

Net Zero Carbon – What it is and how to Achieve it

Sustainable Business Network, 5 Nov 2021



Net Zero Carbon - Agenda

- **COP 26, Legal & Market Update** - Dr Wendy Buckley, Chair SBN North Hants
- **Net Zero Carbon – What is it and How to do it** – John Buckley , Carbon Footprint Ltd
- **Case Study**– Candice Oosthuizen & Phil Gillespie, Tuskerdirect Ltd
- **Panel Discussion**
- **Close**

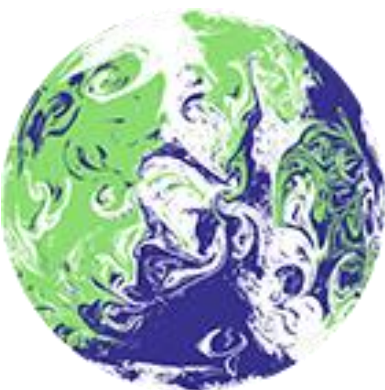


Legislation & Market Trends

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How successful will COP 26 be?



**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY



Heart Aerospace: An All-Electric, Zero Emissions Aircraft Set to Take Off in 2026



The ES-19 will be able to cover short flight distances with zero carbon emissions.



THE
EARTHSHOT
PRIZE

UK petrol prices predicted to hit record high within days

Forecourt owners blame rising oil prices for soaring costs at fuel pumps







Government's Net Zero Strategy – Broadly welcomed – even by Climate Change Committee



“The Net Zero Strategy is a genuine step forward”

Key Goals

- **Decarbonised grid by 2035**
- **More offshore wind**, low-carbon hydrogen, carbon capture, heat pumps, energy efficiency, tree planting ... over the next 15 years.
- Scaling up private investment



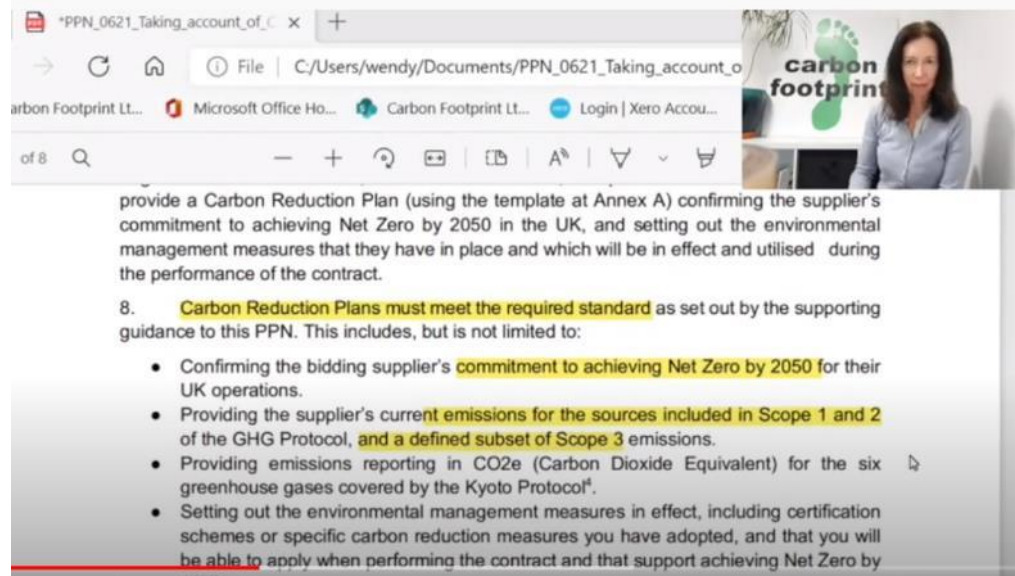
Still some strategic gaps...

- Plans for emissions from **agriculture unclear**
- Clearer plans for improving **home energy efficiency** are needed
- Insufficient action on **public engagement**
- Not enough emphasis on reducing demand for high-carbon activities (**diet changes, reduction in aviation growth, policies for reducing travel demand**)
- Unclear how the Treasury will **use the tax system to support transition to Net Zero**

Net Zero Carbon - Not just a Target ...But a Publicly Available Plan



- **Procurement Policy Note/0621** – UK Government requirement for **Net Zero Carbon Procurement**
 - implemented in **September 2021**
- **‘To be mandated’ for large businesses from 2023 - COP26**



<https://youtu.be/m5xIvtYOKNM>

Strengthening the Energy Savings Opportunity Scheme (ESOS) – Consultation closed – results awaited



Aim: improve the uptake of energy efficiency measures and increase benefits for businesses.

Looked at:

- **Improved audit quality** through standardisation of reporting requirements
- **Inclusion of net zero carbon** element to audits
- **Requiring public disclosure** of high-level recommendations

Plus...

- Extending the **scope to include medium sized businesses**
- **Mandating action** on audit recommendations

Pre COP26 – the G20 Met

- **G20 Meet Highlights**

- Agreement to **limit rise to 1.5°C** and to reach **Net Zero by 2050**
- Target for **protecting and conserving 30% of land/oceans by 2030**
- Global goal to **plant 1 trillion trees by 2030**
- Commitment to **ending international public finance for new unabated coal power** generation by the end of 2021.



Image courtesy of G20

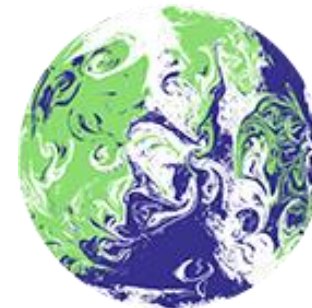
COP26 – What are the goals & how are they doing?



1. Finalise Paris Agreement rulebook
2. Agree finance for renewables
3. Commitment to phase out coal and coal power stations - >40 countries – but not US, India, China, India , Australia
4. Expand the adaptation of EVs & sustainable transport
5. Halt deforestation – 100+ leaders have committed to halting and reversing by 2030. Backed by £14 billion in public and private funding.
6. Develop robust resilience plans
7. Scale up climate finance – Mark Carney's big idea GFANZ
8. Improve collaboration between public & private sector

Plus...

