

RESIDENTS 4 LOW-IMPACT SUSTAINABLE HOMES

Relish is a joint initiative between:
Worthing Homes | Rydon | Faithorn Farrell Timms
Working in collaboration with the University of Brighton





#### **Introductions**

**Robin Roberts:** Worthing Homes

**Colin Farrell:** Faithorn Farrell Timms

Jeff Henton: Rydon





#### What is Relish?



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#### What are the aims of Relish?

- reducing energy consumption
- addressing fuel poverty
- minimising carbon emissions
- measuring improvements 'realistically'
- sharing best practice





#### How will Relish achieve this?

#### Sensible, low-cost retrofit works...

- rolled out across a large proportion of stock
- with residents in occupation
- alongside planned maintenance

Education and support in reducing energy consumption





### Relish, just another retrofit project....?

#### **Previous retrofit exemplars:**

- high cost
- unoccupied properties
- affordable rents = no payback
- sustainable?



## Relish, not just another retrofit project

#### Our objectives:

- affordable
- occupied properties
- incentives for residents
- sustainable



### So what's unique about Relish?

#### We focus on the household to:

- adapt behaviour to achieve energy efficiency gains
- evaluate house energy efficiency against household lifestyles



## How is CO<sub>2</sub> reduction measured?

- rdSAP
  - changing methodology
  - theoretical assessment with assumptions / limitations
  - variable quality of source data
  - no relationship to actual energy use
- BREEAM etc.
  - better, but only for non-domestic assessment

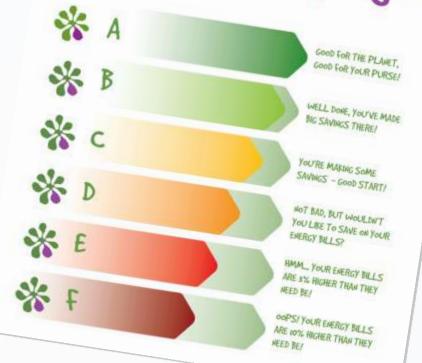


### The Relish Rating

- A 'SAP rating' for the household
- Based on actual energy use
- Assessment categories
- Feedback and advice
- Incentive to improve rating
- Ongoing and updateable













### The Relish Rating online

- Web-based application in development
- Option for accredited assessor or self-assessment





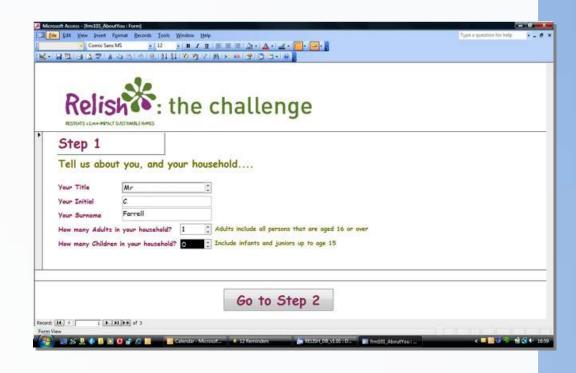






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### 12 month pilot study working in partnership

#### Our partners:

- our pilot scheme families
- Worthing Homes
- FFT
- Rydon
- The Knowledge Transfer Partnership
- University of Brighton

#### ... and with support from:

- Constructing Excellence
- Homes and Communities Agency









#### Worthing Homes' stock:

- Generally in good condition
- Well maintained
- 98.06% meet the decent home standard (at April 2009)





Unimproved home (datum – 3 years' energy bills)



Improved home (with energy advice)



Unimproved home (with energy advice)



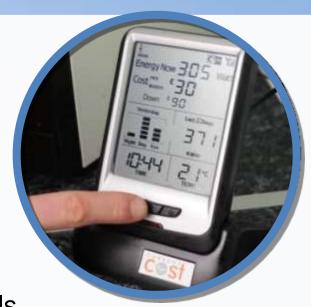
Improved home (without energy advice)







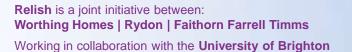
- Retrofit works
- Marginal cost improvements
- Draught proofing
- Loft and cavity wall insulation
- High-efficiency heating system / controls
- Removal of high-power fixtures (eg electric shower)
- Intelligent re-wiring / upgrades
- Smart meters







