

SCOPE 3 JOURNEY

SBN

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The University of Winchester

- Founded in 1840
- 8,400 FTE students
- 900 FTE staff
- Rapidly growing institution
- 77,500 m2 of estate (79% increase since 2006)
- 45% of the estate is residential with 1860 students in halls
- 10% increase in estate in 2020/21 alone in our new WDC building



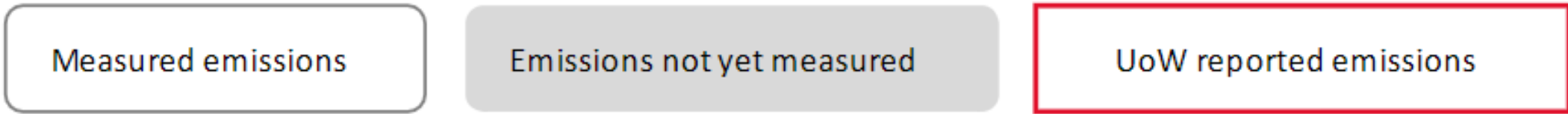
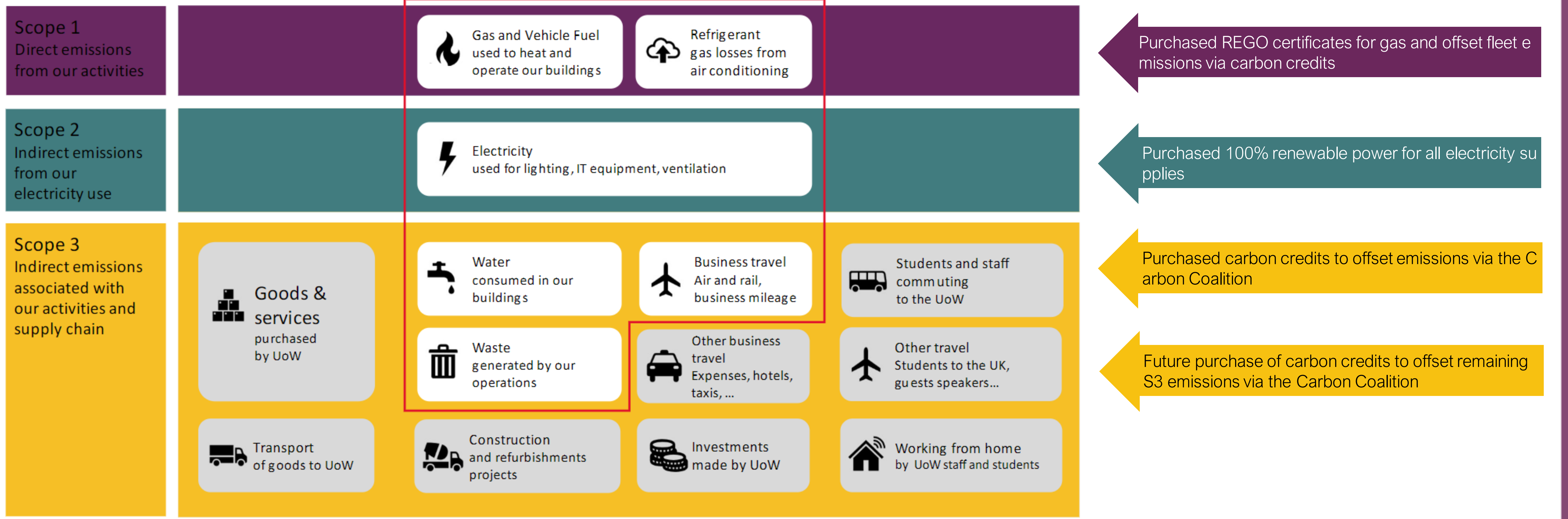
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Carbon Terminology

- Scope 1 – Direct emissions
- Scope 2 – Indirect emissions
- Scope 3 – Other indirect emissions (more difficult to calculate)
- Location based reporting – based upon the grid emissions factor
- Market based reporting – based on energy supply factors