- India's Net Zero target by 2070
- Pledge to cut Methane (CH₄) emissions 30% by 2030



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UK 2021**

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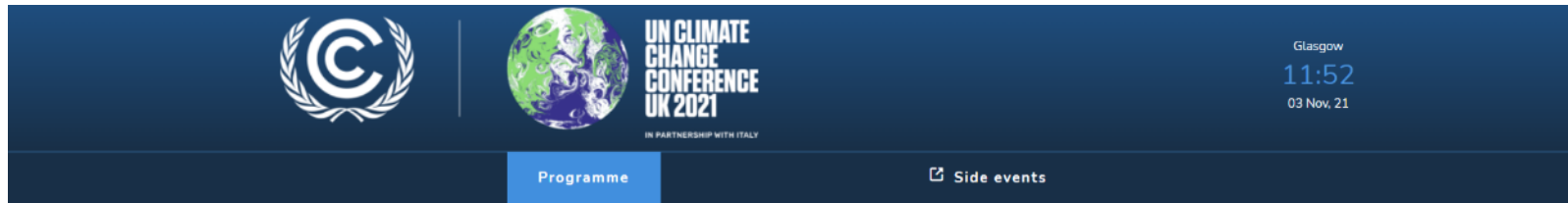
Image - UN










This is the COP 26 Timetable

Week Two						
Sunday November 7th	Monday November 8th	Tuesday November 9th	Wednesday November 10th	Thursday November 11th	Friday November 12th	Saturday November 13th
Rest day ahead of the second week of negotiations	Adaptation, Loss and Damage Delivering the practical solutions needed to adapt to climate impacts and address loss and damage.	Gender Progressing gender equality and the full and meaningful participation of women and girls in climate action. Science and Innovation Demonstrating that science and innovation can deliver climate solutions to meet, and accelerate, increased ambition.	Transport Driving the global transition to zero emission transport.	Cities, Regions and Built Environment Advancing action in the places we live, from communities, through to cities and regions.	Closure of Negotiations	

[Presidency Programme - UN Climate Change Conference \(COP26\) at the SEC – Glasgow 2021 \(ukcop26.org\)](https://ukcop26.org/)

COP 26 Live-feeds & webcasts are free to view



Wed Nov 3 2021		<input type="text" value="Enter a keyword"/>		<input type="text" value="Select an event"/>		<input type="button" value="Reset Filter"/>	
Date 	Event 			Type 	Organization 	Location 	Status 
2021-11-03 07:57AM	Natural History Museum of the Adirondacks/The Wild Center			Press Conference	Natural History Museum of the Adirondacks	Press Conference Room Durdle Door	on demand
2021-11-03 08:40AM	Youth Climate Report			Press Conference	Youth Climate	Press Conference Room Durdle Door	on demand
2021-11-03 08:57AM	COP26 TV Morning Session - 3rd of November			Global Climate Action	UNFCCC	COP26 TV Stage	on demand
2021-11-03 09:00AM	Presidency Event: Financing our Future			Other	UNFCCC	Plenary Cairn Gorm	on demand
2021-11-03 09:03AM	Bangladesh: Climate Vulnerable Forum			Press Conference	Climate Vulnerable Forum	Press Conference Room Giant's Causeway	on demand
2021-11-03						Press Conference Room	

[UNFCCC - COP26 \(streamworld.de\)](https://streamworld.de)

The UK Government's Green Claims Code provides guidance on making reasonable environmental claims



- Created by the **CMA (Competition & Markets Authority)** to ensure green claims are genuine
- Gives guidance to businesses
 - Helps comply with consumer protection law
- Recommends **specific, up-to-date and clear phrasing of all environmental claims** to consumers



Image – UK Gov

Environmental Bill Updated



- Improved and strengthened **Environment Bill (Oct 2021)**
- Amendments include:
 - Ministers will have **power to introduce charges on all single-use items**, not just plastics – cutting waste & tackling throwaway culture – supports circular economy
 - **Better protection for ancient woodlands** – review of National Planning Policy Framework
 - More consultation under Town & County Planning Act
 - Requirements for **conservation covenants to be executed as deeds** – legally robust agreements
- **Also... new Soil Health Action Plan** – preventing soil degradation + land management adaptations
- Environmental Bill expected to complete parliamentary stages soon!

Images - Defra

References / Useful Links

[What is Insulate Britain and what does it want? - BBC News](#)

[COP26: Greta Thunberg mobbed as activists gather in Glasgow - BBC News](#)

[Heat pumps: How much do they cost and how do they work? - BBC News](#)

[IATA - Net-Zero Carbon Emissions by 2050](#)

[Earthshot Prize](#)

[UK petrol prices predicted to hit record high within days | Petrol prices | The Guardian](#)

[First Practical Zero Emission Aviation Powertrain | USA & UK | ZeroAvia](#)

[Government's Net Zero Strategy is a major step forward, CCC says - Climate Change Committee \(theccc.org.uk\)](#)

[UK and India launch new grids initiative to deliver clean power to the world - GOV.UK \(www.gov.uk\)](#)

[Over 100 leaders make landmark pledge to end deforestation at COP26 - GOV.UK \(www.gov.uk\)](#)

[International Climate Council Network launches to support global climate action - Climate Change Committee \(theccc.org.uk\)](#)

[Environment Bill strengthened to protect nature and tackle waste - Defra in the media \(blog.gov.uk\)](#)

[Carbon Footprint Ltd – YouTube](#)

[Green Claims Code – Check your environmental claims are genuine \(campaign.gov.uk\)](#)

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Getting to Net Zero

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**POLL: How well do you
understand what Net Zero
means for your business ?**

What is Net Zero?

**Balance GHG Emissions with
GHG Removals**

However, there is limited capacity for
Carbon Removal – so we need a massive
reduction in global emissions (around 90%).



