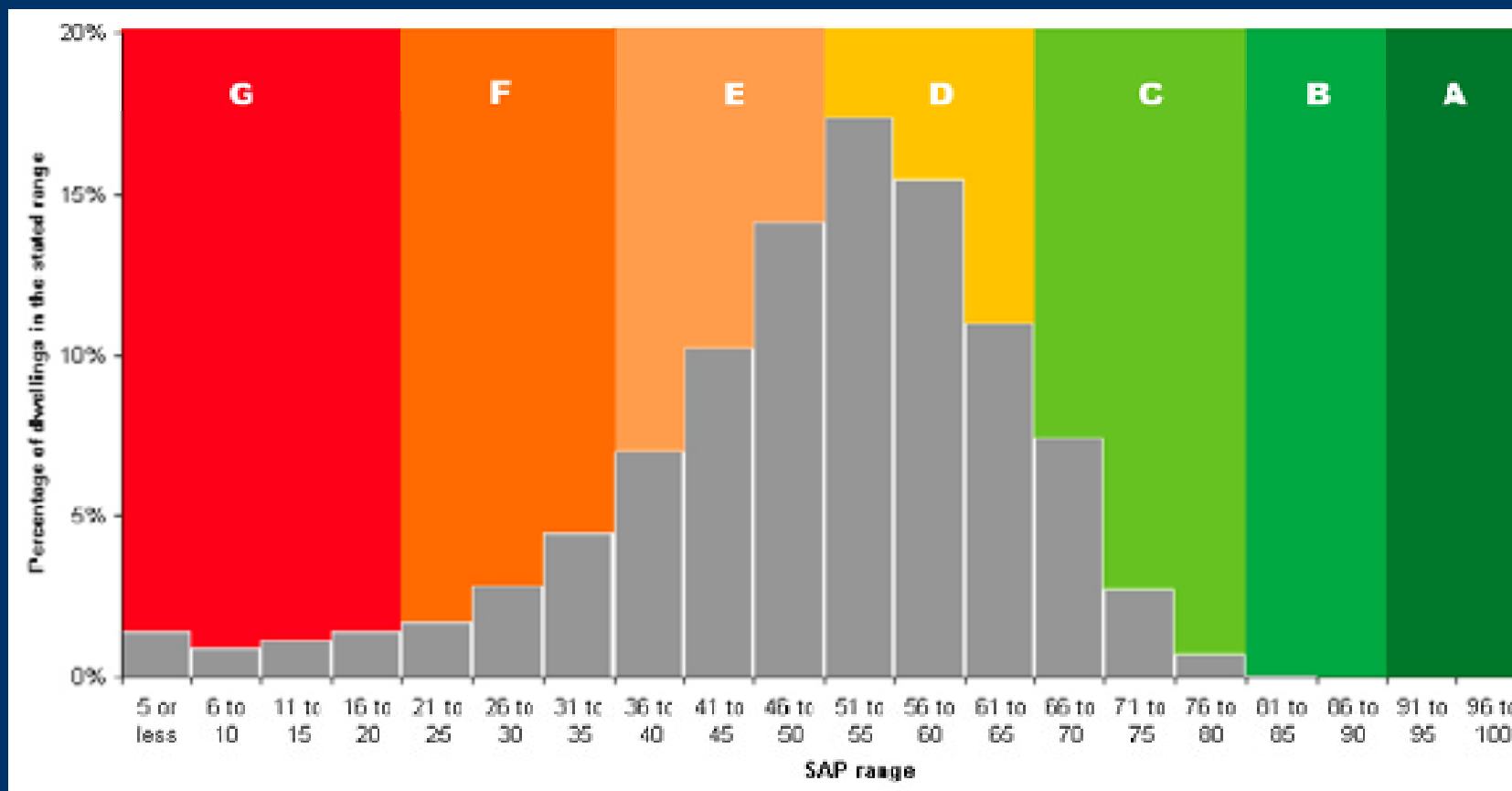


Strategic Approach To Delivering Energy Efficiency And Demand Reduction For The West Midlands

**Olwen Dutton
December 2009**

- The West Midlands Challenge
- Regional Policy Framework
- We Have The Technology
- Barriers To Implementation
- Suggestions For The Way Forward

