

# BeGreen

Address

Survey Date

XXXX  
XXXX  
XXXX

19<sup>th</sup> February 2010

## Energy Report

Dear XXXX;

This report gives information on your household carbon footprint, details our main recommendations and gives other options for saving energy, money and CO<sub>2</sub> emissions. Some recommendations you may want to take up straight away whilst others might be considered for the future.

Figures given for savings are indicative only, and more information is available on the improvements suggested including typical installation costs and grants available.

Our recommendations are based on the record of our survey. Please let us know if any of them appear to be based on wrong information. Should you have any queries please contact us.

Yours sincerely,

Sean Watters, Energy Auditor, BeGreen Dunbar and District

## Energy use and CO<sub>2</sub> emissions

Energy use in the home produces over a quarter of the UK's CO<sub>2</sub> emissions and the average household generates about 6 tonnes of CO<sub>2</sub> per year. Based on our survey we calculate your household CO<sub>2</sub> emissions as follows.

Fuel	Usage		CO <sub>2</sub> emissions	
Oil	36,000	kWh per year	9.0	tonnes
Electricity	12,900	kWh per year	5.5	tonnes
Wood	12,800	kWh per year	0.5	tonnes
<b>Total</b>			<b>15.0</b>	<b>tonnes</b>

We estimate that this could be reduced by around **25%**.

# Energy Report

Energy efficient measures already present

Stove

Draughtstripped windows

Shutters

Loft insulation

## Recommendations

Lower cost measures/improvements      Possible Savings £/yr      Possible Savings CO<sub>2</sub>/yr

Lights & appliances - usage		
Set Hot Water thermostat to 60°C	£15	0.10 tonnes
Fit low energy bulbs throughout	£40	0.14 tonnes
Draughtproofing	£40	0.29 tonnes
Heating Controls	£50	0.36 tonnes

Medium cost measures/improvements

Heavy blinds/curtains		
Replace open fires with stoves		
Replace electric range		
AAA rated appliances	£150	0.54 tonnes
Condensing boiler	£165	1.20 tonnes

Higher cost measures/improvements

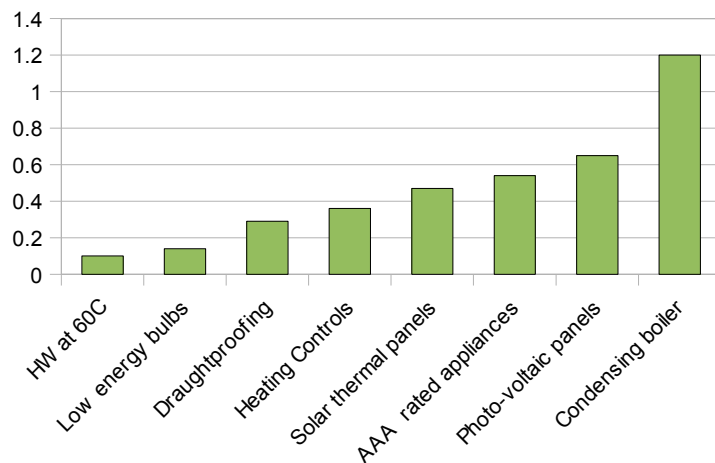
Solar thermal panels	£65	0.47 tonnes
Photo-voltaic panels	£540	0.65 tonnes
Additional insulation		

**Total**

**3.66 tonnes**

Together these measures could achieve around a **25%** reduction in CO<sub>2</sub>.

