



Green Office Procurement and Sustainable Office Management

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Introduction

Government agencies purchase, lease or consume a significant range of goods and services. In 2007–08, the procurement of goods and services by Australian Government agencies was valued at over \$26 billion. These include office supplies, vehicles, information and communications

technology, energy, waste and water services as well as office buildings and facilities. While these goods and services are procured for agencies to achieve their outcomes, they do have an environmental impact. This impact includes greenhouse gas emissions (such as from energy consumption in buildings and from vehicles), waste to landfill from paper, equipment and office refurbishments as well as the consumption of scarce resources such as fresh water and fossil fuels.

The Australian Government has indicated that it is seeking to be at the forefront of environmental purchasing practice. In May 2008, the Prime Minister also commented that 'the Government accepts its own responsibility to provide practical leadership...with practical measures to reduce our own environmental footprint and measures to harness savings from more efficient use of energy and water'.¹

ANAO Audit Report No 22. 2005–06, *Cross Portfolio Audit of Green Office Procurement* identified a small number of better practice examples of green office procurement across the Australian Government. The audit also identified shortcomings in achieving the Government's objective to be at the forefront of sustainable procurement practice. As a consequence, the audit concluded that sustainable development had not been fully integrated into Australian Government operations.

Significant improvement was required by agencies in terms of introducing targets for water, waste, energy and general procurement, and in implementing regular monitoring and reporting. The ANAO made specific recommendations to improve performance in sustainability. The 43 agencies involved in the audit generally agreed with or were supportive of the recommendations. A summary of progress against the recommendations from the 2005–06 report are at Appendix 2.

[1] Leadership for Long Term Sustainability: The Roles of Government, Business and the International Community, Address to the National Business Leaders Forum on Sustainable Development, Parliament House, Canberra, 19 May 2008.

Audit scope and objective

The objective of this audit was to assess and report on the progress being made by Government agencies in achieving better practice in green office procurement and sustainable office management. The scope of the audit included agencies incorporated under the *Financial*

Management and Accountability Act 1997 as well as a sample of bodies incorporated under the *Commonwealth Authorities and Companies Act 1997*. Sixty-three agencies were included in an audit survey. Detailed validation was carried out in nine of these agencies.

The audit also relied on wider whole-of-government data sets on energy use in Australian Government operations and the Australian Government vehicle fleet as well as annual reports from agencies. Where necessary, the ANAO also consulted with other parties such as state agencies and building owners. The audit sought to assess progress relevant to sustainable development in the following areas:

- policies and procedures underpinning sustainable practices;
- higher value office consumables such as paper, information and communications technology and vehicles;
- water and waste management;
- energy use;
- sustainability in buildings and tenancies; and
- sustainability reporting.

Conclusion

Australian Government agencies have made some progress towards more sustainable development practices since the 2005 audit. There are now more examples of agency initiatives to better conserve resources improve environmental performance and reduce corporate costs, particularly in energy and water conservation. However, as was the case in 2005, there is a wide disparity of performance across agencies from very poor to better practice. Measuring performance in waste management and water conservation is also still problematic because of the lack of consistency in measurement and gaps in performance information. The absence of a comprehensive sustainability framework, as recommended in 2005, is constraining further progress.

Larger agencies such as the Department of Defence, Centrelink, Medicare Australia and the Australian Taxation Office have made progress towards more sustainable practices since 2005. This progress may also reflect their capacity compared to smaller agencies. Substantive progress has also been made in relation to environmental controls in individual agencies and in the reporting on energy use in Australian Government operations. Key controls such as environmental management systems are becoming more common practice in building and facility management. However, the design and quality of the majority of environmental management systems could be significantly improved; particularly in the application of measurable targets.

Notwithstanding progress in particular agencies, as a whole, the Australian Government public sector has considerable work to do if it is to achieve its goal of being at the forefront of sustainable procurement practice. Many of the issues raised in the 2005 audit remain unresolved and many of the recommendations have yet to be fully implemented. More action is required from agencies if leadership is to be demonstrated in energy efficiency, water conservation and waste management. Energy efficiency is particularly important given that energy use accounts for over 95 per cent of greenhouse emissions from Australian Government agencies.

