CASE STUDY

Social housing

A large proportion of Edinburgh is rented, 40% in total with 17% of that either council or social landlord owned. Because of its scale and single ownership it is far easier to deliver low-carbon upgrades than in the private rented sector.

Recent Council projects

Several schemes in Edinburgh have already been upgraded on an ad-hoc basis, some as pilots, and others as the opportunity arose due to other work. These were sometimes on a 'single-measure' basis, where only one element was improved. For example:

- Roof insulation, or a whole new roof;
- External wall insulation;
- New windows;
- New boilers, either gas in the short term or, increasingly, air source heat pumps;
- More effective heating controls;
- 'Micro-generation' like photovoltaics.

West Pilton

This scheme across several streets in West Pilton was carried out by Changeworks and Home Energy Scotland. These timber-clad houses had the original wall linings removed and new external wall insulation installed, along with new windows and doors.

Details of the new cladding worked around existing features, still the residents were able to save 10% on their heating bills per year, around £150.

Kirkliston

The Kirkliston Decarbonisation Project was delivered with Changeworks and saw integrated solar PV and battery storage systems installed across 106 Council properties. The project aims to understand the benefits of solar PV and energy storage in terms of fuel savings and carbon reduction. It will also support the Council's work towards the Energy Efficiency Standard for Social Housing (EESSH).

Ongoing monitoring suggests the project is achieving a 24% increase in energy efficiency.

Dumbiedykes

Over the past 10 years seven blocks which suffered from high fuel poverty have benefited from full external upgrades (roof replacement and external wall insulation), with a further 43 households being completed this financial year. Because of mixed tenures, the project has been funded by the Scottish Government through the Home Energy Efficiency Programme Scotland, Area Based Scheme.

EPC ratings across Dumbiedykes have improved from a very poor D48 – D55 up to C75, a significant increase in energy performance. The Council has now turned its attention to achieving even higher levels of carbon reduction.

The Council's 2030 Climate Strategy

The City of Edinburgh Council aims to deliver an advanced whole house retrofit programme across existing Council homes based on the EnerPHit retrofit standard, which can deliver up to an 87% reduction in emissions while also improving health, comfort and affordability.

A two-year assessment period is currently underway to determine long term investment across all existing homes and identify the most appropriate approaches for investment over the next ten years.

Surveys of 8,500 traditional and non-traditional homes is already underway and design work is being mapped out in three stages;

Stage 1 – desktop reviews of all 48 common house types, to assess costs and technical interventions to meet EESSH2, with more advanced whole house retrofit standards such as EnerPHit and net zero carbon.

Stage 2 – detailed design and performance specifications for the most appropriate retrofit standard across each common building-type.

Stage 3 – six pilot projects are to be taken forward progressing an advanced retrofit standard against BAU EESSH2 measures, to assess the benefit of more advanced retrofit standards in terms of CO2 savings, energy demand and tenant's energy bills.

Client: City of Edinburgh Council

1 Dumbiedykes before.

2 Dumbiedykes after.

3 West Pilton before.

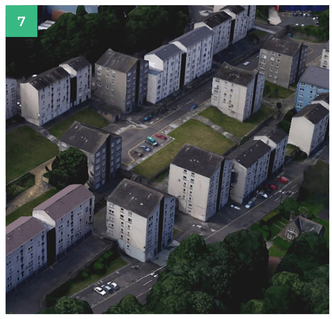
4 West Pilton, Swedish Timber, EWI Project.

5 Kirkliston.

6 Kirkliston solar panels.

7 Dumbiedykes ariel view.

8 Wester Hailes, part of the Council's 2030 net-zero programme of upgrades.



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