UNIVERSITY OF CAMBRIDGE

Decarbonising a University using a Science Based Target approach

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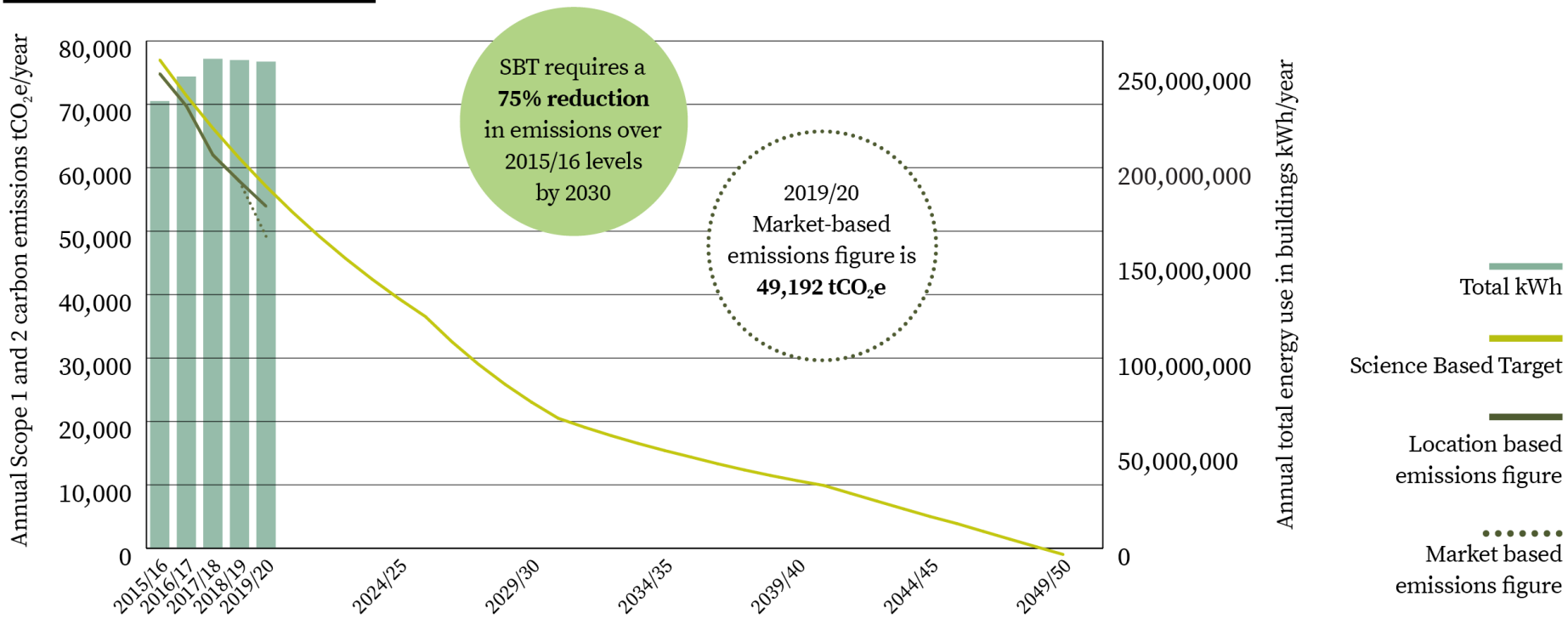
What is a Science Based Target?

- Developed using models that calculate the level of carbon reduction a particular organisation needs to achieve in order to do its ‘fair share’ in reducing global emissions.
- Starting point is the Paris Agreement

Aims to limit the increase in global average temperature during this century to well below 2 degrees Celsius (measured against pre-industrial levels), ideally limiting the temperature increase even further to 1.5 degrees Celsius.

