

Climate Change Begins at Home

Anne Power, Director of LSE Housing
and Communities

London School of Economics

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Why Homes are top of Energy Agendas

- Leak energy into atmosphere
- Only replaced at 0.5% p.a.
- Capital cost of homes very high
- Zero net cost of energy saving
- Fast rising energy demand in homes
- Lord Stern, Turner, Giddens, Ed Miliband

Why should the UK focus on existing homes?

- New homes are 0.5% of total year on year
- 23 million existing homes
- Older stock is poorly insulated
- Big benefits to low income households
- Saving energy is half cost of renewables
- Job intensive, favours small builders
- Reduces burden on grid, power generation
- 85% existing homes will still be there in 2050

Challenges of our Housing Stock

Type	Age
6m terraced houses	5m pre-WW1
6m semi-detached	4m 1919-1944
4m flats	4m 1945-1964
4m detached houses	5m 1965-1980
2m bungalows	4m 1980+

- 3000 older, poorer neighbourhoods, often in low demand
- Strong suburban growth since 1919
- General low density – 35 homes per hectare
- 70% (16 million) owner occupiers in single family houses

How big is the task?

- Commitment to 80% CO₂ cut by 2050
- Climate change Act (2008) + Carbon Budgets (2010)
- 20% cut by 2020
- 'Whole House' treatment of all homes (2030)
- 700,000 p.a. to 2020
- 1.3 million p.a. from 2020-2030

What to do?

- 'Low-hanging fruit'
 - E.g. cavity walls: 7 million to go
- Uninsulated roofs – 2 million
 - Poorly insulated – 8 million
- Outlawed old fashioned light bulbs
- Tightening regulation of appliances
- Want:
 - smart meters
 - Stand-by savers
 - Light sensors
- Easy heat controls

How?

- Big hope in behaviour change
- High energy bills as driver, i.e. markets
- Better advice
- Energy displays and ratings
- Percolation of ideas
 - E.g. draft proofing
 - Double glazing
 - 'A' rated fridges
 - Energy efficient light bulbs
- War economy or business as usual?
- Dire public finances

Incentives

- Feed-in tariff
- Grants for renewable heat
- Lower VAT for energy saving
- Warm Front/fuel poverty
- Product Standards
- Supplier Obligation
- Carbon Emissions Reduction Target (CERT)
- Community Energy Saving Programme
- Pay as you Save experiment

Why is Germany our model?

- Real enthusiasm to share experience
- Zukunft Hans trial since 2003
- KfW investment bank since WW2
- Federal Commitment
- 40% Energy reduction in all homes by 2020
- High Building standards
- Jobs and warmth and saving
- Feed-in tariff success
- Many actors involved
- Devolved delivery

But...

What's new that may help?

- Multi-party agreement on issue
- New Department for Energy and Climate Change
- High political profile
- Heat and energy saving strategy
 - (Catching up with Germany!)
- Carbon Reduction Commitment for **all** large organisations
- Carbon budgets for all government departments

Bright new stars

- Transition Towns
- 10:10
- Old Homes SuperHome
- Decent Homes 2
- Neighbourhood Retrofit