



New Homes New communities

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The need for domestic refurbishment

- Housing in the UK accounts for 27% of the UK's CO2 emissions
- By 2050, 80 % of the housing we will be living in already exists
- 23 million homes are in need of refurbishment
- We need to refurbish 13,400 homes per week to meet CO2 reduction targets
- That's 80 homes every hour !

Eco Home Refurbishment case study



A familiar 1960s detached house
CO₂ - 10.9 tonnes per year
House is cold, draughty,
and expensive to run



.....to a Super Home
that will have reduced its energy
use by over 75%

Original interior



- Outdated, inefficient kitchen and bathrooms
- Compromised UPVC windows
- Dark surfaces and dust catching materials
- Damp and mould forming due to poor ventilation and insulation



Complete strip out inside and out



Insulation



270 mm grant assisted loft insulation



30 mm insulating exterior render



Cavity wall insulation
Grant assisted



40 mm under floor
insulation



Sealing up all holes
Air tight home

Heating and ventilation systems



Heat recovery system



Condensing boiler



Solar water panels
(grant assisted)



Small radiators



Under floor heating



Wood burning stove

Electrical savings



Low energy bulbs



LED bulbs



V phase unit and
Ultra Eco Units



A rated appliances



Energy monitor



Induction hob

Maximising natural light



Water saving



Cutting water use from 150 litres per person/day to 104 litres
Water savings of over £110 per year have been made

Refurbished exterior



- Sweet chestnut cladding (with insulation backing)
- Velfac Aluminium windows
- Painted refurbished tile roof
- Insulating render
- Wall u value has gone from 1.62 wmk to 0.52 wmk

Eco interiors a case for eco aesthetics







Connecting with communities Getting rid of waste.....



- Building materials/ fixtures/ fittings
- Cooker, kitchen cabinets
- Timber joists, flooring, doors
- Furniture
- Rubble/ earth

Building reclaim yards -Tiger re-use-it
 Free cycle/ green cycle
 Wood recycling network
 Social Enterprises – Emmaus, YMCA
 Gumtree & local press, E Bay
 Separated skips

Old Home Super Home Network

House emissions reduced from 10.9 tonnes to 4.2 – 62% reduction.

Awarded Super Home status
A network of 100 homes across the country opening their doors twice a year

www.sustainable-energyacademy.org.uk



Community pooling resources and skills

- Resource and hardware sharing - EcoModo
- Skill sharing -Freeconomy – www.justforthe loveofit.org
- Freecycle and Greencycle



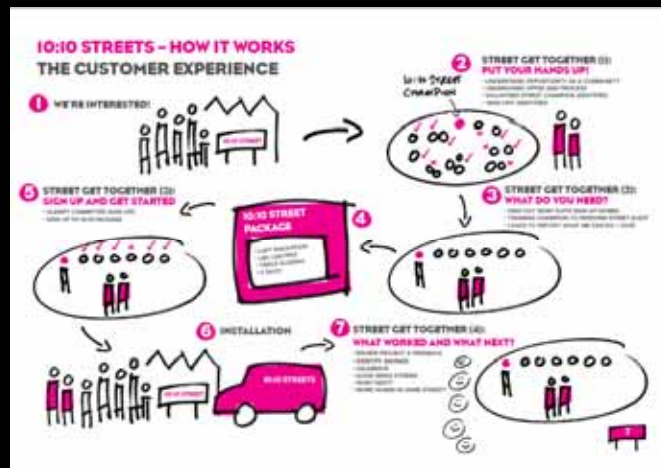
TidyStreet.org



A terraced Brighton street
Monitoring electricity usage every 24 hours
During March and April 2011



10:10 Streets - Brighton and Hove



Partners: Brighton & Hove 10:10 CIC;
Environmental Protection UK;
Brighton & Hove City Council;
University of Brighton
installation partner



Brighthelm Project

2,250 sq m commercial space
 400 person conference, events venue
 3530 sq m garden space



Church and Community centre
 Dwindling congregation
 Anti social element
 Financially unsustainable

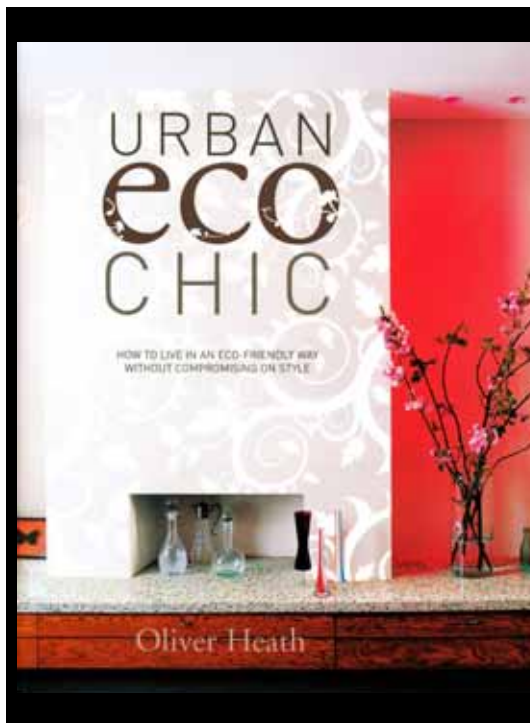


Green Living centre, church & community
 Retrofit centre
 Green business hub
 Sustainable seminars and courses
 Horticultural centre

Brighthelm Garden proposal



Horticultural training space
 Tensile canopy training area
 Café Garden
 Performance space
 Rainwater harvestings



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