Ten Years of Energy Efficiency in the UK Residential Market

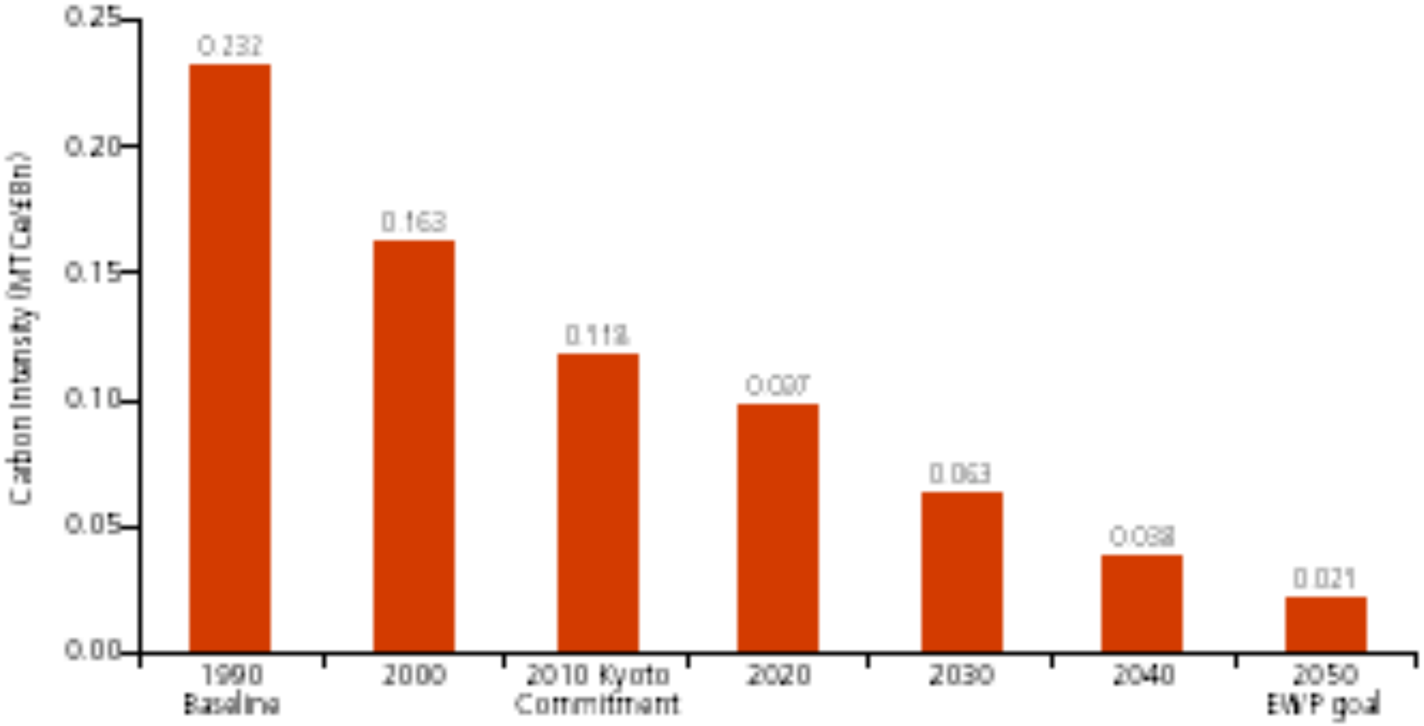
Richard Sykes
EDF Energy

8 November 2005

Contents

- **Energy efficiency programmes since 1994**
- **Typical schemes, products and routes to market**
- **Energy Efficiency Commitment (EEC)**
- **Customer reactions and market transformation**
- **Key issues**

Carbon targets set by UK



(Source: Carbon Trust, RCEP, DTI EP68 GDP growth forecasts)

Energy efficiency programmes since 1994

- **Regulation**
  - EESoP, 1994 to 1998 £1*
  - EESoP, 1998 to 2000 £1
  - EESoP, 2000 to 2002 £1.20

- **Legisation**
  - EEC1, 2002 to 2005 £3.60
  - EEC2, 2005 to 2008 £9 - £12
  - EEC2b, 2008 to 2011 £?

