Cities for Climate Protection Australia

Local Government Action on Climate Change

Measures Evaluation Report 2008

Australian Government
Department of the Environment, Water, Heritage and the Arts
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Cities for Climate Protection® (CCP®) Australia: Implementing greenhouse action through a collaboration between the Australian Government and ICLEI Oceania. The CCP Australia program is funded by the Australian Government.

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ISBN: 978-0-642-55466-6
Highlights

Local councils participating in the Cities for Climate Protection (CCP) Australia program are making a significant contribution to the national efforts of reducing greenhouse gas emissions.

In 2007/08 over 3000 greenhouse gas abatement actions were reported by 184 councils across Australia. Collectively these actions prevented 4.7 million tonnes of carbon dioxide-equivalent (CO\textsubscript{2}-e) from entering the atmosphere – the equivalent to taking over a million cars off the road for an entire year.

The breadth of actions reported reflects the councils’ maturing response to climate change. Councils are routinely using cost savings and other benefits to build the case for climate change action. In addition, addressing climate change is now a component of many councils’ business objectives, and they are taking actions to motivate and lead their communities.

Councils saved almost 650,000 tonnes CO\textsubscript{2}-e through actions to reduce their corporate emissions from their buildings, street lighting, vehicle fleets, water and sewage operations, and from waste. They also purchased accredited offsets equivalent to 93,000 tonnes CO\textsubscript{2}-e.

Councils are increasingly assisting residents and local businesses to reduce community emissions from energy use, transport and waste through a wide variety of projects that focus on implementation, education, and behaviour change. Overall, these actions were estimated to have saved 4.1 million tonnes CO\textsubscript{2}-e.

Key achievements reported by CCP Australia councils

For 2007/08:
- 4.7 million tonnes CO\textsubscript{2}-e abatement – equivalent to over a million cars off the road for one year.
- $22 million saved by councils and their communities through reduced energy costs.

Since the start of reporting in 1998/99:
- 18 million tonnes CO\textsubscript{2}-e abatement.
- $95 million saved by councils and their communities through reduced energy costs.
Cities for Climate Protection (CCP) is an innovative international campaign by ICLEI – Local Governments for Sustainability that addresses climate change, one of the most serious problems facing the global community. CCP advocates that cumulative local action is an important approach for addressing climate change. Local government, as the level of government closest to the community, is in a unique position to drive and sustain this local action.

In Australia, CCP is implemented as a collaboration between local governments, ICLEI Oceania and the Australian Government Department of the Environment, Water, Heritage and the Arts. CCP Australia was launched in 1997 and as of 30 June 2008 had 233 participating councils (see Page 27), representing about 84% of the Australian population.

Councils and their communities contribute to climate change through energy and fuel use and organic waste disposal, which create greenhouse gas emissions. Burning fossil fuels (such as coal, petrol and natural gas) to produce energy creates carbon dioxide, and organic waste releases methane when it decays in landfill.

CCP works with councils to achieve quantifiable emission reductions in their own (‘corporate’) operations, and from households and businesses in their municipalities (‘community’). CCP provides councils with an internationally recognised strategic milestone framework, through which they undertake emissions inventories, set reduction goals, create local action plans, implement actions and monitor their progress.

Each year ICLEI Oceania invites all CCP Australia councils that have developed a local action plan to report on recent actions that reduced corporate and community emissions. ICLEI Oceania helps councils measure the emission reductions and the financial and other benefits from these actions, and then reports on them (see Box 1). This edition of the Measures Evaluation Report focuses on actions implemented in 2007/08 and cumulatively since reporting began in 1998/99.

The report provides an insight into the many ways councils achieve or influence emission reductions (Corporate Actions and Community Actions), and includes estimates of their cumulative impact (National Abatement Totals). It also showcases innovative projects and includes short descriptions of councils and a summary of some of their actions (Council Profiles).

Box 1  Measuring Abatement Actions

This report synthesises information provided by councils on actions that reduce greenhouse gas emissions, and the benefits of those actions.

What councils consider one action varies considerably in extent and scale. For example, it can range from a lighting retrofit of one room to a complete retrofit of lighting, heating and cooling systems of a whole building; or from a workshop for ten residents to distributing efficient light globes to thousands of residents.

Measuring the emission reductions – or abatement – associated with these actions is a technical and data-intensive exercise. ICLEI Oceania works closely with councils to compile the most accurate and complete data possible.

Abatement is measured in tonnes of carbon dioxide-equivalent (CO₂-e). In general, reductions in energy or waste are calculated first and then converted to CO₂-e using factors published in the National Greenhouse Accounts (NGA) Factors from the Australian Government Department of Climate Change.

ICLEI Oceania has developed abatement calculators for many common types of actions. To use them, councils gather and input data for an action – such as wattage ratings and hours of use. If specific data for an action is not available, councils work with appropriate and conservative ‘default’ or average estimates identified by ICLEI Oceania. Councils can also report abatement calculated by a third party, provided the calculations are adequately documented.

ICLEI Oceania evaluates all data and calculations provided by councils to ensure they are plausible and complete.

Most actions have ongoing abatement benefits and councils can report them for several years, depending on the type of measure. Actions with shorter life spans or variable annual abatement need to be updated annually. Consequently, actions implemented in 2007/08, as well as ongoing actions implemented in earlier years, contributed to the 2007/08 abatement total.
Actions taken by councils and their communities to reduce greenhouse gas emissions are adding up. In 2007/08, CCP Australia councils reported that actions to reduce emissions from their own (‘corporate’) operations and from their communities saved over 4.7 million tonnes CO$_2$-e. This brings the cumulative savings reported by councils since reporting began in 1998/99 to 18 million tonnes CO$_2$-e.

The emission reduction reported in 2007/08 continues the strong annual growth in abatement reported through CCP Australia, with a 20% increase from 2006/07 (see Figure 1). Over 850 new actions to reduce emissions were implemented by councils in 2007/08, adding to the ongoing abatement from over 2500 earlier actions.

The strong growth in abatement is partially explained by more councils reporting each year, with nine new councils bringing the total number reporting to 184 in 2007/08. However, there was also an increase in the average number of actions and the average abatement reported by each council. This increase indicates that councils and their communities are intensifying their efforts to reduce emissions.

Councils reported that, together with their external funding partners, they invested $23 million in 2007/08 and $203 million since 1998/99 on actions that reduced corporate and community emissions. Given that most of these actions have a plethora of community and other benefits, it is not possible to accurately estimate the true cost of abatement. Nevertheless, the cumulative investment since 1998/99 has resulted in financial savings of $22 million in 2007/08 through reduced energy costs, as well as in numerous other benefits.

Both corporate and community actions contributed to the increase in abatement. Corporate actions contributed 649,000 tonnes CO$_2$-e (almost 14%) and community actions contributed 4,052,000 tonnes CO$_2$-e (86%) of the total reported abatement in 2007/08 (see Table 1). In addition, councils reported buying accredited offsets equivalent to almost 93,000 tonnes CO$_2$-e. A summary of the actions that contributed to these figures is provided in the next two sections.

Table 1 shows the breakdown of the national abatement in 2007/08 by state. The total abatement in each state depends on many factors, including the number of councils reporting, their areas of responsibility, their size and the population they represent. The Council Profiles at the end of this report describe some of the actions being undertaken by councils in each state.

Table 1 Abatement and offsets reported by CCP Australia councils for 2007/08 and cumulatively since reporting began 1998/99.

<table>
<thead>
<tr>
<th>State</th>
<th>Number reporting</th>
<th>2007/08 Abatement and offsets (in thousands of tonnes CO$_2$-e)</th>
<th>Cumulative since 1998/99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Community</td>
<td>Corporate</td>
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<tr>
<td>NSW/ACT</td>
<td>58</td>
<td>1,793</td>
<td>149</td>
</tr>
<tr>
<td>NT</td>
<td>2</td>
<td>0</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Qld</td>
<td>15</td>
<td>509</td>
<td>291</td>
</tr>
<tr>
<td>SA</td>
<td>17</td>
<td>240</td>
<td>17</td>
</tr>
<tr>
<td>Tas</td>
<td>3</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td>Vic</td>
<td>57</td>
<td>878</td>
<td>118</td>
</tr>
<tr>
<td>WA</td>
<td>32</td>
<td>599</td>
<td>40</td>
</tr>
<tr>
<td><strong>National Total</strong></td>
<td><strong>184</strong></td>
<td><strong>4,052</strong></td>
<td><strong>649</strong></td>
</tr>
</tbody>
</table>

$^a$ Offsets are reported separately to avoid double counting.
Box 2  Identifying and Prioritising Actions – to optimise greenhouse gas and financial savings

How do councils decide which of the large range of possible emission-reduction actions to undertake? There are several possible answers to this question, depending on a council’s starting position (for example, the facilities they own and the actions they have already taken), their financial situation, and the balance of abatement, financial savings and other benefits they want to achieve. Here are some of the common criteria councils use to identify and prioritise actions.

NO OR LOW UP-FRONT COSTS
Cost is often a barrier to implementing actions. However, there are many actions – the so-called ‘low-hanging fruit’ – that can be implemented at little or no cost. These actions include turning equipment off when it is not needed and removing unnecessary equipment.

COST EFFECTIVENESS
Even actions with higher up-front costs, such as air conditioning upgrades, can pay for themselves over time through avoided energy costs. Starting with actions that have short pay-back periods, and progressively implementing actions that have longer pay-back periods, is a cost-effective way to reduce emissions. This type of assessment is often consistent with the action ‘hierarchy’: (1) avoid unnecessary energy use, (2) invest in energy efficiency, (3) increase renewable energy generation, and (4) purchase offsets.

‘DEEP’ CUTS IN EMISSIONS
The scientific consensus is that large cuts in emissions are necessary for preventing dangerous climate change. Actions to achieve very large sustainable cuts in emissions, such as large infrastructure or renewable energy projects, are often very expensive, but present an excellent opportunity for councils to demonstrate leadership and reap savings over the long term. Councils often seek help from external funding sources to implement such actions.

LEADERSHIP AND EDUCATION
Demonstrating leadership, and engaging and educating staff and the community creates important flow-on benefits. Although as individual actions they may have little direct abatement, they are useful in encouraging behaviour change in the community. Such actions include installation of solar panels with educational displays and community-information evenings.

MULTIPLE BENEFITS
Many actions that reduce emissions also have other benefits, which may even be the primary reason for taking the action. One example is the Walking School Bus program, which not only generates abatement but also has many additional social, health and educational benefits for individuals and the community.

CCP Australia has recently released three guides to help councils assess and implement actions:

- **Financial Evaluation of Local Greenhouse Actions**: An introduction to common analytical methods for appraising the financial viability of greenhouse actions.
- **Renewable Energy for Local Governments**: An overview of a number of key renewable energy technologies relevant to local government.
- **Carbon Offsets Guide for Local Government**: An overview of carbon offsets, including what they are, and when and why they might be used.

CCP councils can log in and download the guides from the CCP Australia website [www.iclei.org/ccp-au](http://www.iclei.org/ccp-au).
Corporate Actions

Most councils operate extensive facilities and manage large vehicle fleets to provide a wide range of services to their communities. Not surprisingly, these corporate operations can produce substantial greenhouse gas emissions. CCP Australia councils have focused on reducing their corporate emissions first, thereby reducing their energy costs and demonstrating leadership to their communities.