CO<sub>2</sub> savings/yr



Improvement	Information
Lights & appliances - usage	Monitoring your use of lights and appliances could help identify areas where savings could be made.
Set Hot Water thermostat to 60°C	Setting your HW cylinder thermostat to 60°C should provide sufficiently hot water whilst saving energy.
Fit low energy bulbs throughout	Energy saving lightbulbs, including LED replacement bulbs for halogen fittings, can use over 80% less electricity than a traditional bulb for the same amount of light. They vary in cost and quality of light but are considerably more energy efficient and have a very long life on average.
Draughtproofing	Sealing gaps between skirting and floor, ensuring brushes/ seals are fitted to doors, windows and letterboxes, and blocking flues when not in use, are very cost effective means of reducing heat loss.
Heating Controls	A full set of heating controls (room thermostat, programmer and TRVs), as well as a zoned system, can improve the efficiency of your heating.. Installation is most cost effective when replacing the boiler or carrying out other work on the heating system.
Heavy blinds/curtains	It is difficult to estimate the savings generated by adding heavy curtains to windows. However they can make a significant contribution to reducing night time heat loss and are worth considering.
Replace open fires with stoves	Closed fires are up to three times as efficient as open fires, so consider an inset or free standing multi-fuel stove. Burning wood from a sustainable source is close to carbon neutral so reinstating fireplaces to offset central heating would generate CO <sub>2</sub> savings.
Replace electric range	Your electric range consumes a lot of electricity which is generally the most expensive form of energy.
AAA rated appliances	Older appliances, particularly cold ones such as fridges and freezers, are generally significantly less efficient than modern ones.
Condensing boiler	Your existing boiler is reasonably efficient at around 84%. However modern condensing oil fired boilers can be up to 97% efficient. In situations where installation would be impractical, a non-condensing boiler may be allowed in substitution.
Solar thermal panels	Solar thermal panels can provide around 50% of annual hot water demand and grants are available to support installation. Permission is required in Conservation Areas and for Listed Buildings and the Planning Authorities take a view on a case by case basis.
Photo-voltaic panels	Photo-voltaic panels can generate a significant proportion of a household's electricity needs. Grants are available to support their installation, and the switch to <i>feed-in-tariffs</i> this year significantly improves the payback period. Permission is required as per solar thermal panels.
Additional insulation	Insulation to walls and roof is the most significant means of improving energy efficiency. In older properties this can be difficult, disruptive and expensive but may be worth considering if undertaking major redecoration or repairs.

## GENERAL ENERGY SAVING TIPS

### Heating System

- Turning your room thermostat down by 1°C could cut your heating bills by up to 10 per cent.
- Use your programmer - only have the heating on when the house is occupied.
- Is your water too hot? Your cylinder thermostat shouldn't need to be set higher than 60°C/140°F.
- Install thermostatic radiator valves to cut heating bills by as much as 17%.
- Fitting reflective panels behind radiators on external walls can save up to £25 per year.

### Lighting

- Fit low energy light bulbs in lights or lamps that are used most frequently.
- LED bulbs for halogen fittings are available that can save £8 per year per bulb.
- Switch off lights when you leave a room.
- Adjust your curtains or blinds to let in as much daylight as possible.

### Kitchen

- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programmer.
- Washing clothes at 30°C or 40°C rather than 60°C uses 1/3 less electricity.
- Only boil as much water as you need (but remember to cover the elements if you're using an electric kettle).
- Purchase "A-rated" domestic appliances when replacements are needed.
- Choose the right size of pan for the food you are cooking and use the lid.
- Open the fridge or freezer door for as short a time as possible.
- Defrost your fridge regularly to keep it running efficiently
- Hoover the coils at the rear of your fridge and freezer twice a year to keep free of dust.
- Try to avoid placing your fridge beside the cooker or boiler.

### Water

- In just one day, a dripping hot water tap can waste enough water to fill a bath. Make sure they're turned off.
- Only heat the water when needed - it is NOT cheaper to leave on all the time.
- Put a plug in a basin or sink. Leaving hot water taps running without the plug is both wasteful and expensive.
- Having a shower uses around 75% less hot water than a bath.

### General Tips

- The average household wastes around £37 per year leaving appliances on standby. Switch off at the plug and remember not to leave items charging unnecessarily.
- Close your curtains at dusk to reduce heat escaping through the windows.
- Draught proof doors and windows to stop cold air getting in.
- Chimney balloons can be used to draughtproof open fires when not in use.
- If possible dry clothes outside.