope 2 emissions

In our baseline year 2015, grid electricity accounted for 65% of our own operations carbon footprint and so we developed our renewable electricity transition roadmap towards reducing our demand and switching to **100% renewable electricity** by 2030. Having made accelerated progress against this roadmap and following the sale of our Asia and Poland businesses in 2020/21, we achieved our goal of 100% renewable electricity across the Group ten years early. We have:

- **Installed solar panels and wind turbines** at our stores and depots to generate renewable electricity on-site.
- Signed one of the largest unsubsidised **Power Purchase Agreement (PPA)** portfolios in the UK, which is generating 26% additional contracted electricity, and therefore helping to green the UK National Grid.

Read more about how we are improving our operations to reduce our impact here.

Scope 3 emissions

More than 90% of our overall footprint lies within our upstream and downstream supply chain, comprising our indirect Scope 3 emissions. We have set new SBTs in line with a 1.5°C trajectory that are currently being validated by the Science Based Target Initiative (SBTi) and will shortly be publishing our end-to-end roadmap to net zero, detailing the key actions that we will take to achieve our ambition. This roadmap will build upon our existing actions, including:

- **Updating our total footprint** and identifying our emission hotspots in order to model the impact over time of different interventions in terms of greenhouse gas (GHG) emissions reduction and cost.
- **Engaging our suppliers on our decarbonisation roadmap,** requesting that all of our first-tier suppliers across Tesco Group report on emissions, working with our supplier partners to co-design our decarbonisation pathways.
- **Developing our carbon sequestration strategy** to help us manage our residual emissions.
- **Rolling out the UK's largest supermarket network of electric vehicle (EV) charging stations** with Volkswagen and Podpoint, to help our customers switch to electric cars.
- **Taking cross-industry action to improve climate outcomes** by partnering with WRAP, WWF, the Aldersgate Group, and The Climate Group, among others.
- **Supporting positive public policy on climate goals** such as the UK's net zero by 2050 ambition and accelerating the UK's ban on internal combustion engine vehicle sales to 2030.

TCFD

In 2017, we became signatories of the **Taskforce on Climate-related Financial Disclosure (TCFD)** and since then we have been implementing the recommendations of the TCFD and embedding it in strategic decision making.

Our priorities in 2022/23 will include further developing our internal capabilities in climate-related scenario modelling through our partnership with Risilience, part of the Centre for Risk Studies at the University of Cambridge Judge Business School. This partnership will enable us to better understand and disclose the economic and environmental impact of climate related risks and opportunities that we face and model different mitigation scenarios for the most emission-intensive areas of our business, and how these support our larger sustainability agenda for the Group.

See our TCFD report in our latest Annual Report and Financial Statement here.

Climate integration

We are strengthening governance and processes throughout our business to further integrate sustainability and embed climate risk. This follows on from the elevation of climate change as a standalone principal business risk last year. In 2022 we launched our Group Climate Committee. Chaired by the Group Chief Product Officer, our Executive climate sponsor, the Committee is responsible for maintaining oversight of progress made against our interim decarbonisation milestones, and for holding the business to account for delivery of the operational and supply chain decarbonisation roadmaps.

Recognising the importance of climate change, in 2022 we introduced ESG metrics into our remuneration policy. The Performance Share Plan (PSP) now includes carbon reduction targets aligned with our commitment to be carbon neutral in our own operations by 2035.

Read more about our Executive remuneration in our latest Annual Report and Financial Statement here.

In 2020 we launched the first of our sustainability-linked finance products, and we have continued to strengthen this area throughout the course of this year. Our product suite now includes:

- **Revolving Credit Facility** signed in September 2020, with interest linked to the achievement of three ambitious environmental targets, comprising GHG emission reduction, renewable energy and food waste.
- **First retailer to launch a sustainability-linked bond** (€750m), with the coupon linked to our Scope 1 and 2 emissions reduction performance. In October 2021, we became the 4th company to issue a Sterling sustainability-linked bond (£400m), again linked to our Scope 1 and 2 emissions reduction target.
- Scaling up the **UK's first sustainability-linked supply chain finance programme**, to bolster engagement across our broader supply base, particularly SMEs, in carbon reporting and science-based target setting to drive delivery towards net zero.

