

Innovative District Heating System

Client: **Chichester Close Saltdean RTM Company Ltd**

Measures: **Biomass District Heating System**

Location: **East Sussex**

Date: **January - February 2015**

Value: **£112,000**

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The Challenge

Cornerstone was approached by Chichester Close Saltdean RTM Company Ltd in January 2015 to design, specify and install an appropriate communal heating and hot water system for a fifteen property complex in East Sussex. At the time, the complex was being served by antiquated oil boilers that were more than 30 years old. The system was inefficient as well as costly to fuel and maintain. In addition, the old oil boilers produced an unpleasant odour and left dirty residue around the flue vent.

Following a detailed site visit and close liaison with the RTM's resident directors, Cornerstone's System Designer recommended a Biomass District Heating System to provide the complex with space and water heating. Biomass was identified as the most appropriate and best value solution, given the age of the building and that alterations to the internal systems weren't viable. In addition, wood pellet costs were far below those of oil, and the marketplace significantly more consistent.

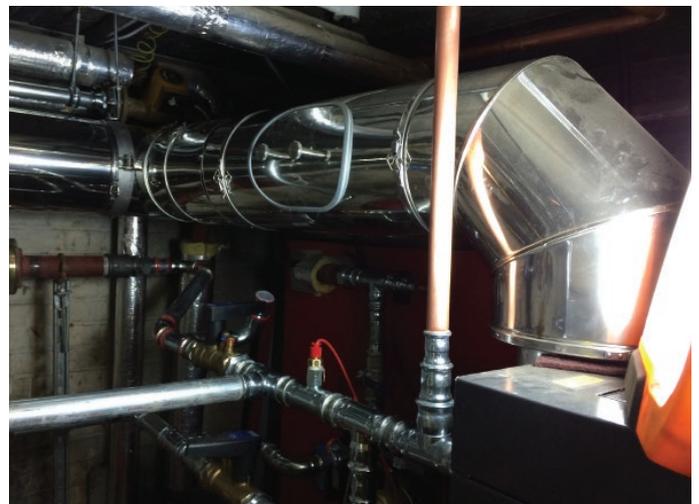
Facts & Figures System eligible for RHI payments of £425,000 over 20 years

Our Solution

Our solution encompassed the design of a bespoke system that took into account the building's construction and the limited space available. Our design involved the installation of two Hargassner PK 99kW biomass boilers, in conjunction with bespoke low loss headers and commercial distribution heat pumps. We also installed an Exo draft-powered flue to meet the building's regulations and standards. The boilers are automatically fed by a 4.5 tonne pellet fuel delivery system, with a pellet store constructed securely by Cornerstone within the previous oil tank storage area.

The installation of the system was carried out by in-house groundworks, installation and electrical teams, led by a dedicated Project Manager. All aspects of the design, installation and aftercare service have and continue to be delivered directly by Cornerstone employees.

Cornerstone appointed a dedicated Resident Liaison Officer (RLO) for the duration of the works. This individual liaised hosted a pre-works meeting with all residents, sent out information packs and visited each household individually to ensure all residents were fully informed throughout the works.



Continuity of heating and hot water supply was particularly important, as the complex is largely inhabited by families and older people and the works took place over the winter. Cornerstone provided a temporary oil tank during the preliminary works and then installed a temporary heating and hot water system to cover the three day installation period, ensuring residents avoided any significant disruption.

“The end to end experience with Cornerstone was first class. They have excellent technical knowledge and designed a system that perfectly meets our needs. The installation process was quick and clean and we were kept informed every step of the way. More than a year into operation and the system has reduced our heating costs by around 35%, with Cornerstone continuing to provide support throughout. I would thoroughly recommend Cornerstone.”

– Kim Hazell, Director, Chichester Close Saltdean RTM Company Ltd



The Result

The installation was completed within seven working days in February 2015 with minimal disruption to residents. A full servicing and maintenance package is provided directly by Cornerstone engineers to ensure the client and residents have access to full and immediate support, providing peace of mind.

The installation also represented excellent value for money for the RTM. The system was eligible for the commercial Renewable Heat Incentive (RHI), attracting payments of £425,000 in total over a twenty year period. With an initial installation cost of approximately £112k and a competitively

priced annual maintenance and servicing package, the system will pay for itself in less than ten years.

Cornerstone completed all the RHI calculations and applications on behalf of the RTM, removing this administrative burden from our client.

Residents of the complex now benefit from a reduction of 35% in heating and hot water bills, as well as a healthier immediate environment. All residents expressed great satisfaction with the works and the impact on their finances and quality of life.

“Before the new boiler was installed, my contribution to the heating bills was very high. The new system has meant heating my home is much more affordable, plus the air quality is much better now that the old oil boiler has been removed. Very happy!”

– Paul Dyer, Resident

