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INTRODUCTION

You've heard of counting carbs. This book is about counting carbon. It's not the health of your body that is the object of our interest this time, but the health of the planet. Carbon dioxide is the main gas responsible for global warming, and humans are producing 25 billion tonnes of the stuff every year, raising the temperature of the planet to dangerous levels. This book will help you bring down your personal contribution to this rather daunting problem.

According to the government's chief scientist Sir David King, global warming is the greatest problem facing humanity. It's therefore a bit of a tall order to solve it all on your own. But if enough people begin to count and reduce their carbon, the rate of climate change can be slowed down dramatically.

This could save countless species from extinction, as animals like the polar bear and Bengal tiger will have nowhere to go as the world warms. It could also save the lives of the millions of people who are at risk from rising seas in low-lying areas. But if we don't act, vast swathes of the globe could be rendered uninhabitable because of flood, drought and searing heatwaves.

So by ceasing to be part of the problem and instead becoming part of the solution, you can join a growing movement to cut back humanity's carbon emissions before it is too late – and many scientists suggest that the atmosphere's 'tipping point' will come within the next decade, giving us no time to dither before making dramatic cutbacks. The lifestyle change that this implies doesn't necessarily mean misery and sacrifice: low-carbon living means that we should all end up fitter and healthier too. So maybe – the planet aside – counting carbs and counting carbon aren't so different after all.

SAVING ENERGY

When you are shopping for new appliances, look for the energy saving recommended logo. It's your guarantee that the product will save energy, cost less to run and help the environment.

Certification mark

A hot water tank should be insulated with a 'jacket' (which should be nice and cosy, at least 75mm thick), easily obtainable from your local DIY store. It will cost as little as £10 and will save £20 a year in your annual fuel bills. Hot water pipes should also be lagged with insulation – again, this is an easy job to do yourself. You can buy lagging from all DIY shops, but don't forget to measure the diameter of your pipes first.

Always ensure that anyone who works on any gas-related appliance is CORGI registered. To find a professional installer near you or to check someone's ID registration, visit www.corgi-gas-safety.com.

Tip: Rather than buying a special jacket for your hot water tank, just pack around it with an old duvet – just as effective and much cheaper.

Technology	% Grant available (excl. VAT)
Solar photovoltaics	Maximum £3,000 per kW installed, up to a maximum of £15,000, subject to an overall 50% limit of the installed cost
Wind turbines	Maximum £1,000 per kW installed, up to a maximum of £5,000, subject to an overall 30% limit of the installed cost
Small hydro	Maximum £1,000 per kW installed, up to a maximum of £5,000, subject to an overall 30% limit of the installed cost
Solar thermal hot water	Maximum £400, regardless of size, subject to an overall 30% limit
Heat pumps Ground/water/air source	Maximum £1,200, regardless of size, subject to an overall 30% limit
Bio-energy	
1. Room heater/stoves automated wood pellet feed	Maximum £600, regardless of size, subject to an overall 20% limit

2. Wood-fuelled boiler systems	Maximum £1,500, regardless of size, subject to an overall 30% limit
Renewable CHP (Combined heat and power)	Grant levels to be defined
MicroCHP (Combined heat and power)	Grant levels to be defined
Fuel cells	Grant levels to be defined

For more, see www.lowcarbonbuildings.org.uk

You will need to have completed the energy efficiency measures required by the programme before being entitled to a grant. You cannot double-fund a project if you live in Scotland or Northern Ireland – you can apply either to the Low Carbon Buildings Programme or to your regional agency. You can, however, add on funding from local authorities or other sources in addition to the government grant.

MICRO WIND TURBINES

If you live somewhere breezy, then a micro wind turbine may be the option for you. (Remember, these energy-generating measures aren't mutually