Read more about our sustainable financing here.

Awards and Benchmarks.

CDP Climate

Tesco participates in the annual CDP survey relating to climate change and in the latest 2021 assessment, we achieved a 'B-' score. Our CDP response can be found here. We have been engaging with the CDP to better understand their scoring criteria and expect to improve in 2022 when some of our more recent activity, including our new climate ambitions launched in September 2021, will be taken into account.

Terra Carta Seal

Terra Carta Seal recognises global corporations that are demonstrating their commitment to, and momentum towards, the creation of genuinely sustainable markets. Tesco was awarded the Terra Carta Seal for leading the retail industry in transitioning towards a net zero future.

ACT Deals of the Year Awards 2021

Tesco won in three categories at the annual Association of Corporate Treasurers 2021 Deals of the Year awards: Best Bond under £750m for our first sustainability linked bond, Best ESG deal and Overall Deal of the Year award for our sustainability-linked supply finance programme.

Performance.

For both energy and emissions data, we have included all major subsidiaries within the Group measures and have included all UK-based subsidiary operations within our consolidated UK disclosures.

Group data					
Commitment	**KPIs**	**2018/19**	**2019/20**	**2020/21**	**2021/22**
Climate neutral across our operations by 2035, aligned to a 1.5 degree pathway	Percentage reduction of Scope 1 and 2 market-based greenhouse gas emissions across the Group (baseline 2015/16)	**-41%**	**-49%**	**-54%**	**-52%◊ (a)**
Source 100% of our electricity from renewable sources by 2030	Percentage electricity from renewable sources: Proportion of contractually committed volumes from Grid PPAs and on-site generation as a percentage of energy consumption at a Group level ('contracted additional')	**81%**	**84%**	**100% (21% contracted additional)**	**100% (26% contracted additional)◊**

◊ Deloitte LLP was engaged to provide independent limited assurance over the selected climate data. Further information on page 8.

(a) This year we reduced our Scope 1 and 2 GHG emissions vs 2015/16 by 52%. Our 2021/22 reduction was lower than the previous year, primarily due to 2020/21 being an unprecedented year with COVID-19 restrictions impacting our business operations. This resulted in a reduction in energy consumption and subsequently emissions. As we fully resumed our operations in 2021/22 and our grocery home delivery continued to grow, our energy consumption increased, albeit still below pre-pandemic levels.

Group GHG emissions data					
tCO_{2e}	2015/16 baseline	2018/19	2019/20	2020/21	2021/22
Scope 1	1,240,871◊	1,117,480	1,105,183	1,053,131	1,110,098◊ (a)
Scope 2 (Market-based method)	1,095,671◊	256,446	81,531	13,631	16,107◊ (b)
Scope 2 (Location-based method)	1,657,316◊	995,543	859,583	718,222	642,337◊
Scope 1 and 2 (Market-based) Total	2,336,542◊	1,373,926	1,186,714	1,066,762	1,126,205◊
Scope 1 and 2 carbon intensity (kg CO_2e/sq. ft. of stores and DCs)	26.29	15.85	13.24	11.63	12.16◊
Selected Scope 3[c]	684,079	624,752	557,111	471,195	593,405◊

◊ Deloitte LLP was engaged to provide independent limited assurance over the selected climate data. Further information on page 8.

(a) Scope 1 emissions increased in 2021/22 vs last year due to increased transport related emissions as COVID-19 restrictions eased and reflecting some methodology improvements in our data collection. Compared to pre-pandemic emissions, we have seen an increase as a result of the substantial growth in our online operation, especially in the UK.

(b) All core operations and UK-based subsidiaries run on 100% renewable electricity (grid and onsite generation) and across the Group >99.5% of our electricity is renewable. Our Scope 2 emissions in 2021/22 came from international sourcing and subsidiary offices and some district heating in Central Europe.