There is considerable scope to reduce the 'ecological footprint' of Australian Government agencies. Positive results will not be achieved without a stronger effort from all Australian Government agencies that builds on the success of those agencies that have already integrated sustainable practices into their business operations.

Ideally, agencies should develop an integrated sustainability framework that identifies improvement opportunities and investment priorities tailored to their business requirements. Where agencies have limited capacity or resource constraints, there are still many opportunities to achieve 'quick wins' and implement cost effective measures to improve sustainability. The automated shut down of monitors and computers when not in use will provide immediate energy and cost reductions. Setting printers to print double sided as a default and reducing the weight of paper used for external publications will also offer immediate savings. While the implementation of energy efficiency initiatives will involve some capital cost, the resultant savings from such measures would be ongoing and further increase over time as energy costs increase.

Agencies will obviously need to prioritise their sustainability actions with an initial focus on meeting government requirements and achieving cost effective outcomes. For larger agencies, a focus on primary sites or administrative areas with the most significant environmental impacts would be expected to yield the best environmental returns. It is appreciated that the actions put in place will, to a large extent, depend upon the particular circumstances facing each agency. Full implementation will take time to complete.

This report contains a wide range of initiatives and practical examples for agencies to consider when improving performance within a more sustainable office environment.

[2] The ecological footprint is a tool used to measure ecological sustainability and tracks past and present demands made by people on the earth's renewable natural resources. It tracks how much humanity as a whole consumes and compares this amount to the resources nature can provide. Available from

<<http://www.environment.gov.au/soe/2006/publications/drs/indicator/434/ind>
[accessed 25 November 2008].

Key findings by chapter

Agency policies and procedures (Chapter 2)

Chief Executive Instructions and internal policies

Chief Executive Instructions (CEIs) and internal policies explain the goals and policies of an agency. The 2008 ANAO survey responses indicated that there was an improvement in the extent to which agencies included environmental considerations in their CEIs and internal policies. The application of whole of life cycle costing to major purchasing has increased from 50 per cent in 2005 to 75 per cent in 2008. The number of agencies with instructions and policies in place to minimise environmental impacts improved from 42 per cent in 2005 to 56 per cent in 2008. Approximately a quarter of agencies now explicitly state their commitment to more sustainable practices within their internal documentation. As the survey responses indicate, there is still considerable scope for imbedding environmental considerations into core business operations through Chief Executive Instructions or internal policies.

Guidance and promotion of more sustainable practices

The 2005 audit recommended that the then Department of the Environment and Heritage and the then Department of Finance and Administration improve web-based access for agencies and provide better and more up to date information on sustainable practices. From the 2008 ANAO survey responses, 95 per cent of agencies stated that they found the Department of the Environment, Water, Heritage and the Arts' (Environment) website on sustainability in government to be of use. This is an improvement on the 2005 survey results where only 73 per cent of agencies found the website guidance of use. Nevertheless, many of the improvements suggested in the 2005 audit were raised again in the 2008 responses.

Guidance in sustainability has also been improved through a Government Agencies Environment Network (GAEN). The network involves some 30 agencies and was established in 2006 to 'drive environmental performance improvements within public agencies.' It aims to 'share best practice ideas on environmental management, initiate best practice activities for public agencies and facilitate uptake of ideas within agencies.' The GAEN is filling the 'expectation gap' caused

by the inability of Environment to meet the growing needs of agencies to access relevant and up-to-date better practice information on all aspects of sustainability. While recognising the contributions of these agencies, there is a strong case for Environment to take a more active leadership and coordination role in relation to promoting more sustainable practices.