Type of Emissions	Emissions sources
Scope 1 Direct emissions from our activities	Fossil Fuels used to heat and operate our buildings Vehicle fuels from fleet consumption Refrigerant Gas losses from cooling
Scope 2 Indirect emissions from our electricity use	Electricity used for lighting, IT, equipment, ventilation
Scope 3 Other indirect emissions associated with our activities and supply chain	Water consumed Water discharged to sewer Waste generated on campus & waste generated from construction projects Business travel Air and rail travel booked for business related work Grey fleet usage
Emissions measured	
Emissions not originally measured	Staff/ student travel Commuting to campus Goods & services All the things we purchase





Carbon Management Plan

- CMP in place since 2006/7 - Baseline 4200t
- Significant reductions in CO₂
- £1.8m energy costs
- 100% of electricity sourced from renewables since 2008
- Onsite PV generation 2020/21 - 77mWh – around 2% of our total demand
- 100% of gas sourced from renewable sources (biomethane) since September 2020
- We have spent over £2m on specific carbon reduction projects since 2006
- £3.12m decarbonisation project underway



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Carbon Emissions 2020/21

Net-zero Target by 2030 but we aspire to get there by 2025

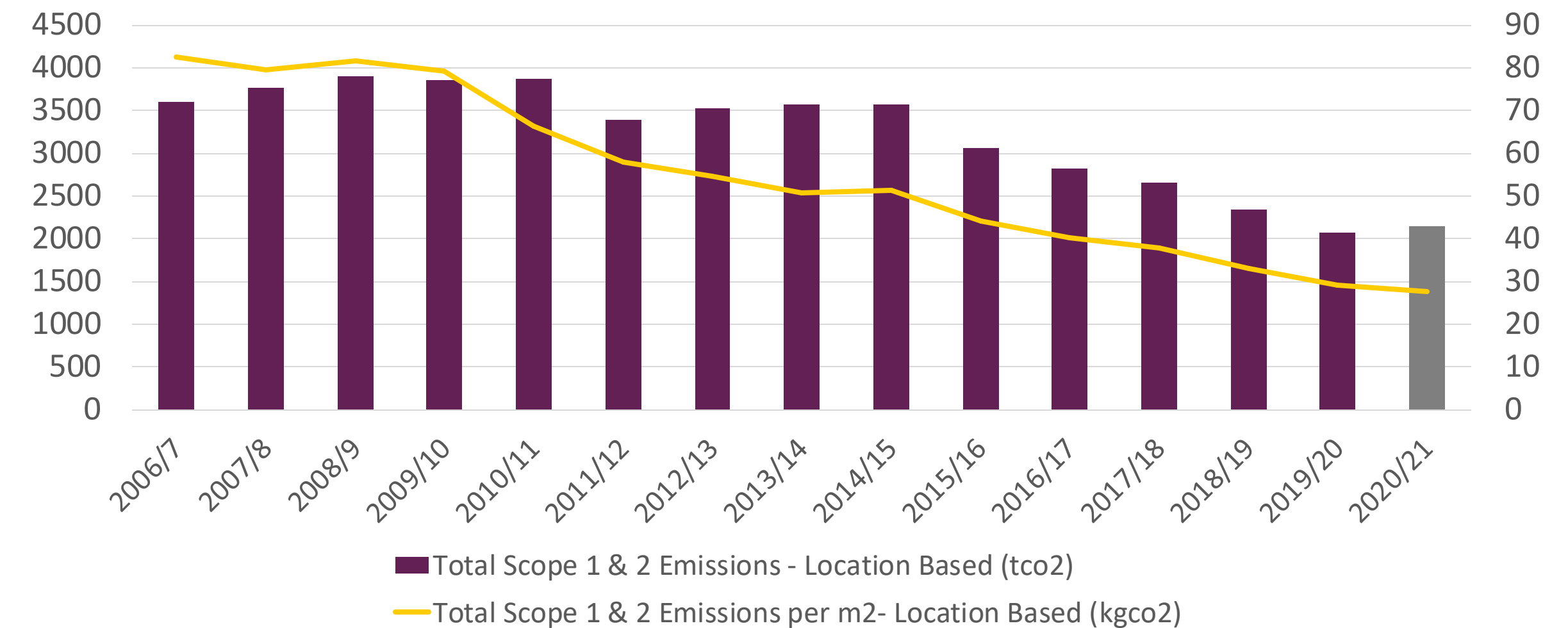
Location based energy emissions

- 66% reduction relative to estate growth
- 40% reduction total energy emissions - New building has increased size of estate by 10% but emissions only increased by 4% in 1st year