Near and long term targets for the World



To be on track to limit Global Warming to 1.5 deg C

- Long term target is to be **Net Zero by 2050**
- **and half global emissions by 2030**



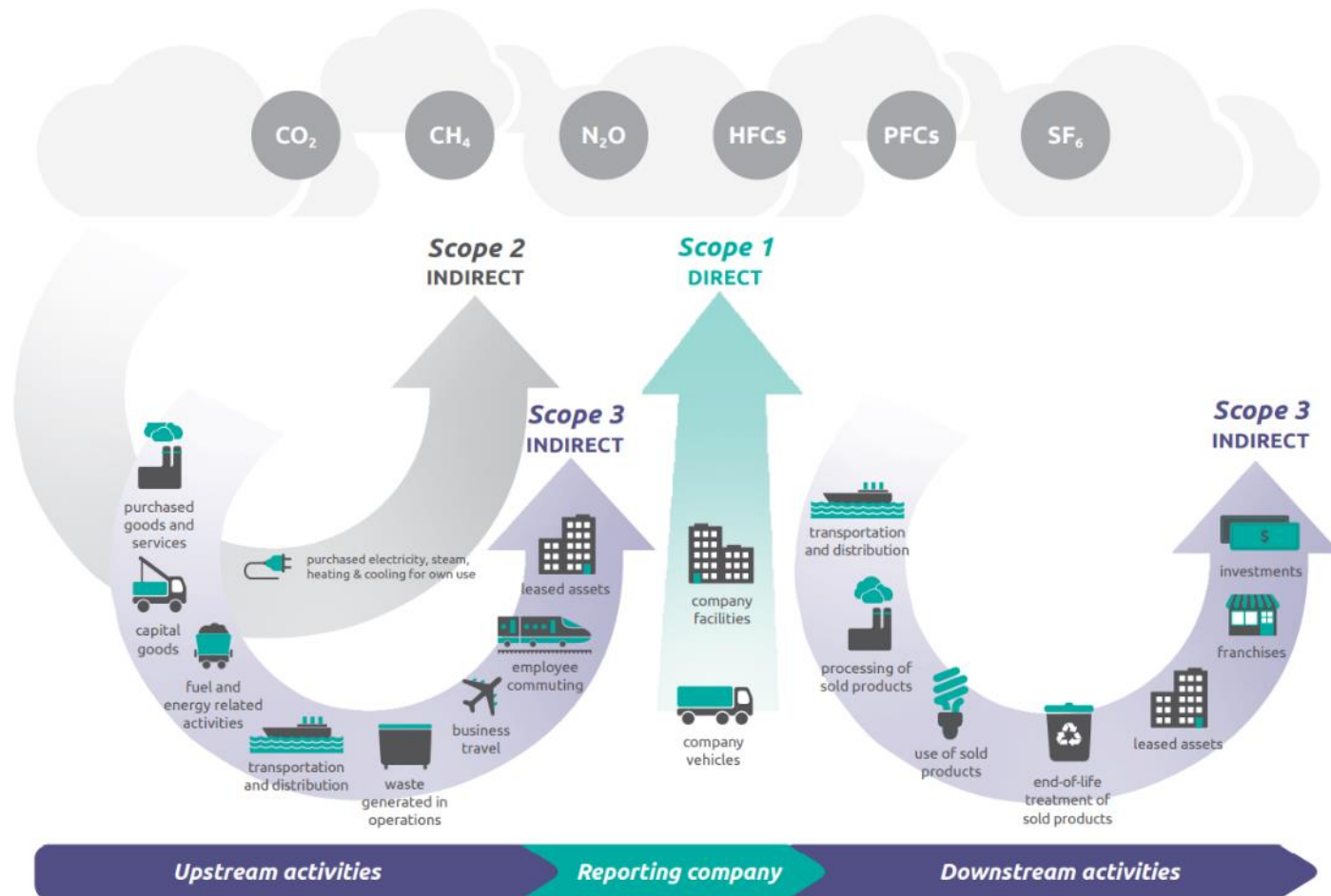
It is vital that Businesses play their part

- Companies are directly responsible for around 35% of Global Emissions (from just Scope 1&2)
- Taking into account Scope 3 as well this rises to 85% of Global Emissions*

* According to Science Based Targets Initiative (SBTI)



Companies tend to measure and report emissions by “Scopes”



Source: World Resource Institute's (WRI's) Greenhouse Gas Protocol

*Key Concept...!

**Your Scope 2 and 3 is someone else's Scope 1
& your Scope 1 is someone else's Scope 3**

- Examples
 - **An energy company that owns a power station**
 - The emissions from the Power Station are **their Scope 1** emissions
 - The emissions from the Power Station are also **your Scope 2** emissions
 - You use external **logistics / courier services** to import and export goods
 - The emissions from the fuel uses in ships, lorries etc. are **their Scope 1** emissions & also **your Scope 3** emissions
 - **An airline**
 - The fuel used by the planes is part of **their Scope 1** emissions & **your Scope 3** emissions
- **If the whole world assessed** their emissions and all accounted for **all items in all Scopes** then there would be **lots & lots of double counting...**

Scope 3 challenges



- Information and Data Collection
- Emissions factors i.e. calculating the emissions
- Limited Influence over Upstream and Downstream activities for reducing emissions:
 - Supply Chain
 - Investments
 - Customers
 - Etc...

SBT – Net Zero Standard

- Net Zero Standard Launched in October 2021
- Designed for Corporates / Larger Companies (>500 staff)
- Aim to get Corporates in line with the Paris Agreement
- Companies need:
 - **Near term** 5-10 year targets to be inline with the 1.5 degree path way
 - **Long term** targets to reduce emissions to Net Zero by no later than 2050
 - To reduce emissions by 90% or more for most companies (Land sector will be around 80%)
 - Remove carbon at the end through Ecosystem Sequestration or Direct Air Capture
- There is a strong recommendation to take action “**beyond value chain mitigation**” (e.g. offset your emissions), whilst on the path to Net Zero
- Verified Targets & Progress

Procurement Policy Note (PPN) 06/21

- UK Gov Procurement Policy
- Applicable to contracts >£5million per annum
- Required from 30 Sept 2021



Companies need to have Carbon Reduction Plan :

- Published on the their website
- Show **commitment to achieving Net Zero by 2050** (at the latest)
- Details Greenhouse Gas emissions
- A plan to meet Net Zero

New Announcement from COP26



- All large UK companies to have a Net Zero plan from 2023 and disclose it (expected to become law soon...)

