

The HPW logo consists of the letters 'HPW' in a bold, white, sans-serif font, centered within a solid teal square.

HPW

Sourcing products / technologies for eco-retrofit

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Retro-fit: the opportunity...

To achieve an 80% reduction in carbon by 2050

- 600,000+ housing retrofits every year
- 2,500 retrofits per working day
- 333 per working hour
- 5.5 a minute!

In the South East region

- 45 retrofits per working hour costing £1,000,000 per working hour!

Creating the largest ever UK engineering and construction project if £20-30,000 is to be spent per home to achieve the 80% targets.

Totalling £16.05 Billion (at 2007 costs according to BERR)

What is the real retro-fit challenge?...

- Complex and involving process
- Dealing with good and bad standards of original construction
- Every site is unique
- Behaviour of the suppliers, contractors and tenants
- Upskilling and educating the supply chain
- Sourcing products and technologies (least of our problems!?)
- Cost and ROI

New build housing...

- Exemplar new build social housing scheme designed 1999
- PRP Architects
- Huge housing portfolio and experience
- Southampton CC support and Hyde Housing Association commission
- POE study
- Lessons to take from construction shortfalls including renewables



Retro-fit housing...

- Passivhaus targets for a retro-fit home
- Prewett Bizley Architects
- 22 kWh / m² achieved
- Victorian terrace
- MVHR and air tightness challenges
- Owned by a Building Physicist!

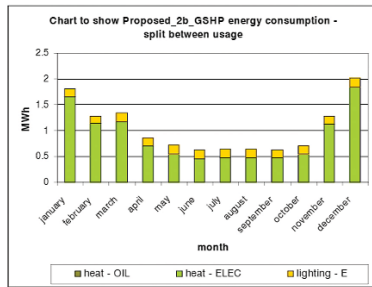
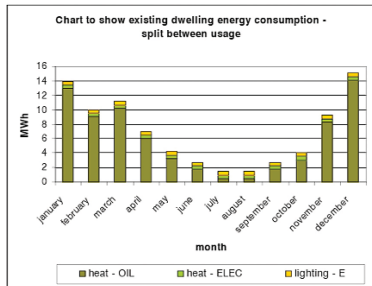


York stone barn retro-fit

- Low carbon conversion
- HPW designed
- GSHP
- Triso super 10 insulation
- POE study ongoing
- Listed exterior
- Owner living through building works



Domestic retro-fit (before)



Charts created using heating system data created by DSM in IES and lighting data



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Thank you... any questions?



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