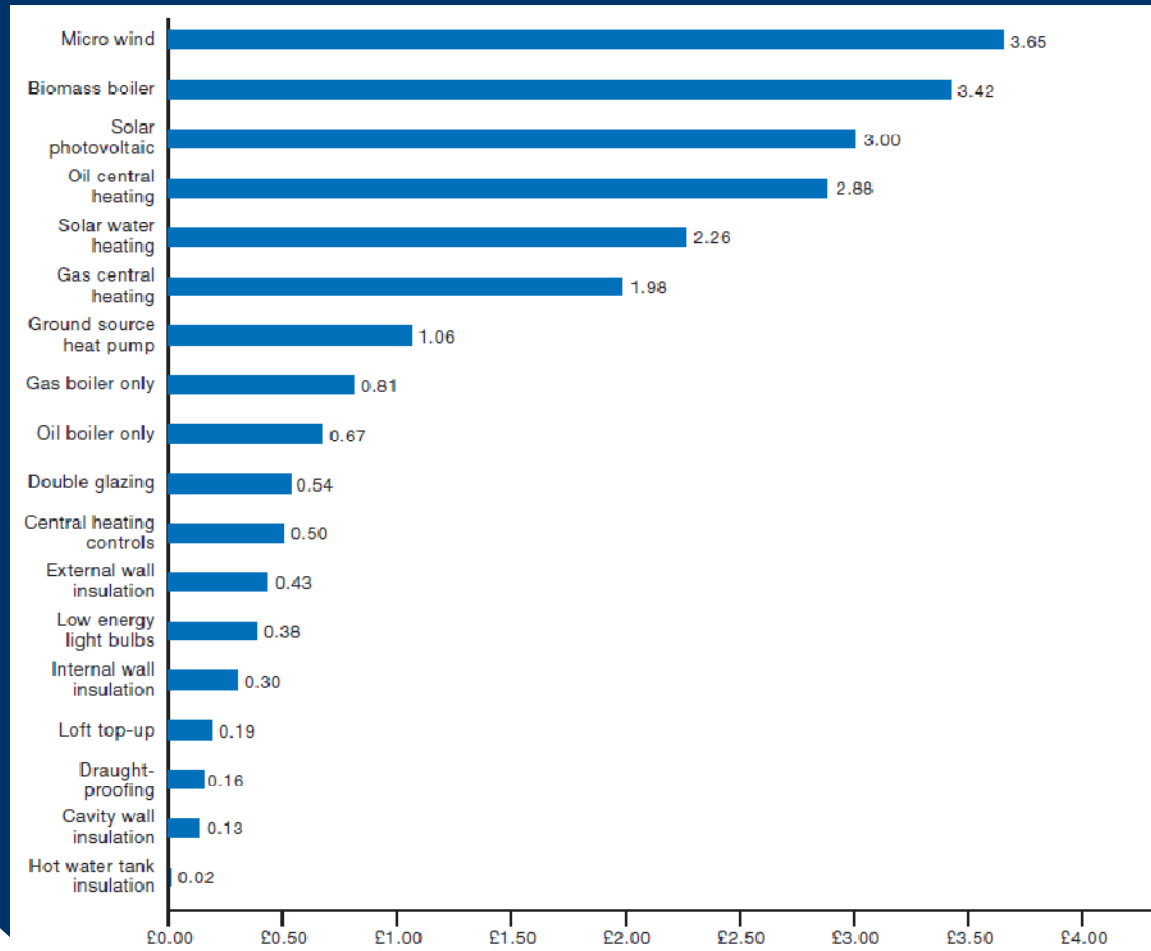
Indicative Energy Performance Certificate Profile Of UK Housing Stock



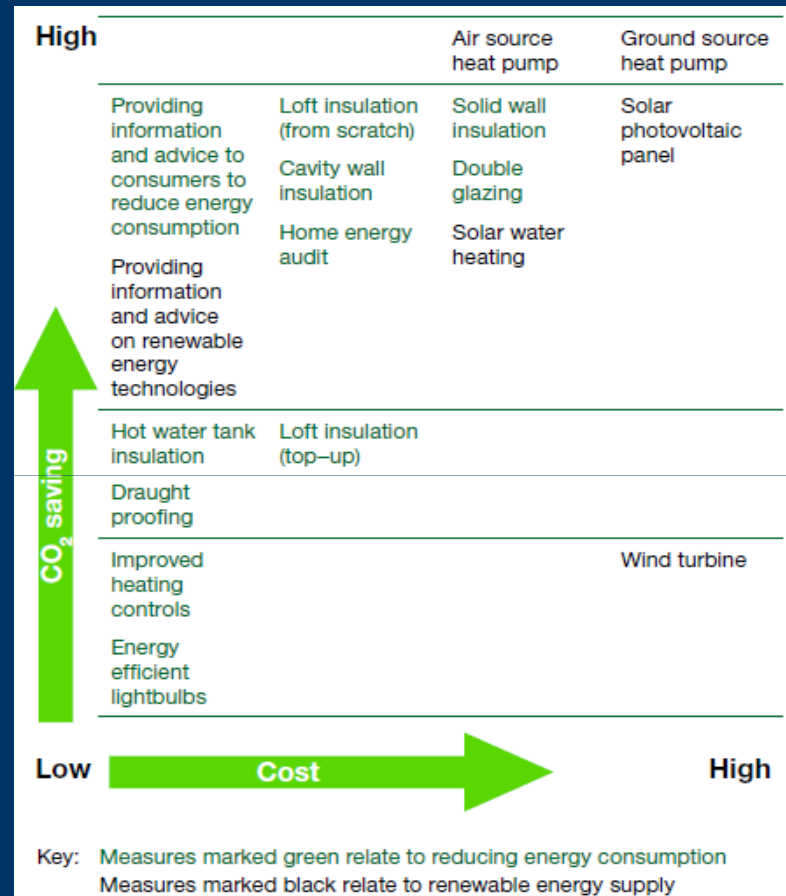
Energy Efficiency Measures by Cost and CO₂ Emissions Reduction

