# Policy Approaches for Improving Household Energy Efficiency

Charlie Wilson May 2011





### Improving home energy efficiency: who?

EXISTING behaviour & technologies

weatherisation daily use
equipment & maintenance
appliances adjustment

MORE EFFICIENT houses & households

owner-occupied

houses & households

**EXISTING** 

rental

social

**NEW homes** 

who?

- 1. households
- 2. regulators
- 3. intermediaries
- 4. [social practices]

lower than otherwise energy use

greater than otherwise welfare (rebound)

### Agents (1) Households: decisions in supportive conditions

Population of Households

considering retrofit

contact contractor

home visit finalise plans

agree contract

carry out work

**Decision Process** 

inform, incentivise, assure ...

### The Green Deal

**Customer Journey** 

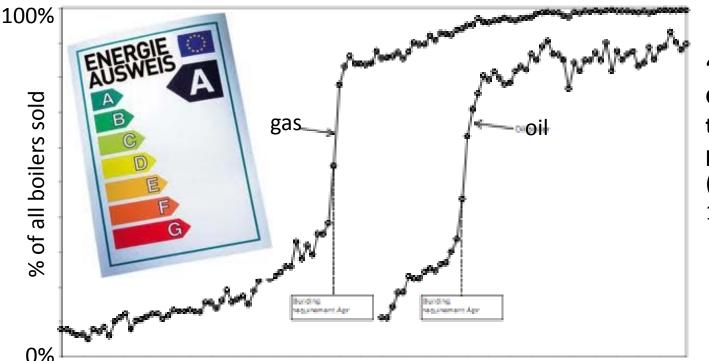


### Agents (2) Regulators: crossing the moat

### Impacts of options for regulating energy efficiency standards in the domestic sector

Section 64 of the Climate Change (Scotland) Act 2009 introduces broad regulation making powers which require Ministers to provide for the assessment of the energy performance and emission of green house gases (GHG) from existing housing, and to require owners to take steps to improve the energy performance and reduce emissions from such housing.

- all homes?(by certain date)
- point of sale?
- if rented?

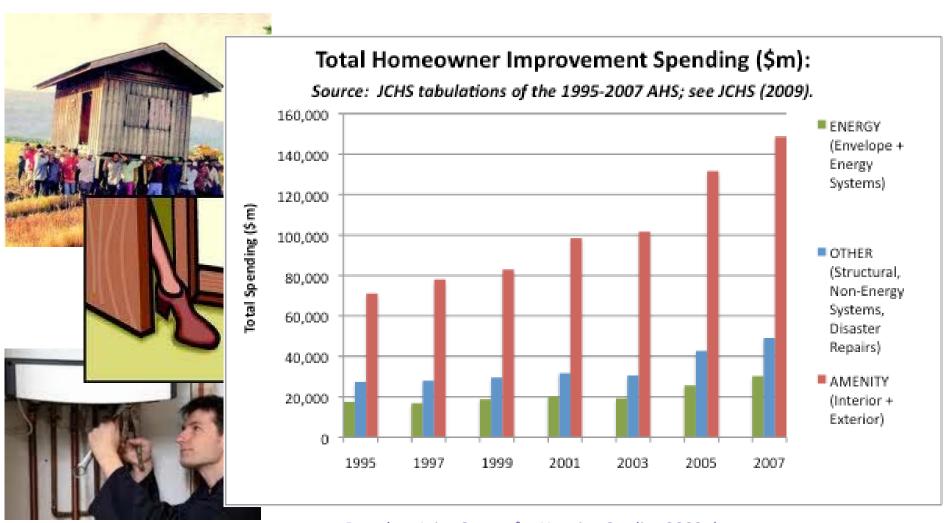


'UK Government's
Green Deal lays down
the law on rental
properties'
(EnergyEfficiency News,
18 May 2011)

• if rented from 2018 (or before if requested)

monthly sales of condensing boilers

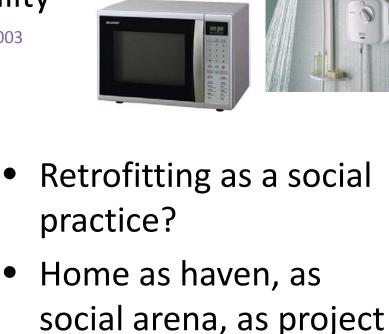
## Agents (3) Intermediaries: piggybacking (using 'trigger points')



## Agents (4) ... wrong framing practices: objects, meanings, competences

- People don't use energy or adopt technologies ...
- ... they undertake a range of activities considered to constitute normality

Shove 2003



Guru C C C



#### Impact on efficiency (n~150 stalls)

Unambiguously positive



10%

**Ambiguously** neutral



50%

**Ambiguously** negative



25%

Unambiguously negative



15%



Where does energy

efficiency policy end?

(what we don't know)

### Improving household energy efficiency: what we know, what we don't know

	ISSUES / CONSTRAINTS	ACTIONS / POLICIES
money	upfront cost	property-linked capital financing
	split incentives	landlord obligations
information & risk	information deficiency	audits, energy use monitors
	uncertainty (trust)	accreditation, branding
	uncertainty (outcomes)	peer feedback, risk transfer
	low salience	energy prices, energy use monitors + smart meters + marginal cost pricing
cognitive burden	opportunity costs	all the above, trigger points
	transaction costs	one stop shops, intermediaries
social influence	weak norms (invisibility)	normative messaging, neighbourhood schemes, product bundles (e.g., PV)
	expectations (practices), meanings of home	segmentation, ? social change