

Sustainability Statement 5B Hope Terrace Edinburgh.

In order to reduce the carbon footprint of the building the heating system for the proposed new house at 5B Hope Terrace utilizes air source and solar power to heat the building reducing dependency on fossil fuels.

The energy extracted from the sun and air temperature is converted into hot water which will be stored in a thermally efficient attenuator within the garage space. The temperatures that these systems can realistically achieve are less than conventional heating system. For this reason, the house has been designed with under floor heating throughout. Underfloor heating requires lower temperatures of around 34 degrees Celsius to operate as opposed to traditional radiators, which will require in the region of 68 degrees.

For domestic hot water the additional heat required will be provided by low tariff electricity. This will only be required when the supply of hot water within the attenuator fails to meet the required temperatures.

The state-of-the-art air source heat pump is extremely quiet whilst operating so there will be no disturbance to neighbours.

There will also be 2 DEFRA approved wood burning stoves providing additional heating within the living area.

The house will be highly insulated with thermally efficient windows and its construction will be airtight.

Finally, all timbers specified will be FSC certified from sustainably managed forests.