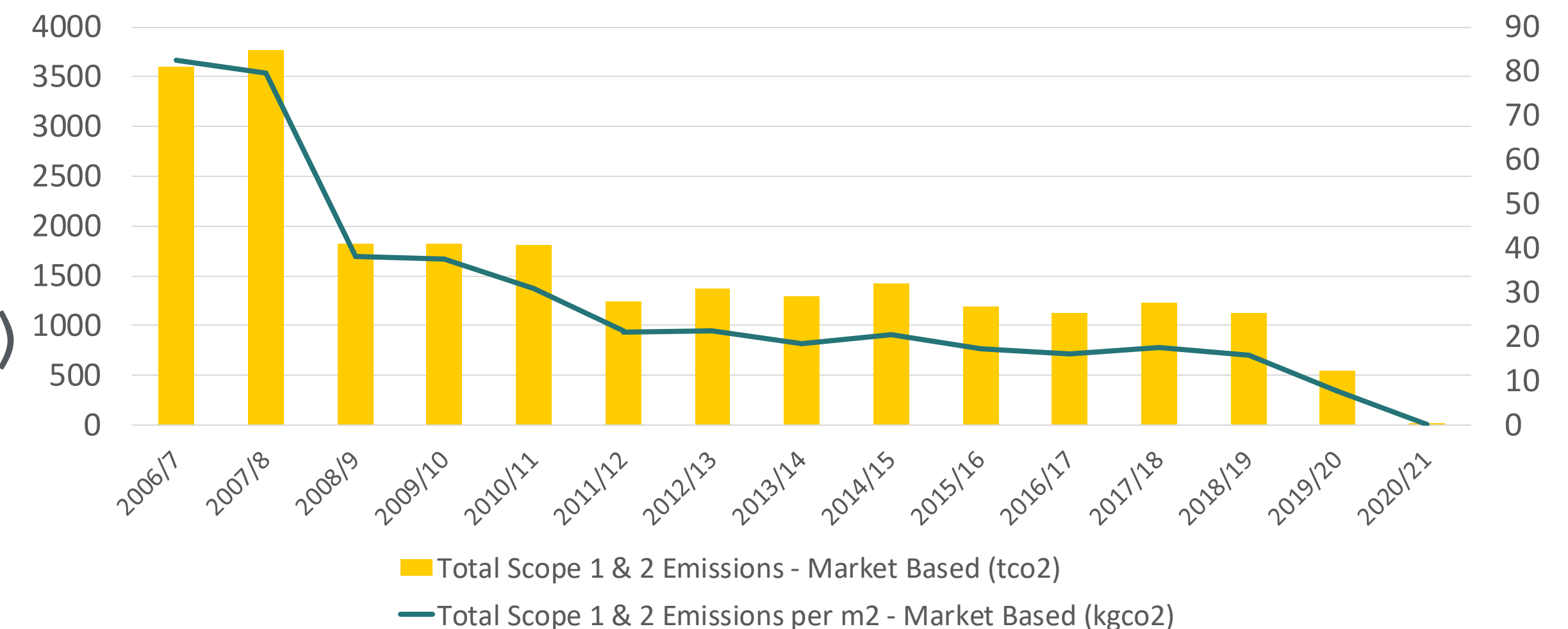
Market based energy emissions (need to verify green gas emission factor for 20/21)