Environmental management systems

An environmental management system (EMS) is a framework of cohesive management elements that an organisation may use to provide information on and set priorities for minimising its impact on the environment. The 2005 audit found very few agencies were applying better practice in this area and recommended that agencies give consideration to implementing an accredited EMS in at least one of their larger sites. From the 2008 survey, the number of agencies with an EMS certified to ISO 14001 increased from the seven in 2005 to 13 in 2008; those agencies with an EMS in place without ISO 14001 certification, also increased from 25 to 27 over the same period; and a total of 1 758 sites (approximately 46 per cent) had an EMS. In 2005, the ANAO also recommended that agencies implement challenging but realistic targets as part of the design and implementation of their EMS. The 2008 survey results revealed that some progress has been made since 2005. However, the number of agencies without firm targets (in key areas such as energy, water and waste) remains high at 43 per cent.

Higher value office consumables (Chapter 3)

The use of paper and information and communication technology (ICT), is common to most office environments. They are used in relatively large quantities and can have significant environmental, and often financial, impacts during their lifecycle. Motor vehicles are also a feature in most agencies and have significant environmental and financial impacts.

Paper use by Australian Government agencies

The Australian Government is a significant consumer of office paper, with surveyed agencies reporting an aggregate internal use of over 6 500 tonnes per annum. From the reported survey data, the average amount of paper used per person in Australian Government operations was just over 18 reams. Since the audit in 2005, the proportion of agencies using paper with recycled content has increased from 43 to 71 per cent. The survey data indicates that this increase has been achieved with no significant increase in relative cost as the price of recycled paper has declined since 2005.

There is still scope for agencies to reduce their internal paper consumption (and simultaneously reduce costs) through double sided printing. The ANAO survey data showed that 73 per cent of agencies procured only duplex capable printers and copiers while 67 per cent set

duplex printing as default. External printing (that is, publications, pamphlets and forms) can exceed internal printing in some agencies. Thirty-eight per cent of agencies advised they use at least some recycled paper in their external printing. A small number of agencies also required ISO 14001 accreditation for their printers or an environmental certification standard for their printing stock. This contrasts with the 53 per cent of agencies that indicated they take no steps to reduce the environmental impacts of their external printing.

Environmental performance of the Australian Government motor vehicle fleet

The Australian Government is a significant consumer of motor vehicles with the Government fleet, including the Department of Defence 'white vehicle fleet',³ having over 13 000 vehicles in total. In February 2003, a target was established to have 28 per cent of the Government fleet vehicles scoring in the top half of the Green Vehicle Guide⁴ (GVG) by December 2005. This target was achieved in June 2007. The proportion of vehicles in the top half of the GVG by June 2008 was 36 per cent. The target was reviewed by the Government Leadership in Sustainability Taskforce⁵ in late 2008 and a revised target has been proposed to Ministers to achieve more sustainable and cost effective vehicle fleets. At the date of preparation of this report, there has been no decision to update the target or revise the guidelines.

The 2005 audit highlighted tensions between costs, preferences for Australian made vehicles and meeting the Government's goal to reduce emissions. In 2008, these tensions still exist. Consistent with the findings in the 2005 audit, discounts of up to 30 per cent for large Australian made six cylinder cars are helping to keep the proportion of large cars in the fleet high. The most popular small cars tend to receive around ten per cent discount, while the most popular medium sized cars receive a discount of around 18 per cent. However, when considered on a whole-of-life cycle basis, large vehicles are 35 per cent more expensive than small cars.

Although the Defence white fleet was not included when the original GVG target was set, Defence advised that it is working towards achieving a target of 28 per cent of its passenger vehicles scoring a GVG rating greater than 10.5. However, with only seven per cent of vehicles currently in the top half of the GVG, little progress has been made in this area. The poor environmental performance of the Defence fleet may be partly explained by the high proportion of commercial vehicles (55 per cent), which have low GVG scores. However, other large agencies with a similar proportion of commercial vehicles in their fleets manage to have between 14 and 25 per cent of vehicles in the top half of the GVG. Defence advised that it is conducting further investigations into improving the environmental rating of its vehicle fleet.

Information and Communications Technology

In an office environment, data centres, computers, printers, copiers and multi-functional devices all consume energy. Large organisations can spend up to ten per cent of their ICT budgets on energy costs.