5 things to consider when setting Net Zero targets



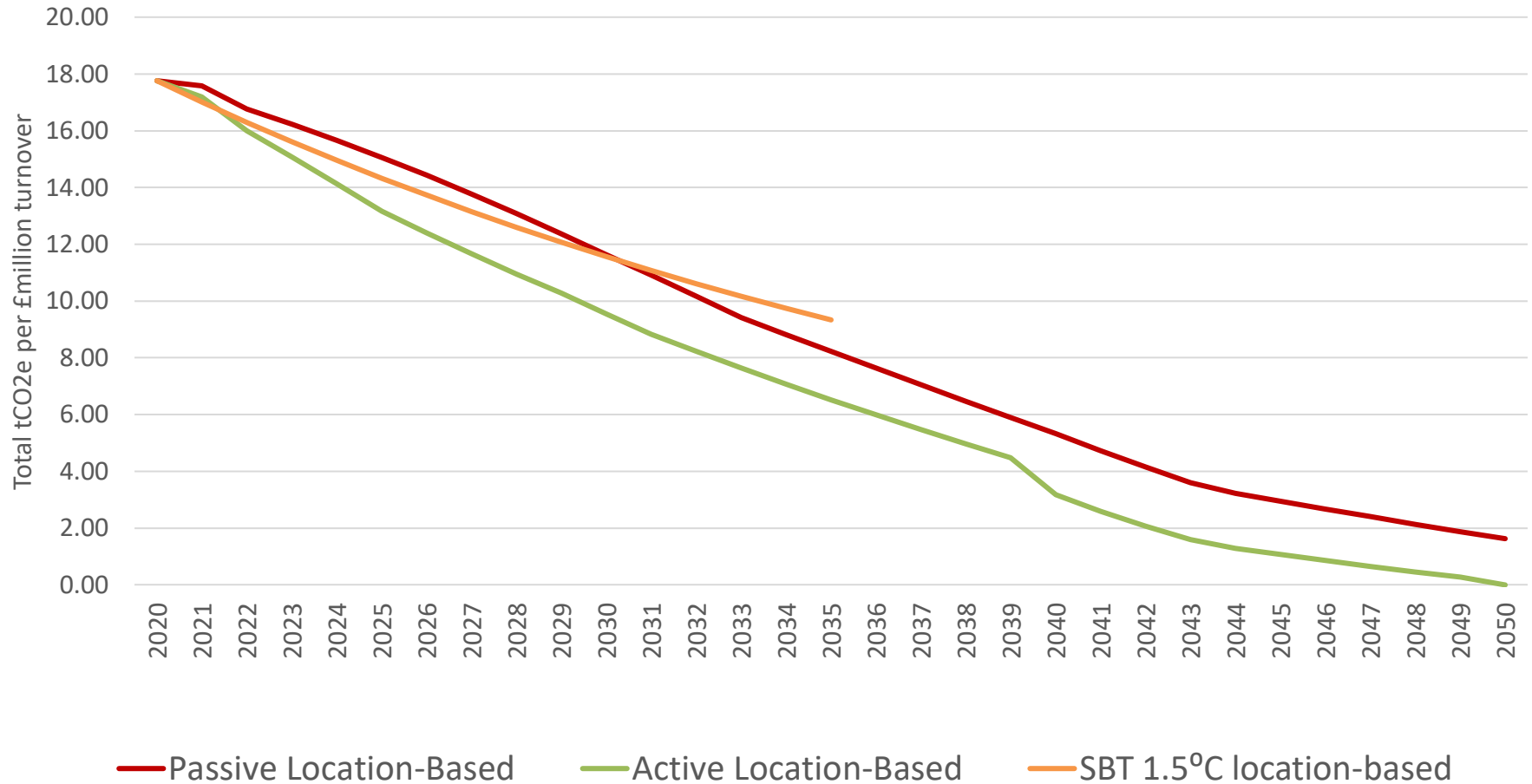
1. Passive Reductions
2. Market Based Reductions
3. Active Reductions
4. External Reductions (“beyond value chain” / “carbon offsetting”)
5. Carbon Removal

“Passive Reductions” will help you...