- 99% reduction total energy emissions and relative to growth

Scope 1 & 2 Emissions - Location Based

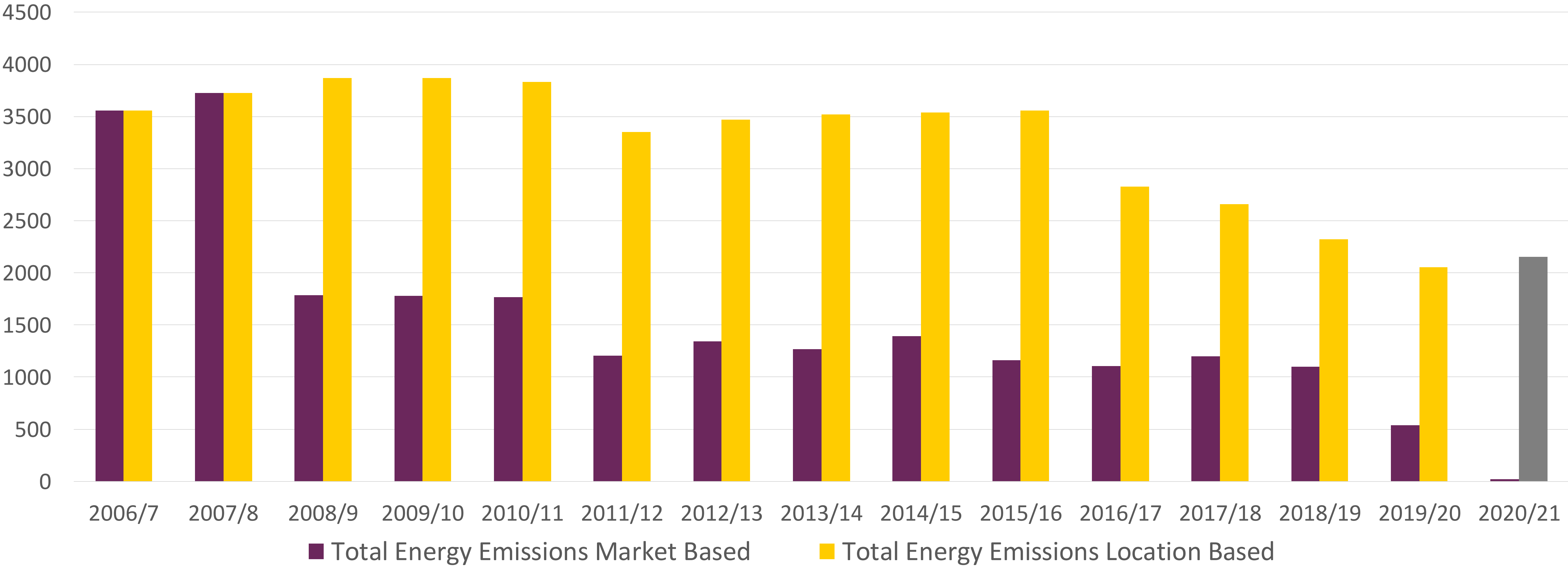


Scope 1 & 2 Emissions - Market Based



Carbon Impact of buying renewable

Market vs Location Based Emissions



Large Scale Decarbonisation Project

PSDS Funded project focused on degasification and improving air quality

£1bn fund - £3.12m grant to UoW

Installation of -

- 34 ASHP for 11 large buildings
- 151 kWp Solar PV (300% increase)
- BMS installation to 96 domestic boilers and optimisation of existing systems
- LED lighting upgrades
- Guaranteed £68k energy cost savings and 484t CO₂



