

## One Aviva. One world.

### Environment

Amid mounting evidence that climate change is due to greenhouse gas emissions, managing our impact on the environment is a central part of our CSR programme.

#### Offsetting our carbon emissions

As the first insurer to make our global operations carbon neutral, we offset our outstanding carbon emissions by retrospectively investing in projects that generate carbon credits, either through carbon mitigation or renewable energy.


The schemes, administered in 2007 by carbon brokers Climate Care and CarbonAided, are a balance of commercial and social projects, and include:

- biogas projects in Sri Lanka, which use methane for cooking and lighting rather than wood, an increasingly expensive and scarce fuel source
- human-powered treadle pumps, vital for irrigation in rural areas like Bihar and Uttar Pradesh, India, where rented pumps require expensive and polluting diesel
- wind turbines in Hebei Province, China, and Tamil Nadu, India
- more efficient cooking stoves in Africa
- 'green cement' in the Netherlands and Ireland.

*"Aviva works in regions where it has a presence or where there is an urgent need for carbon finance. Through funding sustainable development projects, Aviva is giving back to communities as well as making real emissions reductions. As a result of our partnership, we are developing new, innovative projects on Aviva's behalf in India and Africa."*

David Wellington, *managing director, Climate Care*

For more information, please visit

 [www.aviva.com/csr08/environment](http://www.aviva.com/csr08/environment)



Source: International Development Enterprises (IDE)  
IDE India has been working in 15 major Indian states,  
providing more than 850,000 farmers with green technology

We care deeply about reducing our impact on the environment, and became the first insurer to be carbon neutral on a worldwide basis. We have reduced our energy consumption in our existing businesses and source zero emission power wherever we can.

This continues to be a considerable undertaking, but we are committed to using our power as an investor and purchaser to encourage other organisations to be more responsible, to enthuse our employees to reduce their own carbon emissions and to offer environmentally responsible products to our customers.

### The climate change challenge

Our energy strategy is to invest in new energy-saving technology and to reduce our dependency on fossil fuels. We are prepared to pay up to a 2% premium for purchasing electricity from renewable and zero emission sources.

Our focus on combating climate change intensified in 2007 on three fronts: carbon reduction, carbon offsetting and enhanced employee education and engagement.

Despite some of the initiatives outlined below, we cannot reduce our carbon emissions completely, so we offset our remaining emissions – mainly from buildings and business travel – by funding projects that generate carbon credits (see the case study opposite). Retrospectively offsetting our 2006 emissions cost us approximately £800,000 in 2007.

### Reducing our carbon footprint

Although we are growing organically and by acquisition, we will still strive to reduce our emissions per full-time equivalent

employee. Our aim is to reduce the impact of our activities on the environment by taking steps to be more energy-efficient, carbon conscious and climate-friendly. In 2007, our efforts delivered a 10.8% global reduction in CO<sub>2</sub> emissions across our existing businesses. We are reporting on five new businesses this year in the USA, Russia, Malaysia, Taiwan and our global services business in India.

Our carbon footprint is made up of emissions from our business travel and energy use in our buildings. We endeavour to collect all applicable data but acknowledge that some data may not always be available. To compensate, we add a 5% margin of error to our emissions total when purchasing offsets.

Early in 2007, the newly formed Energy Steering Group issued a UK energy policy and a '5, 4, 3' strategy to reduce like-for-like usage of electricity by 5%, gas and CO<sub>2</sub> by 4%, and water by 3%. More than 50 energy-saving initiatives have been employed, including removing backlights from drinks machines, trialling a device that stops boilers firing up unnecessarily and investigating automated power-saving modes on PCs. The reductions achieved have generally exceeded expectations: water use was reduced by 4.8% and gas by 12.3%. Electricity use also fell, by 3.9%, and although we use zero emission electricity, the equivalent saving is still more than 314 tonnes of CO<sub>2</sub>.

To save energy, Aviva Australia phased out the use of screensavers during the year, and all computers now switch to 'sleep' mode after 10 minutes of idle activity.

In 2008, we have set ourselves a global reduction target on carbon emissions of 5%.



### Zero emission electricity

In 2007, 61% of our worldwide electricity was purchased from suppliers providing renewable and zero emission electricity generated by wind, solar, biomass, hydro, and combined heat and power (CHP) sources, an increase of 6% from last year. We expect this percentage to increase in 2008 as our businesses either increase their use of zero emission electricity or switch from electricity generated from fossil fuels to renewable sources.

In Australia, we signed a contract in late 2007 to begin using 25% 'green energy' for our Melbourne premises while Hibernian in Ireland plans to purchase 100% renewable energy for its branches in 2008.

### Earthwatch award

As part of our commitment to the climate change agenda, Aviva plc presented an Aviva/Earthwatch international award for climate change research to Dr Chris Stevenson. This £6,000 award will allow Dr Stevenson to continue his work on Easter Island, where he is investigating whether prolonged climate change was the cause of societal demise over 300 years ago. This crucial work could provide a model for Earth's resistance to climate change.