Our Science Based Target

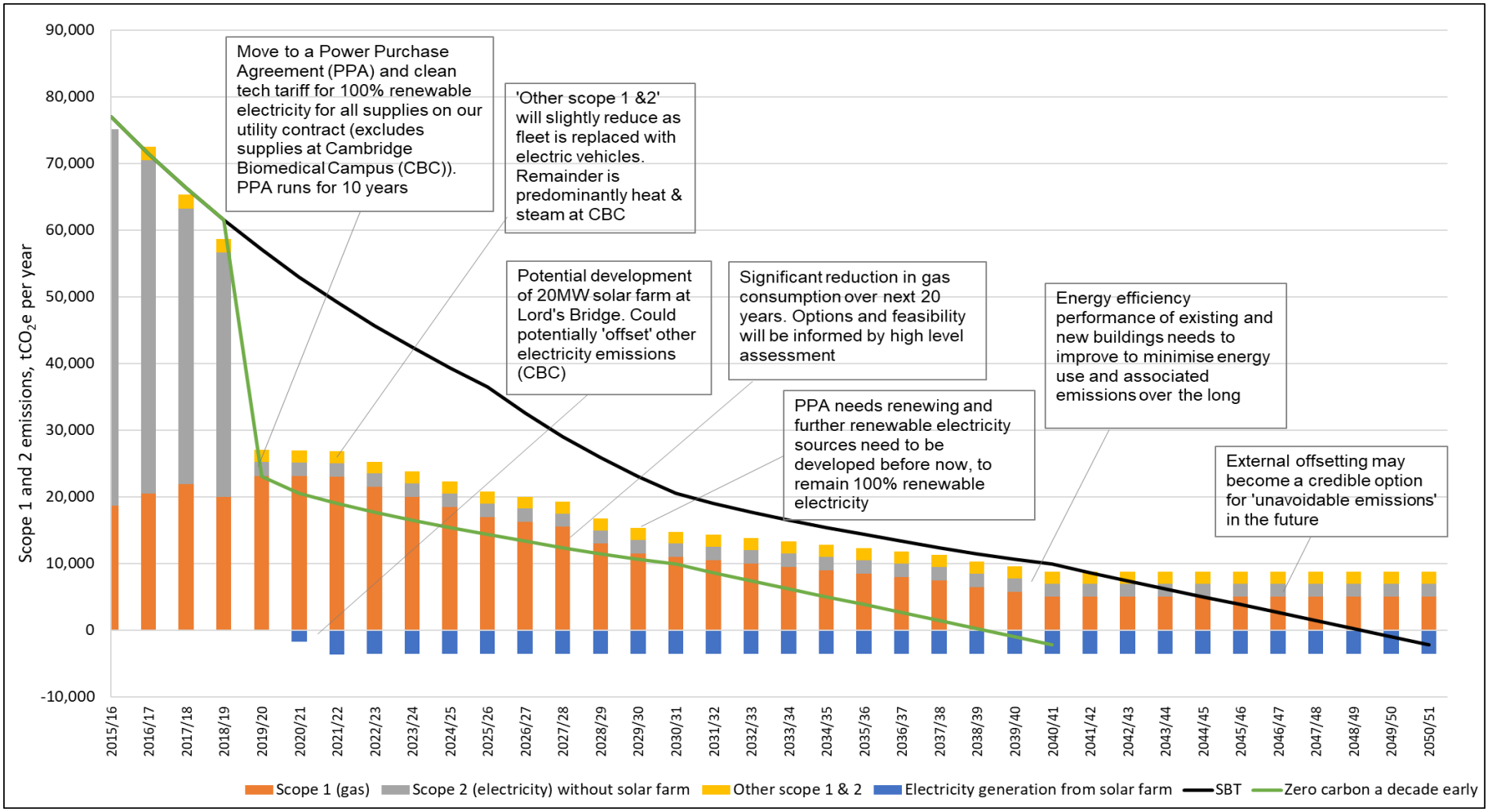
Total scope 1 & 2 and carbon emissions (tCO_2e)/year against our Science Based Target



