

maden eco



Low Carbon Conversion Case Study Construction

Maden Eco Ltd
Eco House
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Ramparts Business Park
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Client: Mr & Mrs Maden
Project: BATTERY HALL FARM
Technology: 6kw wind turbine, solar PV, solar hot water, rainwater harvesting, high insulation, biomass



This project incorporates all of the technologies that Maden Eco now install, at the time of installation the build was used as an experimental project. Initially being refused Planning Permission then losing an appeal the project finally was consented following the advice of a new case officer and a leaning to low carbon in the approach.

The property is super insulated timber frame within the old rubble walls, the heating is by a wood pellet boiler at 30kw such is the over insulation. The glazed facade is industrial shop front curtain walling in glass using solar control glazing which filters out a high percentage of the direct light and retains heat from within the building. A log burning stove is sited behind the glass to act as a heat curtain in the colder winter months. The hot water is supplied by the pellet boiler and a solar thermal system. The electricity for the building is generated by a 6kw wind turbine and a 3kw solar array with a battery storage system and mains grid back up. The house has a data network all round the property carrying tv phone internet and future proofing the property. An underfloor heating circuit serves the ground floor with wet radiators upstairs.



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