Councils reported undertaking a wide range of actions to reduce emissions from their buildings, street lighting, vehicle fleets, waste, and water and sewage operations (see Table 2). Some have purchased offsets to compensate for emissions they could not reduce.

These actions resulted in emission reductions of almost 649,000 tonnes CO$_2$-e in 2007/08, and over 3.5 million tonnes CO$_2$-e since reporting began in 1998/99. The resulting reduction in energy use saved councils at least $8.3 million in 2007/08, and more than $41 million since 1998/99.

This section examines the actions reported in each sector of council operations, as well as the organisational development they undertook to support and accelerate these actions.

### Table 2

<table>
<thead>
<tr>
<th>Sector</th>
<th>Abatement and offsets (in thousands of tonnes CO$_2$-e)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007/08</td>
</tr>
<tr>
<td>Buildings</td>
<td>266</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>57</td>
</tr>
<tr>
<td>Vehicle Fleet</td>
<td>8</td>
</tr>
<tr>
<td>Waste</td>
<td>314</td>
</tr>
<tr>
<td>Water and Sewage</td>
<td>4</td>
</tr>
<tr>
<td>Corporate Total</td>
<td>649</td>
</tr>
</tbody>
</table>

Accredited Offsets$^a$ | 93 | 107

$^a$ Offsets are reported separately to avoid double counting.

Figure 2: Sector breakdown of corporate abatement in 2007/08.

Photo: Michelle McAulay
Buildings

Council-owned or managed buildings – such as administrative buildings, depots, swimming pools and libraries – are the largest source of emissions for most councils. These buildings contain a wide variety of energy-consuming equipment, including lighting, heating and cooling systems, IT and imaging equipment, and hot water systems.

There are many opportunities for reducing emissions from the buildings sector. Improvements made to buildings and equipment accounted for 70% of the total number of corporate actions reported, and 41% (266,000 tonnes CO₂-e) of the total corporate abatement in 2007/08. The major actions undertaken in council buildings are described in the following paragraphs.

Switching off Turning off equipment when it is not needed or installing timers and sensors are among the simplest actions councils reported. They generally have low or no cost and can sometimes lead to considerable financial savings. Lighting, computers, imaging equipment, hot water urns, and heating and cooling systems are often left on all the time or for longer hours than needed. Councils used a combination of staff behaviour change strategies, Energy Star settings, and timers and sensors to ensure this equipment gets switched off when not in use.

Equipment upgrades A large number of councils reported improvements to the energy efficiency of office equipment, such as computer monitors and light fittings, which can often be achieved at little or no extra cost during regular upgrades. A growing number of councils reported upgrading IT, heating and cooling systems, which have higher up-front costs but also deliver higher abatement (see Case Study 1).

Building Envelope Some councils reported actions to improve the energy efficiency of the building envelope, such as installing insulation, applying heat-reflective paint and installing double-glazed windows. By significantly reducing heating and cooling needs, such actions can result in high abatement and large cost savings.

Renewable Electricity About a third of councils reported installing solar photovoltaic systems on buildings. Despite the up-front costs, these systems can provide good opportunities to raise staff and community awareness of climate change action. About a third of councils also reported purchasing renewable electricity in the form of accredited GreenPower to cover a portion of their building electricity use.

Aquatic Centres Aquatic centres use a lot of energy to keep swimming pools warm and clean, and to provide hot showers for visitors. Several councils reported installing water-efficient showerheads and pool blankets – actions that tend to have short pay-back periods. Many councils installed more efficient or renewable hot water systems (such as solar). Several councils also installed more innovative renewable systems, such as co-generation and geothermal heating. While these systems have high up-front costs, they can lead to large cuts in emissions and financial savings in the long term.

Audits Many councils commissioned detailed energy audits, which are an important tool for councils to identify opportunities for emission reductions in their facilities. These audits were used by councils to prioritise abatement actions, as the basis for energy performance contracts, or to fulfil government reporting obligations.

CCP Australia has recently released the Local Government Energy Audit Guide: A local government guide to conducting energy-efficient building audits, for councils wishing to undertake their own audits. Councils can log in and download the guide from the CCP Australia website www.iclei.org/ccp-au.

Case Study 1: Going Virtual

In an effort to green its IT services, the City of Stirling in Western Australia is using innovative technology to reduce its number of power-hungry server computers.

Like most councils, Stirling relies on powerful server computers to manage its large networks of desktop computers. But this service can come with significant energy costs – servers run 24 hours a day, seven days a week, and need to be kept in specially air-conditioned rooms.

Stirling has addressed this inefficiency by consolidating its servers with ‘virtual server’ technology. This technology uses sophisticated software to divide the resources of one server so that it functions the same as several independent servers. It allowed Stirling to reduce the number of servers it uses from 45 to seven, and substantially reduce the associated energy use and emissions.

CCP Australia’s recently launched Switch IT Over project has found that more than 60% of the 104 councils surveyed have implemented server consolidation projects, and a further 23% have plans to do so in the next 12 months. For more information on energy-efficient office and IT equipment, see www.iclei.org/index.php?id=switch.
A group of councils in south-east Queensland is participating in a trial of energy-efficient street lighting that could lead to big cuts in emissions and costs.

Bringing together the key stakeholders in the public lighting field was the first success of the project. The group includes Brisbane, Ipswich and Gold Coast City Councils; Sunshine Coast and Moreton Bay Regional Councils; the electricity distributor Energex; the Queensland Department of Mines and Energy; and the Australian Government Department of the Environment, Water, Heritage and the Arts.

The trial involves around 300 street lights, 13 locations and four lighting technologies. The trial’s aim is to identify the most appropriate lamp technology suitable to a range of environmental and network conditions to eventually roll out and deliver the greatest possible abatement.

Case Study 2: Accelerating Street Lighting Action

A typical trial site set-up, with an amalgam compact fluorescent light and a data recorder (courtesy of Energex)

Street Lighting

For most councils, street and public lighting are the second largest source of emissions. However, this sector represented less than 10% (57,000 tonnes CO₂-e) of the total corporate abatement in 2007/08. And while energy-efficient technologies have the potential to cut street lighting emissions by around half, they accounted for only 15% of the reported abatement – with the remainder coming from GreenPower purchases.

Councils must overcome two main barriers in order to implement energy-efficient street lighting technologies. First, although councils pay the electricity bills for street lighting, the infrastructure is controlled and operated by distribution companies. This regulatory structure severely limits councils’ ability to control the energy efficiency of their street lights. The second barrier is that technology upgrades often need to be planned over a period of years due to their significant capital expense.

Councils have taken a range of actions to overcome these barriers and to ensure greater abatement in future years. About 30 councils reported undertaking street lighting audits and developing sustainable street lighting plans. Of the councils installing new technology – such as efficient lamp types, power management and solar-powered lights – many are opting for pilot or trial projects before a larger rollout. And many councils are working in regional groups, which give them better negotiation powers with regional distributors (see Case Study 2).

The CCP Sustainable Public Lighting Toolbox is a resource available for councils looking to accelerate action in this sector: www.iclei.org/index.php?id=publiclighting.

Vehicle Fleet

Councils reported over 150 new actions in 2007/08 to reduce emissions from fuel use in council vehicles, such as passenger vehicles and garbage trucks. The abatement from actions in this sector represented 1% (8000 tonnes CO₂-e) of the corporate total. For many councils, this sector is a priority, especially with rising fuel prices, and several have amended their fleet policy to reflect this priority.

Many councils are moving to more efficient vehicles, such as diesel, hybrid and small-engine vehicles. Switching to liquid petroleum gas (LPG) is also popular. And, for the first time, a couple of councils reported adding electric vehicles to their fleet (see Case Study 3). Several councils also encouraged car pooling and public transport use and provided a bicycle fleet with regular and electric bicycles for business travel.

About 20% of councils reported using biodiesel and ethanol blends. Biofuels are derived from renewable (rather than fossil) plant or animal sources, so the carbon dioxide they release during combustion is considered greenhouse neutral. However the emissions of biofuels over their full life cycle depend on the manner and feedstock from which the biofuel is produced. Switching to biofuels has recently become controversial as their production can have harmful social and environmental impacts, such as deforestation and competition with food crops. CCP Australia encourages councils to investigate the sustainability of biofuels as part of their purchasing decision.
Case Study 3: Travelling Solar

When Adelaide City Council consulted its residents about the future of public transport, a key theme emerged – sustainability. This led the council to introduce Tindo, the world’s first solar electric bus.

Electric vehicles are widely believed to be the most likely way for future transport. However, their potential to reduce emissions depends on the source of the electricity they use. For example, an electric vehicle powered by electricity that is generated by burning coal can end up creating higher emissions than a vehicle powered by petrol or diesel.

Tindo, powered by 100% solar energy, is truly carbon-neutral. Its batteries are recharged from the large array of solar panels on the roof of the Adelaide Central Bus Station, which was funded mostly through the Adelaide Solar City program. This all adds up to an impressive abatement of around 30 tonnes CO$_2$-e per year from avoided diesel emissions, as well as considerable community excitement about sustainable transport.

For more information on Tindo please visit www.adelaidecitycouncil.com.

Case Study 4: Life-cycle Emissions

Thanks to their council’s sustainability purchasing initiative, the staff and residents of Rockdale City Council in New South Wales will soon find 100% recycled toilet paper in all council facilities and amenities.

The council decided that introducing recycled toilet paper would be a practical way to demonstrate its commitment to reducing the environmental impacts of the products they purchase. Recycled toilet paper has lower life-cycle emissions than toilet paper made from virgin fibre because its manufacturing process is less emissions-intensive.

A perfect opportunity arose when toilet-paper dispensers in council buildings needed replacing.

The council sourced a dispenser compatible with recycled paper and durable enough to withstand the vandalism inflicted on public toilets.

By choosing to purchase recycled toilet paper, the council estimates that nine tonnes CO$_2$-e of life-cycle emissions will be saved each year. These savings do not count as abatement, as life-cycle emissions are outside the council’s emission profile. However, the life-cycle emissions of products such as paper are nonetheless an important purchasing consideration.
Waste

Actions to reduce methane emissions from council-related organic waste accounted for 314,000 tonnes CO$_2$-e in 2007/08, almost half the total corporate abatement.

The majority of abatement resulted from a number of actions to capture and burn methane at council-managed municipal waste facilities, which some councils chose to report in the corporate sector. These facilities receive waste from the entire community, and consequently have very high methane emissions and abatement (see Waste in the Community Actions section).

Most of the actions, but a small portion of the abatement, came from diverting council-generated paper, green and food waste away from landfill.

At least a third of councils reported collecting waste paper for recycling in their facilities. Several reported simpler actions to use less paper in the first place – such as using electronic instead of printed documents, using double-sided printing, and re-using scrap paper. About a fifth of councils reported mulching the often substantial amount of green waste generated by council-managed streets, parks, gardens and reserves for re-use.

Some councils purchase recycled office paper, which provides no direct abatement but has the benefit of reduced life-cycle emissions (see Case Study 4).

