

The Auditor-General
Audit Report No.24 2002-03
Performance Audit

Energy Efficiency in Commonwealth Operations—Follow up Audit

Australian National Audit Office

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of Australia 2002

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Canberra ACT
20 December 2002

Dear Mr President
Dear Mr Speaker

The Australian National Audit Office has undertaken a performance audit across agencies in accordance with the authority contained in the *Auditor-General Act 1997*. Pursuant to Senate Standing Order 166 relating to the presentation of documents when the Senate is not sitting, I present this report of this audit and the accompanying brochure. The report is titled *Energy Efficiency in Commonwealth Operations—Follow-up Audit*.

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's Homepage—<http://www.anao.gov.au>.

Yours sincerely

A handwritten signature in black ink, appearing to read 'P. J. Barrett'.

P. J. Barrett
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office. The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act 1997* to undertake performance audits and financial statement audits of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

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For further information contact:

**The Publications Manager
Australian National Audit Office
GPO Box 707
Canberra ACT 2601**

Telephone: (02) 6203 7505
Fax: (02) 6203 7519
Email: webmaster@anao.gov.au

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Audit Team
Dr Paul Nicoll
David Nyskohus
Michael McFarlane

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Abbreviations/Glossary

AGO	Australian Greenhouse Office
ANAO	Australian National Audit Office
APS	Australian Public Service
Attorney-General's	Attorney-General's Department
BOMA	Building Owners and Managers Association of Australia (now Property Council of Australia Limited)
CEI	Chief Executive Instruction
CEO	Chief Executive Officer
CO ₂ -e	Carbon dioxide equivalent
CSIRO	Commonwealth Scientific and Industrial Research Organisation
Defence	Department of Defence
DVA	Department of Veterans' Affairs
EA	Environment Australia (Department of the Environment and Heritage)
EESU	Energy and Environmental Services Unit (now part of the AGO)
EMS	Energy Management System
Finance	Department of Finance and Administration
GJ	giga joule
Health	Department of Health and Ageing
ITR	Department of Industry, Tourism and Resources
MJ	mega joule
Mt	mega tonne
NatHERS	National House Energy Rating Scheme
NGS	National Greenhouse Strategy
PJ	peta joule
PM&C	Department of the Prime Minister and Cabinet
Treasury	Department of the Treasury
UNFCCC	United Nations Framework Convention on Climate Change

Summary and Recommendations

Summary

Background

1. In 1999, the ANAO conducted a performance audit of *Energy Efficiency in Commonwealth Operations*.¹ That audit made seven recommendations. Overall, agencies involved in this follow-up audit have made satisfactory progress in implementing the recommendations of the earlier audit. In its 2001–02 whole-of-government energy use report,² the Department of Industry, Tourism and Resources (ITR) also noted that the Government’s energy intensity targets set under the Energy Policy are likely to be met before 2002–03 in the OFFICE—TENANT LIGHT AND POWER and OFFICE—CENTRAL SERVICES categories.

2. Over 70 per cent of Australia’s greenhouse gas emissions³ are energy related—principally connected with electricity production and the transport sector. The Commonwealth Government announced its greenhouse gas emissions policy in 1997, which included an initiative to improve energy efficiency in Commonwealth operations. The Energy Policy, which is binding on most Commonwealth agencies, called upon those agencies to identify and implement a range of energy efficiency initiatives. The Energy Policy also established a set of energy intensity targets for Commonwealth agencies, to be achieved by 2002–03.

3. Twelve energy end-use categories are established by the Energy Policy, and energy intensity targets have been set for the following end-use categories:

- OFFICE—TENANT LIGHT AND POWER: 10 000 mega joules per person per annum for tenant operations in buildings whose primary function is office space;
- OFFICE—CENTRAL SERVICES: 500 mega joules per square metre per annum for the provision of common services in office buildings;⁴ and
- DEFENCE ESTABLISHMENTS: 2.5 million giga joules per annum for all buildings and facilities that are within established Department of Defence bases.⁵

¹ Australian National Audit Office, Report No.47 of 1998–99, *Energy Efficiency in Commonwealth Operations*, ANAO, Canberra, 1999.

² Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Canberra, 2002.

³ With less than half of one per cent of the world’s population, Australia contributes around one and a half per cent of global greenhouse gas emissions: Bureau of Transport and Regional Economics, *Report No.105—Greenhouse Policy Options for Transport*, BTRE, Canberra, 2002, p. 2. Also see Appendix 1 for a brief discussion of the greenhouse effect.

⁴ Office central services includes air conditioning, lifts, security and lobby lights, and domestic hot water.

⁵ This category applies to Department of Defence and covers all buildings and facilities that are within established Defence bases.

4. The Energy Policy specifies a number of energy efficiency measures considered essential to any successful energy management program. These measures include:

- adherence to minimum building energy performance standards;
- negotiation of energy recovery in lease agreements;
- regular conduct of energy audits;
- adherence to housing energy use guidelines;
- adherence to electrical appliance and equipment energy performance standards;
- use of renewable energy technologies; and
- energy performance contracting.

5. The seven recommendations in the 1999 ANAO audit report were aimed at improving the efficiency and effectiveness of Energy Policy implementation. Three of these recommendations were directed at Australian Public Service agencies generally. These three recommendations called upon agencies to:

- clearly indicate how they will comply with the Energy Policy objectives;
- devise and implement a series of energy efficiency initiatives appropriate to their own circumstances; and
- report annually to their Ministers on the effectiveness of measures adopted and to confirm compliance with the Energy Policy.

6. While Commonwealth Government operations contribute relatively little to Australia's total greenhouse gas emissions,⁶ the Energy Policy adopts a 'lead by example' approach. The remaining four recommendations focused on the co-ordination and leadership role of the two agencies responsible for the continued development and administration of the Energy Policy—the then Department of Industry, Science and Resources and the Australian Greenhouse Office (AGO).

7. In conducting this follow-up audit, the ANAO took account of recent changes in Commonwealth property management. For example, some 114 Commonwealth office properties were sold between 1997–98 and 1999–2000,⁷ resulting in many agencies now leasing their office accommodation. This change poses new challenges to improving energy efficiency, particularly for agencies leasing space in ageing or intrinsically inefficient buildings, since these agencies have only indirect control over energy consumption by building central services.

⁶ In 2000–01, equivalent CO₂ emissions resulting from Commonwealth operations (excluding Defence operations) amounted to less than 0.5 per cent of total Australian domestic greenhouse emissions.

⁷ Australian National Audit Office, Report No.53 of 2000–01, *Commonwealth Management of Leased Office Space*, ANAO, Canberra, 2001, p. 30.

8. The policy environment has also evolved over the past four to five years. In partial recognition of the importance of Commonwealth agencies demonstrating leadership in reducing greenhouse gas emissions, the Government announced the Policy Framework for the Greening of Government in May 2001. As a result of this framework, many Commonwealth agencies have joined the Greenhouse Challenge Program—(further information on the Greenhouse Challenge Program is provided in Appendix 3).

9. There has also been recent attention on the United Nations role, through the United Nations Framework Convention on Climate Change, in co-ordinating international efforts.⁸

Audit objectives and methodology

10. Against this background, the ANAO assessed agencies' progress in implementing the recommendations of the earlier audit report.

11. Specifically, the objectives of the audit were to:

- assess the extent to which selected Commonwealth agencies have implemented the recommendations of Report No.47 of 1998–99, taking account of any changed circumstances or new administrative issues identified as impacting upon implementation of these recommendations; and
- offer continued assurance to the Parliament on the management of Commonwealth agencies' compliance with the Commonwealth energy efficiency requirements, and to identify areas for better practice in energy management by those agencies.

12. Fieldwork was conducted in the agencies involved in the earlier audit, namely:

- Australian Greenhouse Office (AGO);
- Attorney-General's Department;
- Commonwealth Scientific and Industrial Research Organisation (CSIRO);
- Department of Defence (Defence);
- Department of Health and Ageing (Health);
- Department of Finance and Administration (Finance);
- Department of Industry, Tourism and Resources (ITR);
- Department of the Environment and Heritage (Environment Australia, EA);
- Department of the Treasury (Treasury); and
- Department of Veterans' Affairs (DVA).

⁸ Further information on the UNFCCC can be found in Appendix 2.

13. The ANAO wrote to each agency asking for information about its implementation of the recommendations of Report No.47 of 1998–99. After receiving the agency responses, the ANAO interviewed key personnel and reviewed relevant agency documents.

Overall conclusion

14. The ANAO has concluded that, overall, agencies involved in this follow up audit have made satisfactory progress in implementing the recommendations of Audit Report No.47 of 1998–99. In general, agencies in this follow-up audit have pursued the intent of those recommendations—publishing a clear indication of how they will achieve the Energy Policy objectives; adopting a strategic and planned approach to introducing energy efficiency initiatives; and demonstrating a willingness to report on agency achievements in relation to energy use and the outcomes of energy efficiency initiatives.

15. ANAO also concluded that the two co-ordinating agencies, the Department of Industry, Tourism and Resources (ITR) and the Australian Greenhouse Office (AGO), have effectively implemented the recommendations relating to their policy co-ordination and leadership functions.

16. In its 2001–02 whole-of-government energy use report,⁹ ITR noted that the energy intensity targets in the OFFICE—TENANT LIGHT AND POWER and OFFICE—CENTRAL SERVICES categories are likely to be met before 2002–03.

17. Seven of the agencies in this audit were, in 2001–02, performing under the 10 000 mega joule per person per annum target to be achieved by the end of 2002–03 set for the OFFICE—TENANT LIGHT AND POWER category (see Table 1). Attorney-General's Department was 85 per cent above the target in this category.¹⁰ The remaining agencies yet to meet this target, the Department of Defence and the Department of Health and Ageing, require further reductions of 25 per cent and one per cent, respectively, in overall energy use within this category in the time remaining before the target deadline. On average, the Commonwealth's energy use in 2001–02 was 3.8 per cent above the OFFICE—TENANT LIGHTING AND POWER target.¹¹

⁹ Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Canberra, 2002. The Energy Policy establishes energy intensity targets which are to be met by all Commonwealth agencies by 2002–03. Further discussion of Energy Policy targets can be found in Chapter 4.

¹⁰ The Department noted that increased after hours operational activity following the events of September 11, 2001, as well as after hours building works, had impacted on energy consumption for 2001–02.

