

# How to be a net-zero savvy school governor

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# National Perspective

*‘There is a disconnect between people’s concern about climate change and their understanding of what is required to achieve emissions reductions in the UK.’*

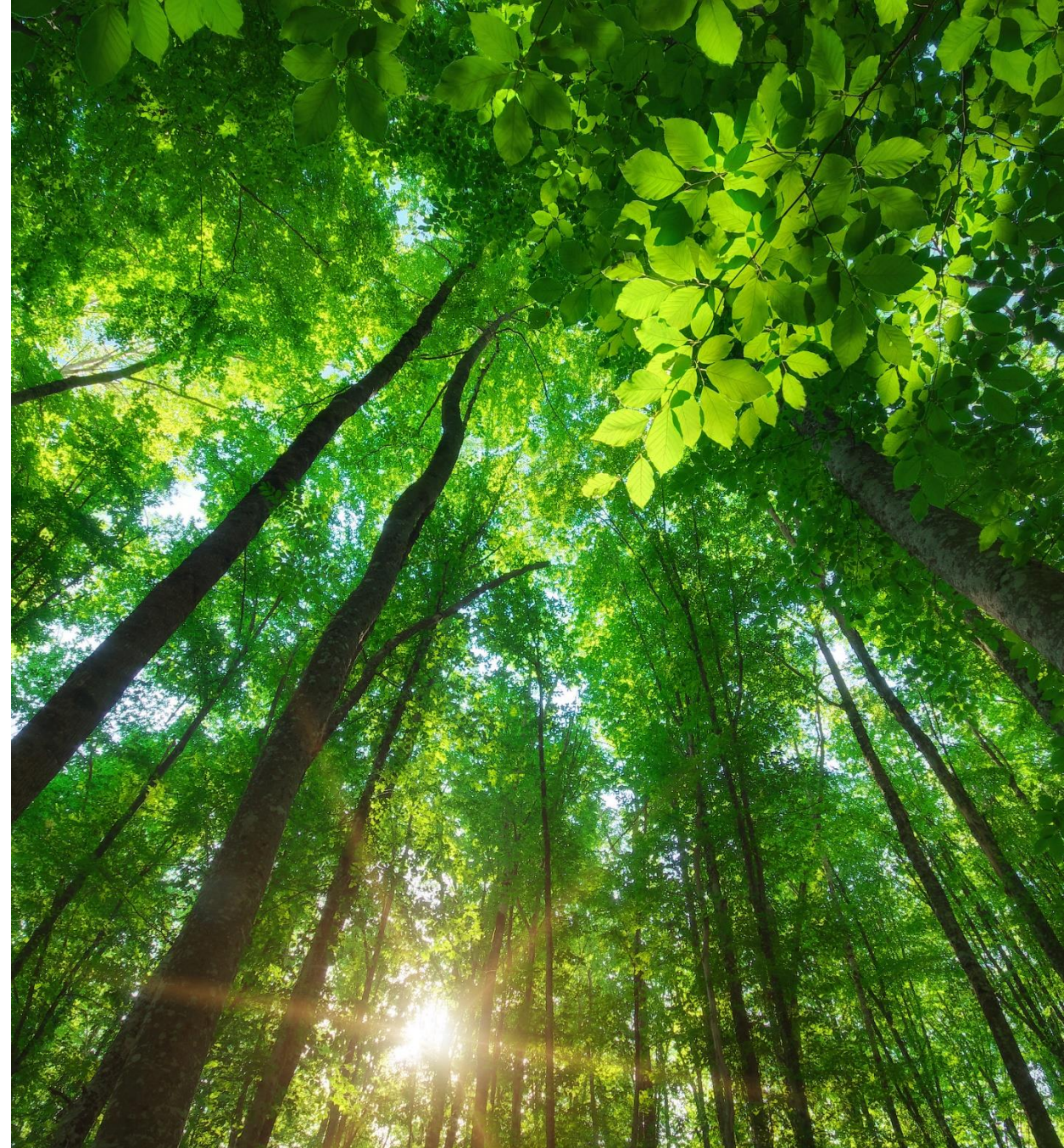
Public Accounts Committee report published on 5<sup>th</sup> March 2021

# My Intent

Clarify net-zero language & policy.