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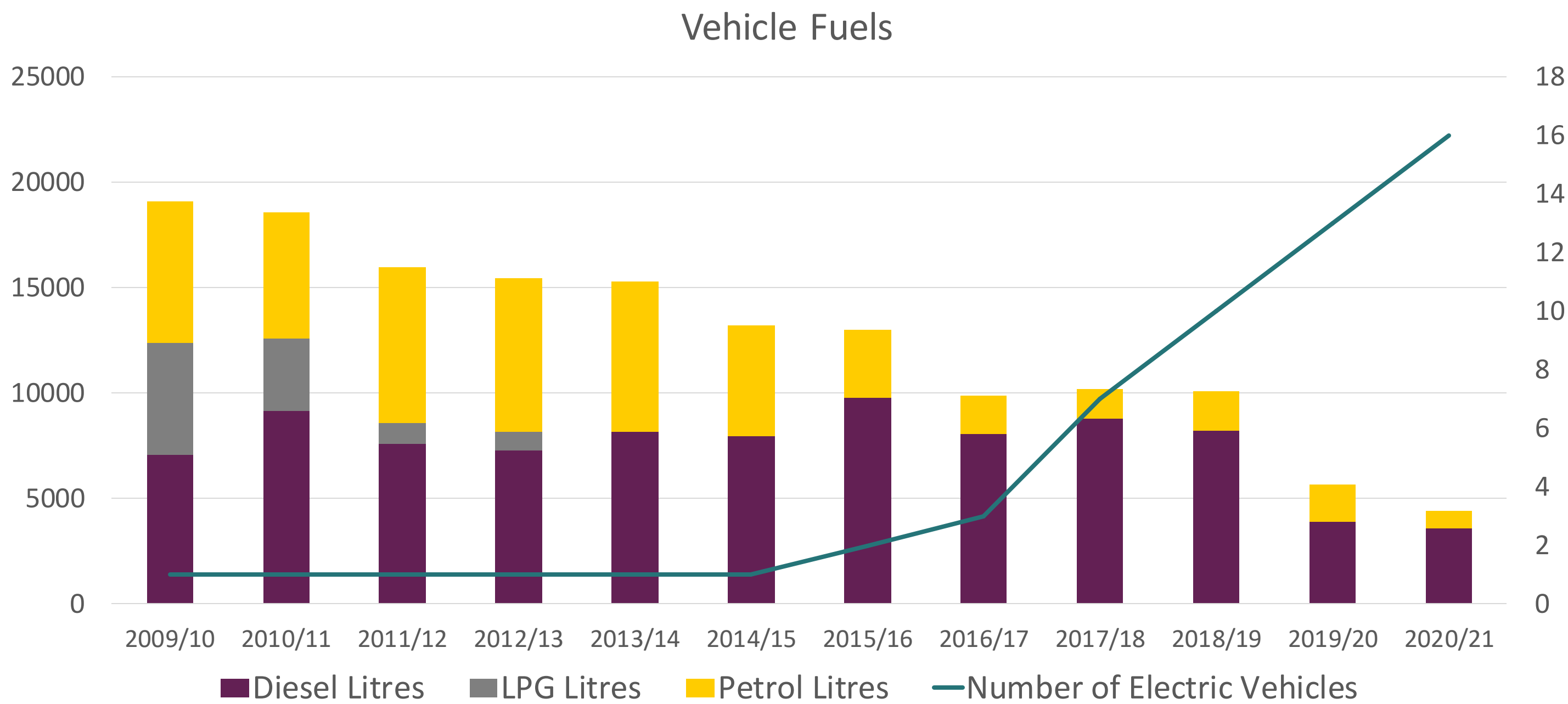
Fleet vehicles

