



Sustainable Design Measures

May 2021

Description of Project

Refurbishment, remodelling and extension of a semi-detached two-storey dormer bungalow. The improved dwelling will have a modest extension to the south, with re-modelled accommodation comprising: Ground Floor - Reception hall & stairwell, kitchen / day room, three bedrooms (one with en-suite shower room), separate shower room, utility room. First Floor - Lounge opening onto balcony, master bedroom with en-suite bathroom, separate wc.

Address of Property

Penold, Church Road, St Marys, Isles of Scilly TR21 0NA.

Sustainable Design Measures Proposed

The following measures will be incorporated in the scheme:

Renewable Energy Generation

The development will incorporate a minimum six-panel PV array on the South dormer roof, each panel measuring 1.7m x 1.0m, arranged in two rows of three panels. Total output will be slightly in excess of 2KW.

Solar Thermal Water Heating

The scheme will incorporate an array of solar thermal panels on the North dormer roof, sized in accordance with the M&E contractor's calculations. Further details will be provided as the design progresses.

The scheme will include wet underfloor heating to allow lower flow temperatures and therefore improved efficiencies.

Upgraded Insulation

The thermal performance will be upgraded wherever possible, given the constraints of the original building fabric, with the aim of satisfying Part L of the Building Regulations (Conservation of fuel and power).