Very few waste management services divert food waste from landfill; however, food waste can be composted ‘onsite’. About 10% of councils reported installing worm farms and compost bins for that purpose at their facilities.

Offsets and Biosequestration

Some councils sought to reduce the impact of their emissions by purchasing carbon offsets to compensate for emissions, or by planting trees to remove carbon dioxide from the atmosphere (biosequestration).

Purchasing offsets does not lead to long-term reductions in actual corporate emissions. It therefore provides no financial savings and requires an ongoing financial commitment. For these reasons, CCP Australia considers this approach appropriate only after other alternatives have been explored. In 2007/08, 28 councils reported offsetting corporate emissions, mainly emissions produced by vehicle fleet use, as well as by events and business travel.

Because the market for voluntary carbon offsets is emerging, the quality of available offsets varies widely. CCP Australia reports only offsets that have been accredited by reputable organisations, such as the Australian Government’s Greenhouse Friendly initiative. The abatement from accredited offsets purchased in 2007/08 was equivalent to 93,000 tonnes CO$_2$-e. It is reported separately to avoid any potential for double counting with actual emission reductions reported elsewhere in this report.

Instead of purchasing carbon offsets, some councils chose to plant trees, which store (or sequester) carbon dioxide from the atmosphere as they grow. Over 100 councils also reported planting trees as part of council vegetation projects. While tree planting has many benefits, the resulting absorption of carbon dioxide from the atmosphere is usually slow, temporary and difficult to measure.

Councils reported over 270 tree-planting activities since 1998/99. In 2007/08 these trees sequestered approximately 40,000 tonnes CO$_2$-e. This approximation, based on a method outlined in Growing Trees as Greenhouse Sinks: An overview for local government (Department of Climate Change, 2006), has not been included in abatement totals.

Water and Sewage

Most councils produce a small amount of emissions from the energy used to pump water to council facilities or open spaces. However, some councils in Queensland, rural New South Wales and Tasmania are also responsible for providing potable water and sewage disposal services to their communities.

The energy required to deliver these services and the resulting emissions are considerable. Despite this, the 2007/08 abatement for the sector was just 1% (4000 tonnes CO$_2$-e) of the corporate total. These results suggest that there may be potential for emission reductions in this sector.

A small number of councils reported reducing the need for pumping by reducing the demand for water. They achieved this by improving the water efficiency of irrigation systems and by helping the community reduce water use. Other councils upgraded the energy efficiency of water-delivery and sewage-disposal systems – for example, by upgrading to variable-speed drive pumps that match their speed to demand. One council reported using the methane produced by sewage to generate electricity to power the treatment process. A small number of councils also reported purchasing GreenPower for this sector.
Organisational Development

Councils are building their internal commitment to climate change action, and are developing the policy, staff and funding structures that support it. Integration of climate change considerations – especially relating to improved energy management – into councils’ policies, strategies and plans is particularly important for achieving ongoing emission reductions and financial savings.

Committing funding and other resources for implementing action is a crucial step councils must take. Climate change actions often cost more up-front than ‘business as usual’ alternatives, but many can reduce energy use and have long-term financial savings. Councils have demonstrated a strong financial commitment to climate change action by investing over $10 million above ‘business as usual’ in 2007/08 in actions that contributed to reductions of emissions from their corporate operations. The total spending since 1998/99 is over $90 million. Several councils reported committing the savings from reducing their energy use to funding further climate change action.

Funding is also essential to ensure there are enough staff resources to work on climate change action. In 2007/08, 70 councils reported investing over $3.2 million in 255 staff members, or 100 full time equivalent (FTE) staff. The average of 1.4 FTE per council is a 55% increase from the average reported in 2006/07.

Councils have also been applying for external grants and taking advantage of other funding opportunities to fund corporate actions. In 2007/08 they reported receiving almost $900,000 from the Australian Government, state governments and agencies, and industry partners.

Other organisational actions councils reported included:

- Setting up cross-departmental ‘green’ or energy teams to ensure the cooperation and coordination across departments necessary to implement actions.
- Improving knowledge of council energy use and tracking emissions by purchasing data management software, contracting external providers to compile data, and undertaking emissions inventories.
- Partnering with neighbouring councils to work more effectively on regional projects and issues, such as street lighting and transport.
- Undertaking a range of activities, events and training to raise staff awareness of the importance of climate change and what they can do about it (see Case Study 5).

Case Study 5: Greening the Office

Establishing sustainable office practices through behavioural change requires an approach that not only engages the entire council, but also includes a sense of fun. This is the conclusion of Western Australia’s City of Wanneroo after establishing its successful EcoCoWs program.

EcoCoWs aims to increase staff awareness and involvement in reducing the environmental impact of the workplace.

One of the council’s first steps in the program was to develop a plan to help maximise staff engagement and participation. Part of the plan was the distinctive and light-hearted logo and name – with the CoW in EcoCoWs standing for City of Wanneroo. Another was the launch of the program, which staff celebrated with a green-themed, casual dress day.

The program uses posters and regular emails to provide information about minimising the environmental impact of the workplace. A comprehensive Green Office Guide is also currently being developed.
Community Actions

Community greenhouse gas emissions result from energy use and waste associated with transport, residential, commercial and industrial activities in the municipality. As the level of government closest to the community, councils can have significant influence over these emissions.

Councils have found a wide range of ways to reduce community emissions in areas over which they have greater control, such as planning, waste services and alternative transport provision, and to influence reductions in other areas. Councils have taken a particularly direct and active role in educating their communities about climate change and sustainability.

Councils reported that actions to reduce community emissions saved just over four million tonnes CO$_2$-e in 2007/08 and almost 14.5 million tonnes CO$_2$-e since the start of reporting in 1998/99. The reduction in energy use from these actions has saved residents and local businesses at least $13.5 million in 2007/08 and at least $54 million since 1998/99.

Councils reported investing $9.2 million in 2007/08 to fund these actions, and received an additional $3.6 million from the Australian Government, state governments, and industry partners. In total, since the start of reporting, councils have reported investing $93 million of their own funds, and receiving an additional $18 million in external funding, toward community actions.

This section examines the community actions reported by councils and the abatement they achieved in the commercial and industrial, residential, transport, and waste sectors (see Table 3).

### Commercial and Industrial

Councils reported about 40 new actions to reduce energy-related emissions from businesses and non-council-owned community facilities in the municipality in 2007/08. While the resulting abatement was relatively small (2% or 92,000 tonnes CO$_2$-e), the number of new actions was 35% higher than in 2006/07, indicating increased council involvement in this sector.

About half the new actions councils reported involved educating local businesses about climate change and energy efficiency through events and workshops. Most of the remaining actions involved councils partnering with private companies to provide small and medium-sized businesses with free or subsidised energy audits and recommendations for actions (see Case Study 6).

Several councils reported working with school communities to undertake audits and retrofits of their schools. By working in this way, councils indirectly reach a greater number of residents in their municipalities.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Abatement (in thousands of tonnes CO$_2$-e)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007/08</td>
</tr>
<tr>
<td>Commercial and Industrial</td>
<td>92</td>
</tr>
<tr>
<td>Residential</td>
<td>474</td>
</tr>
<tr>
<td>Transport</td>
<td>7</td>
</tr>
<tr>
<td>Waste</td>
<td>3,479</td>
</tr>
<tr>
<td><strong>Community Total</strong></td>
<td><strong>4,052</strong></td>
</tr>
</tbody>
</table>

**Figure 3:** Sector breakdown of community abatement in 2007/08.
Case Study 6: Improving Small Business Sustainability

Ongoing cost savings and improved resource efficiency are just some of the benefits gained by businesses that participated in the Sustainable Future for Small Businesses in Western Sydney program.

This 16-month program was conducted by Auburn Council, Fairfield City Council and Holroyd City Council, in partnership with the environmental consultancy Village Green. It aimed to reduce waste, water and energy use by local small businesses from culturally and linguistically diverse backgrounds.

Business and council representatives with program materials (courtesy of Holroyd City Council)

Twenty businesses in each council were involved in a range of initiatives. They underwent energy and water audits, attended a series of workshops, received guidance on environmentally sustainable practices, and received business-management training.

The program has embedded environmentally sound practices into everyday business, and is anticipated to save each of the participating business approximately $330 each year through reduced energy and water use.

Residential

Residential emissions are produced through the electricity and natural gas used to heat and cool homes, power electrical appliances and provide hot water. Actions to reduce residential emissions accounted for the largest number of community actions reported in 2007/08, and the second highest abatement (12% or 474,000 tonnes CO₂-e).

These figures indicate that councils consider it part of their role to encourage and assist residents to improve energy efficiency.

Over 20% of councils reported undertaking actions to raise residents’ awareness of climate change and what they can do about it. Actions included distributing information, holding community expos, promoting GreenPower and government renewable-energy rebates, running courses and workshops, and promoting local businesses that provide sustainability services.

Additionally in 2007/08, more than 15% of councils reported providing residents with free or subsidised equipment such as energy-efficient light globes and water-efficient showerheads.

Many of these actions were in partnership with private companies to raise residential-efficiency offsets through Greenhouse Friendly and the NSW Greenhouse Gas Reduction Scheme (GGAS). Councils also partnered with private companies to provide free or discounted home audits.

Several councils now offer rebates for installing solar hot water, which are in addition to rebates provided by the federal and state governments. Other councils have incorporated energy-efficiency measures into residential maintenance and public housing management (see Case Study 7).

Some councils have also been encouraging residents to build more sustainable homes. Actions in this area included building sustainable demonstration homes, requiring residents to assess the energy efficiency of projects when applying for building or planning permits, and lobbying state governments to increase the minimum energy-efficiency requirements for housing.

Photo: Steve Wray
Transport

Actions to reduce emissions from vehicle use in the municipality accounted for over 15% of community actions implemented in 2007/08. Measuring abatement from changes in travel behaviour can be difficult as it requires comprehensive and repeated surveys. This may explain why reporting in this sector accounted for less than 1% (7000 tonnes CO₂-e) of the 2007/08 community abatement.

Councils reported many ways of influencing transport use in their communities. Several councils reported making large investments to develop or extend active-transport infrastructure, such as bicycle paths (see Case Study 8).

Another common action was to organise Walking School Bus programs. Many councils reported encouraging their communities to adopt sustainable transport options. Actions included developing local sustainable transport guides, distributing information at community events, undertaking educational campaigns, sponsoring active-transport days, and developing reward programs.

Several councils also reported taking action to encourage their employees to improve the sustainability of their daily commute. These actions included providing discounts on more efficient lease-back vehicles, helping to pay for annual public transport tickets, providing end-of-trip facilities for cyclists, facilitating car pooling, running active-transport challenges, and even paying staff for using alternatives to driving to work. Councils are also providing staff with teleworking (work from home) options to reduce their need to travel to work.

Large-scale actions to reduce transport emissions can be difficult to implement. While councils have some control over local roads, transport planning falls within the larger issues of growth and development planning. As such, it is often influenced or controlled by a large number of national, state and local stakeholders whose coordination and cooperation is required before action can proceed.

Case Study 7: Providing Sustainable Home Care Services

Two departments at Moonee Valley City Council in Victoria discovered that, by joining forces, they could improve community services, help the environment, and help residents save money.