Measure	Cost per measure	kgCO ₂ savings from kWh energy reduction
Ground source heat pump	£11,360	665
Solar photovoltaic	£6,337	391
External wall insulation	£4,500	379
Internal wall insulation	£3,000	358
Wind turbine	£3,200	162
Biomass boiler	£7,200	130
Oil central heating	£5,367	116
Oil boiler only	£1,255	116
Cavity wall	£380	109
Gas central heating	£3,700	67
Gas boiler	£1,503	67
Solar water heating	£3,500	56
Loft top up	£286	54
Hot water tank insulation	£14	29
Draughtproofing	£101	23
Double glazing	£212	14
Central heating controls	£90	7
Low energy light bulbs	£3	1

Cost of Saving kWh Based on Cost of Installation

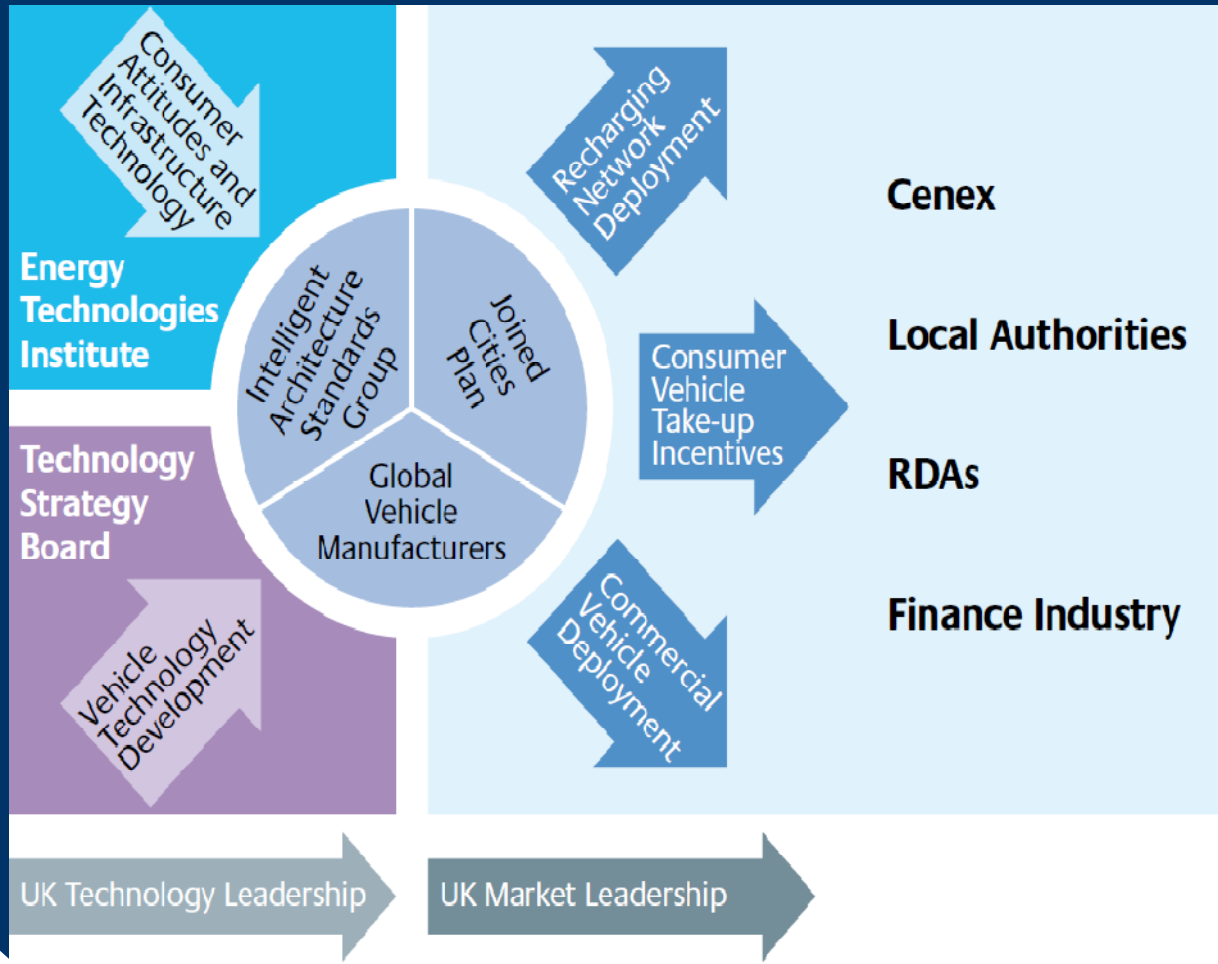


Achieving CO2 Savings Cost Effectively At Household Level



Source: Audit Commission

Transport – Potential for Change



We Have The Technology



How to give your house a green makeover and save money

Call your local advice centre on **0800 512 012** to find out how you can start saving today.

Install a water displacement device
Putting a water displacement device in your toilet cistern is a simple way to save water

Invest in a water butt
Invest in a water butt and use the collected water on your garden or to wash the car

Replace your old boiler
Replacing an old G-rated boiler with a new A-rated condensing boiler and a full set of heating controls can cut your heating bill by up to a quarter - that's up to £235 a year

Reuse food
If everyone in the UK eliminated their food waste, the carbon dioxide saving would be the same as taking one in five cars off the road (source: WRAP)

Upgrade to Energy Saving Recommended appliances