(c) Scope 3 disclosure includes: Third-party logistics that Tesco would otherwise fulfil; transmission and distribution losses and well-to-tank; business travel and water consumption. We are currently developing our end-to-end roadmap to net zero that will inform our reporting of Scope 3 emissions going forwards. We have been able to access new data relating to our third-party fuel consumption which has enabled an improvement in the way we calculate the associated emissions, using total mileage multiplied by the average MPG for each third-party supplier.

UK GHG emissions data					
tCO_{2e}	2015/16 baseline	2018/19	2019/20	2020/21	2021/22
Scope 1	974,764	913,331	905,053	880,039	936,257
Scope 2 (Market-based method)	776,807	25,205	0	0	0
Scope 1 and 2 (Market-based) Total	1,751,572	938,536	905,053	880,039	936,257
Selected Scope 3	501,344	449,718	400,462	332,719	432,180
TOTAL	2,252,915	1,388,254	1,305,515	1,212,758	1,368,437

Our UK emissions contribute around 80% towards our Group emissions and as stated above, our 2021/22 performance was impacted by COVID-19 restrictions easing and normal operations resuming. Emissions were up slightly on pre-pandemic levels due to business growth including an increase in distribution fuel use.

Group Energy Consumption (GWh)					
	2015/16 baseline	2018/19	2019/20	2020/21	2021/22
Total Energy Consumption (excluding f—gas and biofuels)	6,823	6,580	6,443	6,089	6,263
Total Renewable Consumption	0	2,676	3,021	2,836	2,773
Total Non-Renewable Consumption	6,823	3,905	3,422	3,253	3,491

We saw an exceptional drop in energy consumption in 2020/21 as a result of COVID-19 restrictions and operational measures. As those measures have eased during 2021/22, our energy consumption has increased, albeit still improved vs pre-pandemic (2019/20) consumption. Total renewable consumption, which relates directly to our electricity use which is 100% renewable, reduced in 2021/22 vs prior years as we have reduced our electricity consumption year-on-year through energy efficiency measures. Our non-renewable energy increase since 2019/20 is reflective of business growth during that time, including an increase in distribution fuel use linked to a rise in home delivery.

UK Energy Consumption (GWh)					
	2015/16 baseline	2018/19	2019/20	2020/21	2021/22
Total Energy consumption (excluding f-gas and biofuels)	**5,502**	**5,366**	**5,306**	**5,037**	**5,203**

UK energy performance mirrors Group total energy year-on-year performance trends. Please see above for commentary.

Retired KPIs.

With the announcement of our ambition to be carbon neutral across our Group operations by 2035 and net zero across our full value chain, aligned to 1.5 degrees, by 2050, we took the opportunity to complete a comprehensive review of our climate related KPIs. Following this review we identified that the following KPIs were no longer relevant and will be retired from 2021/22 onwards.

KPIs	Closing commentary
Absolute UK greenhouse gas (GHG) emissions (Scope 1 and 2 market-based) (2015/16 baseline 1,751,572 tCO_2e)	**We continue to measure and report our absolute GHG emissions from our UK business as part of our mandatory GHG reporting obligations (see GHG emissions table above), however with the expansion of our commitment to be carbon neutral across the Group, we rationalised our KPIs to focus on Group performance.**
Percentage reduction in manufacturing emissions from key suppliers vs 2015 baseline in the UK	**We are committed to achieving net zero emissions across our value chain, aligned to a 1.5-degree trajectory by 2050, covering all indirect Scope 3 emissions. Our KPIs for manufacturing and agricultural emissions measured only key suppliers and presented challenges from a data collection perspective. As we develop our decarbonisation plans, we will update our approach to Scope 3 reporting and produce KPIs that better reflect our strategy.**
Percentage reduction in agricultural emissions from key suppliers in the UK	

Methodologies.

How we measure our progress

To track our climate change progress, we rely on science-based targets to guide our KPIs – this helps us calculate our percentage reduction in CO_2e in line with climate science. Our carbon footprint is calculated using established frameworks set out by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) Greenhouse Gas (GHG) Protocol – the internationally recognised standard for carbon reporting.

