



BRISTOL ENERGY NETWORK

Open Home Profile

Homeowner Information

- **Name:** Jim and Norma Phillips
- **Contact (optional):**
- **Location:** Downend

Home Overview

- **Home Type:** Detached 4-bed self-build timberframe
- **Year Built:** 2013-14
- **Size:** 140Sqm, 1528Sqft
- **Renovation History:** No adaptations but recent work to correct design fault in the external walls

Green Features

Energy Efficiency

- **Insulation:** All envelope insulated, including a tetris floor system
- **Windows and Doors:** European softwood, aluminium clad, triple glazed, argon filled by Rationale
- **Heating System:** Wet underfloor downstairs, microbore upstairs. Gledhill thermal store heated by PV solar panels with gas boiler back-up.
- **Cooling System:** Mechanical Ventilation Heat Recovery System by Nuairre
- **Lighting:** Mostly LED, few CFLs. Some areas activated by sensors.
- **Appliances:** (Energy Star rated, specific energy-efficient models)
- **Smart technologies:** (Smart meter Tariffs, integration tech)

Renewable Energy

- **Solar Panels:** 4Kw system
- **Battery Storage:** None yet
- **Other Renewable Sources:** Solar iBoost diverting excess solar electricity to thermal store. Additional flooring to upper floor to increase thermal mass

Indoor Environmental Quality

- **Air Quality:** Air tight house with MVHR
- **Ventilation systems** MVHR, no trickle vents
- **Natural Lighting:** Predominant south facing glazing and roof lights. Bifold doors

Other useful information:

- Car charging port, EV, electric bike

Performance and Savings

- **Energy Savings:** No saving as designed in from build. Current energy cost including payment from feed in tariff approx £8/Sqm/year
- **Carbon Footprint Reduction:** (Estimate of CO2 reduction - this can be a useful tool to use <https://www.carbonfootprint.com/calculator.aspx>)
- **Financial Savings:** FIT approx £750/year, similar to current consumption cost so net zero for electricity, plus fueling EV. PV system paid back in approx 7.5years

Challenges and Solutions

- **Challenges Faced:** Self managed self build poses many difficult challenges, too many to mention here but house brochure completed at the time explains.
- **Solutions Implemented:** In brochure

Future Plans

- **Upcoming Projects:** Nothing planned other than current repair work
- **Long-Term Goals:** Add battery, replace gas with ASHP