Assess the key practical & financial impacts for schools.

Highlight what school governors should be looking for. How do you know your school is on the right track?





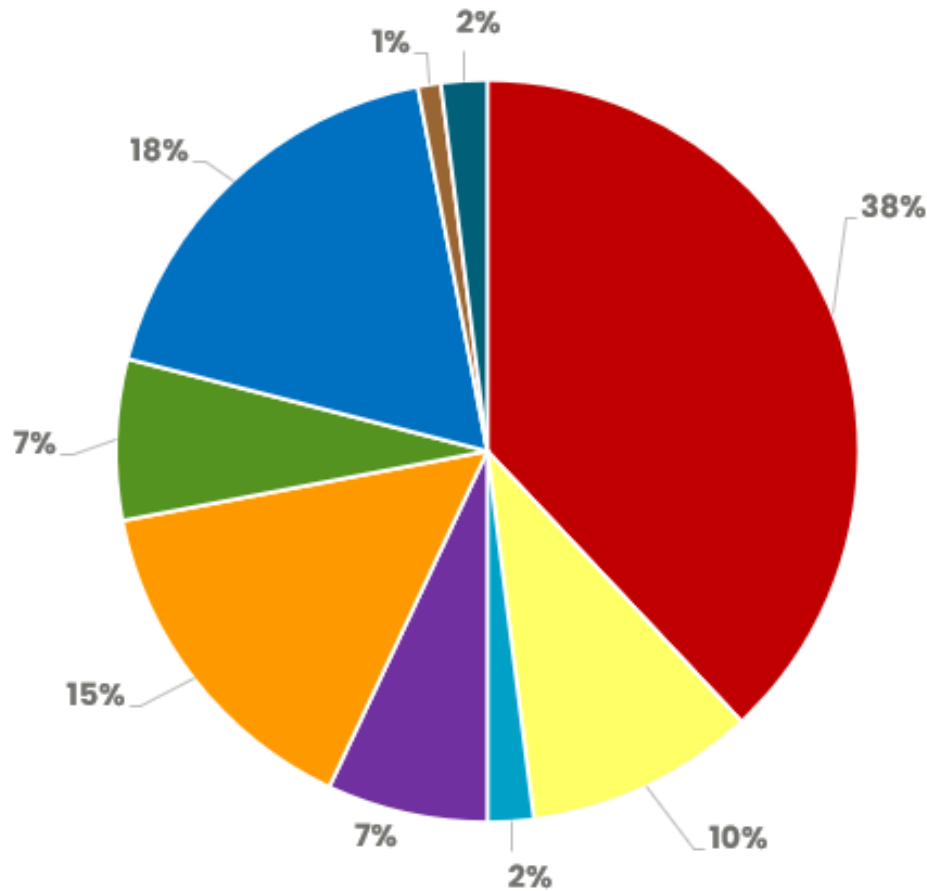
# Definitions & Objectives

- **Net-zero carbon** = The school does not contribute to greenhouse gas emissions (GHG) across its entire spectrum of operations, or uses offsetting to account for any irreducible minimum.
  - In practice this means ceasing to use or rely on fossil fuels for any part of the school operation, including in the supply chain and off the school estate, or offsetting where that cannot be achieved.
- **Net-zero for energy** = The school generates as much energy as it uses – but remains reliant on some external supplies at certain times.
- **Prognosis for net-zero in schools:**
  - All UK schools **can** achieve net-zero carbon, given time.
  - Most schools cannot achieve net-zero for energy, but can get part of the way.

