



centre for sustainable energy

We help people change
the way they think and
act on energy.

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Dimensions of vulnerability

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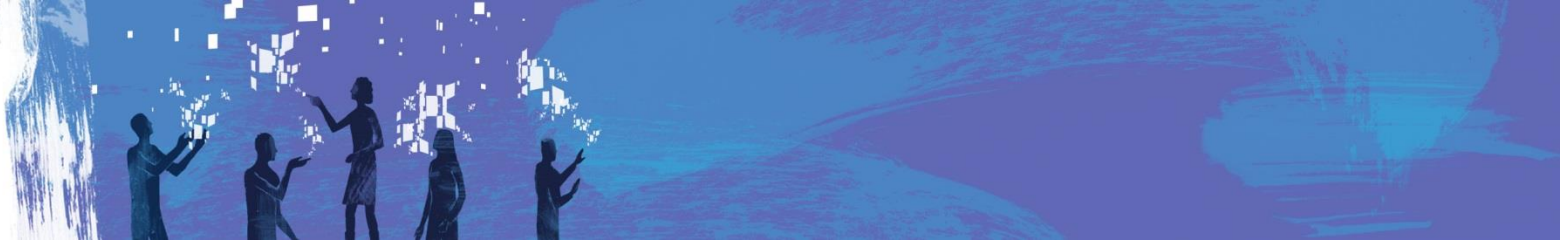
What are the benefits on offer?

- Be more in control
- Support personal health or wellbeing
- Help with everyday tasks/ independent living
- For personal pleasure, comfort, enjoyment
- Social wellbeing



Particular intended benefits for vulnerable people

- Improve thermal efficiency of homes
- Better control of heating and energy consumption
- Safeguarding for health
- Assisted living
- Living in a comfortable home
- Greater control to the householder / carer /property manager
- Social benefits



Dimensions of vulnerability

- Circumstances / situation
- Attitudes
- Skills barriers
- Impairments
- Health status / age / income – cold homes vulnerability
- Access to information / communications channels
- Non-inclusive design
- Issues with how service is delivered
- Availability / cost /affordability



Circumstances





Internalised attitudes

- I survived the war, I can cope with a bit of cold
- It's not for me / her / him / them
- I'd rather stick with what I know
- More bother than its worth
- Does it really offer me more control?
- Privacy concerns



Skills barriers

- Lacking basic digital skills
- Low literacy
- Low numeracy
 - Older people
 - Lowest income brackets



Impairment examples	Example of barrier	Example of technology solution
Visual impairment	Accessing audio-visual media	Text-to-speech / Braille display Screen/text magnification Voice recognition
Cognitive impairment	Difficulty understanding, remembering or following instructions	Touch screen device Memory aid tools eg alerts
Loss of dexterity	Difficulty using keyboards, mouse, 'fiddly' buttons	Integration with mainstream technology with good accessibility features Adapted interface / screen Household accessible aids
Hearing impairment	Hearing demo in person Hearing warnings or alerts	Tailored demonstrations SMS , text alerts, vibrations



People vulnerable to effects of cold homes

- you're 65 or older
- you're on a low income (so can't afford heating)
- you have a long-term health condition, such as heart, lung or kidney disease
- you're disabled
- you're pregnant
- you have young children (newborn to school age)
- you have a mental health condition



An inclusive and affordable offer

- Affordability – low income groups
- Information / communication channels
- Marketing
- Inclusive design
- Relevant uses that are valued by individuals
- Service and follow-up support offer



Smart meters for people with arthritis

- Arthritis awareness training for installers and advice staff
- Balancing ‘saving energy’ messages with ‘keep warm and well’ messages
- How to use In-home display features to have visibility of energy use and be more in control
- Follow up advice to reinforce ‘at install’ messages tailored to individual/household
- Possible group to receive accessible IHD?



Thank you

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