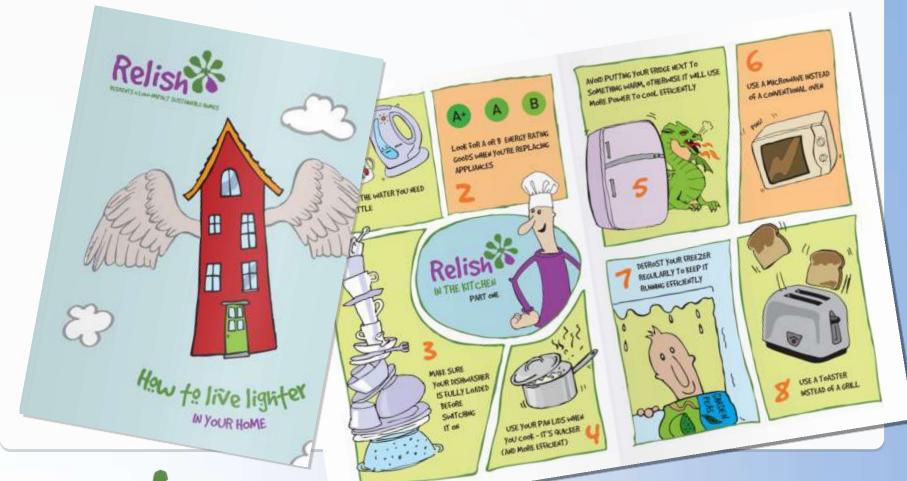








### Relish: a 'best practice' approach – an example





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## Relish: a 'best practice' approach – an example





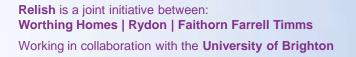




# Aims of the 12 month pilot

- compare benefits of education and energy works
- share best practice
- identify cost-efficient energy improvements
- demonstrate the benefits of energy monitoring
- launch our Relish rating system











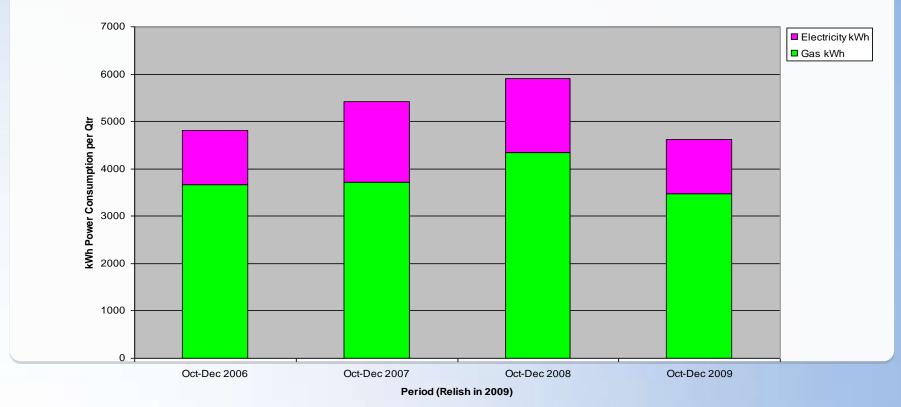
#### So does it work?

- Pilot began in August 2009
- Work in progress



#### Interim results

#### **Energy Consumption at Pilot House 1**



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## Interim results: fuel consumption

Gas

OG 640/ raduation

Electricity

26.64% reduction

19.93% reduction

Combined

**21.71% reduction** 

#### Fuel poverty

Equivalent to £101.59 reduction in a single quarter!





#### Interim results: carbon emissions

• Gas 179.26 kg CO<sub>2</sub> reduction

• Electricity 159.96 kg CO<sub>2</sub> reduction

• Combined 339.22 kg CO<sub>2</sub> reduction

 0.34 tonnes of CO<sub>2</sub> less emissions in 4Q2009 compared with 4Q2008





## Relish: a 'best practice' approach

- Reducing anomalies between households
- Education is a key strategy
- Evaluating results scientifically











#### What next?

- Pilot programme now in month 4
- Monthly review and monitoring
- Interim results published month 9
- Pilot results published early 2011







## Relish: a nationwide approach by social landlords

What if by education alone...

we can reduce energy consumption by 10%?











## Relish: a nationwide approach by social landlords

What if by education alone... we can reduce energy consumption by 10%?

What if through the Relish programme... we can reduce energy consumption by 20%?









#### Look out for:





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#### Interested?

- Further pilot programmes in 2010
- Relish packs available, post pilot
- Multi-language and online versions
- Sign up for e-mail updates











## Thank you for listening















