

**Sustainability Statement for Proposed Dwelling at
Luffenhall Barn, Land South of Long Acre, Luffenhall, SG2 7PX**

Energy and Carbon reduction

The proposed dwelling will be heated and cooled by a reversible air source heat pump with wood burner back up

Solar panels will be provided to the East facing roof pitch

Insulation in excess of building regulation requirements will be provided to roof, walls and floor

High insulation windows and doors will be used

Low water use cisterns, basins, baths and showers will be installed

Orientation

Main fenestration is East & West facing with retention and encouragement to existing hedge growth to boundaries

Energy reduction

Air source heat / cooling pump

Wood burner

Solar panels

Very high levels of insulation

Low Carbon

High levels of insulation

Minimal thermal bridging

High levels of air tightness

Materials

The applicant will source local materials and labour through her existing contacts

Climate change

High insulation levels

Air cross flow from East to West

Overheating

Very high levels of insulation

East to West cross flow of air

Reversible heat / cooling ASHP

Green infrastructure

Encouragement to boundary hedge growth

Existing landscape

Existing hedges and boundary trees to be retained and encouraged

All to be fence protected during construction near building area

Green roofs

No flat roofs proposed

Rear pitch will have solar panels

Surface water run off

Water butts will be provided to down pipes to store water for garden watering and car washing