Upgrade to Energy Saving Recommended appliances and save up to £36 a year

Fit thermostatic radiator valves
Control individual room temperatures with thermostatic radiator valves and prevent heating rooms not in use unnecessarily

Take a shower
A short shower can use as little as a third of the water used by taking a bath. (source: waterwise)

Insulate your water tank
Making sure your hot water tank and any visible pipes between the tank and boiler have adequate insulation could save you around £45 a year

Insulate your loft
Insulating your loft to the full recommended depth of 270mm could save up to £150 a year on heating bills if no insulation is already present

Use Energy Saving Recommended lightbulbs
Replace all the inefficient light bulbs in your home with low energy light bulbs and save around £37 a year

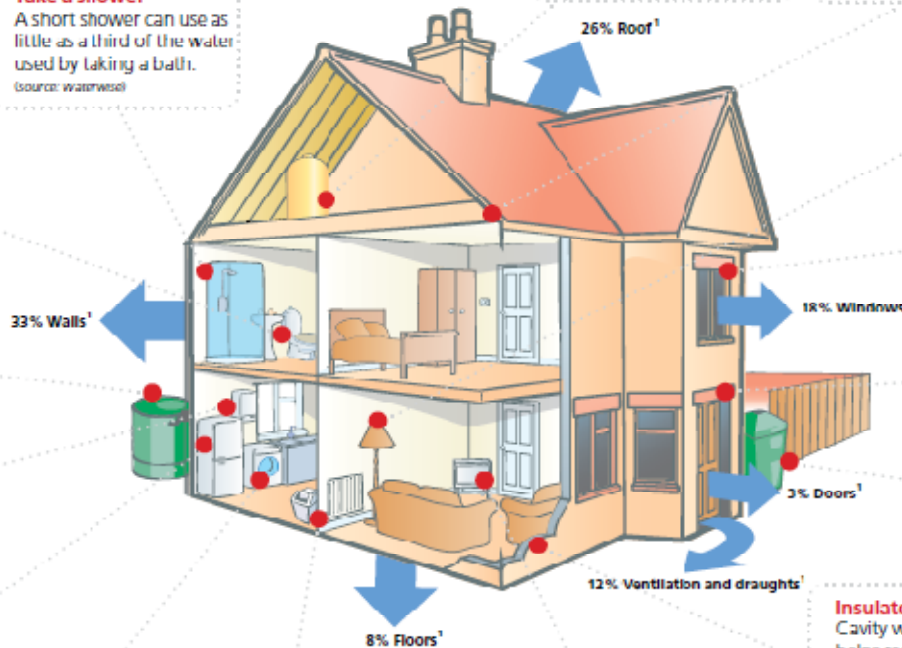
Fit double glazing
Replace single glazing with Energy Saving Recommended double glazing and save around £155 a year on heating bills

Draught proof
Save around £25 a year by draught proofing around windows and doors

Recycle
the waste from all the bins in your house – not just the kitchen

Insulate your walls
Cavity wall insulation helps reduce the amount of energy you need to heat your home and saves around £115 a year. For older properties with solid walls, insulating the inside/outside of the walls will save around £400 on heating bills a year

Turn appliances off standby
You could save around £33 a year by ensuring appliances are switched off and not left on standby



Savings quoted are for a gas heated semi-detached three-bedroom property
1. Heat loss based on an uninsulated home