Majority of remaining scope 1 from vehicle fuels

Fleet is 35 vehicles – now 16 are electric – 5 on order

Target – all fleet switched from ICE to EV by 2025

Priority for replacement is Diesel due to air quality



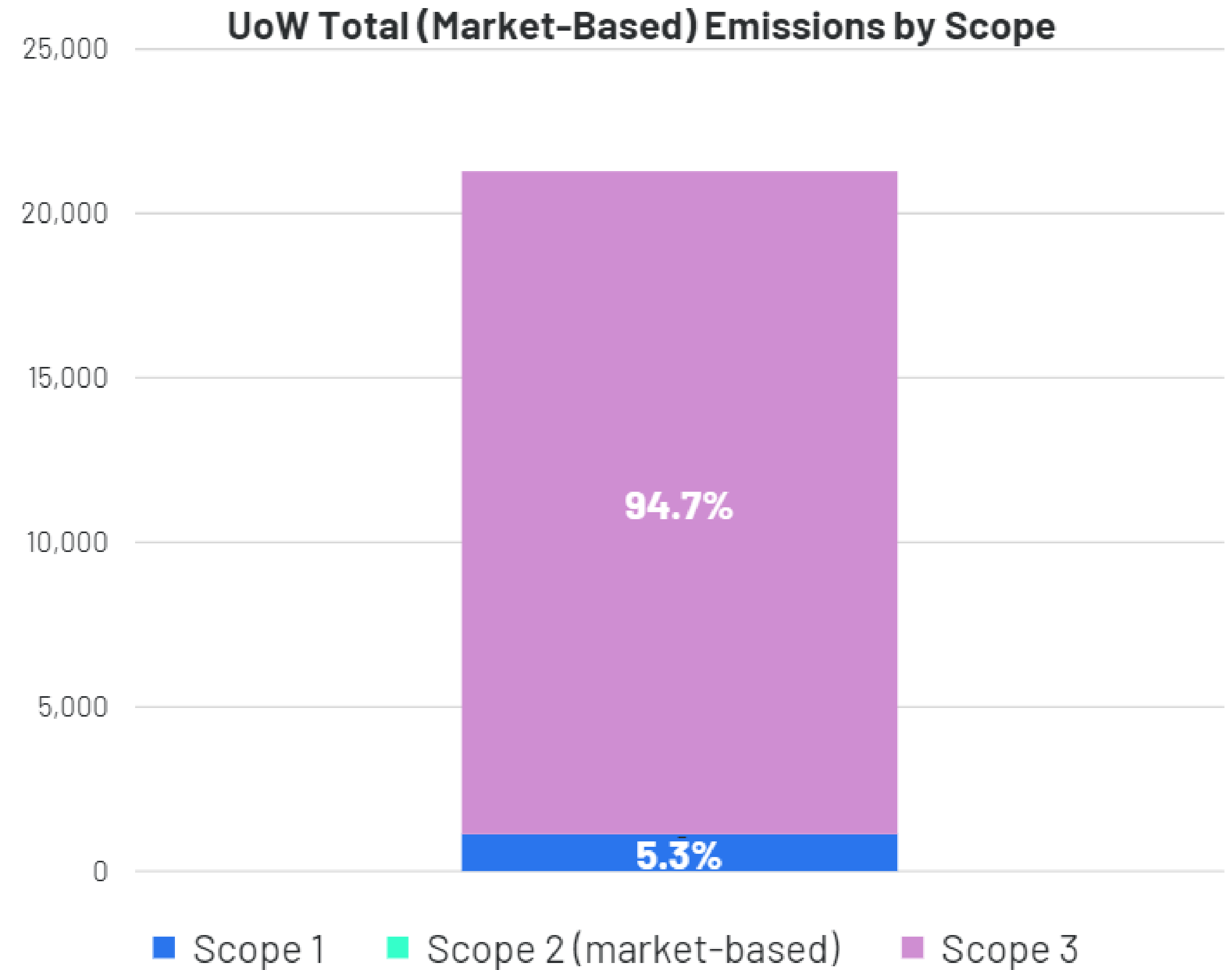
But.....Scope 3 Carbon

Scope 3 emissions dwarf our Scope 1 and 2 energy emissions – 22k tonnes

Scope 3 is 95% of our carbon footprint by current estimates (first pass)

To get to net-zero we will need a robust strategy to;

- Avoid emissions
- Remove emissions
- Carbon Capture and Storage
- Sequestration
- Offset (the least preferable)

