

## **Energy efficient Specification for New GHA Housing**

Guernsey Housing Association was requested by the States Housing Department to provide higher energy efficiency standards than current Building Regulations, to reduce tenant fuel costs.

We consulted the Building Research Establishment, in England (a government body offering independent advice and good practice). They recommended we look at:

- High insulation (walls, windows, doors)
- Air tightness and heat recovery system
- Renewables (solar, air source heat pumps, ground source heat pumps, wind, photo voltaic)
- Pay back periods
- Water conservation
- Community heating systems
- Low energy appliances (lighting, white goods)

Our aim is to reduce resident's fuel costs significantly.

We specified:

- High insulation through Structurally Insulated Panels or Masonry, air tightness of less than 3 (Building Regulations is standardly 10), mechanical ventilation heat recovery (85% efficient), solar panels providing hot water and pre-heating through an Ecoster, high performance double glazed windows and doors .
- Our calculations show that residents should be saving annually at least 50% of the equivalent fuel cost of a standard Building Regulations new property.

Our residents fuel bills show a cost per year for all fuel to be £450 for a 2 bed room house.

The Code for Sustainable Homes is used in England. We think our homes are between Code Level 3 and 4 on energy use.

We have not calculated emissions reduction, but inevitably they will be much lower than normal with such low energy use.

We are using the same performance specification on all our new projects, whilst continuing to assess where improvements can be made.