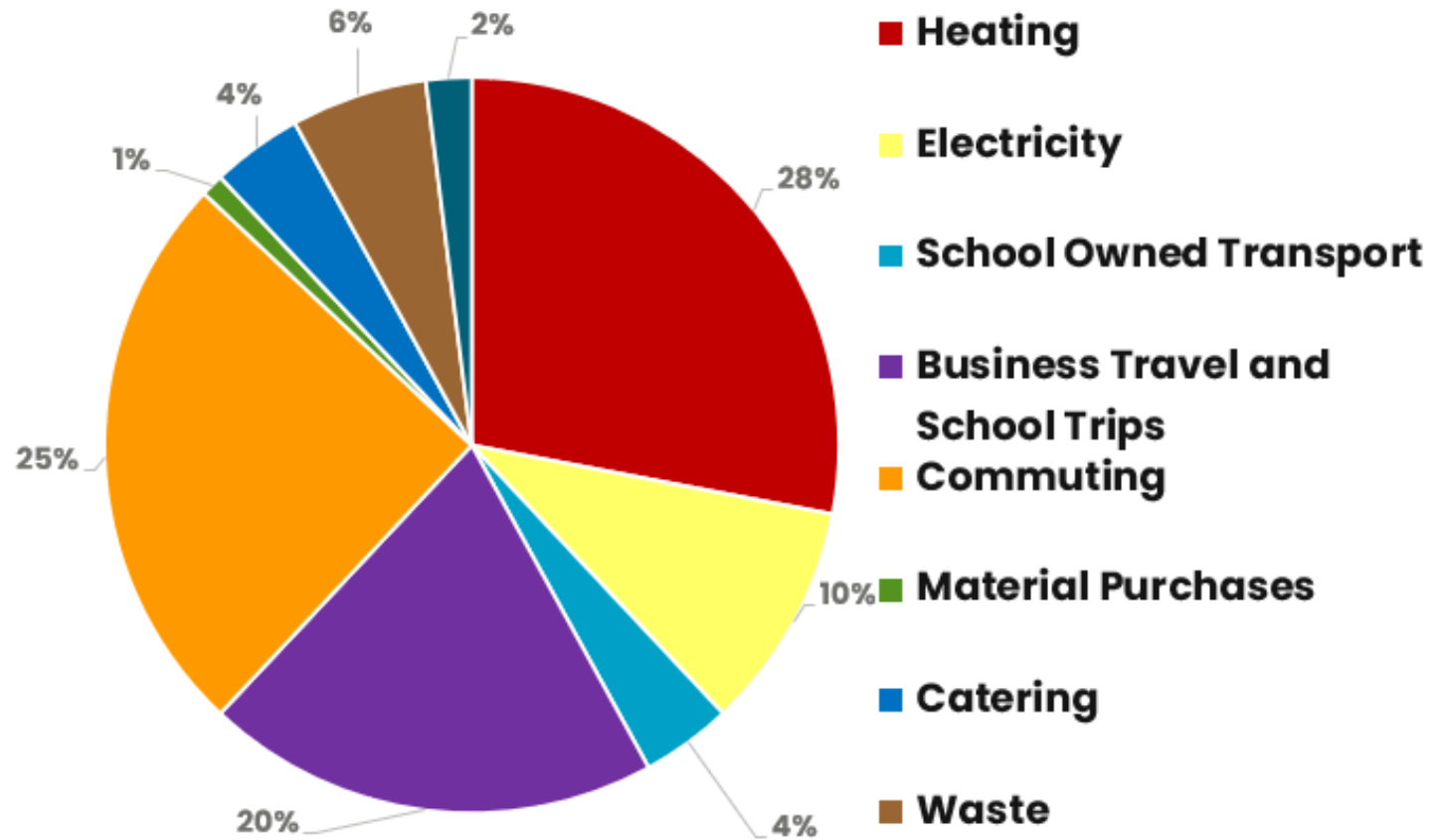
# Definitions & Objectives

- **Categories of greenhouse gas emissions – measured as Carbon Dioxide equivalent (CO<sub>2</sub>e; tCO<sub>2</sub>e):**
  - **Scope 1** = direct emissions from resources owned & controlled by the school: e.g. heating fuel.
  - **Scope 2** = indirect emissions from the generation of energy used by the school but by resources not owned by it: e.g. purchased grid power.
  - **Scope 3** = any emissions arising from the operation of the school not included in scopes 1 and 2: e.g. emissions from the catering or other supply chains.
- **Estate decarbonisation** → school estate does not contribute to GHG: i.e. scopes 1 and 2 are zero.