¹¹ *op. cit.*, *Energy Use in Commonwealth Operations 2001–02*.

Table 1
Office—Tenant Light and Power energy use for agencies in this audit, 2001–02*

Agency	1997–98	2001–02	Percentage reduction since 1997–98	Percentage above / (below) target
Attorney-General's Department ^a	12 178	18 475	-51.7	85
Australian Greenhouse Office ^b	10 886	8 170	24.9	(18)
Commonwealth Scientific and Industrial Research Organisation ^c	23 425	9 755	58.4	(2)
Department of Defence	17 653	12 546	28.9	25
Department of Finance and Administration	13 989	9 678	30.8	(3)
Department of Health and Ageing	11 794	10 088	14.5	1
Department of Industry, Tourism and Resources	8 834	7 154	19.0	(28)
Department of the Environment and Heritage	6 233	5 648	9.4	(44)
Department of the Treasury	11 887	9 464	20.4	(5)
Department of Veterans' Affairs	8 856	6 763	23.6	(32)

* Measured in mega joules per person per annum.

a The Department's consumption in this category increased by 64% over 2000–01.

b AGO was established in 1998 so energy use data from 1999–2000 has been used in 1997–98 column.

c CSIRO data for this category was not available in 1997–98 so energy use data from 1998–99 has been used in 1997–98 column.

Source: Department of Industry, Tourism and Resources¹²

¹² Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Tourism and Resources, Canberra, 2002.

18. The Energy Policy requires that agencies report energy consumption in the OFFICE—CENTRAL SERVICES category where the agency is directly responsible for paying the energy bills for this category. This means that OFFICE—CENTRAL SERVICES consumption in leased commercial office buildings is generally not measured and reported. The Property Group of the Department of Finance and Administration reports the OFFICE—CENTRAL SERVICES consumption in Commonwealth-owned buildings. For 2001–02, OFFICE—CENTRAL SERVICES consumption data was available for only four of the agencies included in this follow-up.¹³

19. For those Commonwealth agencies reporting, the weighted average consumption for OFFICE—CENTRAL SERVICES was 482 mega joules per square metre per annum—3.6 per cent under the Energy Policy target.¹⁴

20. Energy consumption in the DEFENCE ESTABLISHMENTS category for 2001–02 was 3.0 million GJ, 27 per cent over the Energy Policy target. This represents a reduction of six per cent over 2000–01. Defence expects further reductions within this category as a result of implementation of the Defence Energy Efficiency Program.

¹³ Most of the Commonwealth agencies examined are in leased office accommodation. Commonwealth agencies leasing privately owned accommodation are not required under the Energy Policy to be responsible for the energy consumption of building central services unless they have agreed to this in their lease agreement. Therefore, office building central services energy consumption is only reported where the Commonwealth is the building owner or where the Commonwealth, as tenant, has agreed to assume responsibility for such consumption: Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Canberra, 2002.

¹⁴ *ibid.*

Key Findings

21. Table 2 summarises progress of the 10 agencies in implementing recommendations 1–3 of the earlier audit. Recommendations 1–3 were generally applicable to all Commonwealth agencies covered by the Energy Policy.

Table 2

Summary of findings against recommendations applying to all agencies

Recommendation	Description	Findings
No. 1	Implementation of the Energy Policy	This recommendation has been implemented by seven of the agencies, with the remaining three agencies taking action to implement the recommendation.
No. 2	Clear indication of how agencies will comply with the Energy Policy	Although only one agency has fully implemented Recommendation 2 of the earlier audit, the remaining agencies have undertaken alternative action which has a similar effect to that envisaged by the recommendation.
No. 3	Annual reporting of performance against the Energy Policy	Although agencies were generally reporting performance against the energy intensity targets set by the Energy Policy to their Minister, no agency has fully implemented this recommendation.

22. Table 3 summarises progress of the two co-ordinating agencies (Department of Industry, Tourism and Resources and the Australian Greenhouse Office) in implementing recommendations 4–7 of the earlier audit. Recommendations 4–7 were targeted at administration and co-ordination of the Energy Policy.

Table 3**Summary of findings against recommendations applying to co-ordinating agencies**

Recommendation	Description	Findings
No. 4	Guidance in the preparation of Energy Policy annual reports	This recommendation has been implemented.
No. 5	Interpretation and promulgation of the Energy Policy	This recommendation has been implemented.
No. 6	Leading by example	This recommendation has been implemented.
No. 7	Energy Policy advisory service	This recommendation has been implemented.

23. The ITR whole-of-government report on *Energy Use in Commonwealth Operations 2001–02* indicates that the energy intensity targets are likely to be met in two (OFFICE—TENANT LIGHT AND POWER and OFFICE—CENTRAL SERVICES) of the three end-use categories for which targets have been set by the Energy Policy.¹⁵

¹⁵ Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Canberra, 2002.

Recommendation

Set out below is the ANAO's recommendation with report paragraph reference and a summary of agency responses to the recommendation.

**Recommendation
No. 1
Para 2.50**

The ANAO recommends that an agency's annual energy efficiency report to its portfolio Minister include an indication of whether all the requirements of the Energy Policy were complied with and, where this did not occur, an indication of the areas of non-compliance, and either the steps being taken to remedy the situation, the barriers to implementation, or a statement that specified requirements are not considered to be relevant to the agency.

All agencies agreed.

Audit Findings and Conclusions

1. Background

This chapter provides a summary of Commonwealth Government greenhouse policies, focusing on those relating to energy efficiency in the Government's own operations. The chapter then discusses the earlier audit of energy efficiency conducted in 1999 and concludes by setting out the objective, criteria and methodology of the present follow-up audit.

Introduction

1.1 In his 1997 statement on the Commonwealth Government's greenhouse gas emissions policy, the Prime Minister announced an initiative aimed at improving energy efficiency in Commonwealth operations. The Energy Policy, as it came to be known, established, among other things, agency energy use targets to be achieved by 2002–03. In its 1999 audit report into agency compliance with the Energy Policy, the ANAO made a number of recommendations to improve the efficiency and effectiveness of Energy Policy implementation.

1.2 This follow-up of the 1999 audit report examined the extent to which the recommendations of the earlier audit had been implemented. The ANAO concluded in this follow-up that, overall, agencies involved have made satisfactory progress in implementing the recommendations of the earlier audit.

Australia and the greenhouse effect

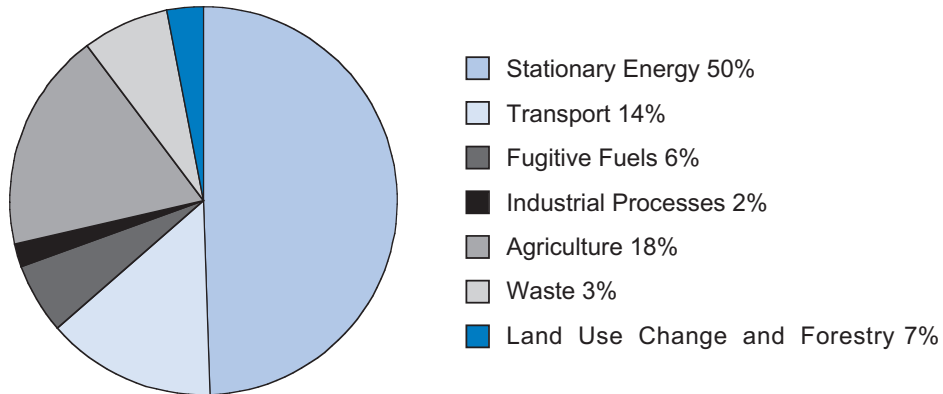
1.3 The Energy sector was responsible for 70 per cent of Australia's total greenhouse emissions,¹⁶ with Agriculture the next largest contributor, responsible for 18 per cent of overall emissions (see Figure 1).¹⁷

¹⁶ With less than half a per cent of the world's population, Australia contributes around 1.5 per cent of total greenhouse gas emissions: Bureau of Transport and Regional Economics, *Report No. 7105—Greenhouse Policy Options for Transport*, BTRE, Canberra, 2002, p. 2. Also see Appendix 1 for a brief discussion of the greenhouse effect.

¹⁷ Australian Greenhouse Office, *Australia's Third National Communication on Climate Change*, AGO, Canberra, 2002. The Energy sector includes emissions resulting from *stationary energy* fuel combustion, *transport* and *fugitive emissions*. *Stationary energy* includes emissions from fuel combustion to generate electricity and emissions from other sources such as domestic heating. *Transport* includes emissions from road, rail and domestic air and water transport. *Fugitive emissions* refers to waste emissions from coal mining and handling and oil and natural gas production, processing and transportation.

Figure 1

Contribution to total Australian CO₂-equivalent emissions by sector, 2000

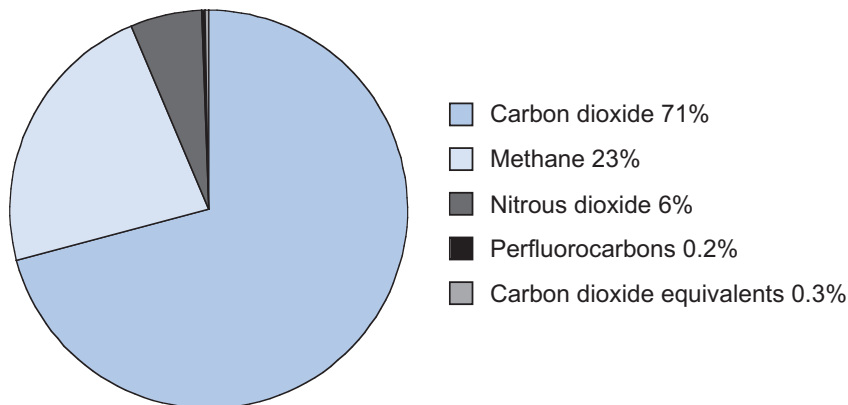


Source: Australian Greenhouse Office¹⁸

1.4 Carbon dioxide makes the largest contributions to Australia's net emissions, accounting for 71 per cent of all emissions in 2000, with methane next at 23 per cent (see Figure 2).

Figure 2

Contribution to total Australian CO₂-equivalent emissions by gas, 2000



Source: Australian Greenhouse Office¹⁹

1.5 The single largest contributor to Australia's CO₂ emissions was electricity generation (through the burning of fossil fuels), followed by road transport: together accounting for 88 per cent of all CO₂ emissions in 2000.²⁰

¹⁸ Australian Greenhouse Office, *Australia's Third National Communication on Climate Change*, AGO, Canberra, 2002, p. 29.