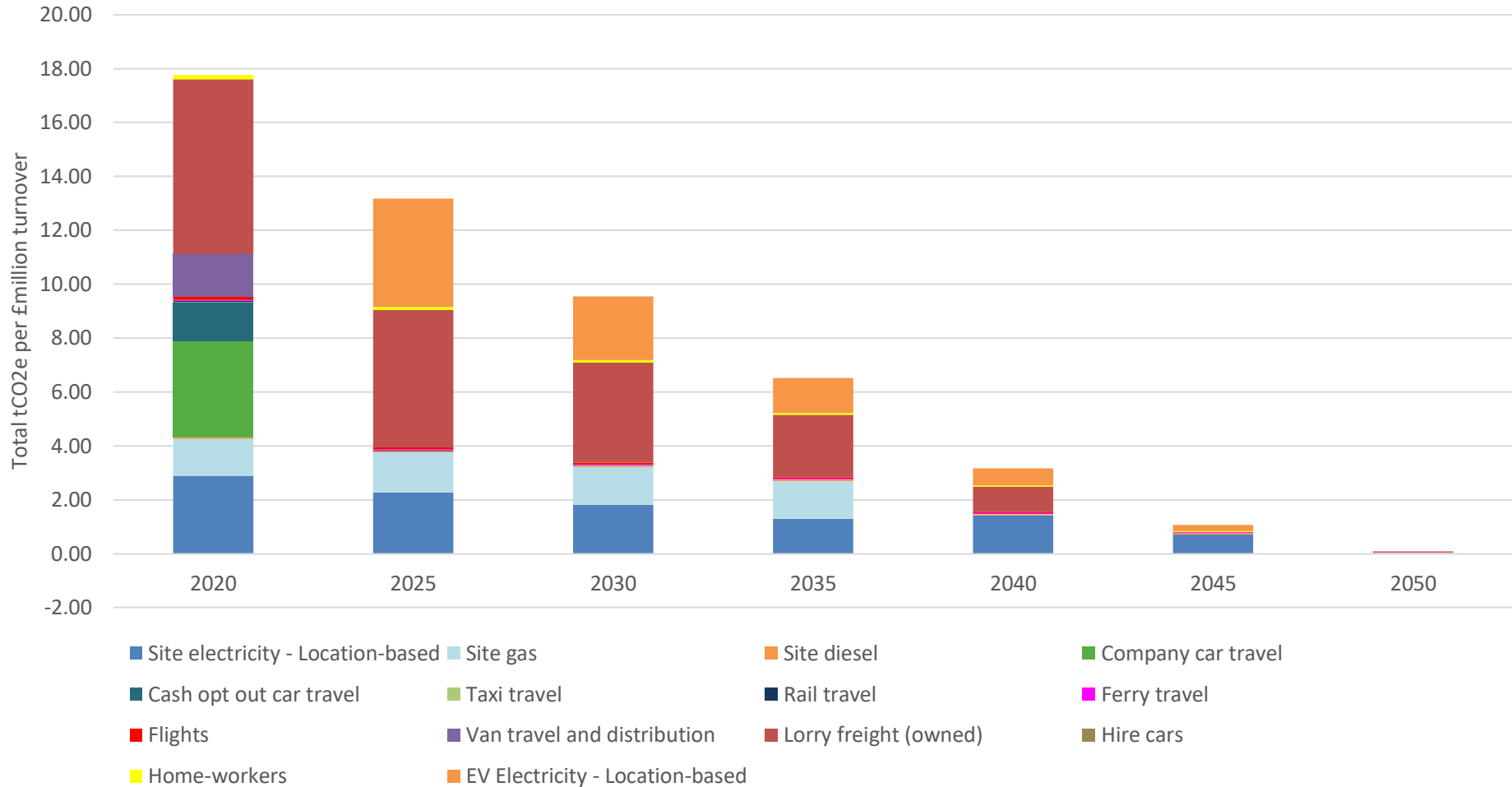
- Changes are happening in the world that will reduce your emissions
- E.g. In the UK
 - End Sale or New Petrol & Diesel Cars by 2030
 - Zero Carbon Electricity Grid by 2035
 - End Sale of Petrol & Diesel HGVs >26 tonnes by 2040 (smaller ones by 2035)
 - Maybe coming soon... Pressure mounting to ban gas boiler sales (2033 UK Official Climate Advisors)



Modelling your future emissions allows you to set realistic targets



Active Forecasted Emissions Breakdown to 2050



The final part of Net Zero is to offset (or remove) the remaining emissions



What is carbon offsetting...



Help to finance projects around the world that reduce or remove emissions...

Supporting the solutions to climate change

1. Decarbonise the Electricity Grids World Wide
2. Decarbonise transportation (Cars, Vans, Buses, Lorries, Trains, Planes, Ships etc.)
3. Stop deforestation (cause of 10% of global emissions –we are loosing the lungs of the planet)
4. Reduce emissions from food supply (agriculture, soils, meat production)
5. Sequester / capture CO₂ (e.g. plant billions of trees)
6. Become more efficient with Energy



1. NO
POVERTY



3. GOOD
HEALTH



5. GENDER
EQUALITY



8. WORK +
ECONOMIC
GROWTH



13. CLIMATE
ACTION

International Standards

- Projects are verified and audited independently
- Look out for the main internationally recognised carbon offsetting standards



Go Net Zero in your business by...

- Start measuring and rapidly reducing emissions
 - Include Scope 3 (upstream and downstream emissions) if they are material
- Set ambitious targets (near and long term) – that also recognise “Passive Reductions”
- Support carbon reduction projects around the world to compensate for emissions you have already caused
- You need to start now ... the later you leave it the harder it will be

Thanks for your time!



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Tusker's Carbon Reduction Journey to Net Zero Emissions



Presented by
Candice Oosthuizen
Head of Product

Phil Gillespie
Strategic & Commercial
Partnership Manager

Tusker.



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Our carbon
reduction
journey so far

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Our ongoing
commitment



About us



UK Market Leaders in
salary sacrifice car
schemes



We genuinely love our planet. We help
our customers and their employees
reduce their carbon footprint



Rapidly growing customer base of over
800 companies with more than
1 million employees



We're proudly Carbon Neutral.
Offset over 227k tailpipe emissions
of each car we put on the road.



We're part of the electric revolution.
We're helping people shift the way
they've always thought about cars



Our salary sacrifice product is the
most affordable way to drive a brand
new plug in hybrid / electric car



Our green credentials



Carbon neutral business
since 2010



ISO14001 accredited
2013-2020



Recognised as a
Go Ultra Low
Company



Green Apple Award winners
(Environmental Best Practice)
14,15,16,17,19,21)



Green World Ambassador
(Environmental Best
Practice) 2018



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An exiting
future ahead



Awareness of our impact on the environment, and small changes over time, has transformed the way we operate...



Baseline emissions

First audit of carbon footprint to identify and set baselines and areas for improvement (2009/2010)

Green office site

Zero waste to landfill.
100% renewable energy tariff, on-site food composting, cardboard bailing & rainwater harvesting (2013)

Ongoing process and policy changes

Sustainable procurement, our car fleet, monitoring of policies, internal change management, flexible hybrid working policy

Ongoing behavioural changes

Turn it off, smarter energy usage, remote meetings, smart travel, material resource consumption (paperless, recycling, bulk buying), water use.