# Typical independent school carbon footprints



**Large Boarding School**



**Small Day School**

# So what?

The school's carbon footprint across scopes 1 to 3 is an important tool in drafting a useful, focused net-zero strategy.

- **Measuring scopes 1 & 2:**
  - Relatively easy, given good energy usage data.
  - Can be done in-house.
- **Measuring scope 3:**
  - Complex and reliant on assumptions.
  - Can be done in-house; data gathering is time-consuming. An excellent vehicle for teaching.
- **Prognosis for tackling scopes 1 – 3 in schools:**
  - **Scope 1.** Can manage directly, but a challenging, expensive endeavour. £Ms...
  - **Scope 2.** Reliant on grid progress; can mitigate in short term by reducing grid usage.
  - **Scope 3.** Can only influence: it's a national issue.

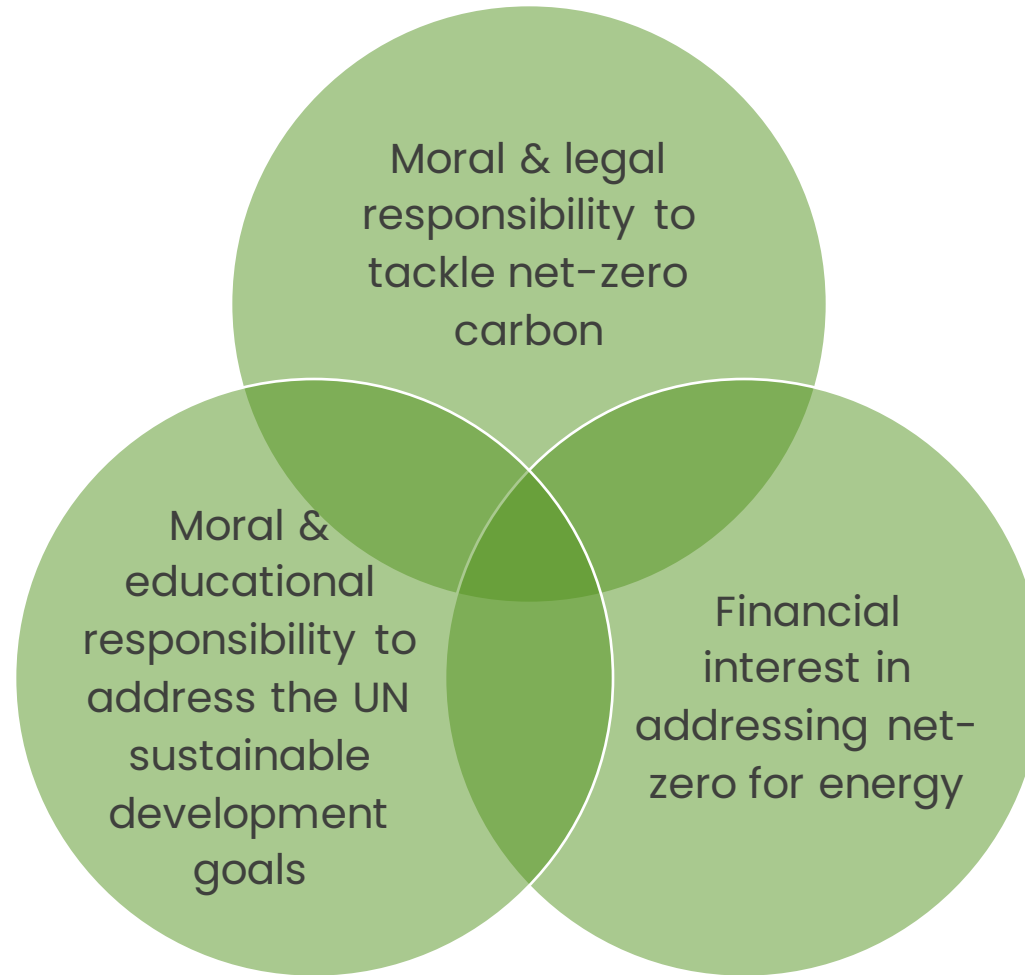
# Net-Zero in Context

Net-zero is a subset of sustainability more broadly. Compare the UN's 17 Sustainable Development Goals:





# So what?



# UK Government Policy on Net-Zero

- UK net-zero carbon by 2050.
- Reduce emissions by 78% by 2035, based on 1990 levels.
- Key policy nuggets:



Intensify efforts to eliminate emissions from buildings.