Some key initiatives

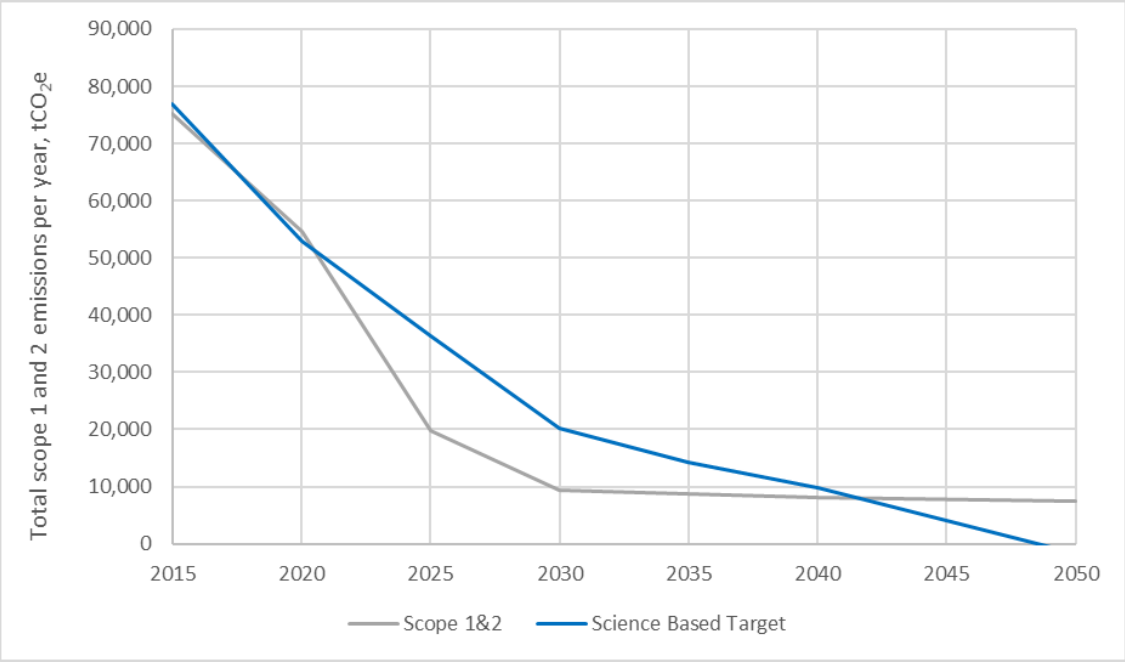
- Power Purchase Agreement for zero carbon electricity – 20%
- Large scale onsite renewables
- Removing gas from the estate
- Capital programme – incorporating carbon into decision making
- Energy efficiency retrofit projects
- Electricity Devolution Programme
- Electrification of the fleet
- Independent assurance of sustainability data

Main building blocks to zero carbon



Reshaping the Estate for sustainability

Forecast annual scope 1 and 2 emissions under an ambitious carbon reduction programme, with size of the estate maintained at 2020 level



Graph shows SBT (blue line) and total scope 1 and 2 emissions (grey line) if the University does all of the following by 2050:

Generates 50% of all of its electricity from onsite renewables

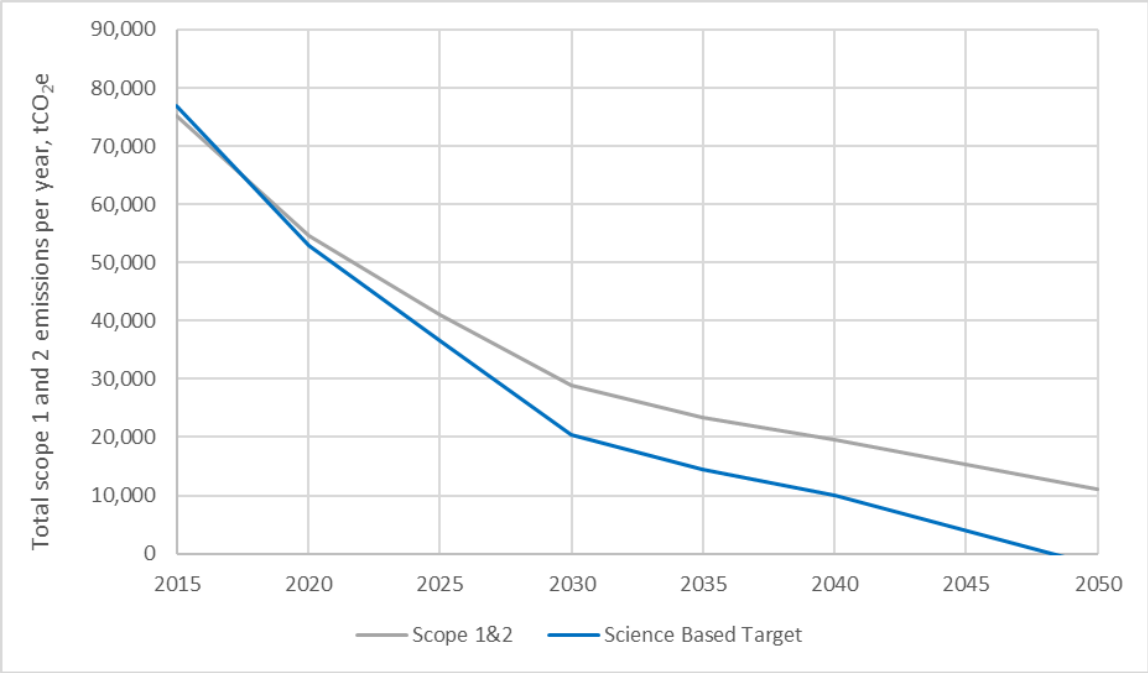
Purchases remaining 50% of electricity from certified renewable sources (Power Purchase Agreements)

Shifts 50% of its heat demand from gas to electricity

Achieves a 30% improvement in the thermal efficiency of its buildings

Reshaping the Estate for sustainability

Forecast annual scope 1 and 2 emissions under an estate that decreases by 1% per year on average, and with no investment in direct carbon reduction measures

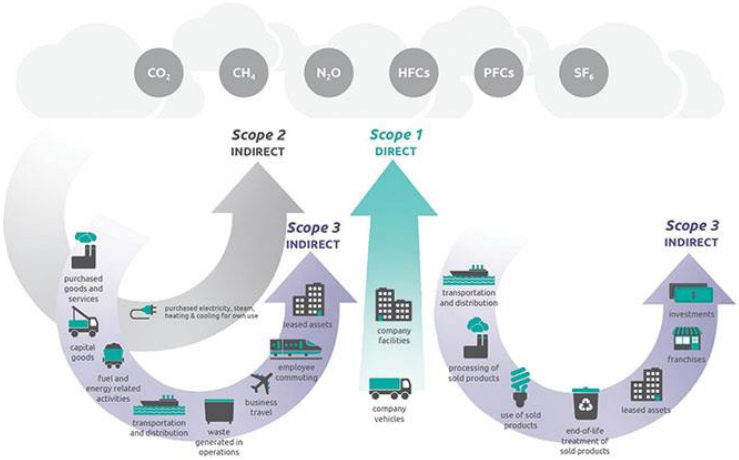


Graph shows that the University could achieve a similar level of carbon reduction by reducing the size of its estate by 1% per year (based against 2017/18 GIA) until 2050

This is without doing any other carbon reduction measures – i.e. maintaining BAU in all other respects

What's next?

- Measuring our fugitive emissions and including in our SBT
- Setting a baseline for scope 3 emissions – improving data capture
- Setting a SBT for scope 3 emissions
- Completing work to develop SBTs for the Collegiate University
- Developing an internal offsetting scheme for some aspects of scope 3 emissions



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THE CAMBRIDGE green CHALLENGE