

## Avag win green energy award



Windhager UK has supplied a biomass wood pellet boiler to an award-winning building in St. Werburgs, Bristol which has been named the best green housing scheme in the South West Green Energy Awards.

The refurbished sixties office was transformed into a sustainable building consisting of 6 flats, 3 workspaces and a community room by the Quoin Common Hold and Ashley Vale Action Group (AVAG), a group of local residents who have formed the community group in order to take control of the re-development using environmentally based initiatives. AVAG chose to refurbish the property rather than demolish it and build new homes to allow more energy to be saved during construction and also reduce waste going into landfill.

The two 26kW BioWIN Plus wood pellet boilers installed as a cascade system in the building provide a fully automatic solution similar to an oil or gas alternative, but with the additional benefit of being an environmentally friendly solution with low emissions and an excellent energy-saving operation. The system is designed to give a large output window and also gives the advantage of being able to operate a single boiler during times of service and maintenance.

By introducing a cascade format a performance range of up to 78kW can be achieved making it ideal in larger buildings such as blocks of flats, hotels or public buildings as two or three of the boilers can be linked together. The BioWIN technology features modulated operation providing the right amount of thermal energy at just 30% of its capacity and above, avoiding the switch-on / switch-off high energy loss associated with conventional boilers.

The system incorporates a CaloWIN Klassik 1500 litre capacity accumulator tank, offering heating energy storage to save fuel and optimise efficiency in the building which houses offices, arts space, social communal areas as well as residential properties.

The renewable features in the property also include SolarWIN Windhager solar thermal panels so that the majority of the building's heating and hot water has been provided by sustainable sources. By installing the solar system, an active contribution is being made to the reduction of CO2 emissions especially during the summer months when generally only hot water will be needed, with the biomass system required for times of high energy need such as in the winter.

Commenting on the project, Jackson Moulding one of the directors of AVAG said, "Windhager was able to provide an integrated and total product solution incorporating pellet boilers, thermal stores, solar thermal, heating loop and distribution units for each flat.

Windhager has provided advice and information readily and has been accessible to contact with queries.”

Biomass was chosen as the best choice for renewable energy after an assessment of the options for powering the building in terms of heat, hot water and electricity. As the building is community owned, the fully automated system provided by the BioWIN Plus offers a maintenance free system with fully automated functional checks for optimal reliability.

The BioWIN Plus wood pellet boiler retains BioWIN's compact design, its fully automatic operation, and its high levels of efficiency but adds further refinements. Burning wood pellets is CO<sub>2</sub> neutral which means they only emit the same amount of CO<sub>2</sub> that the wood absorbed during its growth. Thus the pellets do not contribute to the greenhouse effect and make a valuable contribution to protecting the environment.