



MICK BOURKE, CHAIRMAN, EPA VICTORIA

EPA GOES CARBON NEUTRAL

Why carbon neutral for EPA?

'In order to provide practical support to companies interested in climate change, we knew that EPA needed to experience the challenges of going carbon neutral ourselves, first hand. It's been a tough, but rewarding experience. We now want to tell people about the challenges we faced, how we dealt with them and the lessons we've learned. We'd like people to question our approach and tell us what they think we could do better.'

Mick Bourke, Chairman, EPA Victoria

The issue of climate change presents both risks and opportunities for business. Many companies are approaching EPA Victoria for support and advice on how to manage this emerging issue, especially in the area of becoming a 'carbon neutral' organisation.

The concept of carbon neutrality is relatively new and there are still multiple definitions and protocols that can be used. EPA reviewed globally accepted best practices – such as the Greenhouse Gas (GHG) Protocol developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) – and has striven to incorporate leading approaches and to set practicable, yet aggressive goals.

To help us further identify and assess our options, we found we needed to develop a new decision framework. We've captured and expressed this framework in a set of draft *Carbon Management Principles* (see Figure 3). We encourage organisations to use these draft *Principles*, assess their value and work with us to improve them. A more detailed publication on these draft *Principles* will be available on our website in late February 2007.

MEASURE EMISSIONS

EPA's first step was to develop a robust and externally assured GHG emissions inventory for the financial year 2005–06; it will serve as a benchmark to measure our progress towards downsizing EPA's carbon footprint in the coming years. The concept of an organisation's carbon footprint and the methods for organisational carbon accounting are still relatively new. In response, EPA will continue to work towards identifying and addressing the full carbon footprint of our organisation over

time, including items such as the life-cycle GHG emissions embedded in the stationery, computers and paper we use.

SET AN OBJECTIVE THEN AVOID AND REDUCE EMISSIONS

Our approach to achieving the objective of becoming carbon neutral was to first focus on avoiding and reducing our emissions. We prioritised projects with attractive financial paybacks and other organisational co-benefits. We now aim to establish innovative schemes that provide incentives to our employees, suppliers, and landlords to think strategically about carbon management, and to deliver solutions that will enhance our organisation's financial bottom line.

ASSESS AND OFFSET REMAINING EMISSIONS

We will secure enough green power every year to neutralise emissions from our electricity consumption, assess the remaining emissions in our inventory and purchase robust offset products for the residual emissions.

TRANSPARENCY AND DEMONSTRATING THE BUSINESS CASE

As we receive feedback and improve our carbon management approach each year, we will be transparent about our processes and decisions and will share our experiences with others. Our GHG inventory and GHG reduction strategy will be externally assured each year. All our information will be published each year. EPA hopes to enhance our carbon management capacities and share the lessons we learn with other organisations that are exploring their options in this new aspect of business management.

EPA's journey so far

EPA has long been implementing energy saving initiatives to reduce our GHG emissions contribution. Over the past few years we have made significant progress. EPA has reduced the energy consumption per square metre of our total office space to 59 per cent of 1999–2000 levels.

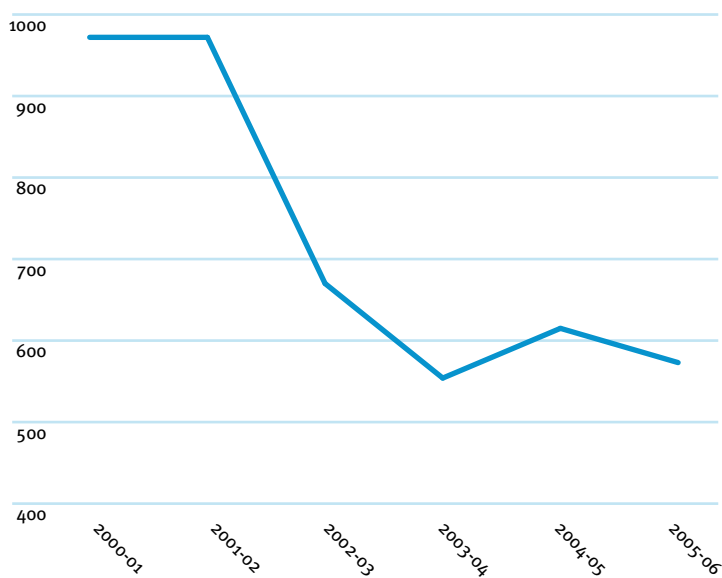
More recently, EPA has taken steps to ensure that any new space we occupy integrates environmentally-friendly design. For example, our new building for the Wangaratta regional office has been fitted out according to Green Star guidelines developed by the Green Building Council of Australia.

EPA has purchased accredited green power since 2000. Prior to going carbon neutral, 28 per cent of our electricity consumption was linked to green power.

