CASE STUDY: New Charter Housing Trust - Chartist House ECOPOD Heating

The Project

Chartist House consists of 96 flats for sheltered accommodation and social housing to the residents of Hyde. The building, constructed in 1970, had already benefited from external wall insulation and double glazing, but was becoming difficult to heat as individual gas boilers failed, leaving vulnerable tenants without heating or hot water.

Belfry Group was selected to design and install a replacement heating system which was to go as far as possible to alleviate fuel poverty. It was decided to make this the first use of its ECOPOD heating system. Sold exclusively in the UK by Carillion Energy Services, the revolutionary system comprises a super-efficient modular plant room, solar thermal panels and user-friendly radiator and hot water systems.

The installation of the ECOPOD and the heating mains was completed in May 2010, after which work immediately began to replace the radiator systems in each flat. Close cooperation with New Charter Housing Trust management team enabled the work in each flat to be completed in a single day. Typically, work started in each flat at 0800 and by 1700 the tenant had a brand new and fully working heating and hot water system.

The response from tenants and the Trust was immediate, with the positive attitude of the installation team being acknowledged by the Trust to such an extent that they were given additional tasks to undertake concurrently to the project. These included the installation of suspended ceilings and LED lighting in the communal areas and the conversion of unused storage areas into a much-welcomed communal lounge, now a key asset of the building.

Tenants are charged a flat rate for their heating and a building management system monitors heat and hot water usage. The system also provides the Trust with online information, highlighting areas of high usage which may need addressing and also low usage which may be indicative of tenant illness.
The Benefits

The project approach delivered significant environmental, community and financial benefits.

- **Reduced carbon** – predicted carbon emissions from the heating system have reduced from 160 tonnes per year prior to the installation of the ECOPOD to 69 tonnes per year – a reduction of 57%.

- **Energy efficiency** – it is anticipated that solar panels will meet the demand for heat from June to September, with an ongoing contribution for the rest of the year. The use of LED lighting has an additional predicted saving in carbon emissions (down from 25 tonnes to 15 tonnes per year – a 41% reduction) with an added benefit of a 40% increase in lighting levels.

- **Tenants** – the new heating system brought immediate benefits to the tenants with reliability and the availability of heating and hot water at virtually 100%. The removal of the dated and inadequate hot water cylinders has also resulted in an unexpected benefit – tenants now have full mains water pressure available.

- **Utility safety** – the safety risks associated with gas heating in individual flats has been removed, along with the need for annual gas safety and water hygiene tests. This has eliminated a difficult and costly task from the landlord’s duty of care.

- **Cost for tenants** – where previously the tenants sought their own gas suppliers, the landlord now buys gas at commercial prices and passes this saving to tenants. Consequently, tenants’ bills are estimated to have dropped by 26%, with more now feeling they are able to afford to use the heating.

- **Cost for landlord** – the landlord’s cost for the sheltered areas heating has dropped by a measured 74% with a saving of 44% in the communal areas.

The Process

The key processes underpinning the project:

- Tenants were initially and understandably concerned with the prospect of workmen in their homes. To address this, the project team held frequent consultation meetings, at first to explain the process that would be involved, and later to receive and act upon any feedback from tenants. The use of this two-way process comforted all parties involved in the project.

- Tenant attitudes shifted from being unwilling and anxious about the changes to clamouring to be next on the list. Where the normal working hours did not suit a tenant, the high degree of trust and cooperation enabled the special programming of works.

Key Learning Points

- Close liaison and cooperation became the key to the successful delivery of this project.

- The ECOPOD team delivered exactly what they had promised and, in doing so, raised the contractor/client/tenant relationship to a high level.

Learn more

www.belfrygroup.co.uk/Case%20Studies/chartisthouse.htm

For more information on

The Green Construction Board

visit www.greenconstructionboard.org or email green.board@bis.gsi.gov.uk