- *costs are per customer per fuel per year

Typical schemes

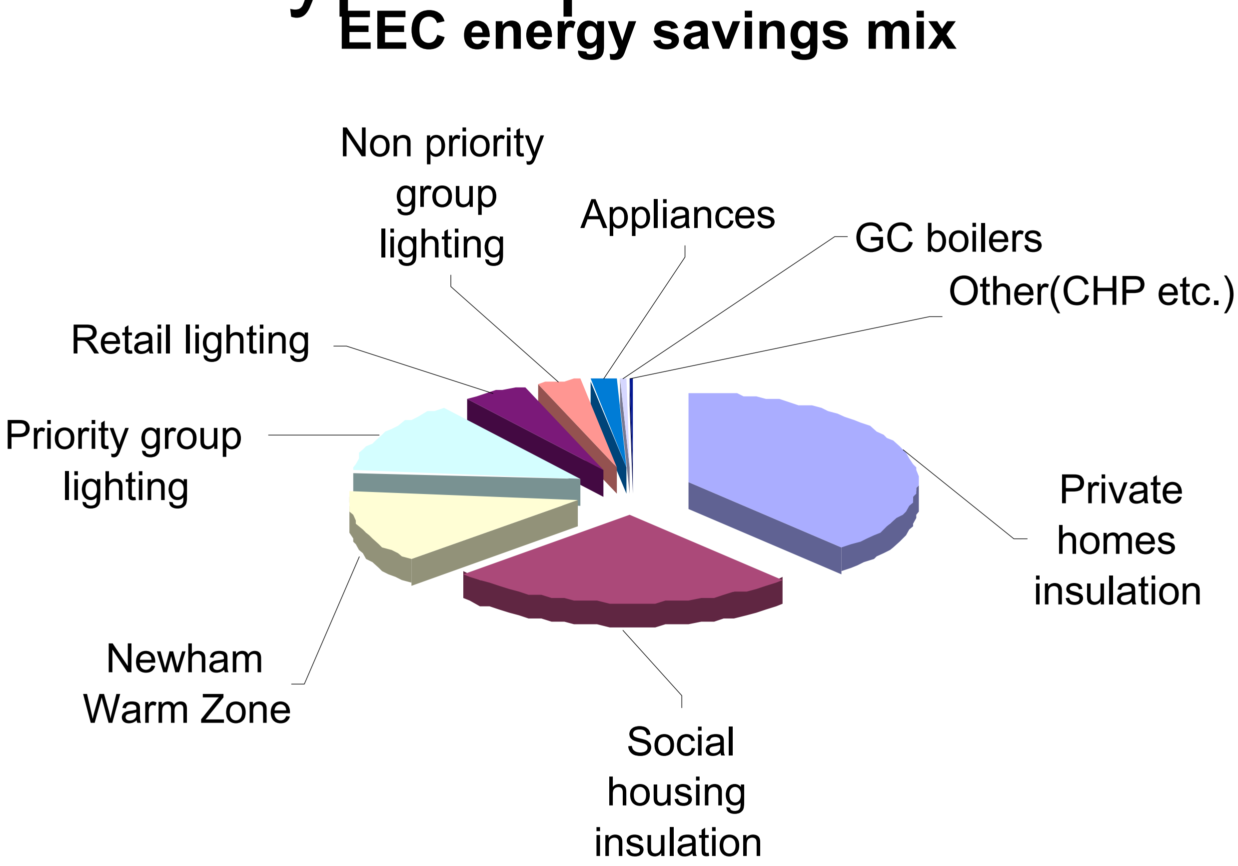
- **Private housing insulation mailers to electric home**
  - 15% response in early days, high conversion rates
- **Social housing insulation**
  - slow to take up & a hard sell in EESoP1&2
  - Now saturating the opportunities
- **Low energy lighting schemes**
  - link to other government programmes, free lamps
  - schools education schemes, useful but time costly
  - DIY retail stores e.g. B&Q, Homebase
- **National schemes organised by Energy Saving Trust (EST)**
  - CFLs, business schemes, appliances (slow take up)
- **Combined heat and power schemes**
  - sustained effort over long timescales
  - few in number with progressive Local Authorities

Insulation

- **Private housing**
  - 50% discount on cavity wall and loft insulation
  - 100% grant to those on state benefits
  - directly appointed contractors
- **Social housing**
  - partnership working with local authorities, housing associations, managing agents and energycare network

