Silverdale Ave, Coton

Before
Guiding principles

• Sustainable
• Practical
• Affordable
My role model

• Superb insulation
• Moisture resistant
• Efficient breathing
• Very cute
Key decisions

• Structure / materials
  • Block & beam foundation
  • Timber frame kit – “Scandia Hus”
  • Block / render & cedar cladding
  • Slate roof with integrated solar PV

• Build route options
  • Fully self-build
  • Project manage with contractors
  • Main contractor
Foundations
Structure
Insulation

Celotex - foil-backed rigid foam
Insulation

Rockwool – mineral wool
Underfloor heating
Underfloor heating

Thermal store
Underfloor heating
  + insulation
  + controlled ventilation

 Overnight room heat loss in winter 2°C: 21°C to 19°C
Roof-integrated solar PV

Per year: 1.9 t CO$_2$ saved
£650 FIT income
Payback 10 yrs
After...
LED lighting
Natural light

Solar gain

Triple-glazed
The bottom line – electricity

Cost ~£280 /yr

Averages derived from the UK’s Department of Energy and Climate
The bottom line – gas

Cost ~£350 /yr
My Top Tips

- Invest in permanent stuff
- **Best ECO-Investments:**
  - INSULATION
  - Air tight with controlled ventilation
  - Solar (PV + thermal)
  - Large windows (solar gain) + Triple glazing
  - Underfloor heating
  - LED lighting
  - Timber – renewable & sustainable sources (FSC)

- Timber-frame package efficient, effective, renewable
- Add a third to your budget

**Have fun!**  
See: [Case Study](#)