Our green office site is focused on sustainability

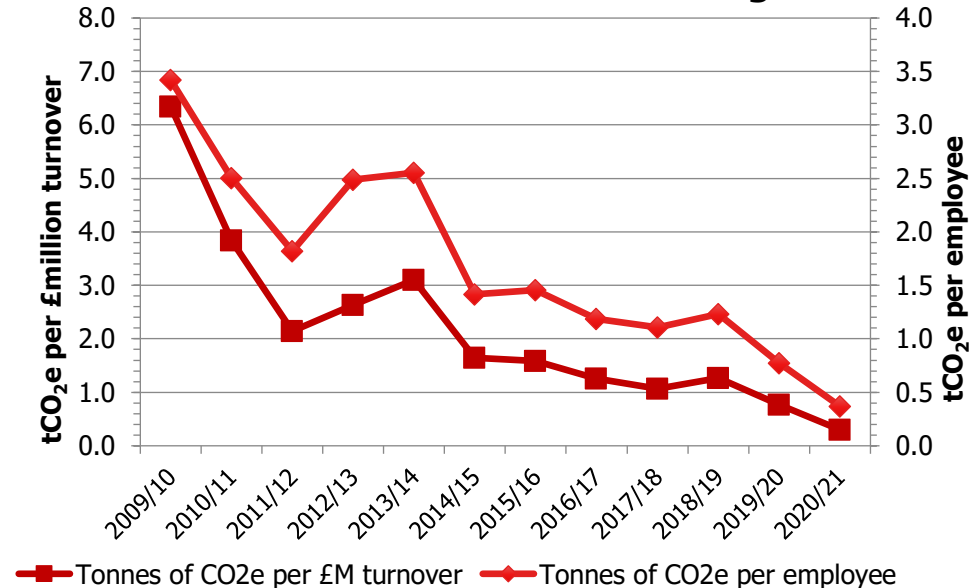


Through annual appraisals, continuous review and enforcement of our

Key drivers behind our reduction strategy:

- Implementing original recommendations from baseline target setting in 2009/10
- Moving to a Green Office Site and Green Energy Electricity Tariff
- Annual carbon footprint appraisals and reviews
- Early adopters of EV's and PHEV's
- Company car policy updates as the range of EV's has increased
- Car charging infrastructure at head offices
- Remote meetings where possible (accelerated by COVID-19)
- New flexible hybrid working policy pilot

GHG Emissions Benchmarking



To continue our progress to Net Zero, we've adopted the below

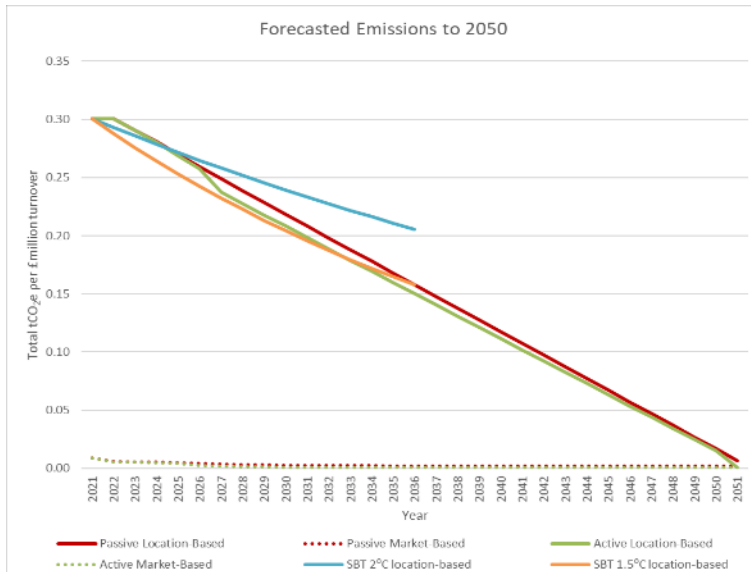


Figure 1: Emissions forecasting including downstream leased vehicles

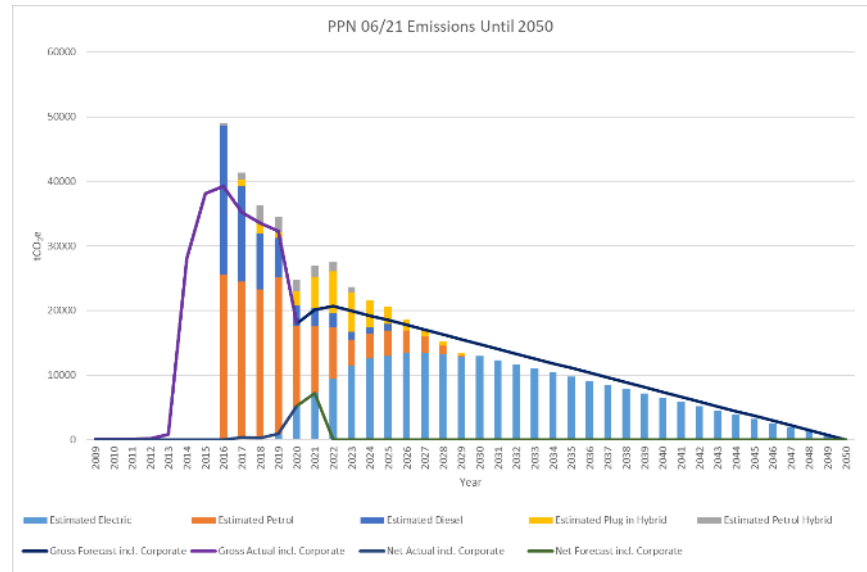
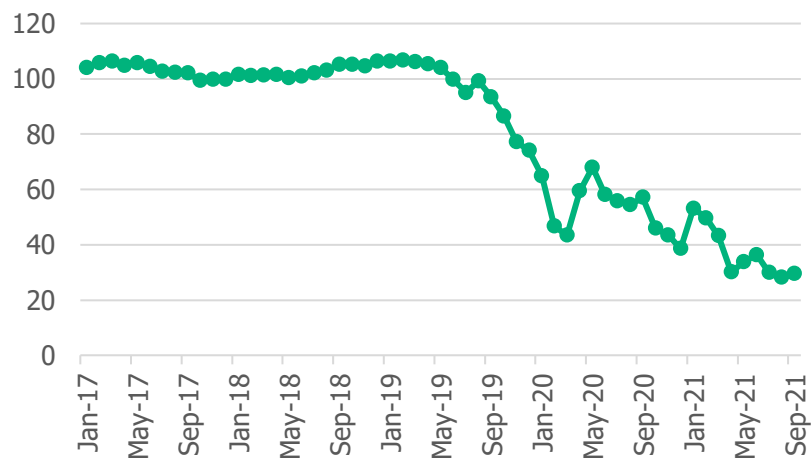