Aged and Adult Disability Services partnered with the Environment Team to identify ways of adding sustainability to the council’s home maintenance and repair service for frail, aged and disabled residents. The two departments modified home-assessment tools, provided sustainability training for home-maintenance assessors and shared some of the costs of the program.

Now the home-maintenance assessors routinely replace light globes and showerheads, and install flow restrictors and draft sealant. By working together, the two departments achieved their own goals of improved local environmental sustainability and better services to residents while improving the lives of the council’s residents.

Case Study 8: Designing a Regional Bicycle Network

A regional and integrated approach has helped five Tasmanian councils move a step closer to making cycling a larger part of their region’s transport future.

The councils – Hobart, Clarence and Glenorchy City Councils, and Brighton and Kingborough Councils – received funding from the Australian Government Department of Environment, Water, Heritage and the Arts to undertake an extensive and innovative planning process for a regional bicycle network.

Major factors in the success of the process included the participation of key business and industry stakeholders, and forums to educate government and business leaders about the benefits of bicycle-friendly cities and workplaces.

The recently released Draft Hobart Integrated Regional Bicycle Network Plan sets out improvements to the region’s cycling network and end-of-trip facilities, taking into account key activity centres. The draft caught the attention of Tasmania’s Premier, David Bartlett, who committed to matching the councils’ implementation funding. The councils will begin implementation immediately with help from Cycling South, a regional council-funded body.

For more information on the Regional Bicycle Network visit www.hobartcity.com.au.
Waste

When residential and commercial organic waste decomposes in landfill it produces large quantities of methane, a powerful greenhouse gas. As most councils are responsible for providing waste services to their communities, they can directly influence reducing these emissions. Emission reductions from waste actions accounted for the largest share (86% or 3,479,000 tonnes CO$_2$-e) of total community abatement.

Over 10% of councils reported taking action to help their communities generate or dispose of less waste. Actions included providing free or subsidised compost bins and worm farms, and delivering extensive educational campaigns (see Case Study 9).

Councils can encourage the whole community to divert organic waste from landfill by providing convenient diversion services. Most councils provided paper recycling and green waste collection, which often cost less to process than sending waste to landfill. In some cases diverting specific waste streams has generated income for councils – for example, through selling mulched green waste. A small but growing number of councils send community food waste (and other types of organic waste) to innovative facilities that convert it to high-quality compost and other products.

Around 30% of councils reported capturing and burning methane generated from organic waste already in landfill. Most councils flare the methane, but several have contracts with energy companies to generate renewable electricity from it – preventing methane from entering the atmosphere and reducing the use of fossil-fuel electricity.

Case Study 9: Reducing Residential Waste

A pilot program by Frankston City Council in Victoria has reduced household organic waste to such an extent that participants now only need to put their bins out every fortnight.

Organic food and green waste comprises almost half the waste sent to landfill by Frankston residents. To reduce this, participants in the council’s Halve Garbage Waste program received either a free compost bin or a subsidised worm farm, along with help on how to use them. Garbage bin lids were also changed over from green to red to identify the households in the program.

The Halve Garbage Waste pilot program started in 2006 with 1000 households composting or worm farming their food scraps and garden waste. Due to its success, the program continued and in 2007/08 prevented an estimated 80 tonnes of CO$_2$-e from entering the atmosphere.
This year, for the first time, ICLEI Oceania invited the councils that contributed to this publication to also nominate up to three recent key actions to reduce greenhouse gas emissions. These actions are listed below, together with the status of the councils’ progress through the CCP milestone framework and their emission-reduction goals. To find out more about the milestone framework, please see the CCP Australia website, www.iclei.org/ccp-au.

### Australian Capital Territory

**Australian Capital Territory Government**

- **Corporate Goal:** Stabilisation at 2000 levels by 2025 and then reduce by 60% by 2050
- **Community Goal:** Stabilisation at 2000 levels by 2025 and then reduce by 60% by 2050

**Recent actions:**
- Installed bike racks on buses offering free travel to cyclists.
- Introduced home energy audits, the GardenSmart water-advice service, and rebates for householders who implement recommendations.
- Provided community education and sponsored expos, festivals and media campaigns.

### New South Wales

**Ashfield Council**

- **Corporate Goal:** 20% below 1998 levels by 2010
- **Community Goal:** 20% below 1996 levels by 2010

**Recent actions:**
- Rolled out energy-efficient computers and monitors to all council staff.
- Engaged a company to help collect council’s emissions and reductions data.

**Ballina Shire Council**

- **Corporate Goal:** 25% below 2002 per capita levels by 2012
- **Community Goal:** 25% below 1996 per capita levels by 2010

**Recent actions:**
- Replaced council vehicles with smaller, more efficient, LPG or diesel models.
- Partnered with an energy services company to distribute energy-efficient light globes.
- Promoted state government solar hot water rebates to residents.

**Bankstown City Council**

- **Corporate Goal:** 20% below 1995 levels by 2010
- **Community Goal:** Stabilisation at 1995 levels by 2010

**Recent actions:**
- Replaced conventional computers with thin-client terminals and flat-panel monitors, and replaced central servers with fewer, more efficient models.
- Switched to vehicles using biodiesel and LPG, and replaced all six-cylinder vehicles with hybrid, four-cylinder and light diesel vehicles.

**Camden Council**

- **Corporate Goal:** 20% below 1999 levels by 2010
- **Community Goal:** 20% below 1996 per capita levels by 2010

**Recent actions:**
- Established the Sustainability Cross Divisional Team to progress sustainability initiatives through Council.
- Provided residents with fact sheets and workshops on improving home energy efficiency as part of the Sustainability Blitz program.

**Canada Bay Council**

- **Corporate Goal:** 20% below 1995 levels by 2010
- **Community Goal:** 20% below 1995 levels by 2010

**Recent actions:**
- Replaced council vehicles with smaller, more fuel-efficient models.
- Introduced the Green Business Program, an initiative that encourages businesses to adopt environmentally responsible practices.
- Initiated an energy performance contract for five council buildings that are high energy users.

**Canterbury City Council**

- **Corporate Goal:** 20% below 2000 levels by 2010
- **Community Goal:** 20% below 1996 levels by 2010

**Recent actions:**
- Recruited 70 households to participate in Kilowatt Kutters, a program to reduce domestic energy consumption.
- Implemented an energy performance contract for all council buildings.
- Installed solar hot water systems at two council aquatic centres.

**Coffs Harbour City Council**

- **Corporate Goal:** 20% below 1995 levels by 2010
- **Community Goal:** 20% below 1996 levels by 2010

**Recent actions:**
- Promoted programs that allow residents to claim rebates on insulation, rainwater exhibit energy-efficient products and to offer sustainability advice.
- Promoted programs that allow residents to claim rebates on insulation, rainwater tanks, and solar hot water systems.

**Dubbo City Council**

- **Corporate Goal:** 35% below 1998 per capita levels by 2010
- **Community Goal:** 35% below 1998 per capita levels by 2010

**Recent actions:**
- Replaced 50% of council vehicles with smaller, fuel-efficient alternatives, and introduced the use of a 10% ethanol fuel blend.
- Introduced an annual community Energy and Water Expo for local suppliers to exhibit energy-efficient products and to offer sustainability advice.
- Continued to purchase 6% GreenPower for council’s electricity supply.

**Fairfield City Council**

- **Corporate Goal:** 20% below 2005 levels by 2015
- **Community Goal:** 20% below 2005 levels by 2015

**Recent actions:**
- Installed energy-efficient lighting in a council building.
- Replaced computers and inefficient monitors with energy-efficient computers and LCD monitors.
- Planted trees in public areas, including creeks, parks and gardens.

**Gosford City Council**

- **Corporate Goal:** 20% below 1996 levels by 2010
- **Community Goal:** 20% below 1996 levels by 2010

**Recent actions:**
- Produced renewable energy from methane emissions at council landfill sites.
- Continued to purchase 6% GreenPower for council’s electricity supply.
- Implemented an energy performance contract that includes 10 projects aimed at reducing emissions and energy consumption.
<table>
<thead>
<tr>
<th>Council</th>
<th>CCP since</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Taree City Council</td>
<td>2006</td>
<td>Milestone 3</td>
</tr>
<tr>
<td>Corporate Goal: 10% below 2002 levels by 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: Stabilisation at 2001 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Demonstrated commitment to addressing climate change by holding a council Earth Hour during business hours on the day before the scheduled event.</td>
<td></td>
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<tr>
<td>• In conjunction with the local water and energy authorities, ran a Sustainability Expo to help the community reduce its carbon footprint.</td>
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<tr>
<td>• Partnered with an energy services company to distribute Climate Saver Packs throughout the community.</td>
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<thead>
<tr>
<th>Port Macquarie-Hastings Council</th>
<th>2001</th>
<th>Milestone 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 20% below 1999 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: Stabilisation at 1996 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Purchased 10% GreenPower for council buildings and water and sewage accounts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Installed energy-efficient lighting in three council offices and libraries.</td>
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<tr>
<td>• Introduced composting operations for organic waste instead of sending it to landfill.</td>
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<thead>
<tr>
<th>Holroyd City Council</th>
<th>2003</th>
<th>Milestone 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 20% below 1996 levels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: 20% below 1996 levels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Installed energy-efficient lighting at all major council facilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Replaced six-cylinder vehicles with more fuel-efficient models.</td>
<td></td>
<td></td>
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<tr>
<td>• Replaced electric hot water systems with heat pumps at the council depot.</td>
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<table>
<thead>
<tr>
<th>Hornsby Shire Council</th>
<th>1999</th>
<th>Milestone 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 30% below 1995/96 levels by 2010, 35% by 2012, and 60% by 2050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: 5% below 1995 levels by 2010, 10% by 2012, and 60% by 2050 (residential and business only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Ran the Hornsby Business Energy Savings Program to help 200 local businesses reduce their emissions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Purchased and fitted out an education van to run community workshops and school visits on topics such as composting and light globe recycling.</td>
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<tr>
<td>• Developed a Green Procurement Strategy to assist purchasing decisions and planning actions.</td>
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<thead>
<tr>
<th>Hurstville City Council</th>
<th>2000</th>
<th>Milestone 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 20% below 1998 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: 20% below 1998 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Collected inefficient second fridges from local residents as part of the Fridge Buyback program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provided energy-efficient lighting retrofits to local households.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Installed power factor correction at council aquatic and administration centres.</td>
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<thead>
<tr>
<th>Kogarah Council</th>
<th>1999</th>
<th>Milestone 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 25% below 1998 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: 25% below 1995 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Installed solar panels in the town square.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Installed solar lighting in parks and reserves.</td>
<td></td>
<td></td>
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<tr>
<td>• Updated the building management system in the Civic Centre.</td>
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<thead>
<tr>
<th>Lake Macquarie City Council</th>
<th>2000</th>
<th>Milestone 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: Stabilisation at 1999 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: Stabilisation at 1995 per capita levels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Set a new emission target of reducing city-wide emissions by 30% below 2008 levels by 2018, achieved through a 3% annual reduction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Introduced a free energy audit program for businesses.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Instigated work on a methane-to-energy system at a council landfill site.</td>
<td></td>
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<thead>
<tr>
<th>Leichhardt Municipal Council</th>
<th>1999</th>
<th>Milestone 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 20% below 1996 levels by 2010</td>
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<td></td>
</tr>
<tr>
<td>Community Goal: 20% below 1996 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Introduced a food recycling collection for residents of units that share bins.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Partnered with energy service companies to install free compact fluorescent lights in local households.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Installed sea-level rise markers at a number of ferry wharfs in Balmain to raise awareness of the consequences of climate change and the need to take action.</td>
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<thead>
<tr>
<th>Lismore City Council</th>
<th>2004</th>
<th>Milestone 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 20% below 2002 levels by 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: 20% below 2001 levels by 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Appointed Building Champions to track and report energy and water use data in council's highest consuming buildings.</td>
<td></td>
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<tr>
<td>• Participated in the Power to Make a Difference program, which involves installing energy monitors in schools and teaching students to conduct school energy audits.</td>
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<tr>
<td>• Installed energy efficient lighting at the Corporate Centre.</td>
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<thead>
<tr>
<th>Liverpool City Council</th>
<th>1998</th>
<th>Milestone 4</th>
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<tbody>
<tr>
<td>Corporate Goal: 25% below 1999 levels by 2010</td>
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<td></td>
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<tr>
<td>Community Goal: 20% below 1998 levels by 2010</td>
<td></td>
<td></td>
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<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Purchased 10% GreenPower for street lighting.</td>
<td></td>
<td></td>
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<tr>
<td>• Installed energy-efficient technology in the council buildings that use the most energy.</td>
<td></td>
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<tr>
<td>• Provided residents with rebates on compost bins and worm farms.</td>
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<thead>
<tr>
<th>Maitland City Council</th>
<th>2004</th>
<th>Milestone 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 20% below 2002/03 levels by 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: 20% below 1997/98 levels by 2012</td>
<td></td>
<td></td>
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<tr>
<td>Recent actions:</td>
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<td></td>
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<tr>
<td>• Helped organise an Environmental Youth Forum to increase awareness of environmental issues among students and teachers.</td>
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<tr>
<td>• Distributed free energy-efficient light globes to celebrate achieving CCP Milestone 4.</td>
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<tr>
<td>• Undertook extensive tree planting as part of the Greening Plan.</td>
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<table>
<thead>
<tr>
<th>Manly Council</th>
<th>1998</th>
<th>Milestone 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Goal: 25% below 1996 levels by 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Goal: 25% below 1996 levels by 2010</td>
<td></td>
<td></td>
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<tr>
<td>Recent actions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Promoted car pooling on the council website.</td>
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<tr>
<td>• Expanded the routes for the council’s free community Hop, Skip &amp; Jump bus service.</td>
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<tr>
<td>• Continued to facilitate the Climate Change Working Group, the council’s community advisory committee.</td>
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</tbody>
</table>
Marrickville Council