We have also made a significant effort to minimise the GHG emissions of our fleet. In 2003, EPA purchased its first hybrid vehicle. Today, we have nine hybrid vehicles and a range of other fuel-efficient models in our corporate fleet.

We have made considerable progress in reducing our GHG emissions, however many opportunities remain to eliminate our contribution to the accumulation of GHG emissions in the atmosphere. Our new carbon neutral commitment takes up this challenge.

Figure 1:
TOTAL ENERGY PER SQUARE METRE OF OFFICE FLOOR SPACE
AT EPA (MJ/m²)



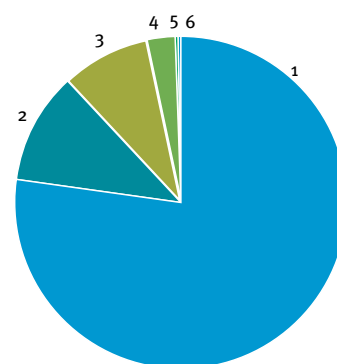
Our current carbon footprint

In 2005–06, EPA's operations before green power and offset purchases resulted in 4509 tonnes of carbon dioxide equivalent (CO₂-e) emissions.

Despite having previously made significant reductions in energy consumption, the primary source of our GHG emissions remains our building electricity use, which represents 67 per cent of our total emissions. Vehicle and boat fuel is the next biggest source of emissions at approximately 11 per cent of our total emissions.

EPA's GHG inventory was developed in accordance with the WRI/WBCSD GHG Protocol; for more information see www.ghgprotocol.org. We included all of our 'direct' emissions sources such as natural gas use, vehicle fleet fuel, and refrigerants, as well as a wide range of 'indirect' sources such as purchased electricity, business travel, and waste. A summary of our emissions inventory is available on EPA's website.

Figure 2:
EPA'S 2005-06 GHG INVENTORY
(tonnes CO₂-e)



Neutralising our climate impact from 2005–06

EPA's primary approach to carbon management is to implement cost-effective, direct emission reduction projects in our operations.

For 2005–06, our only remaining options for addressing our emissions were to purchase additional green power or offset products. This will neutralise the emissions we measured from our past year of operation and set an organisation-wide price signal for carbon.

EPA was able to neutralise the emissions from all of its electricity consumption (3010 tonnes CO₂-e) through existing green power contracts and additional purchases of 2006 green power credits. This green power was 100 per cent GreenPower accredited.

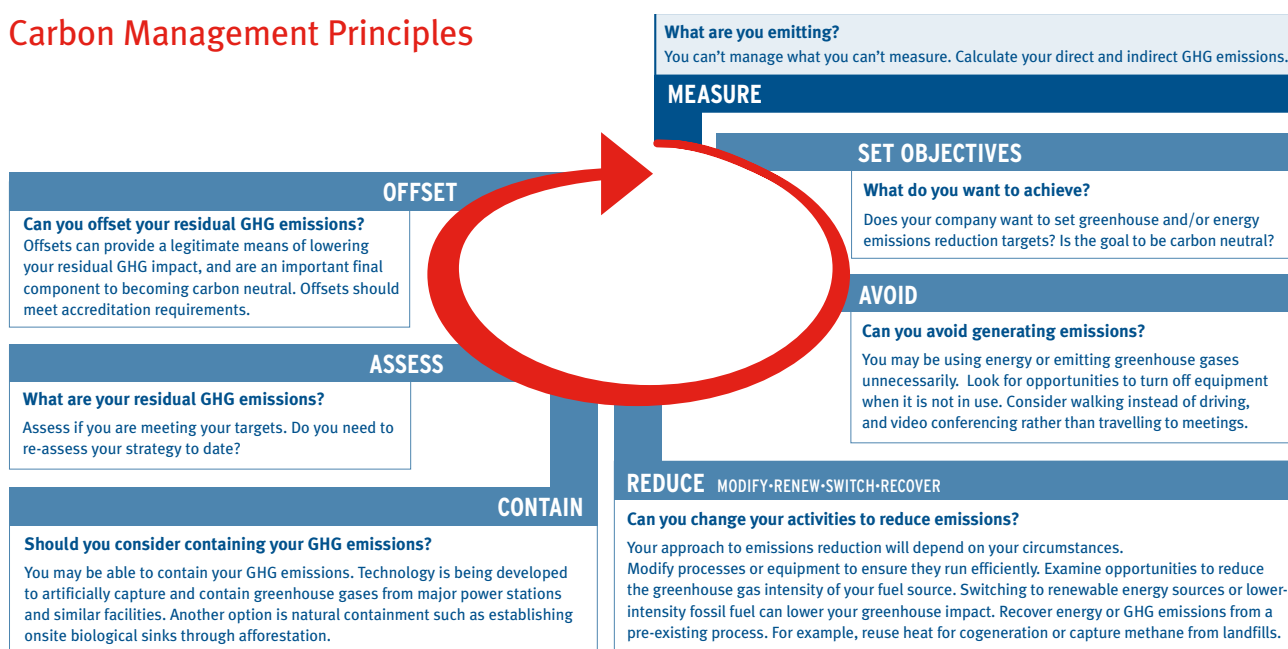
EPA's vehicle emissions (450 tonnes CO₂-e) are offset through a range of energy efficiency and afforestation schemes managed by the Victorian Department of Sustainability and Environment. We neutralised the remaining emissions (1050 tonnes CO₂-e) by investing in a diverse portfolio of products including composting and energy efficiency upgrade projects. We purchased an additional 200 tonnes CO₂-e of offsets to cover any potential margin of error in inventory or carbon credit calculations.