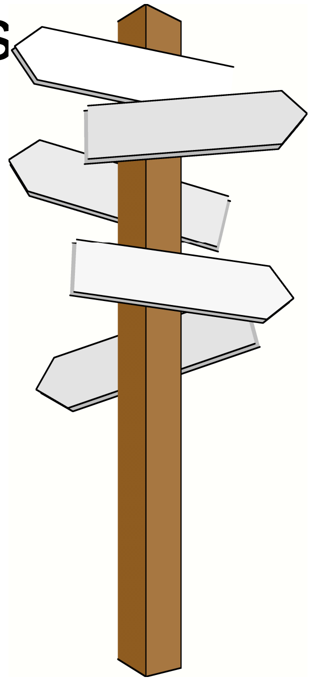
  - Matched funding for cavity wall & loft insulation
  - gas condensing boilers
  - low energy lighting
  - solar water heating

Typical product mix



Routes to market

- Local authorities and housing associations
- Energy efficiency advice centres
- Managing agents
- Direct marketing
- Advertising
- Contacts database
- In house sales channels



Energy Efficiency Commitment EEC1 (2002 – 2005)

- **Legislation not regulation**
  - x3 cost but x5 volume
  - carbon and social focus, 50% energy savings to ‘priority group’
  - tougher energy accreditation and lower cost assumptions
  - a business cost and not a levy

- **Gas and electricity obligation in a competitive energy market**
  - Go anywhere in the country & target competitor’s customers
- **Flexibility**
  - go anywhere
  - link to core business activity

- **Integration into core business & marketing organisation**
  - Similar measures and offers to customers

Energy Efficiency Commitment EEC2 (2005 – 2008)

- **Government energy white paper**
  - twice the level of activity in EEC 1
  - x15 the level of activity in 2000
- **Less flexibility of measures**
  - fewer boilers, change in building regulations
  - heating controls unlikely without boiler?
  - fewer low energy lamps
  - fewer loft insulations
- **Social housing potential and funding?**
  - What is left to do
  - Highly competitive amongst energy suppliers
- **Greater dependence on cavity walls!**
  - c80%of energy savings target

Scale of EEC 2

- **UK Government - Energy White Paper (households)**
  - use 30% of total UK energy use and produces 40 MtC per annum
  - cut by 4.2 MtC pa by 2010
  - about 25% of this via EEC2/2b programmes
  - commitment to EEC(s) until 2011

- **EEC2 compared to EEC1**
  - double the activity
  - 25% year on year increase in insulation infrastructure
  - treble the cost?,
  - Defra - not more than £9 per customer per fuel per year