Corporate Goal: 20% below 1997 levels by 2010
Community Goal: 20% below 1996 levels by 2010
Recent actions:
- Rolled out biodiesel to the council’s commercial fleet, and promoted the use of 10% ethanol to the passenger fleet.
- Introduced a lease-back scheme that rewards staff who chose to lease cars with a lower economic and environmental impact.

Mosman Council

Corporate Goal: 20% below 1995 levels by 2010
Community Goal: 20% below 1996 levels by 2010
Recent actions:
- Decreased the size of the council’s fleet and replaced the majority of six-cylinder vehicles with four-cylinder vehicles.
- Introduced electronic payslips to save paper and reduce printer use.

North Sydney Council

Corporate Goal: 50% below 1996 levels by 2010
Community Goal: 25% below 1996 levels by 2010
Recent actions:
- Followed up on savings achieved by participants in the Sustainable Small Business Program and used the findings to finetune the new Green Business Program.
- Conducted a trial to recycle organic waste from local food businesses.
- Augmented the council’s fleet with hybrid electric-diesel trucks.

Parramatta City Council

Corporate Goal: 40% below 1998/99 levels by 2010
Community Goal: 20% below 1998 levels by 2010
Recent actions:
- Negotiated with a supplier to provide discounted solar hot water systems to residents, and promoted it through the council’s Solar Pack.
- Introduced a car-share scheme that gives council staff and the local community access to fuel-efficient vehicles.
- Signed up to the DECC Sustainability Advantage Program and promoted it to local businesses.

Penrith City Council

Corporate Goal: 25% below 1996 levels by 2010
Community Goal: 25% below 1996 levels by 2010
Recent actions:
- Trained council staff on sustainable purchasing.
- Painted the roof of the Civic Centre with heat-reflective paint.
- Installed virtual server technology to reduce the number of physical server computers.

Pittwater Council

Corporate Goal: 20% below 1995 levels by 2010
Community Goal: Stabilisation at 1995 per capita levels by 2010
Recent actions:
- Implemented several energy saving projects at the Boondah Depot Site that reduced energy use despite an increase in activities.
- Installed solar panels with public displays at the Coastal Environment Centre, as the first step in making the site carbon neutral.
- Tuned the cooling and heating system in the Mona Vale building, as an audit discovered that both heating and cooling operated at the same time.

Rockdale City Council

Corporate Goal: 20% below 1995 levels by 2010
Community Goal: 20% below 1995 levels by 2010
Recent actions:
- Diverted organic waste from landfill through a new waste management contract.
- Introduced energy-efficient vehicles for staff lease-back.
- Instigated energy audits and lighting retrofits for small businesses through the Business for an Environmentally Sustainable Tomorrow project.

The City of Ryde

Corporate Goal: 20% below 2000 levels by 2009/10
Community Goal: 15% below 2001 per capita levels by 2009/10
Recent actions:
- Implemented an SMS-based system to automatically shut down floodlighting in parks.
- Improved the efficiency of air conditioning chillers by setting them on variable loading.
- Distributed stickers reminding staff to switch off lights.

Shellharbour City Council

Corporate Goal: 20% below 2000 levels by 2009/10
Community Goal: 15% below 2001 per capita levels by 2009/10
Recent actions:
- Installed solar panel to power stormwater monitoring equipment.
- Installed timers on water heaters, reducing the operating hours from 24 to 13 hours a day.
- Reduced the operating hours of the heating and cooling system at Lamerton House and programmed it to switch off on public holidays.

Strathfield Municipal Council

Corporate Goal: 50% below 2001 levels by 2015
Community Goal: 25% below 2001 levels by 2015
Recent actions:
- Launched the Community Greenwaste Program to divert all the community’s green waste away from landfill.
- Introduced biodiesel for use by the council’s fleet of vehicles.

Sutherland Shire Council

Corporate Goal: 30% below 1995 levels by 2010
Community Goal: 20% below 1995 levels by 2010
Recent actions:
- Started using 10% ethanol in passenger vehicles in the council’s fleet.
- Planted native trees throughout the shire.
- Replaced all 36 watt lights in the council’s main administration building with energy-efficient T8 lights.

City of Sydney

Corporate Goal: 100% use of GreenPower & offset of emissions from operations & services by 2008, including minimum 20% reduction below 2006 emissions by 2012 through energy saving
Community Goal: 70% below 1990 levels by 2050
Recent actions:
- Purchased 100% GreenPower for council buildings and street lighting.
- Continued the CitySwitch Green Office program to help large commercial offices improve their energy efficiency using the NABERS rating tool.
- Adopted Sustainable Sydney 2030, which establishes a way for the city to reduce reliance on coal power.
<table>
<thead>
<tr>
<th>Municipality</th>
<th>CCP since:</th>
<th>Progress:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warringah Council</td>
<td>2000</td>
<td>Milestone 4</td>
</tr>
</tbody>
</table>
| **Corporate Goal:** 20% below 1995 levels by 2010  
**Community Goal:** 20% below 1995 levels by 2010  
**Recent actions:**  
- Undertook an energy performance contract to deliver a range of actions at seven council facilities.  
- Continued to improve the fuel efficiency of the council’s fleet by introducing smaller, fuel-efficient vehicles and by converting to LPG and diesel.  
- Used cost savings from fleet-efficiency actions to purchase between 25% and 75% GreenPower at five facilities. |
| Willoughby City Council             | 2000       | Plus |
| **Corporate Goal:** 50% below 1999 levels by 2010  
**Community Goal:** 30% below 1995 levels by 2015  
**Recent actions:**  
- Increased GreenPower to 22% for large council accounts.  
- Collected inefficient second fridges from residents as part of the Fridge Buyback program.  
- Continued replacing electric hot water systems in council buildings with heat pumps. |
| Woollahra Municipal Council         | 2001       | Plus |
| **Corporate Goal:** 30% below 1999 levels by 2010  
**Community Goal:** 20% below 1996 levels by 2010  
**Recent actions:**  
- Upgraded to energy-efficient computers and monitors.  
- Purchased 6% GreenPower for street lighting.  
- Developing a sustainable transport plan. |
| Sunshine Coast Regional Council     |            | Plus |
| **Corporate Goal:** Under revision post-amalgamation  
**Community Goal:** Under revision post-amalgamation  
**Recent actions:**  
- Undertook landfill gas recovery for flaring generating electricity.  
- Implemented the Watch Every Drop water conservation program resulting in reduced pumping requirements.  
- Tuned the air conditioning in the Administration Building. |
| Gold Coast City Council             | 1998       | Plus |
| **Corporate Goal:** 20% below 1997 per capita levels by 2010  
**Community Goal:** 10% below 1997 per capita levels by 2010  
**Recent actions:**  
- Undertook landfill gas recovery for flaring generating electricity.  
- Implemented the Watch Every Drop water conservation program resulting in reduced pumping requirements.  
- Tuned the air conditioning in the Administration Building. |
| Ipswich City Council                | 2000       | Milestone 5 |
| **Corporate Goal:** 20% below 2000/01 levels by 2010  
**Community Goal:** 20% below 1998 levels by 2010  
**Recent actions:**  
- Established a plantation for carbon sequestration in partnership with an external provider.  
- Participated in a regional trial of energy-efficient street lighting.  
- Captured and burned methane at a local landfill site. |
| Mackay Regional Council             | 2002       | Milestone 3 |
| **Corporate Goal:** Under revision post-amalgamation  
**Community Goal:** Under revision post-amalgamation  
**Recent actions:**  
- Provided green waste recycling.  
- Provided paper and cardboard recycling. |
| Moreton Bay Regional Council        | 2000       | Milestone 5 |
| **Corporate Goal:** Under revision post-amalgamation  
**Community Goal:** Under revision post-amalgamation  
**Recent actions:**  
- Developed the Living Smart Homes online community education program to help residents reduce their energy, waste, transport and water footprint.  
- Participated in a regional trial of energy-efficient street lighting.  
- Developed a policy to use vehicles with smaller engines in the council’s fleet. |
| Cairns Regional Council             | 1999       | Plus |
| **Corporate Goal:** Under revision post-amalgamation  
**Community Goal:** Under revision post-amalgamation  
**Recent actions:**  
- Installed solar panels at Mossman and Gordonvale libraries.  
- Introduced a behavioural change program – Switch Off & Shut Down (and make a world of difference) – to reduce energy use by computers and monitors.  
- Installed voltage-reduction controls for lighting in council offices. |
| South Australia                     |            | Plus |
| **Corporate Goal:** 20% below 1994 levels by 2010  
**Community Goal:** 10% below 1994 levels by 2010  
**Recent actions:**  
- Commissioned Tindo, the world’s first solar electric bus, to provide free public transport within the municipality.  
- Introduced energy-efficient public lighting funded by the government’s Low Emissions Technology and Abatement initiative.  
- Installed solar panels at the Adelaide Central Bus Station. |
| Adelaide City Council               | 1998       | Plus |
| **Corporate Goal:** 20% below 1997 per capita levels by 2010  
**Community Goal:** 10% below 1997 per capita levels by 2010  
**Recent actions:**  
- Undertook landfill gas recovery for flaring generating electricity.  
- Implemented the Watch Every Drop water conservation program resulting in reduced pumping requirements.  
- Tuned the air conditioning in the Administration Building. |
### Council Profiles