2020s key to delivering a step change



Accelerate 'low and no-regrets' action

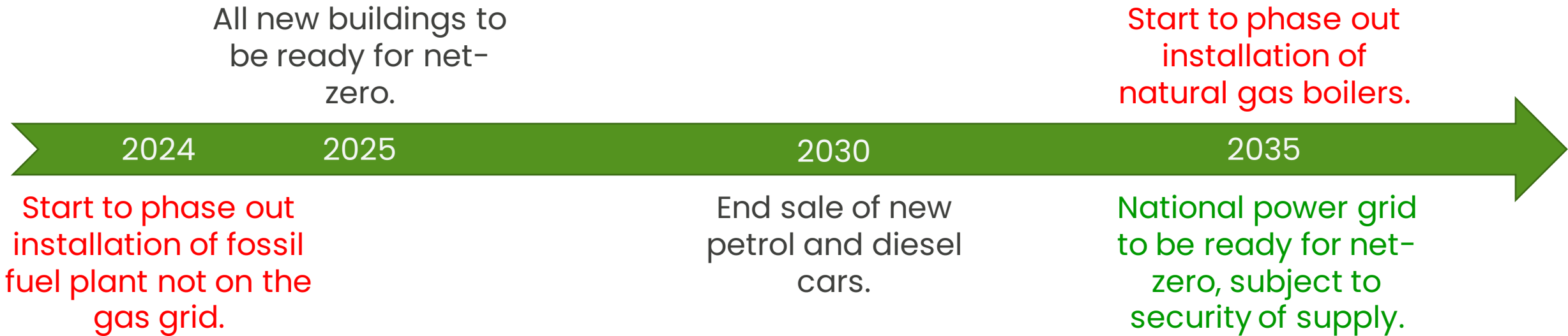


Fairness and affordability are important.

**Use natural replacement cycle to phase out fossil fuel plant.**

# Government Policy

## Operational Targets:



Commercial sector to pay its own way: 'the polluter pays'.

# So what?

- The independent education sector will have to find the finance: no significant grants available.
- Tackle planning sooner rather than later, even if no significant action required for some years.
- Be pragmatic about what is achievable.
- This is a long haul. Set the right pace.
- Aim for 'no regrets': don't rush into projects without due diligence and see every project as part of a wider programme.

***'I think we are all in it together when it comes to this challenge.'***

Ian Callender, COO North London Collegiate School

*'This is the most challenging project  
we've ever undertaken.'*

Group Director of Operations and  
Estates, the Stowe Group





# How to plan

What every school now needs...

## A carbon footprint

**An overall sustainability / net-zero strategy.** Covers the UN SDG and net-zero scopes 1 to 3 in outline

## Detailed project plans, including...

### **An Estate Decarbonisation Plan (EDP):**

- The plan for **removing reliance on fossil fuels for all estate power, heat and transport needs.**
- Includes a programme for implementation projects, with the associated engineering justification, business cases and budget; short, medium, longer term.
- Like a masterplan.
- Typical cost: £10k – £100k+ depending on school estate size and complexity.

