

HIGHLIGHTS:

Heating System:
Gilles 30 kW
Biomass Pellet
Burning Boiler,
Sealed System

Install Date:
Dec 2007

Results:

- END OF LINE RADS HEATING UP
- RADIATORS HOTTER
- HOT WATER HOTTER AND RECOVERING MUCH QUICKER
- THERMOSTATS REDUCED
- SIGNIFICANT ENERGY SAVINGS

INTRODUCTION

This is an architectural practice that specialises in environmentally sustainable design for existing and new build projects. The practice is run by the husband and wife team of Sally and Chris Walker who recently took the step of building a dedicated office adjacent to their house to accommodate the expanding business and designing it to have as small a carbon footprint as possible.

The office is naturally lit using large areas of triple glazing and sunpipes but heating was rather more of an issue and various options were considered and rejected. Photovoltaics, oil and heat pump forms of heating were too costly and contained too much embodied energy or required expensive and 'dirty' energy to provide a primary energy source.

Ultimately a Gilles 30kW Bio-mass pellet boiler was chosen, to run not only the new extension to the practice, but their home as well. This allows a projected annual Carbon saving of between 6 and 7 tonnes.

In addition to this Carbon Neutral form of heating Native Chartered Architects became aware that Tadpole could help run the bio-mass boiler more efficiently and following meetings with their installer, a 28mm Tadpole was installed.

RESULTS ACHIEVED WITH TADPOLE INSTALLED

- Reduced boiler thermostat.
- Radiators were hotter.
- Hot water was heating to a higher temperature.
- Reduction in thermostats will lead to significant energy savings.

SUMMARY

The result was that the boiler thermostat settings following commissioning had to be reduced by 10 degrees as the domestic hot water and the central heating water temperature was far too hot. The underfloor heating to the office has been set to minimum and thermostatic radiator valves on the radiators in the partner's house have been turned down from 5 to 2. Radiators that previously were lukewarm have now properly heated up for the first time and Native Chartered Architects is looking forward to very low heating bills!

TADPOLE
Innovation
At Its Best