¹⁹ *ibid.*, p. 31.

²⁰ *ibid.*

1.6 Thus, measures aimed at energy production and energy use play an essential role in addressing Australia's overall greenhouse emissions.

Commonwealth greenhouse initiatives²¹

Safeguarding the Future: Australia's Response to Climate Change

1.7 The Prime Minister announced a national greenhouse gas emissions policy in his November 1997 statement, *Safeguarding the Future: Australia's Response to Climate Change*. The measures announced in the package replaced and expanded upon those that had existed previously, with \$180 million provided over five years to support the 24 programs included in the package.

1.8 One of these programs, *Improving Energy Efficiency in Commonwealth Operations* (the Energy Policy), was announced with the objective of reducing the energy consumption and greenhouse gas emissions of Commonwealth operations and, by doing so, to lead the community by example. The Energy Policy will be discussed in further detail below.

The National Greenhouse Strategy

1.9 The National Greenhouse Strategy (NGS) outlines the framework for implementing Australia's domestic greenhouse response.²² The NGS (which is a joint Commonwealth, State and Territory initiative) builds upon previous greenhouse programs and includes the Prime Minister's *Safeguarding the Future* package.

1.10 Under the NGS, the Commonwealth Government has responsibility for policies and measures across all eight NGS modules, with States and Territories taking on key responsibilities in the areas of energy policy, land use change, transport planning and waste management.

The Commonwealth's Energy Policy

1.11 First announced in the Prime Minister's *Safeguarding the Future* package, *Improving Energy Efficiency in Commonwealth Operations* (the Energy Policy) applies to all Commonwealth departments and to Commonwealth agencies and bodies whose operations are substantially budget-dependent.

²¹ See Appendix 3 for a description of selected current Commonwealth Greenhouse Policies.

²² Further information on the National Greenhouse Strategy can be found in Appendix 3.

1.12 The Secretary of the (then) Department of Primary Industries and Energy provided details of the Energy Policy in 1998 to chief executive officers (CEOs) of all Commonwealth agencies by way of the publication, *Measures for Improving Energy Efficiency in Commonwealth Operations*.²³

1.13 The Energy Policy states that CEOs of Commonwealth departments and agencies are accountable to their Ministers for their performance in improving energy efficiency in their own operations and for meeting the specified performance targets. The Energy Policy also places an obligation on all Commonwealth departments and agencies to lead by example.

1.14 The Energy Policy includes several review and reporting processes; establishes agency energy use targets (to be achieved by 2002–03); and requires various energy standards and related requirements to be achieved and implemented. A summary of the Energy Policy requirements is provided in Table 4.

Administration of the Energy Policy

1.15 Two agencies have responsibility for co-ordination of the Energy Policy: the Department of Industry, Tourism and Resources (ITR) and the Australian Greenhouse Office (AGO).

1.16 Overall responsibility for policy development on energy efficiency in Commonwealth operations rests with ITR. Responsibility for the implementation of the Energy Policy is split between ITR and AGO. The Energy Policy specifically assigns 10 advisory service functions to be delivered by AGO.

Developments since the Energy Policy

Sale of the Commonwealth's property estate

1.17 As a result of changes to Commonwealth property management since the release of the Energy Policy, some 114 Commonwealth office properties were sold over the financial years 1997–98 to 1999–2000.²⁴ Many Commonwealth agencies now lease their office accommodation and this has posed new challenges to improving energy efficiency, particularly to those agencies that lease space within ageing and inefficient buildings.

1.18 The Energy Policy does, however, require that agencies attempt to address the issue of energy efficiency in their leased accommodation when negotiating new lease agreements.

²³ The Department of Industry, Tourism and Resources and the Australian Greenhouse Office now have joint responsibility for co-ordination of the Energy Policy.

²⁴ Australian National Audit Office Report No.53 of 2000–01, *Commonwealth Management of Leased Office Space*, ANAO, Canberra, 2001, p. 30.

Table 4
Summary of Energy Policy requirements

The role of agencies
<ol style="list-style-type: none"> 1. Achievement of energy use performance target. All agencies are to ensure that all commercial office space that they own or lease meets Commonwealth energy use performance targets by 2002–03. These standards are: <ul style="list-style-type: none"> • 10 000 mega joules per person per annum energy use target set for office buildings tenant lighting and power; • 500 mega joules per square metre per annum target set for office building central services; and • a total of 2.5 million giga joules per annum for Defence establishments covering all buildings and facilities within the umbrella of established Defence bases. 2. CEO accountability. All heads of departments of state and agencies subject to the <i>Financial Management and Accountability Act 1997</i> and the <i>Commonwealth Authorities and Companies Act 1997</i> more than 50 per cent funded through Appropriation Acts are accountable to their Ministers for their organisation's performance in improving energy efficiency. 3. Conduct of energy audits. All agencies are to undertake energy audits (or approved alternative energy use assessments) of all commercial buildings within the first year of occupancy and at intervals not exceeding five years thereafter. All resulting cost effective recommendations must be implemented. 4. Use of renewable energy technologies. All agencies are to use solar and other renewable energy technologies where relevant and cost effective. 5. Adherence to Commonwealth building energy use guidelines. All agencies are to ensure that all newly constructed or substantially refurbished commercial buildings that they own or buildings where the agency is majority lessor, meet Commonwealth building energy use guidelines. 6. Negotiation of particular central services energy payment arrangements in leases. All agencies are to ensure that all new leases entered into, include the requirement that building owners be responsible for paying the energy costs for central services and that building owners not recover these costs directly from the Commonwealth or through recoverable outgoings. 7. Adherence to house energy use guidelines—new houses. All agencies are to ensure that all new houses that they own or lease, meet Commonwealth energy use guidelines. 8. Adherence to housing energy use guidelines—existing houses. All agencies, subject to the results of a sample survey to be carried out by the AGO, are to upgrade their owned or leased houses to meet the Commonwealth energy use guidelines. 9. Adherence to electrical appliances and equipment energy performance standards. All agencies are to ensure that all newly procured electrical appliances and equipment meet Commonwealth energy performance standards. 10. Adherence to vehicle fuel efficiency standards. All agencies are to ensure that all newly procured vehicles meet Commonwealth fuel efficiency standards from 2003. 11. Annual reporting to respective Minister. All agencies are to annually report their energy performance to their Ministers. 12. Annual reporting to DITR. All agencies are to annually report their energy consumption and intensity statistics to DITR.

Source: Adapted from ANAO, Audit Report No.47 of 1998–99, Table 4.

Commonwealth Policy Framework for the Greening of Government

1.19 In recognition of the importance of Commonwealth agencies demonstrating leadership to the Australian community in reducing greenhouse gas emissions, the Commonwealth Government announced the *Policy Framework for the Greening of Government* in May 2001.

1.20 The Policy Framework encourages CEOs of all Commonwealth departments and agencies to:

- join the Greenhouse Challenge Program²⁵; and
- develop an Environmental Management System by December 2002 and accredit at least one major site by December 2003.

Previous audit coverage

1.21 Previous audit reports containing information relevant to energy efficiency in Commonwealth operations include:

- *Energy Management of Commonwealth Buildings*, Efficiency Audit Report No.47, 1991–92.
- *Energy Management of Commonwealth Buildings*, Follow-up audit, Department of Primary Industries and Energy and Department of Administrative Services, Performance Audit Report No.10, 1996–97.
- *Energy Efficiency in Commonwealth Operations*, Department of Industry, Science and Resources and Australian Greenhouse Office, Performance Audit Report No.47, 1998–99.

1.22 The ANAO also produced a Better Practice Guide in 1999 entitled, *The Chief Executive Office and Energy Efficiency in Commonwealth Operations*.

Audit Report No.47 of 1998–99, *Energy Efficiency in Commonwealth Operations*

1.23 The objectives of this earlier audit were to form an opinion on the management of Commonwealth agencies' compliance with the Commonwealth energy efficiency requirements and to identify areas for better practice in energy management by those agencies. This was a cross-agency audit involving 10 selected Commonwealth agencies. A Better Practice Guide was subsequently published by the ANAO following the earlier audit.²⁶

²⁵ Further information on the Greenhouse Challenge Program and selected other Commonwealth greenhouse policies is provided in Appendix 3.

²⁶ Australian National Audit Office, Better Practice Guide, *The Chief Executive Officer and Energy Efficiency in Commonwealth Operations*, ANAO, Canberra, 1999.

1.24 The ANAO made seven recommendations to improve the efficiency and effectiveness of Energy Policy implementation, all of which were agreed or agreed in principle by the agencies involved.²⁷

1.25 Overall, the ANAO concluded that:²⁸

...significant energy efficiency activity was found to be occurring in many agencies. This activity includes both the development of systems and procedures to comply with the Energy Policy as well as the day-to-day management of work practices and facilities.

However, the ANAO also noted a risk that:²⁹

...the momentum, developed to date, towards greater energy use efficiency could falter due to agencies focusing only on compliance with the mandatory Energy Policy requirements at the expense of other more cost efficient energy efficiency initiatives.

The follow-up audit

1.26 Three years have passed since the earlier audit was conducted. The Energy Policy sets out energy consumption targets which must be met by all Commonwealth agencies by 2002–03.

1.27 Additionally, Audit Report No.53 of 2000–01, *Commonwealth Management of Leased Office Space*, identified the need for ‘stronger promotion of the Government’s energy policy’³⁰. The ANAO further noted that:³¹

Agencies should also seek advice from the Australian Greenhouse Office (AGO) on leasing provisions that effect the recovery of energy costs for building central services during working hours. AGO advised that an independent review commissioned by the Department of Industry, Science and Technology and AGO of the Commonwealth’s energy policy recommended that greater emphasis be placed on marketing of the policy to agencies. This marketing would include promotion of a greater agency awareness of their responsibilities in relation to energy costing in building leases.

1.28 A follow-up of Audit Report No.47 of 1998–99 was considered timely in that it would provide an assurance regarding the progress of agencies in meeting the Energy Policy targets by the 2002–03 deadline, while assessing the extent to which the recommendations of the earlier audit have been implemented.

²⁷ Refer to Appendix 4 for a table of the seven recommendations from the earlier report and agency responses to each earlier recommendation.