Our 2005–06 GHG inventory has been externally assured by Net Balance Management Group Pty Ltd, a consultancy with international accreditation by the International Register of Certified Auditors (UK) for sustainability assurance provision.

Figure 3: DRAFT CARBON MANAGEMENT PRINCIPLES

These draft Principles were used to guide our decision-making. We welcome feedback on these draft Principles.

Carbon Management Principles



Our approach for 2006–07 and beyond

EPA is committed to improving our carbon management plan each year in line with our draft *Carbon Management Principles*. Our plan will be externally assured annually and will incorporate the following seven components:

FURTHER DIRECT REDUCTIONS IN OVERALL GHG EMISSIONS BY 2010

Building on past achievements in reducing energy consumption onsite, EPA is investigating cost-effective projects for our buildings and fleets. At a minimum, we commit to implementing measures with a four-year payback or less in order to achieve at least a 10 per cent reduction in overall 2005–06 GHG emissions by 2010.

INCLUSION OF ADDITIONAL LIFE CYCLE EMISSIONS SOURCES AS CARBON ACCOUNTING IMPROVES

EPA will work to identify or develop new accounting methodologies for life cycle sources such as embodied energy in paper use, electronic equipment and buildings. EPA commits to estimating and incorporating two additional life cycle sources into our inventory every year.

GREEN POWER FOR 100 PER CENT OF ELECTRICITY GHG EMISSIONS

We will seek cost-competitive, GreenPower-accredited products with a focus on projects within the State of Victoria.

ROBUST OFFSETS FOR RESIDUAL EMISSIONS

We will continue to seek high-quality, transparent, and cost-competitive offset products in the marketplace. In addition, we will investigate direct offset projects such as working with other tenants in our office buildings to reduce their energy use. EPA will also contribute to the ongoing work to set standards for offset accounting and accreditation.

DEVELOPMENT OF INTERNAL GHG REDUCTION INCENTIVE SCHEME

To further learn about and demonstrate the business case for carbon management, EPA aims to internalise the carbon cost of doing business and to establish innovative schemes that provide incentives for carbon reduction. These incentives may include concepts such as carbon pricing for EPA business units, carbon pricing for specific activities such as air travel, or budgetary rewards for business units who identify and implement emissions reduction measures.

BUILDING OUR OWN CARBON MANAGEMENT CAPACITY

EPA will invest in additional resources to improve our measurement and monitoring systems and to manage our carbon reduction projects. We will build the capacity of our own people by engaging in staff training and education. We will also ensure we maintain a robust monitoring and reporting system and continued annual external assurance.

SEEKING EXTERNAL FEEDBACK

In response to the interest in climate change and carbon neutrality, EPA and some of our business partners are establishing a *Carbon Innovators Network*. This network of companies and climate change experts will share ideas and learnings about carbon management. EPA will ask participants in this network to scrutinise and comment on our draft carbon management plan each year.

TWO KEY LESSONS LEARNED TO DATE

The concept of ‘carbon neutrality’ is not yet well defined. A key consideration was selecting which emission sources to include in our inventory. The WRI/WBCSD GHG Protocol requires direct emissions and emissions from purchased electricity to be included, but there is no clear agreement on which ‘optional’ indirect emissions sources to include (e.g. business travel, waste, transmission and distribution electricity losses). To be as comprehensive as possible, we included all sources we could accurately estimate at present.

The market for green power and offset products is evolving. As a consumer, we looked for independently verified products. We sought highly transparent vendors who provided background technical documentation, and not simply marketing materials. We also discovered that the marketplace for green power and offsets contains a certain amount of volatility, providing both risks and rewards for the consumer. We will continue to evaluate the merits of long-term contracts, timing of purchases, and the robustness of products to make sure we are making commercially viable decisions.

FOR MORE INFORMATION

To learn more about EPA’s carbon neutral strategy, including the draft *Carbon Management Principles* and upcoming technical documentation relating to EPA’s GHG inventory, please visit www.epa.vic.gov/greenhouse or contact EPA’s EMS Coordinator at 03 9695 2722.