*"One in three motorists considers CO<sub>2</sub> emissions when buying a car. Ultimately, our aim is to encourage more motorists to think about purchasing a used vehicle with lower CO<sub>2</sub> emissions."*

Daniel Burgess, automotive director, HPI

### Keeping vehicle emissions in check

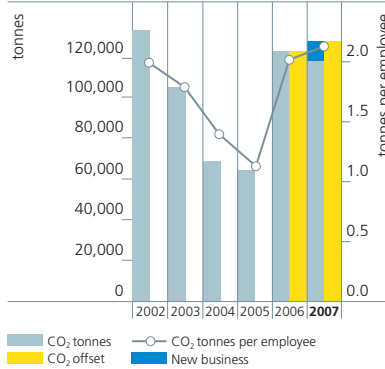
In recognition of RAC's investment in projects to reduce its carbon footprint and create both environmental and social benefits, the company retained the Breakdown/Recovery Company of the Year title in the 2007 Greenfleet Awards. Judges were impressed with innovations such as the eco-sheets that its vehicle check subsidiary company, HPI, provide free of charge to used car dealers. These allow buyers to make more informed decisions based on emissions and fuel economy data.



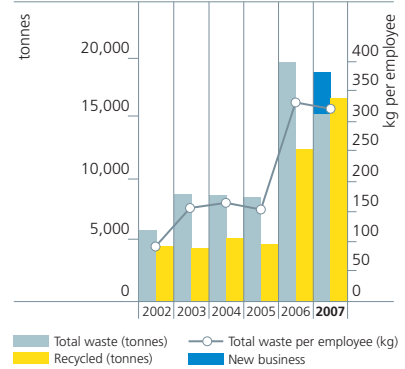
### Aviva goes solar

To help raise awareness of the need to reduce our transport emissions, the Aviva Southern Aurora solar car took part in the Panasonic World Solar Challenge in Australia in October 2007. More than 40 teams participated, driving the 3,000 kilometres from Darwin to Adelaide with only sunlight for fuel. The Aviva-sponsored car finished third in its class, and sixth overall. Capable of reaching 75 kph, the car runs on less electricity than a toaster and emits no carbon dioxide. For more information, visit [www.avivasolarcar.com](http://www.avivasolarcar.com) and [www.wsc.org.au](http://www.wsc.org.au)

### Aviva's CO<sub>2</sub> emissions



### Aviva's waste



### Resource-efficient buildings

Around the world, we have made environmental savings in our buildings during construction and refurbishment projects. These include 'green building' schemes, which have encompassed the greater use of natural light, such as the Atrium in Hibernian's new head office in Dublin, and collecting rainwater (greywater) for flushing toilets. For example, two projects to harvest rainwater at our Delhi operations, established in March and July, have collected approximately 2.6 million litres of rainwater to date for use in WCs and gardens.

Aviva Australia is phasing in new printers and other equipment to reduce power consumption and emissions, and Morley's Property team is working to reduce the environmental impact of our investment properties by improving recycling and making more efficient use of resources, especially in relation to energy consumption. And in the USA, our new office in Des Moines will be built to the Leadership in Energy and Environmental Design (LEED) standard providing a highly energy-efficient building.

### Cutting travel emissions

We try to avoid business travel where we can and encourage our employees to find responsible ways of commuting to work, such as using public transport, cycling, walking and car-sharing. For instance, Aviva France tied in with national events such as European Mobility Week, during which more than 160 employees signed up to a new online car-sharing database, while other campaigns promoted cycling and walking for short journeys.

To reduce long-distance travel, we have launched our first high-definition telepresence conferencing suites at group

centre in London and Wellington Row, York. Suites in Norwich, Pune (India) and the regional offices for North America and Asia Pacific go live from April 2008.

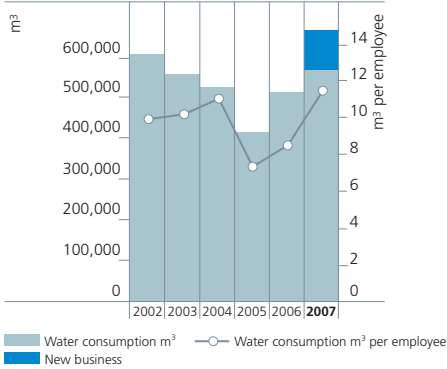
Aviva Canada's decision to reduce its car fleet from eight models to just one, smaller-engined car will save about 504 kg of CO<sub>2</sub> per vehicle each year. Elsewhere, Aviva Group Centre has transferred its taxi contract to Addison Lee, which is carbon neutral, and we are also working with our vehicles service fleet (RAC) to investigate alternative lower carbon-intensive fuels. Our executive fleet has been dramatically reduced and the remaining cars have been specifically chosen for their environmental performance.