²⁸ Australian National Audit Office Report No.47 of 1998–99, *Energy Efficiency in Commonwealth Operations*, ANAO, Canberra 1999, p. 19.

²⁹ *ibid.*, p. 20.

³⁰ Australian National Audit Office, Report No.53 of 2000–01, *Commonwealth Management of Leased Office Space*, ANAO, Canberra, 2001, p. 21.

³¹ *ibid.*

Audit focus and objectives

1.29 The primary focus of this follow-up audit was to review the implementation of the recommendations in Audit Report No.47 of 1998–99, *Energy Efficiency in Commonwealth Operations*.

1.30 Specifically, the objectives of the audit were to:

- assess the extent to which selected Commonwealth agencies have implemented the recommendations of Report No.47 of 1998–99, taking account of any changed circumstances or new administrative issues identified as impacting upon implementation of these recommendations; and
- offer continued assurance to the Parliament on the management of Commonwealth agencies' compliance with the Commonwealth energy efficiency requirements, and to identify areas for better practice in energy management by those agencies.

Audit methodology

1.31 Fieldwork was conducted in the agencies involved in the earlier audit, namely:

- Australian Greenhouse Office (AGO);
- Attorney-General's Department;
- Commonwealth Scientific and Industrial Research Organisation (CSIRO);
- Department of Defence (Defence);
- Department of Health and Ageing (Health);
- Department of Finance and Administration (Finance);
- Department of Industry, Tourism and Resources (ITR);
- Department of the Environment and Heritage (Environment Australia, EA);
- Department of the Treasury (Treasury); and
- Department of Veterans' Affairs (DVA).

1.32 The ANAO wrote to each agency asking for information about its implementation of the recommendations of Report No.47 of 1998–99. After receiving the agency responses, the ANAO interviewed key personnel and reviewed relevant agency documents.

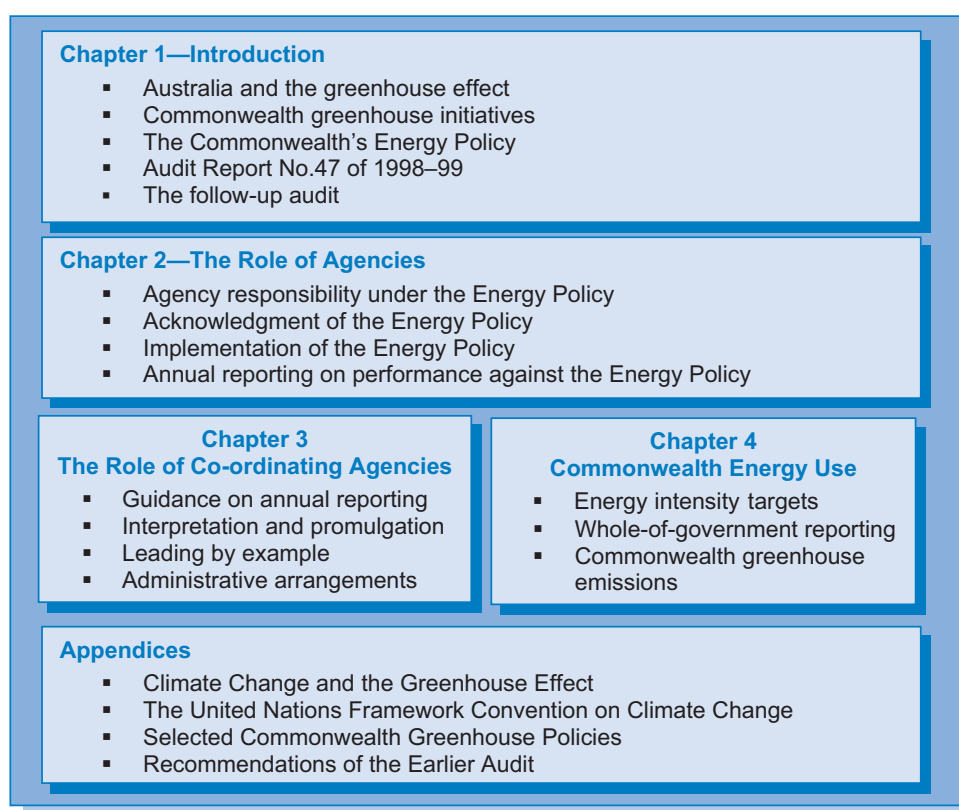
1.33 The follow-up audit was conducted in accordance with ANAO Auditing Standards at a cost of \$115 000.

Structure of this report

1.34 Figure 3 illustrates the structure of this report. Chapter 2 deals with recommendations 1–3 of the earlier audit, which are generally applicable to all Commonwealth agencies covered by the Energy Policy. Chapter 3 deals with recommendations 4–7 of the earlier audit, which are applicable to the two co-ordinating agencies.

Figure 3

Structure of this report



2. The Role of Agencies

This chapter addresses the application of the Energy Policy to Commonwealth agencies and describes the system of accountability provided for by the Energy Policy. Recommendations 1–3 of the earlier audit are discussed, and the chapter examines the progress of the 10 audited agencies in implementation of these earlier recommendations.

Agency responsibility under the Energy Policy

Energy Policy objective and measures

2.1 The Energy Policy states that its overarching objective is:

To improve energy efficiency, and consequently reduce the environmental impact of Government operations, and by so doing, lead the community by example.

2.2 The Energy Policy specifies a number of energy efficiency measures considered essential to any successful energy management program. These measures include:

- adherence to minimum building energy performance standards;
- negotiation of energy recovery in lease agreements;
- regular conduct of energy audits;
- adherence to housing energy use guidelines;
- adherence to electrical appliance and equipment energy performance standards;
- use of renewable energy technologies; and
- energy performance contracting.

2.3 These measures are mandatory, in any given agency, where implementation of the measures would be cost effective and practical, given the likely energy savings that would result from their implementation in that agency.

2.4 The Energy Policy also specifies energy intensity targets that all agencies are required to meet by 2002–03 (see chapter 4 for further discussion of these targets).

2.5 The Energy Policy further mandates that all Commonwealth CEOs must report the energy performance of their organisations to their Ministers annually. The report must indicate total energy use by the agency for the previous financial year, and must also indicate the performance of the organisation in improving energy efficiency towards the energy intensity targets.

2.6 In addition to the annual report to their Ministers, agencies must also provide a summary of energy consumption for each financial year to ITR. This information is used by ITR to prepare an annual whole-of-government energy consumption report.

Energy Policy accountability

2.7 The above features of the Energy Policy establish a system for individual agency accountability in fulfilling the overarching obligation of improving energy efficiency and leading the community by example. The system is outcomes based, in that the selection of measures any particular agency employs in improving energy efficiency is largely a matter for that agency. However, Commonwealth departments and agencies are ultimately responsible for implementation of the Energy Policy and their individual performance in meeting the Energy Policy objective of improving energy efficiency and leading by example. The mandatory reporting requirements reinforce this by requiring an annual report to be provided to the agency Minister on agency performance. The other measures contained within the Energy Policy are aimed to facilitate achievement of the Energy Policy objective.

The recommendations of Audit Report No.47 of 1998–99

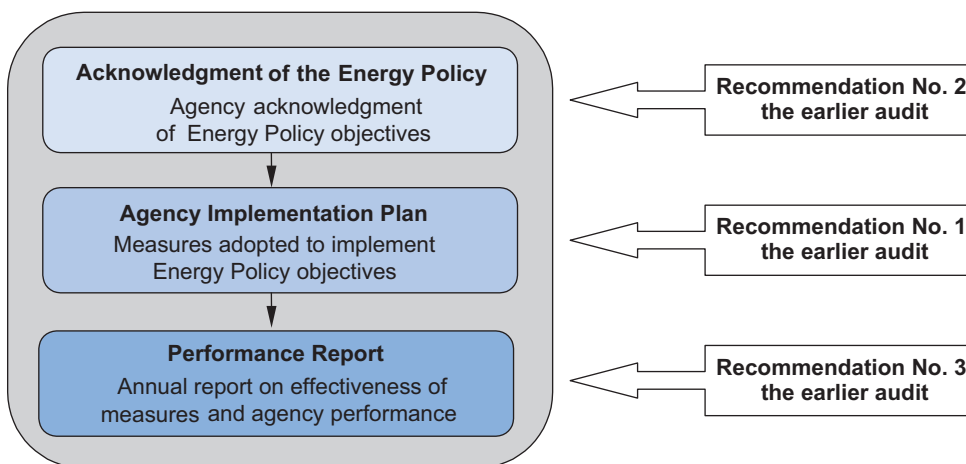
2.8 The recommendations of the earlier audit were aimed at improving the efficiency and effectiveness of implementation of the Energy Policy. The first three recommendations were directed generally at agencies subject to the requirements of the Energy Policy. The remaining four recommendations were aimed specifically at the agencies responsible for co-ordination of the Energy Policy and will be discussed in Chapter 3.

2.9 Each of the first three recommendations of the earlier audit focused on a separate part of the system of accountability established by the Energy Policy. Taken together, these recommendations reinforce the effectiveness of this system and provide further assistance for agencies in implementing the requirements of the Energy Policy.

2.10 Figure 4 demonstrates the relationship between the recommendations of the earlier audit and the system of individual agency responsibility established by the Energy Policy.

Figure 4

Relationship between recommendations of the earlier audit and the system of individual agency responsibility established by the Energy Policy



2.11 Each of these three components, and thus also the three recommendations of the earlier audit, are related.

2.12 With this in mind, the three components of the general system of accountability established by the Energy Policy will be addressed in order, so that Recommendation 2 of the earlier audit will be canvassed first, followed by Recommendation 1, then finally Recommendation 3.

Acknowledgment of the Energy Policy

Background

2.13 The head of each agency has responsibility for implementing the Energy Policy.

2.14 The ANAO noted in the earlier audit that there are many options, alternatives and questions of applicability regarding several of the Energy Policy requirements placed on agencies. However, the Energy Policy places a clear obligation on agency heads to improve energy efficiency in their own operations.

2.15 Recommendation 2 of the earlier audit was aimed at ensuring that this obligation was clearly articulated as part of the general system of relevant factors and obligations within which the agency operated.

Recommendation 2 of Audit Report No.47 of 1998–99

2.16 The ANAO recommends that CEO instructions clearly indicate how agencies will comply with the Energy Policy, including the method of implementing energy audits, the BOMA Guidelines and new property leases.