<table>
<thead>
<tr>
<th>Council Name</th>
<th>CCP since:</th>
<th>Progress:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Campbelltown City Council</strong></td>
<td>2002</td>
<td>Plus</td>
</tr>
<tr>
<td>Corporate Goal:</td>
<td>25% below 1994 levels by 2010</td>
<td></td>
</tr>
<tr>
<td>Community Goal:</td>
<td>20% below 1996 levels by 2010</td>
<td></td>
</tr>
<tr>
<td>Recent actions:</td>
<td>• Offset 100% of fleet fuel use and purchased 100% GreenPower for most council properties.</td>
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</tr>
<tr>
<td></td>
<td>• Continued to use mulched green waste on council properties.</td>
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<tr>
<td></td>
<td>• Continued to reduce emissions through the kerbside recycling program.</td>
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</tr>
</tbody>
</table>

| **City of Holdfast Bay** | 2001 | Plus |
| Corporate Goal: | 25% below 1999 levels by 2010 |
| Community Goal: | 20% below 1996 levels by 2010 |
| Recent actions: | • Purchased 20% GreenPower for street lighting and council buildings. |
| | • Introduced organic waste recycling into domestic waste collection. |

| **City of Marion** | 1998 | Plus |
| Corporate Goal: | 20% below 1994 levels by 2010 |
| Community Goal: | 20% below 1995/96 levels by 2010 |
| Recent actions: | • Implemented energy-efficiency upgrades at 14 council-owned, community-managed facilities, using external funding. |
| | • Purchased 20% GreenPower for all buildings, facilities and street and public lighting accounts. |
| | • Provided multi-trip public transport tickets to staff for work-related travel. |

| **City of Mitcham** | 1998 | Plus |
| Corporate Goal: | 20% below 1994 levels by 2010 |
| Community Goal: | 20% below 1994 levels by 2010 |
| Recent actions: | • Updated the passenger vehicle fleet policy to require the purchase of vehicles that are fuel-efficient. |
| | • Purchased 20% GreenPower for all buildings and street lighting accounts. |
| | • Continued to recover landfill gas from the two waste depots. |

| **City of Norwood Payneham & St Peters** | 2001 | Plus |
| Corporate Goal: | 20% below 2000/01 levels by 2012 |
| Community Goal: | 20% below 1998 levels by 2012 |
| Recent actions: | • Developed a Sustainable Public Lighting Action Plan to provide a framework to adopt sustainable public lighting solutions in the council. |
| | • Purchased 20% GreenPower for all metered and unmetered (street lights) sites. |
| | • Replaced public lights in ten council reserves with more efficient lights. |

| **City of Playford** | 1998 | Plus |
| Corporate Goal: | 20% below 1997/98 levels by 2010 |
| Community Goal: | Stabilisation at 1994/95 levels by 2010 |
| Recent actions: | • Improved the energy efficiency of lighting in a number of council-owned sporting facilities. |
| | • Switched delivery fleet vehicles from dedicated petrol models to more efficient diesel and dual fuel models. |

| **City of Prospect** | 2001 | Plus |
| Corporate Goal: | 30% below 1999/00 levels by 2010/11 |
| Community Goal: | 20% below 1998 levels by 2010/11 |
| Recent actions: | • Produced two cycling maps to encourage residents and visitors to explore the municipality by bike. |
| | • Purchased 30% GreenPower for the administration building. |
| | • Partner in a methane flaring operation at Cavan Landfill. |

| **City of Tea Tree Gully** | 1998 | Plus |
| Corporate Goal: | 20% below 1997/98 levels by 2010 |
| Community Goal: | Stabilisation at 1994/95 levels by 2010 |
| Recent actions: | • Participated in the Adelaide Solar City project as an Associate Member. |
| | • Implemented the Passenger Transport for Business-Related Travel project. |

| **City of West Torrens** | 1999 | Plus |
| Corporate Goal: | 25% below 1997/98 levels by 2010 |
| Community Goal: | 10% below 1997/98 levels for residential, commercial and transport and 25% below 1997/98 levels for industrial by 2010 |
| Recent actions: | • Installed solar panels at the Western Youth Centre. |
| | • Continued to purchase 20% GreenPower for the Civic Centre and Hamra Library. |
| | • Implemented a Green Travel program for staff. |

| **Tasmania** |

| **Brighton Council** | 2001 | Plus |
| Corporate Goal: | 20% below 1996 levels by 2010 |
| Community Goal: | 20% below 1996 levels by 2010 |
| Recent actions: | • Sent an emissions self-audit guide to commercial, industrial, agricultural and residential properties. |
| | • Planted native trees with community volunteers and primary school children. |
| | • Held a workshop on climate change mitigation for primary students and provided them with a home emissions self-audit guide. |

| **Hobart City Council** | 1999 | Plus |
| Corporate Goal: | 70% below 1996 levels by 2010 |
| Community Goal: | 20% below 1996 levels by 2010 |
| Recent actions: | • Introduced a $500 solar hot water rebate for residents. |
| | • Developed a sustainable transport strategy for the council and its community. |
| | • Offset emissions from the Taste of Tasmania festival. |

| **Victoria** |

| **Ararat Rural City Council** | 2002 | Plus |
| Corporate Goal: | 20% below 2001 levels by 2010 |
| Community Goal: | 10% below 1996 levels by 2010 |
| Recent actions: | • Replaced petrol passenger fleet vehicles with efficient diesel vehicles. |
| | • Undertook the Energise Business program with local businesses. |
| | • Diverted green waste from landfill. |

| **Ballarat City Council** | 2001 | Plus |
| Corporate Goal: | 20% below 1998 levels by 2010 |
| Community Goal: | 10% below 1998 levels by 2010 |
| Recent actions: | • Commenced landfill gas recovery at Smythesdale Landfill. |
| | • Installed solar panels at the Cardigan Village Community Centre. |
| | • Removed unnecessary lighting at the Town Hall, at no cost. |
Banyule City Council  
**Corporate Goal:** 30% below 1996 levels  
**Community Goal:** 20% below 1996 levels  
**Recent actions:**  
- Continued to collect and compost residential green waste.  
- Purchased 10% GreenPower for major street lighting accounts, and worked with a regional group of councils to progress energy efficiency in street lighting.  
- Delivered the Sustainable Homes program to help residents make their homes, workplaces and communities more sustainable.

---

Bass Coast Shire Council  
**Corporate Goal:** 20% below 2001 levels by 2015  
**Community Goal:** 10% below 1996 levels by 2015  
**Recent actions:**  
- Offset fleet vehicle emissions by purchasing carbon credits from the Western Port Greenhouse Alliance.  
- Replaced desktop computers with thin clients.  
- Increased the number of fuel-efficient vehicles in the fleet.

---

Baw Baw Shire Council  
**Corporate Goal:** 10% below 2001 levels by 2010  
**Community Goal:** 10% below 2001 levels by 2010  
**Recent actions:**  
- Provided and promoted council’s solar panel rebate program.  
- Provided and encouraged residents to take up solar hot water rebates from the federal government, state government and council.  
- All schools joined and implemented the National Solar Schools Program.

---

Bayside City Council  
**Corporate Goal:** 20% below 1998 levels by 2010  
**Community Goal:** 20% below 1998 levels by 2010  
**Recent actions:**  
- Conducted energy-efficiency audits of three of the highest energy-consuming council-owned buildings.  
- Signed up for a sustainable business management program, as part of the implementation of the Local Economic Development program.

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City of Boroondara  
**Corporate Goal:** 20% below 1996 levels by 2010  
**Community Goal:** 20% below 1996 levels by 2010  
**Recent actions:**  
- Conducted energy-efficiency audits of three of the highest energy-consuming council-owned buildings.  
- Signed up for a sustainable business management program, as part of the implementation of the Local Economic Development program.

---

City of Brimbank  
**Corporate Goal:** 15% below 2003 levels by 2010  
**Community Goal:** 10% below 2001 levels by 2010  
**Recent actions:**  
- Expanded the Walking School Bus program to 15 routes covering 20.3 km.  
- A third of households joined the community green waste collection.  
- Delivered presentations on waste and composting to school children and other residents.

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Buloke Shire Council  
**Corporate Goal:** 10% below 1999 levels by 2010  
**Community Goal:** 10% below 1999 levels by 2010  
**Recent actions:**  
- Installed solar panels at the Sea Lake office.

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Campaspe Shire Council  
**Corporate Goal:** 10% below 1999 levels by 2010  
**Community Goal:** 10% below 1999 levels by 2010  
**Recent actions:**  
- Appointed a sustainability executive manager to drive sustainability across the whole organisation.  
- Engaged a company to provide aggregated reports of all corporate energy use.  
- Ran the construction fleet on a 20% biodiesel blend.

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City of Casey  
**Corporate Goal:** 20% below 2000 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Converted office computers to LCD screens.  
- Trialled diesel vehicles in the corporate fleet.  
- Offset a third of fleet emissions with carbon purchased from the Western Port Greenhouse Alliance’s Bunyip Sanctuary.

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Colac Otway Shire  
**Corporate Goal:** 20% below 2000 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Implemented a range of energy-efficiency actions in three main facilities using external funding.  
- Purchased software to track utility data and related emissions and to better quantify savings at ten facilities.  
- Established a cross-council Sustainability Working Group to ensure a coordinated approach to implementing and integrating sustainability projects and strategies.

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Corangamite Shire Council  
**Corporate Goal:** 20% below 2000 levels by 2010  
**Community Goal:** 15% below 1996 levels by 2010  
**Recent actions:**  
- Removed lights in low-use areas and a trial office area.  
- Increased the number of smaller and gas-dedicated vehicles in the fleet.  
- Staff, councillors and volunteers planted trees to offset fleet emissions.

---

City of Darebin  
**Corporate Goal:** 20% below 1995 levels by 2010 and carbon neutrality by 2020  
**Community Goal:** To be established in 2008/09  
**Recent actions:**  
- Purchased 100% GreenPower for two of council’s major energy-consuming sites and 30% for street lighting.  
- Implemented the Energy Efficiency program in the top 11 energy-consuming sites, with large savings already apparent.  
- Delivered a range of innovative programs, including the Sustainable Homes Program, Spring into Compost, Going Places and Community Power, to assist the community reduce emissions.
Frankston City  
**Corporate Goal:** 25% below 1995 levels by 2010  
**Community Goal:** 20% below 1995 levels by 2010  
**Recent actions:**  
- Installed water-saving valves in 19 sporting pavilions to reduce hot water use in showers.  
- Ran the Halve Garbage Waste program, where residents receive a free compost bin or subsidised worm farm and composting seminars in exchange for a fortnightly waste collection service.  
- Trialled efficient T5 street lights.