# St George's College, Weybridge

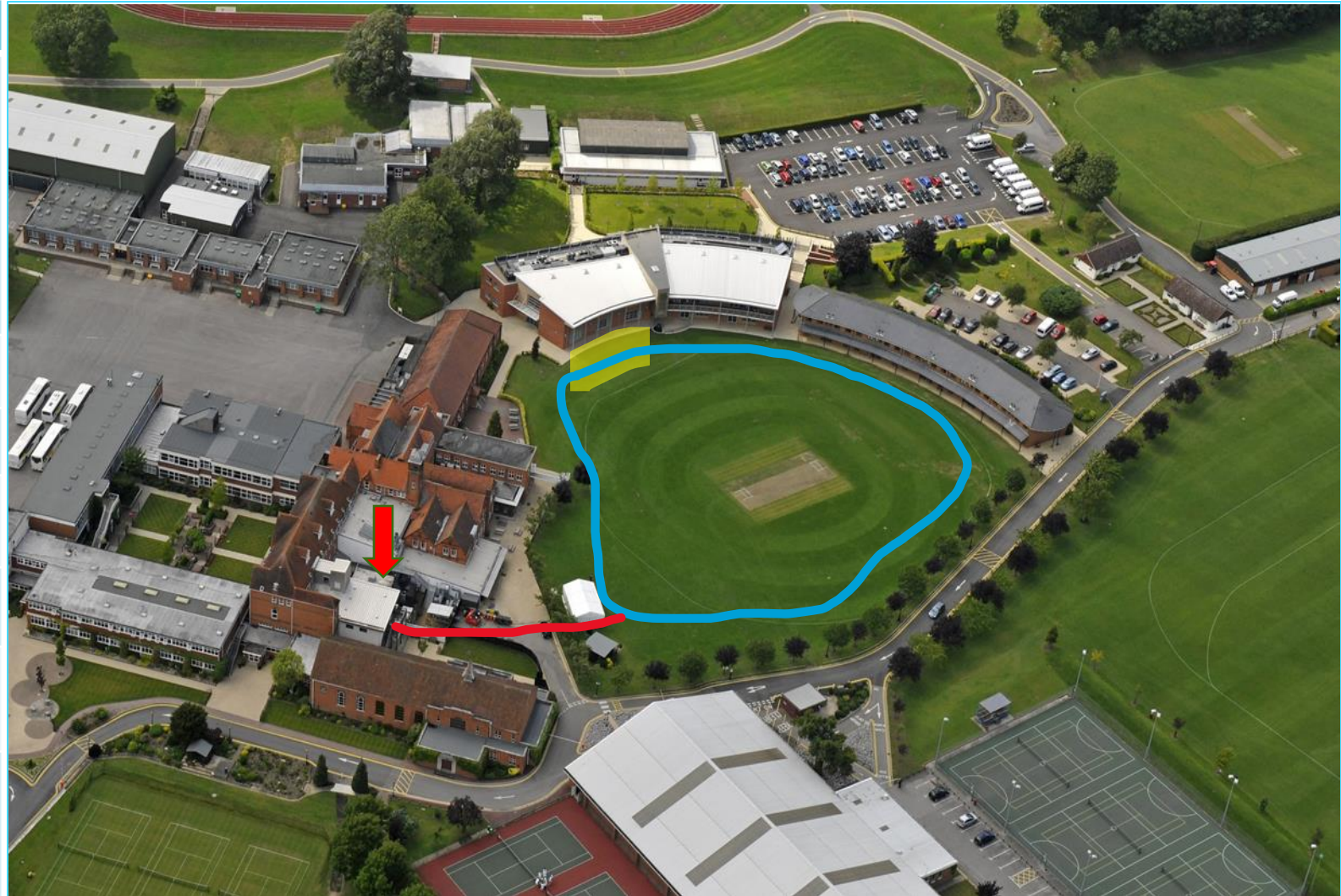
The brief: convert the main heating plant room to a low-carbon alternative, with capacity to expand coverage





# Project Particulars

<b>Design concept</b>	Ground Source Heat Pump. Use existing plant room & district heating network. Build in extra capacity for expansion of district heating to serve additional buildings.
<b>Capacity</b>	880kW
<b>Cost</b>	Sub £3m
<b>Ground Array</b>	Vertical boreholes
<b>Power</b>	Site reconfiguration required.
<b>Duration</b>	3 years in planning & installation.
<b>Next Steps</b>	College already has lots of on-site power generation but will install more.