Findings of the follow-up audit

2.17 Of the agencies examined in this follow-up, only one (Treasury) had developed a formal chief executive instruction dealing with compliance with the Energy Policy.

2.18 Six agencies³² had issued chief executive instructions requiring that environmental and energy efficiency requirements be taken into account when making procurement decisions.

2.19 Although the ANAO found that most agencies had not issued formal chief executive instructions, many agencies had nevertheless issued general instructions to staff on energy efficiency measures.

2.20 For example, four agencies³³ had developed a formal energy policy (either individually or as part of a broader environmental policy), which had been issued to all staff by the CEO. A number of agencies³⁴ had also signed Greenhouse Challenge Agreements, demonstrating agency commitment to improving energy efficiency and reducing greenhouse emissions.

2.21 Four agencies³⁵ indicated they were currently developing or updating their Environmental Management Systems (EMSs) and would consider developing formal CEIs dealing with compliance with the Energy Policy once their EMS was completed.

2.22 Two agencies³⁶ referred to energy efficiency requirements in staff certified agreements or individual performance agreements.

2.23 In the Better Practice Guide developed after the earlier audit, it was noted that:

A strong public and ongoing personal commitment from CEOs to energy efficiency in their organisations is essential to success. This commitment can be evidenced by:

- energy audits being undertaken within agencies and the recommendations of these audits being implemented;
- incorporating the Energy Policy requirements in agency administration and operations. This could be in the form of an 'energy management plan';
- designating a senior officer to be responsible for agency compliance with the Energy Policy; and
- CEOs issuing instructions which clarify the way in which their agencies will implement the Energy Policy.³⁷

³² AGO, Attorney-General's, Defence, Finance, EA and Treasury.

³³ CSIRO, Defence, EA and Treasury.

³⁴ AGO, Defence, ITR and EA.

³⁵ Attorney-General's, Finance, Health and ITR.

³⁶ Attorney-General's and EA.

³⁷ Australian National Audit Office, Better Practice Guide, *The Chief Executive Officer and Energy Efficiency in Commonwealth Operations*, ANAO, Canberra, 1999.

2.24 Although only one agency had developed a formal chief executive instruction addressing compliance with the Energy Policy, many agencies had taken alternative action, such as the issuing of a formal agency energy management policy or environmental policy, which have the similar effect of articulating the requirement to improve energy efficiency.

2.25 The ANAO considers that despite no mention of energy management policies within the formal chief executive instructions of most agencies examined, the presence of such policies provided an indication of how these agencies would comply with the Energy Policy. The issue and publication of such policies by the CEO further acknowledges the principles of energy efficiency envisaged by the Energy Policy.

Conclusion

2.26 Although only one agency had formally implemented this recommendation, the ANAO considers that the alternate action taken by agencies in developing and issuing energy management policies articulates and acknowledges the principles of energy efficiency envisaged by the Energy Policy and the earlier recommendation.

2.27 The ANAO notes that reference to the agency energy management policies within the formal chief executive instructions may further formalise and strengthen the status of those policies, and clearly bring them within the accountability framework established by the *Financial Management and Accountability Act 1997*.

Implementation of the Energy Policy

Background

2.28 In the earlier audit, the ANAO noted:

The results of DISR's whole-of-government report of energy use in 1997–98 and the considerable interest and activity in improving energy efficiency that the ANAO observed in the Commonwealth agencies examined during the audit, gives cause for optimism. This impression does not, however, accord with the general finding that the level of compliance by agencies to the Energy Policy requirements was not significant; that is, only two of the 12 Energy Policy requirements had a high level of compliance.³⁸

³⁸ Australian National Audit Office, Audit Report No.47 of 1998–99, *Energy Efficiency in Commonwealth Operations*, ANAO, Canberra, 1999, p. 50.

2.29 The ANAO also noted that while agency compliance with the Energy Policy would facilitate achievement of energy use targets, there were other energy efficiency activities which agencies could undertake which had the potential to result in achievement of the energy use targets. The ANAO noted that many of these other activities related to the day-to-day management of work practices and facilities, while the mandatory requirements of the energy policy were directed more towards the energy efficient design of buildings, houses, appliances, equipment and vehicles.

2.30 The ANAO was conscious, in the earlier audit, to ensure that agencies did not focus solely on the mandatory requirements of the Energy Policy at the expense of continuing the implementation of the day-to-day energy management activities, which were also important in ensuring achievement of the energy use targets. Recommendation 1 of the earlier audit was thus aimed at ensuring that agencies develop and implement energy efficiency initiatives that target both the mandatory aspects of the Energy Policy and the other day-to-day energy management activities.

2.31 Thus, Recommendation 1 supported Recommendation 2 by ensuring that agencies develop and implement the energy efficiency initiatives that would support the general compliance with the obligation to improve energy efficiency under the Energy Policy.

Recommendation 1 of Audit Report No.47 of 1998–99

2.32 The ANAO recommends that agencies develop and implement a priority schedule of energy efficiency initiatives drawing on both the mandatory requirements of the Energy Policy and other non-compliance activities which involve the day-to-day management of work practices and facilities.

Findings of the follow-up audit

2.33 Seven of the agencies³⁹ examined had developed and implemented a priority schedule of initiatives in accordance with the earlier recommendation. The other three agencies⁴⁰ advised that they were currently developing Environmental Management Systems that, once finalised, would address energy efficiency requirements.

³⁹ AGO, CSIRO, Defence, ITR, EA, Treasury and DVA.

⁴⁰ Attorney-General's, Finance and Health.

Conclusion

2.34 Seven agencies had implemented this recommendation, while the remaining three agencies were undertaking action to implement the recommendation.

Annual reporting on performance against the Energy Policy

2.35 The Energy Policy requires that each agency head report to the agency Minister on the agency's progress in implementing the requirements of the Energy Policy.

2.36 The Energy Policy requires that all Commonwealth organisations covered by the Energy Policy must meet their annual reporting requirements and achieve the performance targets. The Energy Policy also provides that agency heads are accountable to their Ministers for their performance in improving energy efficiency in their own operations and for meeting the performance targets set under the Energy Policy.

2.37 Since the Energy Policy establishes a system of agency accountability for improving energy efficiency, annual reporting by the agency head to the Minister constitutes a key mechanism by which the agency is held to account for its performance and compliance with the Energy Policy. Additionally, preparation of such reports also provides an opportunity for the agency to identify and assess the effectiveness of its own strategies aimed at implementing the requirements of the Energy Policy.

2.38 In the earlier audit, the ANAO noted that whilst there had been some compliance with the requirement for agencies to annually report their energy performance to their Ministers, most of the reports replicated the energy use data provided to the then Department of Industry, Science and Resources (DISR), with little additional explanation.

2.39 Given that agencies are generally accountable to their Ministers for their performance in improving energy efficiency in their operations, the Energy Policy annual report provides an important mechanism by which the agency can report on the effectiveness of the energy efficiency initiatives adopted within the agency in achieving compliance with the Energy Policy requirements. Thus, in fulfilling this role, the ANAO considered in the earlier report, that the annual energy efficiency report to the Minister should include, amongst other things, information indicating that all the requirements of the Energy Policy had been complied with. This would enable the agency to examine the types of energy efficiency initiatives currently operating, and the effectiveness of these initiatives in discharging its obligation to improve energy efficiency.

Recommendation 3 of Audit Report No.47 of 1998–99

2.40 The ANAO recommends that CEOs incorporate in their Energy Policy annual report to their respective Ministers a statement that, among other things, either all the requirements of the Energy Policy were complied with or, where this did not occur, an indication of the areas of non-compliance and steps being taken to remedy the situation.

Findings of the follow-up audit

2.41 All of the agencies examined reported annual energy consumption to the Government through the whole-of-government *Energy Use in Commonwealth Operations* report compiled by ITR.

2.42 Most of these agencies⁴¹ also forwarded a copy of the energy consumption data provided to ITR directly to their Minister.

2.43 Whereas most agencies provided advice to the Minister on whether or not the agency was likely to meet the 2002–03 energy intensity targets, few agencies provided any further detail on compliance with other aspects of the energy policy, or on energy efficiency in general.⁴² The ANAO considers that the type of reporting envisaged by Recommendation 3 of the earlier audit provides an opportunity for agencies to assess the effectiveness of energy efficiency measures (adopted as part of their implementation plans) in meeting the objective of improving energy efficiency required by the Energy Policy.

2.44 The ANAO found no evidence that any agency included in its report to the Minister a statement that, among other things, either all the requirements of the Energy Policy were complied with or, where this did not occur, an indication of the areas of non-compliance and steps being taken to remedy the situation.⁴³

2.45 The Energy Policy does not prescribe the means by which an annual report to the Minister must be given. An agency may choose to provide an annual report to the Minister as part of the overall agency annual report prepared pursuant to the *Public Service Act 1999*, or it may choose to provide a separate report to the Minister on compliance with the Energy Policy.

⁴¹ Attorney-General's, Defence, EA, Health, Treasury and DVA. All agencies also included information on energy efficiency initiatives within their agency Annual Report, although the level of information provided in the Annual Report varied between agencies.

⁴² Some agencies provided no report directly to their Minister on energy consumption data within the categories set by the Energy Policy (AGO, CSIRO, Finance and ITR, although the agency Annual Reports of Finance and ITR provided details of agency energy consumption and the agency Annual Reports of AGO, Finance and ITR on energy efficiency initiatives); others provided only limited additional information (Attorney-General's, EA, DVA and Treasury); while others provided a more detailed discussion of energy efficiency initiatives undertaken within the agency (Health and Defence).

⁴³ Although the level of information contained within agency reports varied between agencies, no agency report complied with Recommendation 3 of the earlier audit.

2.46 Whatever the means chosen, annual reporting by the Agency Head to the Minister remains a key mechanism by which the agency is held to account for its performance and compliance with the Energy Policy. Preparation of such reports also provides an opportunity for the agency to identify and assess the effectiveness of its own strategies aimed at implementing the requirements of the Energy Policy.

2.47 Given the devolved responsibility for implementation of the Energy Policy, the ANAO considers that it is important that the annual reports provide an indication of the current state of agency compliance with all aspects of the Energy Policy.

Conclusion

2.48 Although agencies were generally reporting to their Minister on performance against the energy intensity targets contained in the Energy Policy, no agency reporting has yet complied with the requirements of Recommendation 3 of the earlier audit.

