

Huntingdonshire District Council Sustainable Refurbishment Project



Project aims

- To demonstrate how typical existing homes can be affordably and easily refurbished in a sustainable way.
- To reduce carbon emissions.
- To provide healthy homes that are more comfortable, more efficient and cheaper to run.
- To promote the importance of sustainable refurbishment.
- To provide easy access to advice, products, technologies and suppliers.



Working with the BRE – Rethinking Housing Refurbishment



- Create exemplar projects and promote best practice
- Set national standards for refurbishment
- Raise skill levels and leave a legacy of Knowledge
- Develop affordable solutions for refurbishment
- Stimulate innovation (including the latest processes, materials and technological advances)
- Promote the need for mitigation and adaptation for climate change



APOLLO HOUSING
New build, refurbishment and property maintenance for the public sector

Indesit **Hotpoint**
Indesit & Hotpoint
One of the major brands of appliances in the UK and across Europe

EcoTherm
EcoTherm develops, manufactures and markets PIR Rigid Thermal Insulation

Di Jarvis
Garden Design & Maintenance
Landscape garden design and maintenance

bre
Building Research Establishment
Rethinking Housing Refurbishment

Dulux TRADE
The No. 1 decorative paints brand in the UK
Ecasure range of water-based paints

PDT waterproofing
Manufacturer of the unique waterproofing membrane Resitrix

sky-garden
Suppliers and installers all types of green roofs, sedum roofs, grass roofs and living roofs

RIDGEONS
Timber and Builders Merchants
Specialist Sustainability Team

Dimplex renewables
Committed to developing heating solutions which utilise sustainable and renewable energy

HighlineBlinds
Quality & Customer Service Guaranteed
A fantastic range of made to measure blinds at great prices. All made and fitted to the highest standards

blEt
A leading independent manufacturer of building materials specialising in sustainability

energy saving trust
Impartial information and advice on energy efficiency

Heating Save
Revolutionary Energy Management System

forest
the UK's largest manufacturer and distributor of garden timber

Nationwide
Trade manufacturers and installers of quality PVCu window frames

WALLTITE
Airtight Insulation Solutions from BASF Polyurethanes

Comprehensive range of high performance PVC-u systems

STONEMARKET
A leading supplier of garden & driveway hard landscaping products

weber
An international leader and UK based manufacturer of external wall insulation (EWI) systems, concrete repair and protection products

BAXI GROUP
One of Europe's biggest manufacturers and distributors of heating systems

JELD-WEN
leading international producer of windows, external and internal doors patio doors, garage doors and stairs

Dale HARDWARE LIMITED
An established brand of popular contemporary hardware

halsted rain
Suppliers of urban rainwater harvesting solutions, with a wide range of products including Super Slim systems

Twyford bathrooms
A market leader in sanitary ware for domestic and commercial sectors

ARAN Services Ltd
A leading regional installer of whole house energy efficiency solutions

ALBANY SHEDS
Manufacturers of high quality timber garden buildings

GORDON LOW PRODUCTS
Pond liners and lake liners for all size ponds and lakes

rixonway kitchens
Dedicated to community regeneration - supplying kitchens to affordable housing and public sector

The Marney Hall Consultancy
Combining natural creative flair with a real understanding of plants and their needs

Tanner & Hall roofing & solar energy
Roofing specialists. Suppliers and installers of suspended ceilings, partitioning and acoustic solutions

tritechnology
Lighting solutions for the modern environment



St Ives – 1 St Audrey Lane before improvements



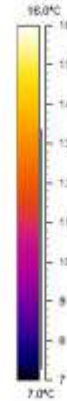
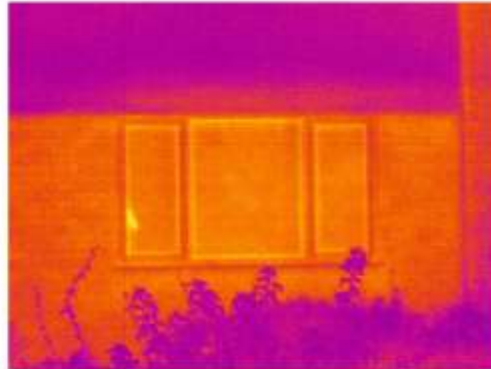
- 2 bedroom detached property built in mid 1960s.
- No cavity wall insulation. Low level of loft insulation.
- Poorly constructed single storey extension.
- High levels of heat loss.
- Potential to improve air tightness.

St Ives – 1 St Audrey Lane before improvements



- Old, inefficient gas boiler with radiators – no controls.
- No water efficiency measures.
- Dated kitchen with inefficient appliances.
- Garden with little encouragement for biodiversity.