City of Greater Dandenong  
**Corporate Goal:** 20% below 1997 levels by 2010  
**Community Goal:** Stabilisation at 1997 levels by 2010  
**Recent actions:**  
- Implemented the Dandenong Creek Catchment Local Industry Efficiency Program, assisting small and medium-sized businesses in the manufacturing sector improve energy, water and waste efficiency.  
- Developed the Lean to Green Program, providing tools and techniques for businesses to implement the “business of sustainability.”

Greater Shepparton City Council  
**Corporate Goal:** 20% below 1999 levels by 2010  
**Community Goal:** Stabilisation at 1999 levels by 2010  
**Recent actions:**  
- Implemented energy saving measures identified in an energy audit of the council offices and library.  
- Undertook landfill gas recovery at the Cosgrove Landfill.  
- Participated with the community in Earth Hour.

Hepburn Shire Council  
**Corporate Goal:** 20% below 2001/02 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Established and coordinated the Community Sustainability Fund, which encourages community groups to undertake emission-reduction projects.  
- Completed a local environmental sustainable priority statement to assist in progressing CCP actions.  
- Completed a trial of energy-efficient T5 street lights in partnership with a local electricity distributor.

Hume City Council  
**Corporate Goal:** 10% below 1999 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Built a new headquarters building, which has a 5 Star Green Star Rating – Office Design by the Green Building Council of Australia.  
- Used biodiesel to fuel the diesel fleet and built a biodiesel storage facility.  
- Implemented the first stage of an ongoing retrofit of the council’s largest energy consumer, the Broadmeadows Leisure Centre.

City of Kingston  
**Corporate Goal:** 20% below 2000 levels by 2010  
**Community Goal:** Stabilisation at 1996 levels by 2010  
**Recent actions:**  
- Partnered with a company to deliver the Live Green with LESS program, offering households compact fluorescent globes in return for incandescent globes.  
- Provided staff with public transport tickets for work-based travel.

Knox City Council  
**Corporate Goal:** 30% below 1998/99 levels by 2010  
**Community Goal:** 20% below 1998/99 levels by 2010  
**Recent actions:**  
- Supported local schools to include sustainability in their curriculum with the Schools for Sustainability program.  
- Adopted an environmental sustainable design policy, requiring all corporate projects to be assessed for sustainability.  
- Installed solar panels with public displays on the Civic Centre and Knox Leisureworks.

City of Manningham  
**Corporate Goal:** Stabilisation at 1996 levels by 2010  
**Community Goal:** 20% below 1996 levels by 2010  
**Recent actions:**  
- Set an organisational target to become carbon neutral by 2015 and developed a Peak Oil Policy and Strategy.  
- Encouraged applicants for planning and building permits to complete an additional sustainability assessment of their designs.  
- Subsidised the sale of worm farms and composts bins to the community.

City of Maribyrnong  
**Corporate Goal:** 20% below 2002 levels by 2010  
**Community Goal:** 20% below 1996 levels by 2010  
**Recent actions:**  
- Delivered the CitySwitch Green Office program, in partnership with Sustainability Victoria, to help offices tenants reduce emissions and costs and build their environmental reputation.  
- Added an electric car to the vehicle fleet, and reduced the overall size of the fleet by a third.  
- Updated the Zero Net Emissions by 2020 Strategy and drafted the Climate Change Adaptation Report after extensive public consultation.

Hume City Council  
**Corporate Goal:** 10% below 1998/99 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Built a new headquarters building, which has a 5 Star Green Star Rating – Office Design by the Green Building Council of Australia.  
- Used biodiesel to fuel the diesel fleet and built a biodiesel storage facility.  
- Developed the Lean to Green Program, providing tools and techniques for businesses to implement the “business of sustainability.”

City of Melbourne  
**Corporate Goal:** 30% below 1996 levels by 2010  
**Community Goal:** 20% below 1996 levels by 2010  
**Recent actions:**  
- Delivered the CitySwitch Green Office program, in partnership with Sustainability Victoria, to help offices tenants reduce emissions and costs and build their environmental reputation.  
- Added an electric car to the vehicle fleet, and reduced the overall size of the fleet by a third.  
- Updated the Zero Net Emissions by 2020 Strategy and drafted the Climate Change Adaptation Report after extensive public consultation.

Mitchell Shire Council  
**Corporate Goal:** 20% below 2002 levels by 2010  
**Community Goal:** 15% below 1996 levels by 2010  
**Recent actions:**  
- Delivered the CitySwitch Green Office program, in partnership with Sustainability Victoria, to help offices tenants reduce emissions and costs and build their environmental reputation.  
- Added an electric car to the vehicle fleet, and reduced the overall size of the fleet by a third.  
- Updated the Zero Net Emissions by 2020 Strategy and drafted the Climate Change Adaptation Report after extensive public consultation.

Moira Shire Council  
**Corporate Goal:** 10% below 2004 levels by 2010  
**Community Goal:** 10% below 2001 levels by 2010  
**Recent actions:**  
- Improved lighting efficiency in the council’s buildings by removing unnecessary lights, and installing timers, sensors and energy-efficient lights.  
- Optimised the use of computer and office equipment.  
- Converted fleet vehicles from ULP to LPG.
Moonee Valley City Council  
**Corporate Goal:** 20% below 2001 levels by 2010  
**Community Goal:** 20% below 1996 levels by 2010  
**Recent actions:**  
- Added a sustainability component to the home maintenance service for frail and aged residents and those with intellectual or physical disabilities.  
- Added regular and electric bicycles to the fleet and provided public transport tickets for business travel as part of the Green Travel Plan.  
- Reduced the number of computers by converting to virtual server technology.

Moreland City Council  
**Corporate Goal:** 40% below 1995 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Established and provided ongoing support to the Moreland Energy Foundation to work with local residents to increase energy efficiency and reduce greenhouse gas emissions.  
- Upgraded lighting efficiency at the Coburg Library.  
- Provided staff with energy-efficient equipment for their homes as part of a training package.

Mount Alexander Shire Council  
**Corporate Goal:** 10% below 1999 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Revised the Greenhouse Action Plan for the council and community to reduce emissions by 30% by 2010.  
- Introduced the use of biodiesel for plant fleet.  
- Improved lighting efficiency at the Town Hall and administration buildings by installing sensors and removing unnecessary lights.

Nillumbik Shire Council  
**Corporate Goal:** 20% below 1997 levels by 2012  
**Community Goal:** 20% below 1997 levels by 2012  
**Recent actions:**  
- Supported the Walking School Bus program for local students.  
- Provided public transport tickets to staff for business travel.  
- Undertook extensive retrofits of council-owned community facilities to minimise energy use.

Northern Grampians Shire Council  
**Corporate Goal:** 20% below 2001/02 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Appointed a Climate Action Officer and expanded the Drought Committee to also address climate change.  
- Undertook a major improvement to the energy efficiency of the lighting, insulation and air conditioning systems at the main municipal offices.  
- Ran educational events for rural communities on the likely impacts of climate change and on innovative ways to address the issue.

City of Port Phillip  
**Corporate Goal:** 20% below 1996 levels by 2011  
**Community Goal:** 20% below 1996 levels by 2011  
**Recent actions:**  
- Ran the Challenge to Change community education program in which participants monitored their electricity consumption.  
- Reduced the temperature range within which heating or cooling are required at two council buildings.  
- Purchased Renewable Energy Certificates to offset electricity use at all council buildings.

City of Whitehorse  
**Corporate Goal:** 25% below 2002 levels by 2012  
**Community Goal:** 20% below 2002 levels by 2012  
**Recent actions:**  
- Water-efficient showerheads in council-owned community facilities.  
- Installed a solar hot water system at Aqualink Nunawading to service change room facilities.  
- Undertook extensive lighting retrofits at Aqualink Box Hill, Box Hill community Arts Centre and Whitehorse Centre.

City of Wodonga  
**Corporate Goal:** 10% below 2000 levels by 2010  
**Community Goal:** 10% below 1996 levels by 2010  
**Recent actions:**  
- Changed the vehicle purchasing policy to favour more fuel-efficient cars.  
- Adjusted air conditioning to run fewer hours during the day and switch off during public holidays.  
- Improved lighting efficiency by removing unnecessary lights and installing reflectors.

Wyndham City Council  
**Corporate Goal:** 10% below 2001 levels by 2010  
**Community Goal:** 10% below 1996 per capita levels by 2010  
**Recent actions:**  
- Generated electricity through landfill.  
- Gained Waste Wise accreditation for the Civic Centre with a view to expand to other facilities.  
- Launched the online Sustainable Living Guide, giving the community easy access to information on energy, water and waste efficiency.

Yarra City Council  
**Corporate Goal:** 25% below 1996 levels by 2010  
**Community Goal:** 20% below 1996 levels by 2010  
**Recent actions:**  
- Developed the Adaptive Assets program with the council endorsing investment in any energy-efficiency actions with a pay-back of less than ten years.  
- Worked with local businesses to become more sustainable through the Energi Business and Victoria Street litter programs.  
- Participating as a lead council on the Towards Zero Net Emissions for the Northern Alliance For Greenhouse Action Region project.

Western Australia  
**Corporate Goal:** 20% below 1998 levels by 2010  
**Community Goal:** 10% below 1998 levels by 2010  
**Recent actions:**  
- Conducted an inventory of 2006/07 emissions to track progress towards reduction goals.  
- Reviewed electricity tariffs for reserve accounts.