2.49 The ANAO would consider this recommendation appropriately implemented when an agency's annual energy efficiency report (in whatever format) to the Minister includes, amongst other things, an indication of whether all the requirements of the Energy Policy were complied with and, where this did not occur, an indication of the areas of non-compliance and steps being taken to remedy that situation.

Recommendation No.1

2.50 The ANAO recommends that an agency's annual energy efficiency report to its portfolio Minister include an indication of whether all the requirements of the Energy Policy were complied with and, where this did not occur, an indication of the areas of non-compliance, and either the steps being taken to remedy the situation, the barriers to implementation, or a statement that specified requirements are not considered to be relevant to the agency.

AGO's response: agreed.

Attorney-General's response: agreed. Future reports to the Attorney-General on energy performance will cover all relevant aspects of the Energy Policy and in the event of any non-compliance, details of action proposed to address the non-compliance will be outlined.

CSIRO's response: agreed. CSIRO will be advising its Minister of the Organisation's compliance with the Energy Policy and reporting its energy usage by December 2002. CSIRO has already reported its 2001–02 energy usage to DITR.

Defence's response: agreed, noting that the current Energy Policy is under review.

EA's response: agreed. Included in the report to the Minister on its annual energy performance for 2001–02, the Department provided a statement that it met all requirements as outlined under the *Measures for Improving Energy Efficiency in Commonwealth Operations* policy as well as providing information on its performance against energy intensity targets for the last three years.

Finance's response: agreed. Finance will enact this in its report on energy usage for 2001–02, which is due to go to the Minister shortly.

Health's response: agreed.

ITR's response: agreed.

Treasury's response: agreed.

DVA's response: agreed. The Department of Veterans' Affairs notes that while it has not, when reporting to the Minister, indicated whether all requirements of the Energy Policy were complied with, these requirements have in fact been exceeded on all occasions on which reports had been made. Commencing with its current report to the Minister for the year 2001–02, specific reference will be made each year as to whether requirements of the Energy Policy have been met, or where they have not been met, the relevant areas of non-compliance and steps being taken to remedy the situation.

3. The Role of Co-ordinating Agencies

This chapter describes the responsibility for co-ordination and ongoing development of the Energy Policy assigned to the Department of Industry, Tourism and Resources and the Australian Greenhouse Office. Recommendations 4–7 of the earlier audit are discussed, and the progress of ITR and AGO in implementation of these earlier recommendations is examined.

Introduction

3.1 Chapter 1 outlined how two Commonwealth agencies have responsibility for co-ordination of the Energy Policy: the Department of Industry, Tourism and Resources (ITR) and the Australian Greenhouse Office (AGO).

3.2 Overall responsibility for policy development on energy efficiency in Commonwealth operations rests with ITR. Responsibility for the implementation of the Energy Policy is split between ITR and AGO. The Energy Policy specifically assigns a number of advisory service functions to be delivered by AGO. The Energy Policy also includes requirements relating to policy development, promulgation and review and for the development of standards. The respective roles and responsibilities have been agreed between AGO and ITR in a Memorandum of Understanding entered in 1999.

3.3 In the earlier audit, the ANAO made four recommendations directed to the co-ordinating agencies. Each of these four recommendations will be considered in turn.

Guidance in the preparation of Energy Policy annual reports

Background

3.4 As noted in the discussion of Recommendation 3, the head of each agency has responsibility for implementing the Energy Policy. The Energy Policy requires that each Agency Head report to the agency Minister on the agency's progress in implementing the requirements of the Energy Policy. In the earlier audit, the ANAO noted that this annual report to the Minister is the key accountability mechanism established by the Energy Policy.

3.5 The Energy Policy provides:

Secretaries of departments and heads of budget-dependent agencies will report the energy performance of their organisations to their Ministers annually. At a minimum, the report will include total energy use for the previous financial year and the performance of the organisation in improving energy efficiency towards the energy intensity targets described in this document.

3.6 At the time of the earlier audit, a reporting requirement for energy matters already existed in the Department of Prime Minister and Cabinet (PM&C) *Requirements for Departmental Annual Reports*. The ANAO noted that, since the PM&C annual reporting guidelines were undergoing revision at that time, the reference in those guidelines to energy reporting should be enhanced.

Recommendation 4 of Audit Report No.47 of 1998–99

3.7 The ANAO recommends that the Department of Industry Science and Resources and the Australian Greenhouse Office advise the Department of Prime Minister and Cabinet (PM&C) of the Energy Policy annual reporting requirements so they may be taken into account in the next review of PM&C's Guidelines for the Preparation of Departmental Annual Reports.

Findings of the follow-up audit

3.8 ITR advised the Department of Prime Minister and Cabinet of the annual reporting requirements of the Energy Policy in August 1999. In line with a general move towards outcomes based reporting, specific energy reporting was not included in the revised requirements.

3.9 Section 516A of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) requires that Commonwealth agencies provide an annual report to the Minister on ecologically sustainable development and environmental matters. Section 516A provides, in part:

- (6) A report ... must:
 - ...
 - (c) document the effect of the reporter's activities on the environment; and
 - (d) identify any measures the reporter is taking to minimise the impact of activities by the reporter on the environment; and
 - (e) identify the mechanisms (if any) for reviewing and increasing the effectiveness of those measures.

3.10 The current PM&C *Requirements for Annual Reports* further indicate the matters that the annual reports of agencies will need to include, in order to satisfy the reporting requirements under the EPBC Act. It also specifies that inclusion of this information in the agency's annual report is mandatory.⁴⁴

⁴⁴ The current requirements were issued in June 2001.

3.11 While information regarding an agency's compliance with the energy policy would clearly be relevant to a report under s 516A, the ANAO found that not all the agencies audited included such information in their annual reports.

3.12 The ANAO found that the form of annual reporting varied across the agencies audited, with agencies reporting on energy efficiency initiatives within the overall agency annual report prepared pursuant to the *Public Service Act 1999*, usually in association with the report under s 516A of the *Environmental Protection and Biodiversity Conservation Act 1999*.

3.13 The PM&C Requirements note that additional guidance on environmentally sustainable development reporting under the Act may be provided in future annual report guidelines, depending on the outcomes of reporting under the first reporting cycle of the current guidelines.⁴⁵

3.14 Given the devolved responsibility for implementation of the Energy Policy, the ANAO considers that it is important that these annual reports provide an accurate indication of the current state of agency compliance with all aspects of the Energy Policy.

3.15 One area contributing to possible confusion is that, under the Energy Policy, agencies are subject to two reporting requirements. Firstly, Agency Heads are generally accountable to their Ministers for their performance in improving energy efficiency in their own operations and in meeting the performance targets contained in the Energy Policy. Secondly, Agency Heads must report the agency's annual energy consumption to both the Minister and the ITR. It is to the first reporting requirement that the earlier ANAO recommendation was targeted.

3.16 The ANAO considers that further guidance on reporting requirements should be developed in order to assist agencies with the preparation of the annual report to the Minister required under the Energy Policy. The planned review of the s 516A guidance on annual reporting requirements contained within the PM&C Requirements may be one avenue by which further guidance on other environmental reporting requirements, including reporting under the Energy Policy, could be provided to agencies. Alternatively, ITR and the AGO could provide further guidance within the Energy Policy interpretation, *Measures for Improving Energy Efficiency in Commonwealth Operations*, in future revisions.

Conclusion

3.17 This recommendation has been implemented. The ANAO considers, however, that further guidance should be developed by the co-ordinating agencies in order to assist agencies with the preparation of annual reports to the Minister, so that these reports provide a clear indication of compliance with all aspects of the Energy Policy.

⁴⁵ The PM&C Requirements apply to annual reports for financial years ending on or after 30 June 2001.

Interpretation and promulgation of the Energy Policy

Background

3.18 In the earlier audit, the ANAO considered that ITR and AGO should:

- interpret the Energy Policy to facilitate implementation;
- promulgate the interpreted policy to agencies;
- co-ordinate the various 'co-ordinating agency' and other agency activities where appropriate; and
- lead the implementation of the Energy Policy by example.

3.19 At the time of the earlier audit, the Energy Policy had been interpreted and promulgated to agencies by the Secretary of the (then) Department of Primary Industries and Energy in a letter sent in April 1998 to Agency Heads. The letter contained an attachment, *Measures for Improving Energy Efficiency in Commonwealth Operations*, which outlined the details and requirements of the Energy Policy.

3.20 The ANAO found however, that the interpretation required revision and refinement by the co-ordinating agencies to facilitate the efficient and effective implementation of the Energy Policy by agencies generally.

Recommendation 5 of Audit Report No.47 of 1998–99

3.21 The ANAO recommends that DISR's and AGO's Energy Policy interpretation should:

- (a) include a glossary of energy terms;
- (b) clearly highlight the requirements that are mandatory and those that are not;
- (c) provide lists of which agencies have particular responsibilities;
- (d) identify, for each requirement if applicable, which agency is developing related standards, systems and/or procedures;
- (e) provide an organisation chart or use some other suitable approach which clearly indicates the links between the agencies involved in the general administration of the Energy Policy;
- (f) indicate that action is required well before 2002–03 to achieve compliance with the Energy Policy and to realise the benefits of energy efficiency initiatives; and
- (g) take into account practical limitations to implementing mandatory requirements.

Findings of the follow-up audit

3.22 In 1999, ITR produced a report entitled: *Measures for Improving Energy Efficiency in Commonwealth Operations*.⁴⁶ The report was a revision of the earlier interpretation of the Energy Policy that was promulgated to agencies in 1998. The revised report was widely circulated to Commonwealth agencies. Each of the components of the earlier recommendation is addressed hereunder.

(a) include a glossary of energy terms;

3.23 The document now includes a glossary of terms to assist in the use of the document. The revised report also includes information on relevant measurement units and conversion factors required to produce the annual energy consumption reports.

(b) clearly highlight the requirements that are mandatory and those that are not;

3.24 The report now also clearly specifies that energy consumption reporting and compliance with energy intensity targets is mandatory for all agencies covered by the Energy Policy.

3.25 There are a number of additional measures that are mandatory if applicable to an organisation. These are clearly set out within the report.