Energy use in ICT

The ANAO's 2005 audit recommended that agencies consider energy efficiency in their ICT purchases. In the 2008 survey, 65 per cent of agencies advised that they now consider energy consumption in their ICT procurement. In addition, the vast majority of agencies indicated they had implemented at least one measure to reduce energy consumption of office and ICT equipment. Some of the 48 per cent of agencies who shut down personal computers (PCs) overnight, reported significant savings from the initiative.

Data centres are a significant area of energy use, typically accounting for 15 to 40 per cent of tenancy energy consumption. An Environment review has identified potential energy savings of up to 33 per cent for data centres through better design layout and upgrading infrastructure. An Environment pilot computer infrastructure project also identified energy savings of 83 per cent compared to the traditional model.

ICT Waste (e-waste)

Approximately 100 000 desktop computers and laptops are being replaced by the Australian Government every year. A significant proportion will end up in the waste stream. Only 16 agencies (25 per cent) reported that their contracts for the supply of ICT included product stewardship requirements in relation to the disposal of ICT equipment. There has been a lack of progress in developing national standards for ICT waste management. However, this should not preclude agencies from giving priority to this area.

Waste and water management (Chapter 4)

Waste management

The quantity of solid waste produced in Australia continues to grow. The ANAO's 2005 audit found that the performance of agencies in managing waste was poor and recommended waste targets and improved measurement and reporting be introduced across all agencies. The ANAO also recommended agencies implement co-mingled and organic recycling schemes for office waste and include clauses in purchasing contracts to minimise packaging waste.

Little has changed in waste management since 2005. Performance across Australian Government agencies varies considerably. Agencies that have implemented recycling for co-mingled office waste increased from 65 per cent in 2005 to 89 per cent in 2008. Organic recycling increased from 28 per cent in 2005 to 33 per cent in 2008. Only 10 per cent of surveyed agencies were able to provide complete reporting on all

waste streams. Only 21 per cent of agencies include contract clauses to minimise packaging waste. From the available data, the average rate of diversion from landfill was 67 per cent compared to Environment at 74 per cent.

The majority of surveyed agencies (52 per cent) were unable to provide any waste reporting data despite agencies advising Environment in 2006–07 that waste management reporting systems were in place or under development. When agencies have been required to measure and report on waste, such as under the Government's commitment to the National Packaging Covenant (NPC)⁶ performance by the majority of agencies was poor. To date, Australian Government agencies have not collectively been able to provide any meaningful performance data to indicate the success or otherwise of the NPC Action Plan (July 2006–June 2008). If Environment is to be in a position to report on progress in the next NPC reporting period (2008–10), there will need to be considerable improvement in the quality of data provided by agencies.

Water consumption and conservation

Commercial office buildings use a significant amount of water. Although there is no definitive figure on the cost of water for the Australian Government, an ANAO estimate puts the figure at approximately \$14 million per annum. Improvements in water conservation measures have been identified and progress has been made since 2005. More than 80 per cent of agencies now take steps to detect and rectify leaks (35 per cent in 2005) and over 70 per cent have installed reduced flow or sensor taps compared to less than 30 per cent in 2005.

Despite the majority of agencies indicating they have taken steps to reduce water consumption, knowledge of actual water use was poor. Only 35 per cent of surveyed agencies were able to measure water usage at one or more sites, a small improvement from 28 per cent in 2005.

Energy efficiency in buildings and facilities (Chapter 5)

For Australian Government agencies, total energy consumption in 2006–07 (excluding Defence Operations), was approximately 9 million gigajoules. This consumption contributed to over 95 per cent of greenhouse gas emissions from Australian Government agencies.⁷

Energy efficiency in Government operations

In September 2006, the then Government released a new energy policy, *Energy Efficiency in Government Operations* (EEGO), with revised energy intensity portfolio targets to be achieved by 2011–12. The overall goal of the EEGO policy is to reduce the Australian Government's energy intensity. These targets represent a 25 per cent reduction in energy intensity for tenant light and power (TLP) and a 20 per cent

reduction in energy intensity for office central services (OCS) from the 2006 base year.

