



South
Cambridgeshire
District Council

Greening your homes



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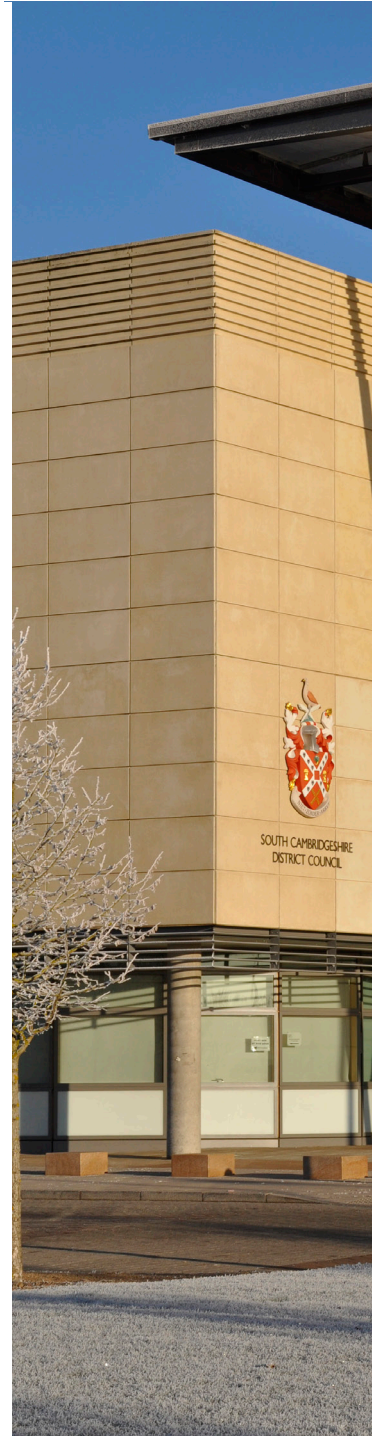


Who are we?

South Cambridgeshire is a rural authority with no market towns that surrounds Cambridge City. It is an area where there is set to be significant development and economic growth and is therefore ideally situated to champion the reduction of carbon emissions in the built environment.

To illustrate, currently around 6.5 million tonnes of CO₂ are emitted per annum in Cambridgeshire, with approximately 1.4 million tonnes of this coming from existing housing stock.

The Council is a stock retaining council with approximately 5,800 properties spread over 101 villages. Many tenanted properties are in villages not connected to mains gas and are therefore reliant on electric or oil fired heating.



The challenge

As a small rural authority with some very affluent villages it is easy to be misled into thinking that there are few inequalities compared to inner cities. Yes it is different but there are still poor households. The Rural Services Network undertook a survey in 2010 of the difficulties rural households face in keeping warm in winter. The report evidenced fuel poverty in rural locations and linked it to poor health, debt and “hard to treat” rural homes. Almost 1 in 10 households in South Cambridgeshire were found to be in fuel poverty,

Many of the heating systems in our stock are old, inefficient and expensive to run. A recent survey of the Council's tenants in December 2009 showed that we have a predominantly older and disabled population. As public transport and village amenities decrease the isolation of tenants dependant on benefits is growing. All factors taken together indicate that there is significant fuel poverty within our communities particularly those reliant on oil heating.

A recent fuel poverty survey of tenants conducted by the Council in 2011 revealed:

- 53% said they could only partially refill their oil tank,
- 22% said they could not afford to buy any oil,
- 37% said they suffer from condensation in their homes and over half had previously reported it.

The Council capital investment programme allowed us to meet the Decent Homes Standard in all homes by 31/12/10. This work had focussed on cavity wall and loft insulation. The properties that are the hardest to treat are the properties with nine-inch solid walls and oil fired heating. These properties are located throughout the district in 28 villages and were to be the focus of the Warm Homes Strategy.



What we did

The Council identified that the most sustainable and effective way to treat these properties is to externally and internally insulate them and invest in renewable energy sources such as photovoltaic panels and air source heat pumps.

The Warm Homes Strategy whilst focussed on investing in our homes also considered the impact upon health, social care and child poverty

In October 2010 we met with our tenants to set the annual spending programme for 2011/12. We discussed with them the dilemma we faced in tackling fuel poverty. They requested that the budget be re focussed to address fuel poverty by increasing the proportion that went to heating and insulation rather than the replacement kitchens and bathrooms. They supported the decision not to install new oil heating systems, except in urgent situations, and to install air source heat pumps. They also asked us to consider tenant requests to open up chimneys and install modern, efficient wood burners.