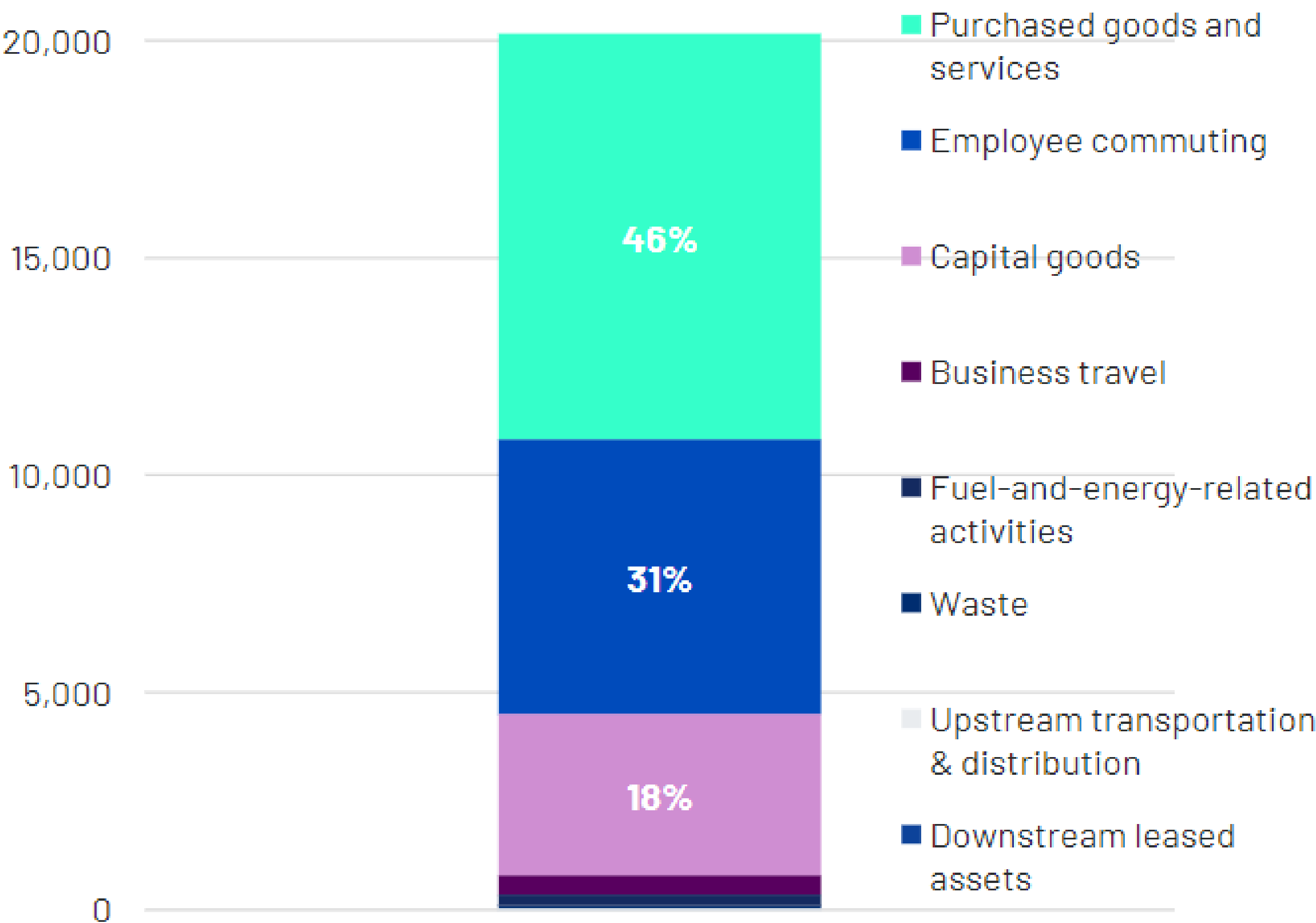


Scope 3 Breakdown

The top 3 Scope 3 categories make up 96% of the total Scope 3 footprint:

Top 3 categories	Associated Business Activities
Purchased Goods and Services	Purchase of goods and services for on-campus use and services e.g., equipment, professional services etc.
Employee Commuting	Daily commuting of staff and students between campus and their (term-time) homes.
Capital Goods	Purchase of capital goods (those essential to the UoW's operations) e.g., furnishings, stationery, computer equipment and software etc.