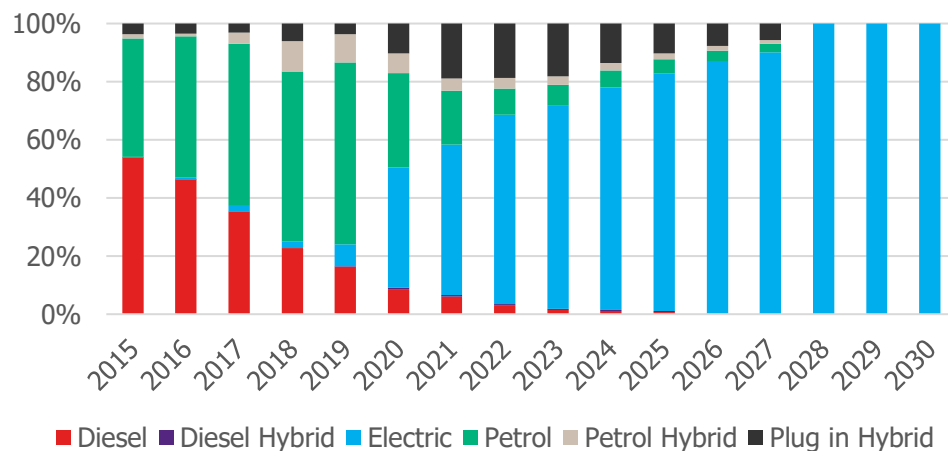
Figure 2: Corporate footprint target setting, excluding scope 3 downstream leased vehicles

We're driving change across the UK by on average replacing 7 year old petrol / diesel cars. 71% of deliveries in 2021 will be pure EV's or PHEV's

Average CO2 reductions on cars taken through the scheme



Fuel mix of annual deliveries + projections to 2030



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1. **Continued annual carbon footprint appraisals:** most recent annual Carbon Footprint appraisal included Scope 3 downstream leased vehicle fuel tailpipe emissions, and electricity used to charge electric company cars. This will be used as our baseline year.
2. **Target setting:** exercise completed to reach 2030 Government targets of no new petrol and diesel vehicles, and 2050 Net Zero target
3. **Monitor and control hybrid working pilot:** investigate carbon footprint of home workers and look to include this in 2021/2022 carbon footprint appraisal. Offset emissions of home workers
4. **Carbon offsetting:** go further with carbon offsetting on all cars we put on the road by offsetting EV emissions based on term, mileage and average emissions generated from the electricity used to charge vehicles
5. **Support more projects including a UK based project:** shift from pure VCS offsetting projects to UK Tree Planting and 50% renewable energy projects
6. **Carbon negative:** reviewing options of what else we can do to get to a carbon negative position e.g. plant a tree for each car we deliver





Salary sacrifice, electric cars and Benefit in Kind

Tusker.

There have never been more reasons to go green

Better Range

Many EVs with range of
200 to 300+ Miles.

Average UK daily mileage
is just 21 miles

Better Running Costs

Drive 10,000 miles on
electric for under £400!

Free entry to ULEZ &
Congestion zones

Better Choice

25+ Manufacturers
releasing at least one
new EV in 2021

Manufactures globally
are shifting focus to
electric

Better Charging

Rapid chargers can
deliver 150 miles range
<20 mins

£300m Govt. investment
in UK charging
infrastructure

Better Savings

1%

BiK in 2021

Clarity for 5 Yrs.
+ sustained Govt. Grants

Better Innovation

In 20yrs. fuel efficiency
has barely changed.

The BMW i3 battery has
increased by 87% in 5 yrs.

Better for our Planet

ZERO Emissions means
great green credentials

Supports CSR & UK's
ambition for carbon
neutrality

Better Looking



“We are in the middle of the biggest revolution in motoring since Henry Ford’s first production line started turning back in 1913.”

- Jaguar to sell only EVs from 2025
- Volvo to sell only EVs from 2030
- VW confirms 70% of its sales will be EV by 2030
- Ford to sell only EVs in Europe by 2030

Source: BBC, 1 June 2021, <https://www.bbc.co.uk/news/business-57253947>

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Why electric cars will take over sooner than you think

By Justin Rowlatt
Chief environment correspondent

1 June | Comments



GETTY IMAGES

Electric car sales are heading up

I know, you probably haven't even driven one yet, let alone seriously contemplated buying one, so the prediction may sound a bit bold, but bear with me.

We are in the middle of the biggest revolution in motoring since Henry Ford's first production line started turning back in 1913.

EV market is evolving at phenomenal pace driven by Government policy.

But does such a fast evolving market bring inherent risks to consumers?



The Road to Zero

Next steps towards cleaner road transport and delivering our Industrial Strategy



BBC
NEWS

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Science & Environment

Ban on new petrol and diesel cars in UK from 2030 under PM's green plan

By Roger Harrabin
BBC environment analyst

4 minutes ago

Climate change



£1.3bn will be invested in electric vehicle charging points as part of the plan

New cars and vans powered wholly by petrol and diesel will not be sold in the UK from 2030, Prime Minister Boris Johnson has said.

But some hybrids would still be allowed, he confirmed.

It is part of what Mr Johnson calls a "green industrial revolution" to tackle climate change and create jobs in industries such as nuclear energy.

Critics of the plan say the £4bn allocated is far too small for the scale of the challenge.

The total amount of new money announced in the package is a 25th of the projected £100bn cost of high-speed rail, HS2.