**City of Bayswater**  
**Corporate Goal:** 20% below 1998 levels by 2010  
**Community Goal:** Stabilisation at 1998 levels by 2010  
**Recent actions:**  
- Conducted an inventory of 2006/07 emissions to track progress towards reduction goals.  
- Downsized a proportion of the vehicle fleet from six-cylinder cars to four-cylinder cars.  
- Progressively implemented the greenhouse action plan.
<table>
<thead>
<tr>
<th>Council Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>City of Belmont</strong></td>
</tr>
<tr>
<td><strong>Corporate Goal:</strong> 20% below 1998 levels by 2010</td>
</tr>
<tr>
<td><strong>Community Goal:</strong> Stabilisation at 1998 levels by 2010</td>
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<tr>
<td><strong>Recent actions:</strong></td>
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<tr>
<td>- Installed solar panels at the Ruth Faulkner Library.</td>
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<tr>
<td>- Amended the Environmental Purchasing Policy to include an acceptable premium of 15% for environmentally preferable products and services.</td>
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<tr>
<td>- Purchased energy-efficient power supplies for computers.</td>
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</tbody>
</table>

**City of Canning** | CCP since: 1998 |
| **Corporate Goal:** 5% below 1997 levels by 2010 |
| **Community Goal:** 15% below 1997 levels by 2010 |
| **Recent actions:** |
| - Contributed to the delivery of the ClimateActions community education project as part of membership of the Southern Metropolitan Regional Council. |
| - Purchased 25% GreenPower for most buildings. |
| - Constructed 4 km of bicycle/dual-use paths in 2007/08. |

**City of Cockburn** | CCP since: 1998 |
| **Corporate Goal:** 20% below 1996 levels by 2010 |
| **Community Goal:** 20% below 1996 levels by 2010 |
| **Recent actions:** |
| - Recovered methane from landfill operations. |
| - Purchased 100% GreenPower for the Administration Building and the Main Library. |
| - Installed pool blankets on swimming pools in the Leisure Centre. |

**City of Cottesloe** | CCP since: 2000 |
| **Corporate Goal:** 20% below 1996/97 levels by 2011 |
| **Community Goal:** 20% below 1996/97 levels by 2010 |
| **Recent actions:** |
| - Carried out residential energy audits with follow-up visits to determine savings. |
| - Provided the Cott Cat shuttle bus service, which runs from December to March in a loop via the Cottesloe train station. |
| - Distributed a sustainability calendar to all residents containing tips on energy saving and other information. |

**City of East Fremantle** | CCP since: 1998 |
| **Corporate Goal:** 20% below 1998 levels by 2010 |
| **Community Goal:** 20% below 1998 levels by 2010 |
| **Recent actions:** |
| - Delivered the Living Smart Sustainable Living course to residents. |
| - Provided domestic recycling through the regional Resource Recovery Facility. |
| - Upgraded the computer system by installing virtual servers and by upgrading to more efficient desktop hardware. |

**City of Gosnells** | CCP since: 1999 |
| **Corporate Goal:** 20% below 1998/99 levels by 2010 |
| **Community Goal:** 15% below 1998/99 levels by 2010 |
| **Recent actions:** |
| - Partnered with neighbouring councils to form the South East Regional Energy Group (SEREG) to reduce regional emissions. |
| - The SEREG developed the Switched on Business and Industry project to help small and medium-sized businesses reduce their environmental footprint and operating costs. |
| - The SEREG hired an additional project officer to assist in the delivery of a range of sustainability initiatives. |

**City of Joondalup** | CCP since: 1999 |
| **Corporate Goal:** 20% below 2000 levels by 2010, with a stretch target of 35% |
| **Community Goal:** 20% below 1996 levels by 2010, with a stretch target of 35% |
| **Recent actions:** |
| - Distributed recycling bins to all residents, increasing the diversion of paper products from landfill by more than five-fold. |
| - Reduced the number of server computers by installing virtual server software. |
| - Installed low-flow showerheads at the Craigie Leisure Centre, where 168,000 showers are taken annually. |

**Shire of Kalamunda** | CCP since: 2000 |
| **Corporate Goal:** 20% below 1998 levels by 2010 |
| **Community Goal:** Stabilisation to 1998 levels by 2010 |
| **Recent actions:** |
| - Conducted an inventory of 200607 emissions to track progress towards reduction goals. |
| - Upgraded IT equipment to energy-efficient models. |
| - Changed fleet vehicles to dual-fuel capability. |

**City of Kalgoorlie-Boulder** | CCP since: 2002 |
| **Corporate Goal:** 20% below 1999 levels by 2012 |
| **Community Goal:** 10% below 1996 levels, with stabilisation for industry, by 2012 |
| **Recent actions:** |
| - Provided paper and cardboard recycling. |
| - Chipped and re-used tree prunings and other green waste. |
| - Introduced smaller vehicles, diesel vehicles and hybrids into the fleet. |

**City of Mandurah** | CCP since: 1999 |
| **Corporate Goal:** 30% below 1998 levels by 2010 |
| **Community Goal:** 20% below 1998 levels by 2010 |
| **Recent actions:** |
| - Hosted a conference on ‘Climate Change and the Coast’ and offset the emissions through native tree plantings. |
| - Established a free shuttle bus service between the Mandurah train station and the Mandurah foreshore. |
| - Encouraged staff to adopt alternatives to car travel by adopting a workplace transport plan. |

**City of Melville** | CCP since: 1998 |
| **Corporate Goal:** 25% below 1996/97 levels by 2011 |
| **Community Goal:** 20% below 1996/97 levels by 2011 |
| **Recent actions:** |
| - Partnered with Murdoch University to study the best position for rooftop wind turbines. |
| - Introduced ecologically sustainable building design guidelines. |
| - Replaced office equipment with energy-efficient options. |
ICLEI – Local Governments for Sustainability

ICLEI – Local Governments for Sustainability was founded in 1990 as the International Council for Local Environmental Initiatives. ICLEI is a not-for-profit, non-government, membership organisation of local governments and their associations. Supported by a membership of over 1000 cities, towns and counties worldwide, ICLEI has the mission to build and serve a worldwide movement of local governments to achieve tangible improvements in global environmental and sustainable development conditions through cumulative local actions.

Acknowledgements

ICLEI Oceania would like thank the council officers who worked hard to collect and compile the best possible data for this report. We also acknowledge the support of other organisations that provided councils with relevant data.
CCP Australia Councils

As of 30 June 2008, 233 councils were participating in the CCP Australia Program. Of these, the 184 councils marked with an asterisk (*) have contributed data to the Measures Report this year or in previous years. We look forward to contributions from the newer CCP councils in the future.

Australian Capital Territory
Australian Capital Territory Government*

New South Wales
Ashfield Council*
Auburn Council
Ballina Shire Council*
Bankstown City Council*
Baulkham Hills Shire Council*
Bega Valley Shire Council
Bellinger Shire Council
Blacktown City Council*
Blue Mountains City Council*
City of Botany Bay
Burwood Council
Byron Shire Council*
Cammden Council*
Campbelltown City Council
Canada Bay Council*
Canterbury City Council*
Carrathool Shire Council*
Cessnock City Council
Clarence Valley Council
Coffs Harbour City Council*
Dubbo City Council*
Eurobodalla Shire Council
Fairfield City Council*
Gosford City Council*
Goulburn Mulwaree Council
Greater Taree City Council*
Griffith City Council*
Port Macquarie-Hastings Council*
Hawkesbury City Council*
Holroyd City Council*
Hornsby Shire Council*
Hunter’s Hill Council
Hurstville City Council*
Kempsey Shire Council
Kiama Municipal Council
Kogarah Council*
Ku-ring-gai Council*
Kyogle Council
Lake Macquarie City Council*
Lane Cove Municipal Council
Leeton Shire Council*
Leichhardt Municipal Council*
Lismore City Council*
Lithgow City Council
Liverpool City Council*
Maitland City Council*
Manly Council*
Marrickville Council*
Mid-Western Regional Council
Mosoan Council*
Murrumbidgee Shire Council*
Muswellbrook Shire Council*
Nambucca Shire Council
Narrandera Shire Council*
Newcastle City Council*
North Sydney Council*
Parramatta City Council*
Penrith City Council*
Pittwater Council*
Port Stephens Council*
Randwick City Council*
Rockdale City Council*
The City of Ryde*
Shellharbour City Council*
Shoalhaven City Council
Strathfield Municipal Council*
Sutherland Shire Council*
City of Sydney*
Tamworth Regional Council*
Tweed Shire Council*
Upper Lachlan Shire Council
Warringah Council*
Waverley Council*
Willoughby City Council*
Wingecarribee Shire Council*
Wollongong City Council*
Woollahra Municipal Council*
Northern Territory
Alice Springs Town Council*
Darwin City Council
Palmerston City Council*
Queensland
Brisbane City Council*
Bundaberg Regional Council
Burdekin Shire Council
Cairns Regional Council*
Fraser Coast Regional Council*
Gladstone Regional Council*
Gold Coast City Council*
Ipswich City Council*
Logan City Council
Mackay Regional Council*
Moreton Bay Regional Council*
Shire of Murweh*
Redland City Council*
Rockhampton Regional Council*
Scenic Rim Regional Council*
Sunshine Coast Regional Council*
Tablelands Regional Council*
Toowoomba Regional Council
Townsville City Council*
Whitsunday Regional Council
South Australia
Adelaide City Council*
Adelaide Hills Council
Alexandrina Council
City of Burnside*
Campbelltown City Council*
City of Charles Sturt*
Clare & Gilbert Valleys Council
City of Holdfast Bay*
City of Marion*
City of Mitcham*
District Council of Mount Barker*
City of Norwood Payneham & St Peters*
City of Onkaparinga*
City of Playford*
City of Port Adelaide Enfield*
City of Prospect*
Salisbury City Council*
City of Tea Tree Gully*
City of Unley*
City of West Torrens*
Tasmania
Brighton Council*
Clarence City Council
Glenorchy City Council*
Hobart City Council*
Kingborough Council
Launceston City Council
Victoria
Alpine Shire Council*
Ararat Rural City Council*
Ballarat City Council*
Banyule City Council*
Bass Coast Shire Council*
Baw Baw Shire Council*
Bayside City Council*
Benalla Rural City Council
City of Borondara*
City of Brimbank*
Buloke Shire Council*
Campaspe Shire Council*
Cardinia Shire Council*
City of Casey*
Central Goldfields Shire Council*
Colac Otway Shire*
Corangamite Shire Council*
City of Darebin*
Frankston City*
Gannawarra Shire Council*
Golden Plains Shire*
City of Greater Bendigo*
City of Greater Dandenong*
City of Greater Geelong*
Greater Shepparton City Council*
Hepburn Shire Council*
Hobsons Bay City Council*
Horsham Rural City Council
Hume City Council*
Indigo Shire Council
City of Kingston*
Knox City Council*
Latrobe City Council*
Loddon Shire Council*
Macedon Ranges Shire Council*
City of Manningham*
City of Maribyrnong*
Maroondah City Council*
City of Melbourne*
Mildura Rural City Council*
Mitchell Shire Council*
Moira Shire Council*
Monash City Council*
Moonee Valley City Council*
Moorabool Shire Council*
Moreland City Council*
Mornington Peninsula Shire Council
Mount Alexander Shire Council*
Mooye Shire Council*
Murrindindi Shire Council
Nilumbik Shire Council*
Northern Grampians Shire Council*
City of Port Phillip*
Pyrenees Shire Council*
Borough of Queenscliffe
City of Stonnington
Surf Coast Shire Council*
Swan Hill Rural City Council
towong Shire Council
Rural City of Wangaratta
Warrnambool City Council*
Wellington Shire Council
City of Whitehorse*
Whittlesea City Council*
City of Wodonga*
Wyndham City Council*
Yarra City Council*
Yarra Ranges Shire Council*
Western Australia
City of Armadale*
Shire of Augusta-Margaret River
Town of Bassendean*
City of Bayswater*
City of Belmont*
City of Bunbury*
Shire of Busselton
Town of Cambridge*
City of Canning*
Town of Claremont*
City of Cockburn*
Town of Cottesloe*
Shire of Denmark
Town of East Fremantle*
City of Fremantle*
City of Gosnells*
City of Joondalup*
Shire of Kalamunda*
City of Kalgoorlie-Boulder*
Town of Kwinana*
City of Mandurah*
City of Melville*
Town of Mosman Park
Shire of Mundaring*
City of Nedlands*
Shire of Northam
Shire of Peppermint Grove*
City of Perth*
City of Rockingham*
Shire of Serpentine Jarrahdale*
City of South Perth*
City of Stirling*
City of Subiaco*
City of Swan*
Shire of Toodyay
Town of Victoria Park*
Town of Vincent*
City of Wanneroo*