University of Winchester Scope 3 breakdown

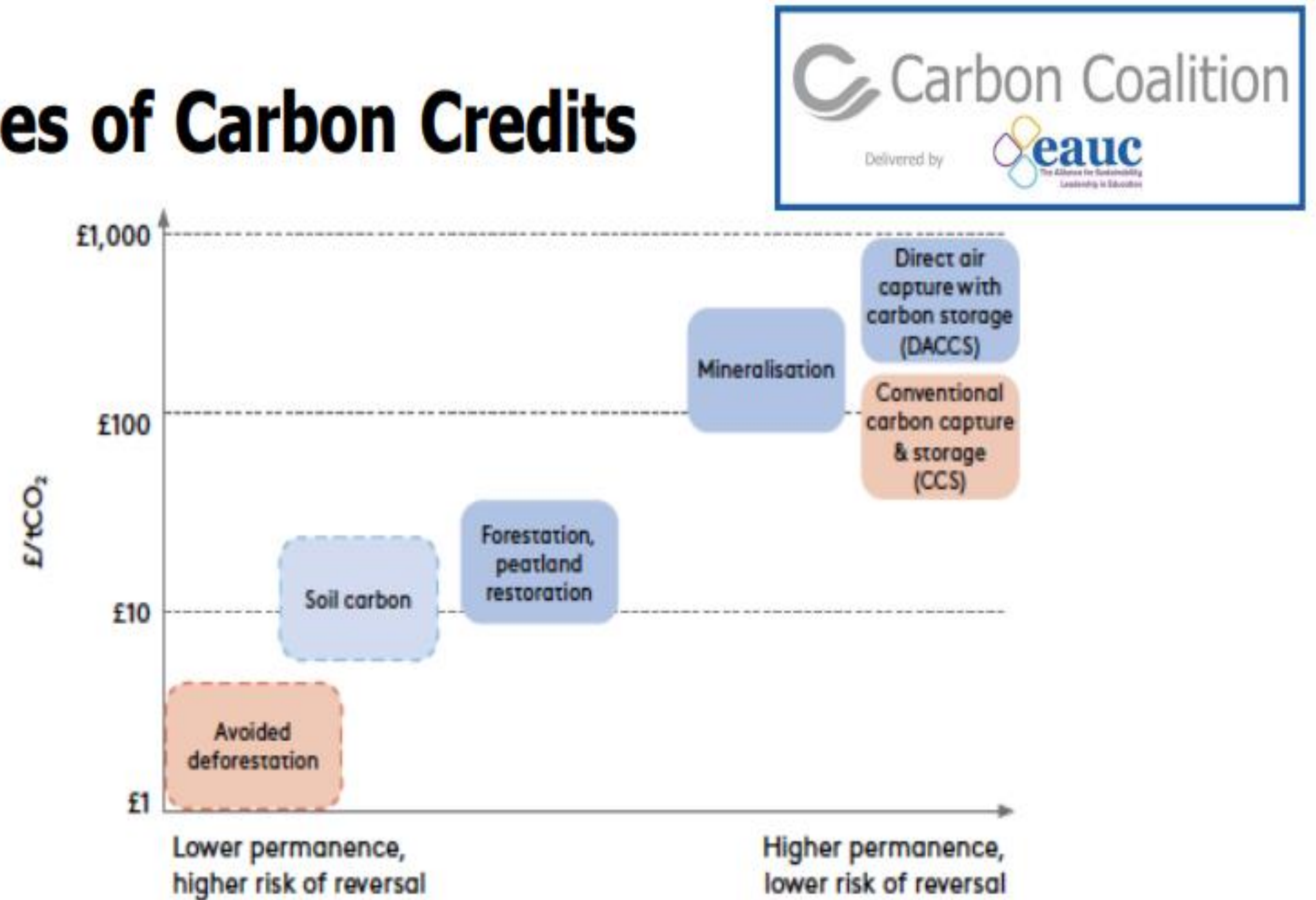


EAUC Carbon Coalition Pilot

Consortium of UK and Ireland higher and further education institutions that have joined together to deal with their Scope 3 emissions.

- 386 tCO₂e purchased for 2019-20
- Carbon Neutral for Scopes 1&2 plus Business Travel, Waste & Water.
- 50% UK Forest Carbon Code
- 50% Carbon Coalition Portfolio
- Peer reviewed process for ensuring offsets are verifiable, additional and of good quality

Types of Carbon Credits



Future plans

- Work on methodology for improving scope 3 emission data accuracy for reporting
- Identify high spend areas to work with suppliers to maximise impact
- Ensure carbon is considered at tendering stage for all purchasing
- Commuting impacts – more students studying and living at home locally could have a significant impact



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Thankyou

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