We follow an operational control approach in order to identify our reporting boundary.

Percentage reduction of Scope 1 and 2 (market-based) greenhouse gas emissions (baseline 2015/16) across the Group

Our Scope 1 and 2 emissions cover the following sources across our international operations:

- Scope 1 – The direct GHG emissions that originate from Tesco owned or controlled assets. For example, emissions from gas and other fuel consumption in our stores, distribution centres and offices globally. We also include emissions from fuel consumption in Tesco owned and leased vehicles transporting the products that we sell. As well as energy, we also include emissions from refrigerant gas leakage from systems in our stores or our vehicles.
- Scope 2 – This includes the indirect GHG emissions from the generation of electricity and district heating which Tesco uses, in accordance with the Greenhouse Gas Protocol

Percentage electricity from 'additional' renewable sources

We define 'additional' renewable sources as procuring energy in a way that creates new renewable generation rather than buying what is already accounted for via Renewable Energy Certificates (RECs). We consider this procurement approach to be highly credible as it contributes to the wider transition to a low carbon energy market.

We calculate this as the proportion of our total Group electricity demand that is attributed to either new Power Purchase Agreements (PPAs) or owned on-site renewable generation. This is expressed as a percentage.

Assurance.

Deloitte LLP was engaged to provide independent limited assurance over the selected climate data highlighted in this report with a ◊ using the assurance standard ISAE 3000. Deloitte has issued an unqualified opinion over the selected data. Deloitte's full assurance statement is available at: www.tescoplc.com/sustainability/reporting-hub

Looking Ahead.

We are currently in the process of validating our emissions reduction targets with the Science Based Targets Initiative (SBTi) for our own operations and supply chain, in alignment with a 1.5ºC pathway. To support these targets, we will roll out a new Group Scope 3 strategy consisting of decarbonisation roadmaps and supply chain initiatives for emission hotspot areas, as well as supplier engagement plans to drive delivery, catalyse new sources of sustainable finance, and align reporting standards across our supplier base. Our decarbonisation pathways will be published later in the year and updated annually.

Targets

- Scope 1 and 2 emissions reduction of 60% by 2025 and 85% by 2030 (vs 2015/16 baseline)
- Carbon neutral across Group operations by 2035 and net zero across the supply chain by 2050, aligned to 1.5-degree trajectory.
- Fully electric Tesco UK home delivery fleet by 2028.

Read more about our approach

More Information

Our approach to climate change

Methodologies and assurance

Our carbon footprint methodology

Deloitte assurance statement

Highlights on our journey to date.

2006

Introduced our first emissions reduction targets and started measuring and reporting our emissions

2008

Started using rail freight to transport goods efficiently

2009

Became the first business globally to set a zero carbon ambition for 2050

2011

Worked with the Carbon Trust and other stakeholders to develop a universal product carbon footprint label

2017

Announced science-based targets for both our own operations (in line with a 1.5°C trajectory) and our supply chain (in line with a 2°C trajectory)

2017

Switched to 100% renewable electricity in the UK

Became signatory to the Taskforce for Climate-related Financial Disclosure (TCFD)

2019

Announced major green electricity project to source green electricity directly from farms, solar farms and solar panels for our own stores via PPAs

2019

Signed up to the Clean Van Commitment making a public commitment to supporting the switch to low emission vans and Light Goods Vehicles.

In partnership with Volkswagen and Pod Point, started the roll out of electric vehicle charging bays for our UK customers

2020

Launched our first sustainability-linked bond linked to the achievement of our Scope 1 & 2 emission reduction targets

Switched to 100% renewable electricity across the Group

2021

Announced our accelerated Group carbon neutral by 2035 target and net zero by 2050 supply chain target, aligned with a 1.5C pathway

2021

Introduced the UKs first commercial electric HGVs

2022

2022

Group decarbonisation pathways announced

2028

100% of Tesco UK home delivery vans electric

2035

Carbon neutral across our Group operations (Scope 1 & 2 emissions)

2050

Net zero across our entire value chain (Scope 1,2 & 3 emissions)