BRE Tests - 1 St Audrey Lane



Thermal Imaging
Co-Heating
Air Quality
Air Tightness



St Ives – 1 St Audrey Lane after improvements



- Solar thermal
- Solar PV
- Dimplex Air Source Heat Pump & SmartRads
- Triple Glazing

St Ives – 1 St Audrey Lane after improvements



- Water efficiency measures, ie dual flush toilets, aerated taps, low capacity bath
- Walltite cavity wall insulation
- Internal insulating dry-lining
- LED lighting throughout
- Rainwater Harvesting

St Ives – 1 St Audrey Lane after improvements



- Recycling, composting and allotment area
- Building energy management system
- Landscaped gardens to encourage biodiversity
- Green roof and pocket habitats

1 St Audrey Lane – Performance improvements

EPC Rating:	From E to B
SAP Score:	From 48 to 83
CO2 emissions:	From 5,900 kg per year to 1,500kg 75% REDUCTION
Heating:	From £790 to £263
Hot Water:	From £170 to £106
Lighting:	From £100 to £58
TYPICAL ENERGY BILLS:	From £1060 per year to £427



St Neots – 25 Manor Farm Road before improvements



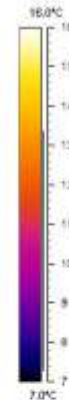
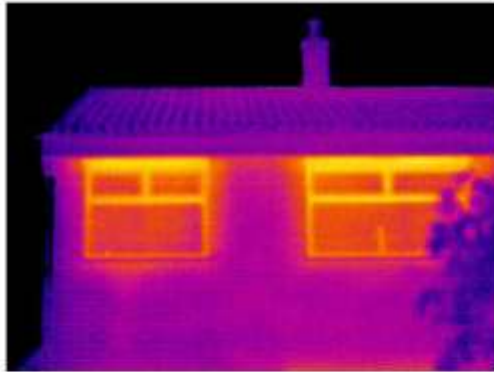
- 3 bedroom semi-detached house built in early 1970s
- Full length window to front – large area of heat loss
- Inefficient south facing conservatory causing overheating
- Old, inefficient and sparse cavity wall insulation
- Dated kitchen with inefficient appliances

St Neots – 25 Manor Farm Road before improvements



- No water efficiency measures
- Inadequate level of loft insulation
- Electric storage heaters
- Ineffective drainage on driveway

BRE Tests – 25 Manor Farm Road



Thermal Imaging
Co-Heating
Air Quality
Air Tightness
Acoustic



St Neots – 25 Manor Farm Road after improvements



- Replacement double glazed high performance windows
- Permeable paving
- Internal insulating dry lining on external walls
- Replaced existing dispersed cavity fill with Walltite

St Neots – 25 Manor Farm Road after improvements



- Baxi Mega-Flow solar thermal panels and condensing boiler
- CFL's throughout
- Loft insulation top-up with Walltite Spray Foam between rafters and new loft hatch

St Neots – 25 Manor Farm Road after improvements



- Eco-friendly paint
- Recycling, composting and allotment
- Landscaped gardens to encourage biodiversity

25 Manor Farm Road – Performance improvements

EPC Rating:	From E to B
SAP Score:	From 46 to 85
CO2 emissions:	From 5,200 kg per year to 1,300kg 75% REDUCTION
Typical energy bills:	From £840 per year to £362
Heating:	From £530 to £273
Hot Water:	From £230 to £49
Lighting:	From £80 to £40

TYPICAL ENERGY BILLS: From **£840** per year to **£362**



Key Audiences

- Local residents and communities
- Visitors - nationally
- Councillors
- Planners/Authorities
- Partners
- Press and media (to include specialist media)
- Employees
- Opinion leaders, influencers
- Educational establishments/schools
- Key organisations and bodies/other authorities
- Business community – building trade, fitters, designers, architects



Marketing the project

- How can we reach our biggest audience?

- Website with blog and social media channels, internet seeding and web linking using online media specialists
- DVD – series of short films and one 10 minute film.
(potentially 30 min film can be provided to TV production companies)
- Printed media, brochures, local press, national magazines, trade magazines
- Local TV coverage of launch
- Part of SEA SuperHomes Alliance
- BRE Rethinking Housing Refurbishment Programme



Project Costs & Funding

- Purchase price of the houses: £325k
(purchased in 2008)
- £195k – St Ives 2 bed detached, prime location
£135k – St Neots, 3 bed semi
- BRE Costs – inclusion in Rethinking Refurbishment programme, advising, testing, specifying and monitoring
- Contract costs - £175k (inc extension at St Ives)
- Over £50,000 in sponsorship
- Low overall net cost to Council



Finally... come along and visit!

www.greenhouseproject.co.uk

Email: greenhouseproject@huntsdc.gov.uk

**HDC Green House Project Team:
01480 388388**

Book your visit by calling 01480 388315 or 388304