- [UK climate plan: what do the terms mean?](#)
- [Why the UK's carbon-free future will need rules](#)

Over 50% of new car registrations are to employees accessing cars through employers so




£30,000

16% BiK = £4800
Employee pays Tax on the £4800

20% Tax = £80 monthly
Or
40% Tax = £160 monthly

To April 2020




£30,000

1% BiK = £300
Employee pays tax on the £300

20% Tax = £5 monthly
Or
40% Tax = £10 monthly

From 2021


GOV.UK

CO2 (g/km)	Electric range (miles)	2019-20 (%)	Taxable % of P11D value			
			2020-21 (%)	2021-22 (%)	2022-25 (%)	
0	N/A	16				
1-50	>130	16				
1-50	70-129	16				
1-50	40-69	16				
1-50	30-39	16				
1-50	<30	16				
51-54		19				
55-59		19				
60-64		19				
65-69		19				
70-74		19				

Salary sacrifice provides a risk free, affordable, fixed cost way to access zero and ultra-low emission vehicles.



Maintenance & servicing including all tyres



Breakdown & Recovery



Annual Road Fund Licence



Accident Management



Fully comp insurance. Business cover. Additional Drivers



Annual driver licence check



Car Salary Sacrifice explained

EMPLOYER

Tusker funds the car and leases it to the employer.
Employee signs a binding back to back agreement taking on the obligations of the arrangement.

EMPLOYEE

Reduces gross salary and saves tax & National Insurance contributions
The car is a taxable benefit so employee pays tax on the benefit in kind

Lowest emissions = highest savings!

Zero & Ultra Low Emission Vehicles

Carbon
free*

Employee: Tax & NI savings, manufacturer discounts, fleet savings & VAT savings

Employer: Class 1 NIC savings

* Tusker offset 100% of all tailpipe emissions

How salary sacrifice compares to an equivalent personal lease arrangement.



Audi

Audi Q4 e-tron 35 55kWh 170 Sport

Retail: £40,695

Salary Sacrifice car is equivalent of saving

£21,150

Gross Salary *

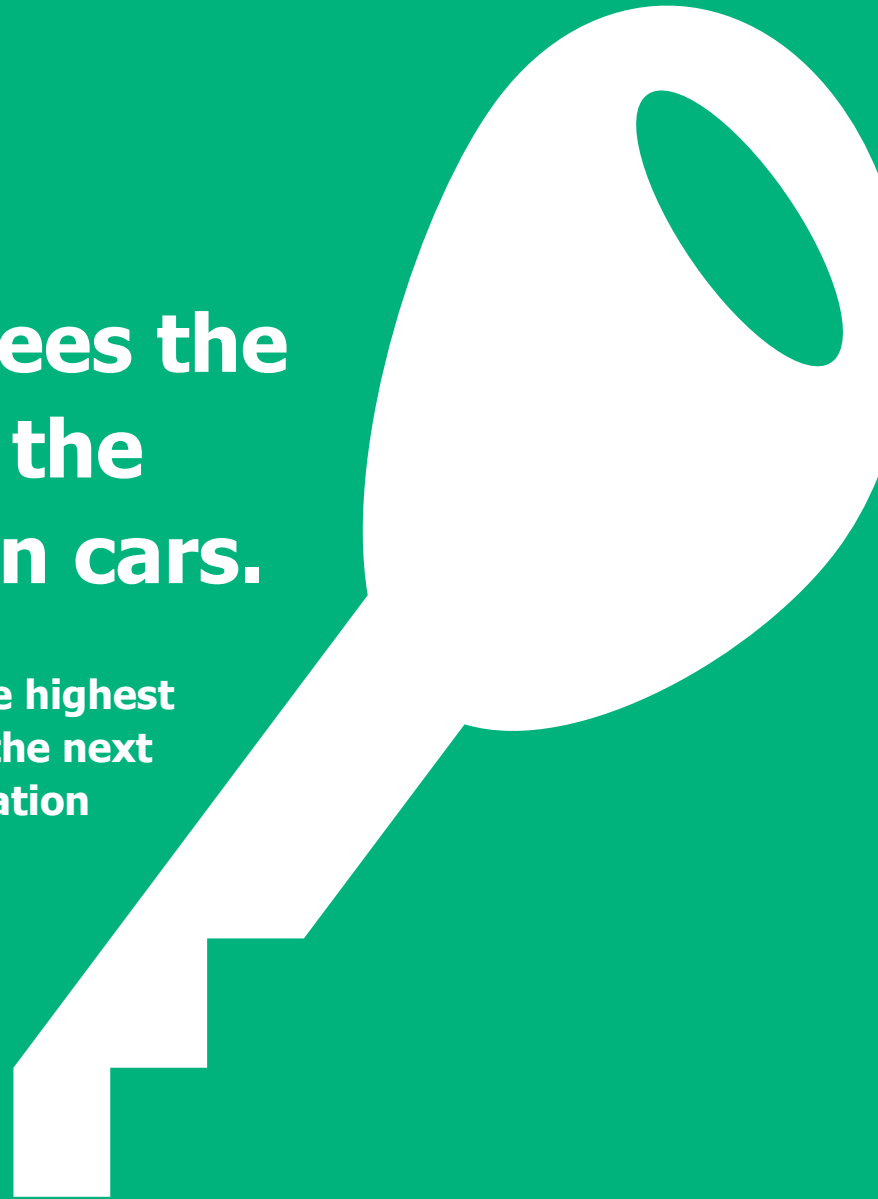
* Example Oct 2021 High rate tax payer - 48 months – 10k miles p.a. Postcode DY12 - 2021 Tax year ** allows for BiK increases



**Align ESG with benefits
strategy, giving employees the
opportunity experience the
next generation of green cars.**

**Benefit from full manufacturer discounts and the highest
tax efficiencies. Take a risk free, first step into the next
generation of cars with no deposits, no depreciation
and all inclusive fixed cost motoring.**

Tusker.



Questions

Tusker.
Making drivers happy



Thanks to ...

