

THE RETROFIT IMPERATIVE ACROSS EDUCATION

4 OCTOBER 2022

HOW WE DEFINE RETROFIT

Retrofit

A retrospective material or feature upgrade, or change in use of a building, to enhance operational carbon efficiency in line with net zero targets and building safety legislation

Refurbish

Surface level improvements that may include cleaning, decorating and re-equipping with lost features

Renovation

Returning an asset to a good state of repair and operation

CITY GATE HOUSE

Vision: the United Kingdom is the world-leading education sector in sustainability and climate change by 2030.

In England, we will achieve this through the following strategic aims:

- Excellence in education and skills for a changing world: preparing all young people for a world impacted by climate change through learning and practical experience.
- Net zero: ***reducing direct and indirect emissions from education and care buildings***, driving innovation to meet legislative targets and providing opportunities for children and young people to engage practically in the transition to net zero.
- Resilience to climate change: adapting our education and care buildings and system to prepare for the effects of climate change.
- A better environment for future generations: enhancing biodiversity, improving air quality and increasing access to, and connection with, nature in and around education and care settings.

THE RETROFIT IMPERATIVE

- Schools and universities are 36% of total UK public sector building emissions
- Costs are rising, becoming a larger portion of education facility's running costs
- Decarbonising educational buildings is a key priority and uniquely in education getting pupils involved is critical

<https://www.youtube.com/watch?v=nbldUD6QKU>



THINK RETROFIT



Retrofit shouldn't sit separately to wider building or estates management

It's a mindset that should guide or complement decision making, rather than existing as separate projects



Retrofitting should be part of ongoing maintenance programme, once big interventions have been made

Hampshire County Council are a fantastic example of a public sector body putting decarbonisation first as part of asset review

TYPICAL RETROFITTING ACTIVITIES

- **Installation of solar PVs**
- **Changing windows**
- **Changing lighting**
- **Replacement of heating systems**
- **Changes to insulation**
- **Changes to roofing material (especially on flat roofs)**

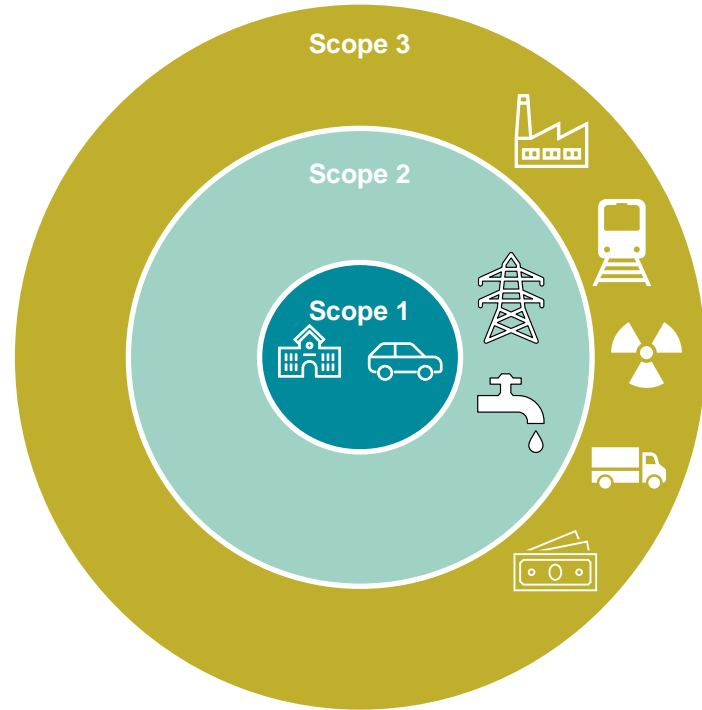


BASELINING - GETTING STARTED

Where do you biggest carbon emissions come from

- **Direct emissions (on-site fuel use)**
- **Indirect emissions from purchased electricity, heat etc.**
- **Indirect emissions from other business activities (transportation, waste disposal, purchasing of goods etc.)**

Leverage existing digital data, such as BIM models, digital twin and operational data



FUNDING

There are a range of funding options open, the one most used in educational settings is the Salix LCSF & PSDS schemes

This is getting more stringent with every round and requires good baseline data to make an application, so getting funding through LCSF to develop the data to enable an application to PSDS is key

There are other arrangements with technology providers to support solar installations, they only look at one intervention rather than having a full building view

OUTCOMES OF RETROFIT THINKING

Decarbonised buildings

More sustainable operations

A safer estate

Resilient, fit for purpose assets

**Enabling better environments
for to enhance educational
outcomes**



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