Scale of EEC2 - National volumes

25 Million Homes

20 Million Gas accounts

25 Million Electricity accounts

1.79 Million Cavity wall insulation

1.58 Million Loft insulation

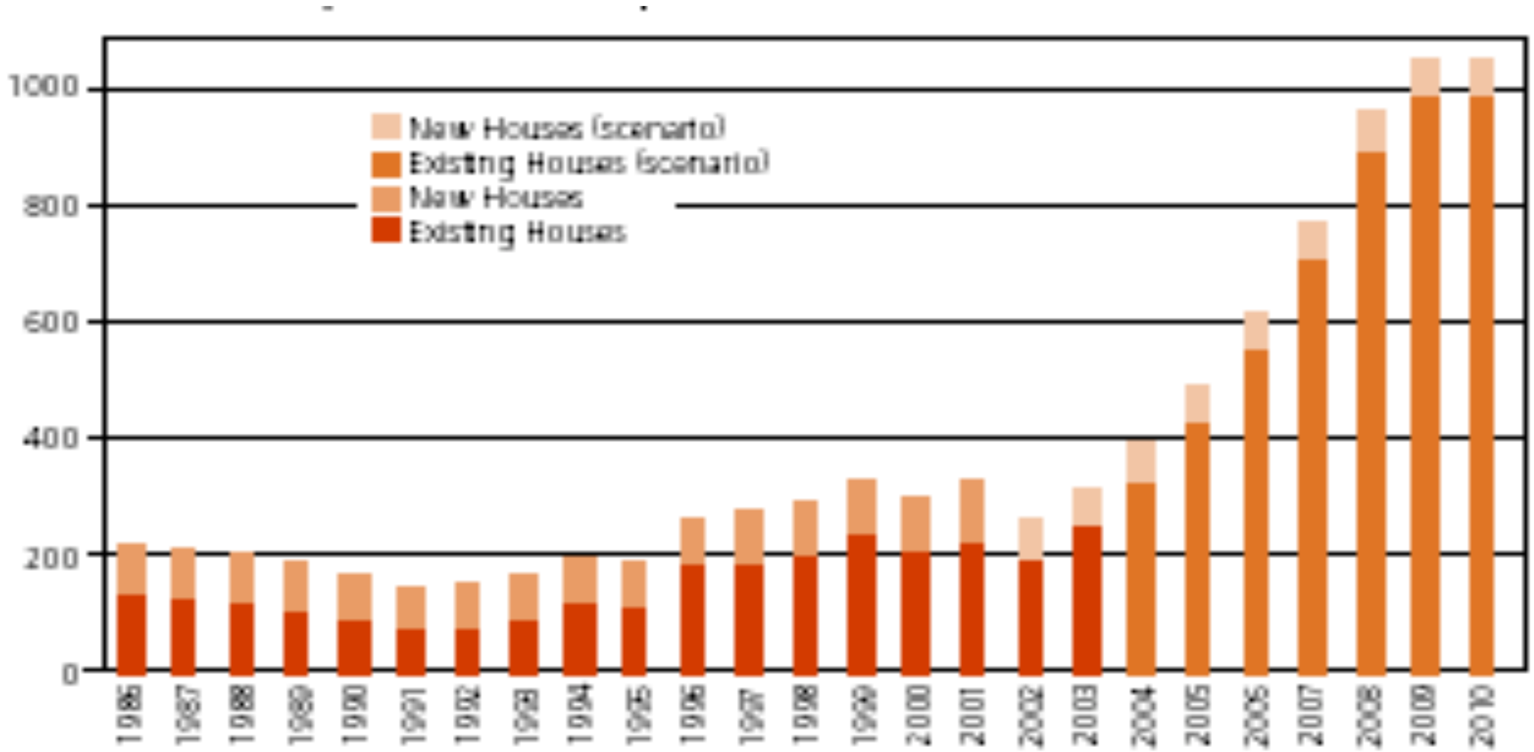
42.3 Million Low energy light bulbs

2.04 Million A- Rated Appliances

0.46 Million water tank insulation

- Cost of £9 - 12 per customer per fuel per year?

Projections for cavity wall insulation



Source: Defra, GfK, Ofgem, EST, Insulation Industry)

Can we do it?

- **Key risks and questions**
  - can it be done and at what cost?
  - what impact on energy prices and how will this affect fuel poverty?
- **Insulation industry constraints**
  - will the manufacturers and installers invest?
  - what if they choose not to?
- **Can EDF Energy find sufficient volume cost effectively?**
  - finding fuel poor customer?
  - ability to deliver within cost assumptions?
- **How will regulator OFGEM react to any under achievement?**
  - 10% of turnover fine?
- **Our strategy**
  - Start early and focus heavily on insulation

Customer reaction and market transformation

- **Customer apathy & lack of behavioural change**
- **Energy efficiency not seen as a priority spend**
- **Energy efficiency savings taken as ‘comfort’**
- **Some market transformation achieved?**
  - – eliminated the real market for insulation products that existed 10 years ago!
  - – market transformation for energy efficiency appliances
    - 60% of washing and dishwasher sales are now A rated
    - 40% of refrigerator and fridge freezer sales are now A rated
  - – low energy light bulbs, price reductions and greater volumes sold with EEC subsidies
- **Energy services not developed despite considerable effort**

Future Considerations

Can we just go on expanding in the same way?

EDF Energy - proactive in leading change

- Better value from the spend
- Contribution to eradication of fuel poverty
- Carbon savings

2007 Defra review should focus on

- Environmental or a social programme
- Energy services or subsidies for insulation market?
- Energy efficiency or environmental solutions
- Behavioural change?

The future for UK energy efficiency?

- **Enough insulation until 2011?**
- **New technologies**
  – micro- CHP
  – heat pumps
  – solid wall insulation
  – light emitting diodes
  – vacuum panel refrigeration
  – advanced building controls
  – integrated renewables
  – solar and photovoltaics
- Subsidies or markets?
- How do we change customer behaviour?