Data from the draft *Energy Use in the Australian Government's Operations 2006–07* report, indicated that energy intensity has decreased incrementally over the last eight years and a number of agencies are already meeting the intensity targets for TLP (28 per cent) and for OCS (41 per cent). However, there is a wide range in performance from poor to better practice and there is considerable scope for improving energy efficiency in the majority of agencies.

The ANAO estimated that the additional cost incurred by agencies not yet meeting the EEGO energy targets for the two categories is \$17 million per annum. If agencies could reduce their consumption across other common stationary energy categories by the same proportion, \$75 million per annum could be saved from the Australian Government's energy budget. While implementation of energy efficiency initiatives such as lighting upgrades and enhanced metering arrangements will involve some capital cost, the savings from such measures will be ongoing. Although the recovery of these costs will vary depending on the circumstances in each agency, the recent increase in electricity costs experienced by Australian Government agencies will reduce pay back periods. Examples have been provided by agencies that illustrate recovery of relevant costs in less than 12 months.

Defence performance against energy policy requirements

The Department of Defence (Defence) is by far the largest energy consumer in the Australian Government, accounting for almost 45 per cent of total consumption (excluding Defence Operations). The 2006 EEGO policy required Defence to develop a comprehensive energy management strategy by the end of 2006 and progressively install sub-meters at Defence bases to better monitor and manage energy use and report against specific end use categories.

Defence released its Energy Strategy internally in May 2007. The strategy established a target of a ten per cent energy reduction below the 2005–06 baseline to be met by June 2008. Defence data indicates that energy consumption for major Defence bases has increased by approximately three per cent (10 GWh) compared with the 2005–06 baseline year, despite the implementation of a number of well-targeted energy efficiency initiatives.

Defence is in the early stages of implementing its sub-metering program. The pilot metering phase has been completed and trialled across 15 bases. Fifty-two bases (covering about 80 per cent of Defence energy use) have been targeted for sub-metering. By August 2008, about one per cent of the new meters had been rolled out. The sub-meter retrofit program is expected to be rolled out over two to three years, installing some 2 000 new sub-meters. Defence's ability to meet the requirements set out in the EEGO policy will play a critical role if the

Australian Government is to meet its energy reduction targets by 2011–12, and will require a concerted effort.

Energy efficiency initiatives being undertaken by agencies

In 2005, the ANAO audit recommended that agencies introduce an energy management plan; conduct energy audits; and implement all energy conservation initiatives that are cost effective within remaining lease periods. This recommendation took into account the environmental policy objectives of the then government and the potential financial savings that could accrue to agencies over time.

Energy management plans (EMP), along with energy audits, are important steps for agencies' seeking to reduce their energy consumption. Of the agencies that met the OCS target of 400 MJ/m²/annum in 2006–07, 78 per cent advised that they had implemented an EMP. Similarly, 61 per cent of agencies that had already met the policy target for TLP for 2011–12 indicated that they had implemented an EMP.

Sustainability in buildings and tenancies (Chapter 6)

Australian Government agencies occupy approximately 13 per cent of the commercial office property market covering 4.4 million square metres. Under the EEGO policy (2006) a minimum standard of energy performance of 4.5 NABERS Energy rating⁸ is required for new buildings, new leases and major refurbishments over 2 000 square metres. The policy also established a Green Lease Schedule (GLS), applicable to new leases over 2 000 square metres for leases over two years.⁹

Progress towards meeting EEGO policy requirements in new buildings and tenancies

There was very limited data available to provide an indication of actual performance in new buildings and tenancies, as only a small number of new buildings or tenancies are completed each year. Nevertheless, ANAO survey data, supported by annual reports, indicates that agencies are generally seeking to achieve at least a 4.5 NABERS Energy rating for buildings and tenancies. Preliminary data indicates that new buildings for AusAID and the Australian Taxation Office are performing on or just below the intended 5 NABERS Energy rating.

Since its commencement in 2006, twenty five agencies indicated that they have at least one GLS in place comprising 41 sites or nearly two per cent of total agency sites that were captured in the survey. It is too early to make conclusive comments regarding the effectiveness of the GLS in delivering measurable environmental outcomes.