In addition to identifying spending priorities, the Council started to look for grants and opportunities to bid for funding. In early 2011 we were fortunate enough to take advantage of an offer of 30 Air Source Heat Pumps (ASHPs)

from EEDA .These were installed in properties where there was evidence of fuel poverty and the tenant was in receipts of benefits.

Having just completed our survey we were able to easily identify the tenants before the deadline of 31st March 2011.

In February 2011 we decided to undertake a programme of domestic roof PV installations to benefit our tenants and generate an income stream to help fund the Warm Homes Strategy. Savills Solar were chosen as the private sector partner.

Their contractor is MITIE employ Resident Liaison Officers to ensure tenants concerns are quickly addressed and that the project goes as smoothly as possible. The programme was suspended



following the Government announcement in October 2011 of the changes to the feed in tariff levels but has now been brought back on a smaller scale with 500 homes to receive the installation down from 2000 in the original project.

The Council is a partner in the successful Greater Cambridgeshire & Peterborough bid to secure EU Funding for a major green energy project to commence in 2012.

Our Warm Homes Strategy and Action Plan played an integral role in demonstrating key deliverables. The grant we receive will allow us to take forward our Warm Homes Strategy and work more closely with our local suppliers. We are keen to develop closer link with the Cambridge SmartLIFE centre and Cambridge University. The learning from this project will be used to help develop local authority capacity to deliver such projects, to stimulate the development of the local green economy and to enhance the understanding of investors interested in this growing part of the economy.

The Council were also able to source grants to externally insulate our properties with state of the art lightweight blocks.

We took the decision to install ASHPs and externally clad solid wall properties as a package. These combined measures have made a great impact on the thermal comfort of some of our properties. This work is now going out to tender as the pilots have proved very successful.



In 2010/11 we were successful in being awarded grant funding from the Homes and Communities Agency to refurbish a gypsy and traveller site that we manage on behalf of Cambridge County Council. A key aspect of the work, whilst renewing the infrastructure, was to extend and insulate the day facilities and provide renewable energy sources to tackle the energy requirements of the units.

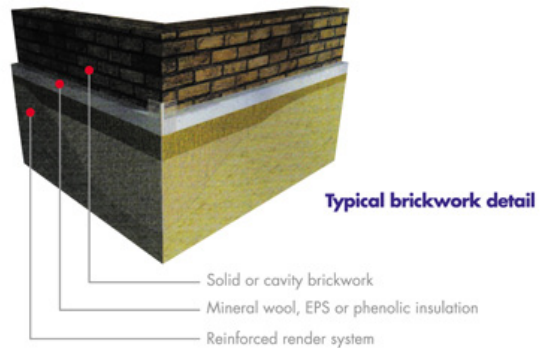
We have recently been successful partnership with the Building Research Establishment and Ormiston Trust in bidding for a grant for LEAF through the Energy Savings Trust. This will allow us to analysis the full benefits of the HCA funded project as well as the broader learning from this project. The manufacturers of caravans and mobile homes are interested in following this study which in turn will lead to the production of caravans and mobile homes that are more thermally efficient.



And so what?

“Saint-Gobain Weber External Wall Insulation makes Cambridge home too hot!

A pilot test being conducted now in selected properties and villages in the south Cambridgeshire district is providing a source of great comfort for the residents of hard-to-treat solid wall properties built in the 1960's. The weber:therm XM External



Wall Insulation (EWI) system by Saint-Gobain Weber, the UK formulator and manufacturer of innovative insulation systems and façade renders, is being installed and evaluated for performance and efficiency. The partnership between the high thermal efficiency of the weber:therm XM EWI system and the output of the air source heat pump has transformed resident's environment. Radiators now need to be turned off in the mild autumn weather and maintaining a comfortable 18-19°C temperature throughout the property is easy, even with the system merely ticking over.

“Since this brilliant insulation system has been installed it is almost too hot in the house and I have to open windows, over-ride the timer and use just two small radiators for evenings. I know I'm going to make a big saving on my fuel costs now,” reports a tenant who has lived in her home for 10 years and has seen her fuel oil bill triple in the past five years to a painful £1500 in 2010. The solid wall construction of the property meant that the heating system had to be run at the highest setting and required additional expensive electric heaters just to achieve a moderate level of warmth.

The Council can report that the performance of the heat pumps is showing between 250 - 300% efficiency. For every £ of electricity put into the heat pump tenants get between two and three £ of heating value out. This is benefitting the tenants financially the combined package is dramatically reducing the level of condensation associated with un-insulated solid walls which has an adverse effect on health and the fabric of the building.



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