### Waste management and recycling

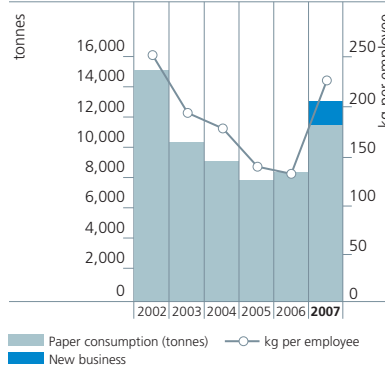
In 2007, the total waste we generated decreased to 18,877 tonnes (2006: 19,719 tonnes) and the amount we recycled increased to 16,672 tonnes (2006: 12,622 tonnes). This is a significant achievement and one we are committed to continuing, as we work to eliminate waste from the business. Our efforts in Sri Lanka led to 26,478 kg of waste paper being recycled in 2007 and RAC subsidiary company Auto Windscreens recycled more than 7,300 tonnes of glass. The proportion of waste recycled increased from 64% to 88% in the UK, where we have recycling schemes for 14 different types of waste.

Our successful 'binless office' concept is being rolled out to other businesses, including Aviva Australia and Morley, which also introduced initiatives ranging from reusing disposable coffee trays to recycling mobile phones. Such efforts were recognised by others, including the City of London Corporation's Clean City Awards Scheme (see page 10).

Aviva's water consumption



Aviva's paper consumption



### Reducing our paper use

We are constantly looking for ways to use less paper in our business, and to use more paper with recycled content. However, this is a challenge for us and in 2007, our paper consumption rose to 12,875 tonnes, up from 8,132 tonnes in 2006.

Aviva makes good use of electronic communications to reduce the amount of paper we use. For example, employees can view many corporate policies and procedures on the intranet and other web-based applications, while UK brokers have online access to policy information through the broker portal initiative.

Many of our businesses find that the easiest way to cut down on paper is to have printers set to default to double-sided printing, such as Aviva's headquarters in London and Hibernian in Ireland. And at Delta Lloyd in the Netherlands, Germany and Belgium, we use paper from sustainable sources for printing and copying.

In Poland, the promotion of payments by direct debit has helped to reduce the consumption of paper through giro's and printed correspondence, and Aviva Canada developed an e-card for the 2007 holiday season, which helped to reduce waste, save trees and reduce the CO<sub>2</sub> associated with the production and distribution of standard cards. The money saved in postage was donated to ThinkFirst, Aviva Canada's signature charity.

### Getting everyone involved

Employee awareness was enhanced by engaging staff in the environmental agenda and explaining the many aspects of environmental management, which resulted in a six-point improvement in our global survey responses to questions covering environmental responsibility (see pages 8–9).

Our efforts included an environment day as part of the CSR Awareness Week in France, and an Energy Savings Week in the UK, which engaged employees with a host of initiatives and activities, including an opportunity to calculate and offset carbon emissions via a payroll giving option. Similarly, Aviva Group Centre achieved an 8.6% reduction in electricity consumption through simple initiatives such as 'The Big Switch Off', in which all non-essential lighting and equipment are turned off at night, and its participation in the 2007 Lights Out London campaign.

Externally, our chief executive officer Andrew Moss participates in the CBI Climate Change Taskforce, which called on government, business and consumers to factor climate change into day-to-day life, and we were co-authors and a founder signatory to the ClimateWise principles, created specifically for insurers. We continue to engage with our employees on this important issue.

### Looking ahead

In 2007 we have achieved good progress on our environmental impact, however we should not become complacent. Therefore our plans for 2008 focus on reducing our environmental impacts further, particularly in areas such as carbon, water consumption and paper usage. We are committed to maintaining our position in being carbon neutral. We will continue to raise awareness within Aviva of how our business units can contribute to improving Aviva's environmental performance and influence the individual actions of employees.

*"We made good progress in 2007 to move our environmental agenda forward. While there are still many steps we can take to improve, the commitment and progress made by our employees and teams across the world is very encouraging."*

**Zelda Bentham, group environment manager**

### Paper Tree Foundation

As part of a new partnership with Copacul de Hartie ('The Paper Tree'), a non-governmental organisation, Aviva Romania introduced paper-only bins that were collected by Paper Tree volunteers for recycling. The money raised is used to plant trees across Bucharest. In the eight months since the project was launched, more than 330 companies and 60 individuals have provided 140,000 kg of paper and 17,000 kg of cardboard for recycling, and 1,120 young trees have been planted in Bucharest. For more information, see [www.copaculdehartie.ro](http://www.copaculdehartie.ro)



### Power Smart Contest 2007

Aviva Hong Kong sponsored the 'Power Smart Contest 2007' organised by Friends of the Earth, Hong Kong. This project is an appeal to the public to reduce their electricity consumption and the emissions of power plants in Hong Kong in order to mitigate the dangers of air pollution. Aviva HK is the first company from the commercial sector to sponsor this campaign. The contest required each participating household to save at least 3% on electricity consumption in any two consecutive months from June to August in 2007 as compared to the same period in 2006.