Progress in implementing the ANAO's 2005 audit recommendations

The 2005 audit report recommended that agencies consider an appropriate energy rating scheme and develop an efficiency target for tenancies in their property portfolio. The survey data indicated that 26 agencies (41 per cent) have at least one site that has been rated for energy efficiency using the NABERS Energy rating. The total number of assessed sites was 55, which accounts for only 2.4 per cent of total agency sites that were captured in the survey. Very few agencies are able to measure and report on the energy performance of their property portfolio.

Waste from construction, refurbishments and fit-outs

Survey results indicate that there has been a general improvement in more sustainable building and refurbishment materials since 2005. However, the recycling of construction and refurbishment waste is still a low priority for most agencies. The 2008 survey indicated that only 13 agencies (21 per cent) had provisions for minimising and/or recycling of waste generated in their contracts for refurbishments (a decrease from 31 per cent in 2005) and only two agencies were able to provide estimates of the amount of waste going to landfill from the refurbishments. This figure was similar to 2005 when only three agencies provided estimates. Guidance for office refurbishments that set required environmental standards and practices to minimise waste going to landfill would be particularly helpful for agencies.

Sustainability reporting (Chapter 7)

Mandatory environmental reporting in annual reports is required under section 516A of the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). Successive ANAO audits in 2002–03 and in 2005–06 have found shortcomings in the capacity of agencies to meet these mandatory reporting requirements of the EPBC Act.¹⁰ The Senate Standing Committee on Finance and Public Administration in March 2008 also highlighted ‘the lack of sufficient information and numerical data to be able to understand the agencies’ actual effect on the environment.

An analysis of 65 annual reports for 2006–07 (based on departmental structures prior to the 2007 election) identified that there is a wide range of information reported by agencies with little consistency or focus on common performance activities. The depth of analysis and information in each report varied from non-compliance to well developed better practice. The analysis revealed that 52 agencies (80 per cent) gave insufficient attention to the effect of the agency’s impact on the environment while only 28 agencies (43 per cent) demonstrated good or better practice in identifying measures undertaken to minimise environmental impact.

[3] The Defence white fleet consists of non-military, commercially available passenger and commercial vehicles.

[4] The guide provides information about the environmental performance of new light vehicles (up to 3.5 tonnes gross vehicle mass) sold in Australia. Vehicles are given a rating out of 10 for their greenhouse emissions and air pollution rating.

[5] In March 2008, the Government established a taskforce to examine options to improve the sustainability of Australian Government operations.

[6] The NPC is an arrangement between Australian governments and the participants in the packaging supply chain. The Australian Government has been a signatory to the NPC since 1999. The covenant aims to minimise the environmental impacts of consumer packaging waste throughout the entire life cycle of consumer products.

[7] Department of the Environment, Water, Heritage and the Arts, draft Energy Use in Australian Government's Operations 2006–07 Report, p.11.

[8] NABERS Energy is a nationally accredited performance based rating scheme which benchmarks a building or tenancy's greenhouse impact on a scale of one to five, one star being the most polluting and five stars the least.

[9] GLSs are designed to improve the energy efficiency of a tenancy through the implementation of five mandatory criteria, including an energy management plan. The leasing arrangement sets out specific responsibilities and incentives for the tenant and the building owner.

[10] ANAO Audit Report No.41 2003–04, Annual Reporting on Ecologically Sustainable Development and ANAO Audit Report No.22 2005–06, Cross Portfolio Audit of Green Office Procurement.

Recommendations

The ANAO made seven recommendations designed to assist agencies in meeting the Government's stated expectations in sustainable development and promote better practice.

Summary of agencies' responses

Twenty-two agencies were sent the draft report for comment. These agencies were the subject of audit findings. In other cases the findings were pertinent to the administrative functions of particular agencies. The responses from agencies are set out in Appendix 1 of the report.

All agencies that responded were generally supportive of the recommendations and agreed to all recommendations. However, some agencies commented on the constraints imposed by the existing standard of available building stock and the period of nominal occupancy for existing leases. The cost and resource implications of undertaking some measures, such as reporting on water consumption or waste, was also referred to.

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