(c) provide lists of which agencies have particular responsibilities;

(d) identify, for each requirement if applicable, which agency is developing related standards, systems and/or procedures;

(e) provide an organisation chart or use some other suitable approach which clearly indicates the links between the agencies involved in the general administration of the Energy Policy;

3.26 The Energy Policy interpretation now clearly specifies the responsibilities of both ITR and AGO. The report also provides a reference table indicating the agency responsible for the various aspects of the Energy Policy in order to assist agencies in determining whom to contact for further advice. The report also provides contact details for the various aspects of policy, reporting and implementation of the Energy Policy.

(f) indicate that action is required well before 2002–03 to achieve compliance with the Energy Policy and to realise the benefits of energy efficiency initiatives; and

⁴⁶ A further revision of the report was produced by ITR in 2000.

3.27 The report notes that the goal of meeting the energy intensity targets by 2002–03 will be ‘easiest for those agencies that have taken a structured approach to energy management which allows them to plan ahead and have adequate time to achieve the targets’.

3.28 The annual report prepared by ITR on Commonwealth energy consumption also provides a discussion and analysis of the progress, at a whole-of-Commonwealth level, towards the achievement of the required energy intensity targets.

(g) *take into account practical limitations to implementing mandatory requirements.*

3.29 The Energy Policy interpretation clearly identifies that, in some cases, there may be practical limitations to the implementation of some of the requirements of the Energy Policy, and that a balance must be struck between cost effectiveness and energy savings. The ANAO considers that where the additional required efficiency measures are applicable to an agency, it is important that the agency consider this balance in determining whether to implement those measures.

Conclusion

3.30 This recommendation has been implemented. The revised Energy Policy interpretation now addresses each of the issues raised by the earlier recommendation.

Leading by example

Background

3.31 In his 1997 statement, *Safeguarding the Future: Australia’s Response to Climate Change*, the Prime Minister announced the expectation that by reducing the energy consumption and greenhouse gas emissions of Commonwealth operations, Commonwealth agencies would ‘lead the community by example’. This expectation was reinforced by the 1998 National Greenhouse Strategy. In the earlier audit, the ANAO interpreted this to mean that not only must all the measures incorporated in the Energy Policy be implemented in a timely fashion, but that these measures must also ‘be seen to be implemented’. The ANAO noted that ‘the Commonwealth had not maximised exposure’ of the examples of good practice achieved by specific agencies in reducing energy usage.⁴⁷

⁴⁷ Australian National Audit Office, Audit Report No.47 of 1998–99, *Energy Efficiency in Commonwealth Operations*, ANAO, Canberra, 1999, p. 65.

3.32 The ANAO also noted in the earlier audit that it would expect, in implementing Recommendation 6:

- co-ordinating agencies develop a strategy for highlighting achievements in energy management and energy efficiency;
- co-ordinating agencies develop a strategy for identifying and promulgating best practice;
- the AGO finalise administrative and operational arrangements concerning the EESU;
- ITR and the AGO expeditiously complete development of energy auditing and related systems and procedures; and
- co-ordinating agencies encourage other agencies to become members of the Greenhouse Challenge.

Recommendation 6 of Audit Report No.47 of 1998–99

3.33 The ANAO recommends that DISR and AGO include measures in their formal Energy Policy implementation plans which address the Government requirement to 'lead by example'.

Findings of the follow-up audit

Leading by example

3.34 The Energy Policy requires ITR to disseminate the Policy and to provide general advice to agencies on policy interpretation. The revised Energy Policy interpretation, *Measures for Improving Energy Efficiency in Commonwealth Operations*, produced by ITR was widely circulated to Commonwealth agencies in early 2000. The annual whole-of-government energy report, *Energy Use in Commonwealth Operations*, also contains a copy of the Energy Policy interpretation as an annex.

3.35 The revised Energy Policy interpretation now includes a prominent statement indicating the objective of the Energy Policy as:

To improve energy efficiency, and consequently reduce the environmental impact of Government operations, and by so doing, lead the community by example.

3.36 The requirement to lead by example is also reinforced in a number of other parts of the revised interpretation.

3.37 The annual business plan for one of the teams within the AGO responsible for implementation of the Energy Policy provides the goals of the team as follows:

- to assist agencies in achieving the energy efficiency and greenhouse gas

emissions targets set by the Commonwealth Government in 1997;

- to help develop an effective framework for the management of energy and associated environmental issues by APS agencies; and
- to contribute to the efficient and effective use of energy in the commercial, industrial and residential sectors, through leading by example in Commonwealth operations.

3.38 In addition to activities detailed elsewhere in this report, the AGO recently negotiated a new electricity contract to cover most Commonwealth agencies in the ACT. The contract provides for an average of eight per cent of electricity purchased under the contract to come from renewable sources, resulting in a saving of around 14 000 tonnes of CO₂ emissions per annum. The contract is for a period of three years commencing in September 2002.

3.39 In 2001–02, AGO was ranked twenty-fourth (out of the 100 Commonwealth agencies reporting) in terms of efficiency of energy use measured as mega joules per person per annum in the OFFICE—TENANT LIGHT AND POWER category. AGO energy use for OFFICE—TENANT LIGHT AND POWER was 8170 mega joules per person per annum, 18.3 per cent below the required 2002–03 target.⁴⁸

3.40 In 2001–02, ITR was ranked sixteenth in terms of efficiency of energy use measured as mega joules per person per annum in the OFFICE—TENANT LIGHT AND POWER category. ITR energy use for OFFICE—TENANT LIGHT AND POWER was 7154 mega joules per person per annum, 28 per cent below the required 2002–03 target.⁴⁹

Highlighting achievements and promulgating best practice

3.41 The AGO engaged in a number of activities aimed at highlighting achievements in energy management and energy efficiency, including the presentation of annual Commonwealth Energy and Environmental Management Awards and hosting the Commonwealth Energy and Environmental Managers' Forums, held three to four times per year. The AGO noted that the Commonwealth Energy and Environmental Managers' Forums provided a useful vehicle to showcase examples of good practice in energy management, and the AGO had received positive comment from agencies regarding the success of these forums.

3.42 The AGO also noted that the Commonwealth Energy and Environmental Management Awards provided an incentive for agencies to demonstrate leadership in energy management and energy efficiency. The AGO advised that

⁴⁸ Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Canberra, 2002.

⁴⁹ *ibid.*

no final decision had been made on the future of these awards.

3.43 The annual energy use report prepared by ITR also documents case studies of successful energy management programs. These case studies are initially selected on the basis of information provided to ITR by agencies as part of the energy intensity annual reporting.

Administrative and operational arrangements

3.44 The AGO and ITR agreed on administrative arrangements for the transfer of Energy and Environmental Services Unit (EESU) functions in a Memorandum of Understanding in April 1999. The Memorandum of Understanding clearly outlines the responsibilities of both ITR and AGO in discharging the required functions under the Energy Policy.

3.45 ITR currently keeps a register of energy contacts within each Commonwealth agency through which ITR provides regular information updates. In addition to the general advice on policy interpretation, ITR also provides additional technical assistance to agencies on energy matters when requested.

Energy auditing

3.46 The AGO has established a panel of energy auditors to which agencies may have access. Under the panel arrangement, agencies can specify the levels of energy audits required, according to agreed schedules for the type of energy audit service required. The arrangements ensure a consistent approach to the provision of energy auditing services and reduce the administrative burden on agencies in the procurement of these services.

Greenhouse Challenge

3.47 The Commonwealth *Government Greening of Government* policy, announced in May 2001, among other things provides that Chief Executives of all Commonwealth departments and agencies should be encouraged to join the Greenhouse Challenge Program. Both AGO and ITR have entered a Greenhouse Challenge Agreement.

Conclusion

3.48 Both AGO and ITR have implemented this recommendation.

3.49 The ANAO considers that the AGO should seek to continue to employ current successful initiatives, such as the Commonwealth Energy and Environmental Managers' Awards and Forums, after 2002–03 when the new

Energy Policy is put in place to ensure that the Commonwealth continues to lead by example.

Administrative arrangements for the Energy Policy advisory service

Background

3.50 At the time of the earlier audit, ANAO noted that the Energy Policy required the AGO to establish an advisory service for agencies, with 10 specified functions. The Energy and Environmental Service Unit (EESU) was established as a programme within the (then) Department of Industry, Science and Resources (DISR) in 1998, having been transferred from the Department of Finance and Administration. The EESU subsequently moved to the AGO in January 1999. In the earlier audit, the ANAO noted that following the establishment of the AGO in the Prime Minister's 1997 greenhouse gas statement, the AGO was delegated temporary (two year) authority to implement several greenhouse gas related programs administered by other Commonwealth agencies. These administrative changes resulted in the EESU's activities being put 'on hold' and the AGO assuming a more direct role in implementing the Energy Policy.

3.51 The ANAO found in the earlier audit that adequate progress was made at that time in establishing the administrative systems and procedures necessary to support the discharge of the 10 functions assigned to the EESU. However, the ANAO considered that this work was at risk given that further work had been 'on hold' pending finalisation of the EESU move from the Department of Finance and Administration to DISR and the subsequent establishment of the AGO.

3.52 Given that during the earlier audit the activities of the EESU affected many of the requirements of the Energy Policy, the ANAO considered that it was important that the AGO finalise the new administrative arrangements for the EESU in order to ensure that the 10 EESU functions were achieved efficiently and effectively.

Recommendation 7 of Audit Report No.47 of 1998–99

3.53 To minimise any further delays in progressing the above-mentioned 10 functions assigned by the Government to the EESU, the ANAO recommends that the AGO finalise, as a matter of priority, the EESU's new administrative arrangements, work schedule and resourcing to ensure that the 10 EESU functions are achieved efficiently and effectively.

Findings of the follow-up audit

3.54 The functions previously undertaken by the EESU are now those of the Government Operations Team of the AGO, with support from the Sustainable Transport and Built Environment teams (also both within the AGO). As described earlier (see discussion under Recommendation 6 above), the AGO and ITR agreed on administrative arrangements for the transfer of EESU functions in a Memorandum of Understanding in April 1999. The Memorandum of Understanding clearly outlines the responsibilities of both the AGO and ITR in delivering the functions now assigned to these teams. Team business plans outline the work schedule to deliver the outcomes required by the Energy Policy and provided for in the Memorandum of Understanding.

Conclusion

3.55 The AGO has implemented this recommendation.

4. Commonwealth Energy Use

This chapter discusses the three energy intensity targets set under the Energy Policy, and examines the progress of the 10 agencies audited in meeting these targets by the 2002–03 deadline. There is also a brief discussion of total energy use across all Commonwealth agencies.