# Borehole drilling



Setting up

Summer



Winter



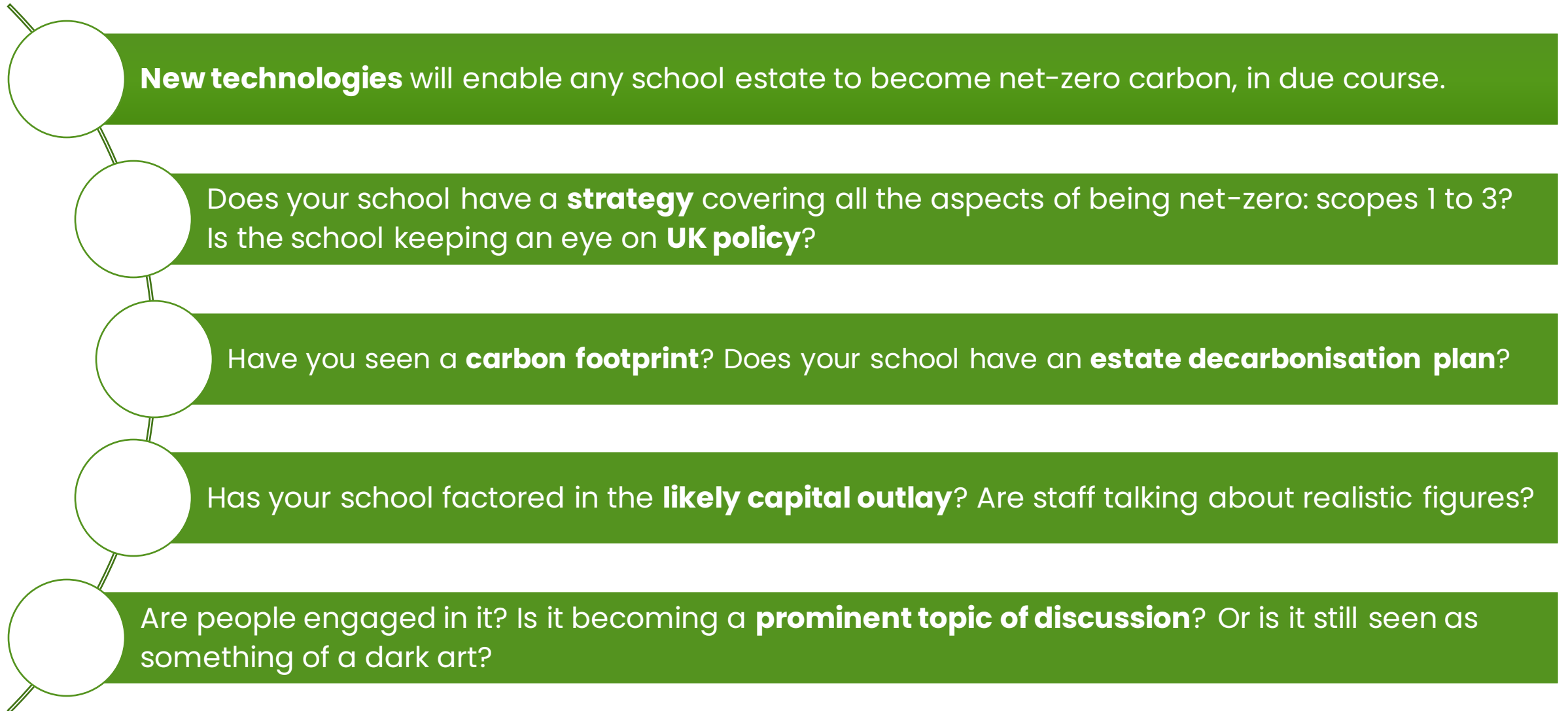
After reinstatement

# The Governor Role

- Strong support for the project.
- Careful consideration of the purpose. How will the College gain? What is the opportunity cost?
- Scrutiny of the detail, including:
  - provision of the capital required
  - engineering & programme risk
  - financial risk
  - intrusion on college life
  - regular review of the business case.
- Direct engagement with key players whenever required.
- Protected the capacity to cancel the project if needs be.
- Find out more at the [AGBIS Seminar/Practical at St George's College Weybridge on 11<sup>th</sup> May 2023](#)



# Summary: how do you know you're on track?



# Questions?



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