Energy intensity targets

4.1 In the course of examining agency implementation of the recommendations of the earlier audit, and in accordance with the second audit objective of this follow-up, the ANAO also sought to identify agency progress in meeting the energy intensity targets set under the Energy Policy.

4.2 The Energy Policy establishes three energy intensity targets that Commonwealth agencies are expected to meet by 2002–03. The Energy Policy provides the following targets for energy use:

- OFFICE—TENANT LIGHT AND POWER: 10 000 mega joules per person per annum for tenant operations in buildings whose primary function is office space;
- OFFICE—CENTRAL SERVICES: 500 mega joules per square metre per annum for the provision of common services in office buildings;⁵⁰ and
- DEFENCE ESTABLISHMENTS: 2.5 million giga joules per annum for all buildings and facilities that are within established Department of Defence bases.

4.3 The energy targets are intended to reflect the previous Commonwealth goal of reducing energy use in Commonwealth occupied buildings by 25 per cent within 10 years, using 1992–93 as the base year.

4.4 The targets have been grouped within end-use categories, and have been designed to minimise the impact of changes in size and activity levels of organisations. The Energy Policy establishes a total of 12 end-use categories, although, as mentioned earlier, targets have been set in only three of these categories.⁵¹

⁵⁰ Office central services includes air conditioning, lifts, security and lobby lights, and domestic hot water.

⁵¹ CSIRO will be participating in a working party co-ordinated by ITR to establish energy use benchmarks and targets for the LABORATORIES end-use category. Work on this is envisaged to commence early in 2003, building on data already available within CSIRO.

Whole-of-government energy report

4.5 The Energy Policy requires each covered agency to prepare annual summary reports of energy consumption. This information is forwarded to ITR which aggregates, summarises and analyses the data and produces a whole-of-government energy consumption report. The Energy Policy requires that ITR table this report in Parliament before the end of December of each year.

4.6 In its latest whole-of-government energy use report, *Energy Use in Commonwealth Operations 2001–02*, ITR noted that, on average, the Commonwealth's energy use was:

- 3.8 per cent above the Office—Tenant Lighting and Power target;
- 3.6 per cent below the Office—Central Services target; and
- 18.9 per cent above the Defence Establishments target.

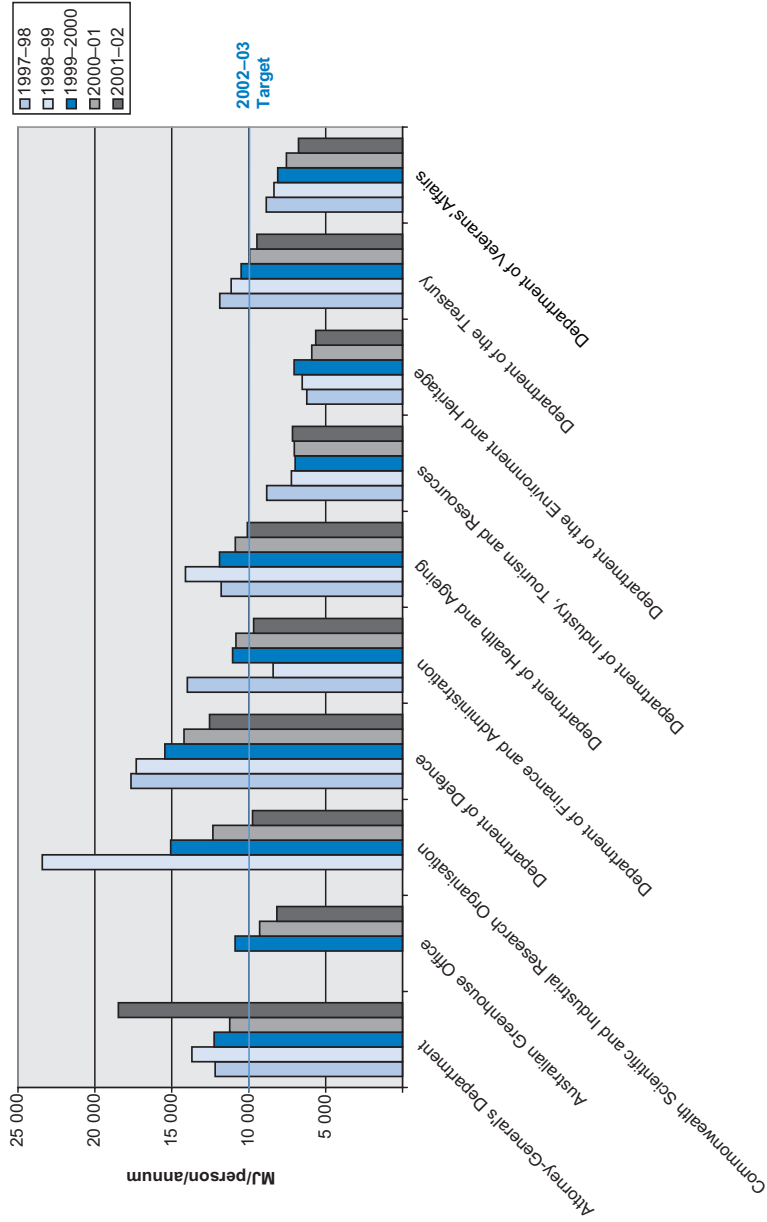
4.7 Figure 5 shows the energy use in the OFFICE—TENANT LIGHT AND POWER category over the last four years for the agencies examined in this follow-up audit. Seven of the agencies examined were, in 2001–02, performing under the 10 000 mega joules per person per annum target set for this category to be achieved by the end of 2002–03. Attorney-General's Department was 85 per cent above the target in this category.⁵² The remaining agencies yet to meet this target, the Department of Defence and the Department of Health and Ageing, require further reductions of 25 per cent and one per cent, respectively, in overall energy use within this category in the time remaining before the target deadline (Table 5).

4.8 The Energy Policy requires that agencies report energy consumption in the OFFICE—CENTRAL SERVICES category where the agency is directly responsible for paying the energy bills for this category. This means that OFFICE—CENTRAL SERVICES consumption in leased commercial office buildings is generally not measured and reported. The Property Group of the Department of Finance and Administration reports the OFFICE—CENTRAL SERVICES consumption in Commonwealth-owned buildings. For 2001–02, OFFICE—CENTRAL SERVICES consumption data was available for only four of the agencies in this follow-up audit.⁵⁴

⁵² The Department noted that increased after hours operational activity following the events of September 11, 2001, as well as after hours building works, had impacted on energy consumption for 2001–02.

⁵⁴ Commonwealth agencies leasing privately owned accommodation are not required under the Energy Policy to be responsible for the energy consumption of building central services unless they have agreed to this in their lease agreement. Therefore, office building central services energy consumption is only reported where the Commonwealth is the building owner or where the Commonwealth, as tenant, has agreed to assume responsibility for such consumption: Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Canberra, 2002.

Figure 5
Office—Tenant Light and Power energy use for agencies in this audit, 2001–02



Source: Department of Industry, Tourism and Resources⁵³

⁵³ Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Canberra, 2002.

4.9 For those Commonwealth agencies reporting, the weighted average consumption for OFFICE—CENTRAL SERVICES was 482 mega joules per square metre per annum—3.6 per cent under the Energy Policy target.⁵⁵

4.10 Energy consumption in the DEFENCE ESTABLISHMENTS category for 2001–02 was 3.0 million giga joules, 19 per cent over the Energy Policy target. This represents a reduction of six per cent over 2000–2001. Defence expects further reductions within this category as a result of implementation of the Defence Energy Efficiency Program.⁵⁶

Energy use and greenhouse emissions in Commonwealth operations

4.11 In 2001–02, the total energy consumed in Commonwealth operations was 8 273 041 giga joules.⁵⁷ This amounted to total greenhouse emissions of 1.6 mega tonnes of carbon dioxide equivalents (Mt CO₂-e). However, this represents less than 0.5 per cent of total Australian greenhouse gas emissions, which in 2000 amounted to 535.3 Mt CO₂-e.⁵⁸

4.12 Total energy consumption in Commonwealth operations has fallen by 14 per cent since 1997–98 (see Figure 6). Total Commonwealth greenhouse emissions have fallen by 12 per cent over the same period (Figure 6). It should be noted, however, that total energy consumption varies in response to Government priorities and activity levels; with an increase or decrease in the size and activity of Commonwealth operations affecting overall energy consumption. Therefore, without an evaluation it is difficult to conclude what proportion of this decrease is due to the Commonwealth's Energy Policy.

⁵⁵ *ibid.*

⁵⁶ The Defence Energy Efficiency Program is a targeted program focused on improving the energy efficiency of the Department's 43 highest energy-consuming sites, responsible for 80 per cent of the Department's total annual energy consumption. Many of the planned works under the program for 2002–03 directly target consumption in the OFFICE—TENANT LIGHT AND POWER end-use category.

⁵⁷ This does not include emissions resulting from Defence operational fuel consumption, which does not fall within the ambit of the Energy Policy. Total energy consumption from Defence operations in 2001–02 was 14 538 162 GJ, around two times total Commonwealth energy consumption (excluding Defence operations).

⁵⁸ Australian Greenhouse Office, *Australia's Third National Communication on Climate Change*, AGO, Canberra, 2002, p. 3. This amounts to an increase of 6.3% over 1990 emission levels.

Table 5
Office—Tenant Light and Power energy use for agencies in this audit, 2001–02*

Agency	1997–98	1998–99	1999–2000	2000–01	2001–02	Percentage above / (below) target
Attorney-General's Department	12 178	13 700	12 252	11 234	18 475	85
Australian Greenhouse Office ^a	-	-	10 886	9 290	8 170	(18)
Commonwealth Scientific and Industrial Research Organisation ^b	-	23 425	15 073	12 332	9 755	(2)
Department of Defence	17 653	17 320	15 450	14 204	12 546	25
Department of Finance and Administration	13 989	8 420	11 044	10 827	9 678	(3)
Department of Health and Ageing	11 794	14 116	11 894	10 869	10 088	1
Department of Industry, Tourism and Resources	8 834	7 226	6 986	7 037	7 154	(28)
Department of the Environment and Heritage	6 233	6 518	7 054	5 908	5 648	(44)
Department of the Treasury	11 887	11 144	10 500	9 934	9 464	(5)
Department of Veterans' Affairs	8 856	8 362	8 117	7 556	6 763	(32)

* Measured in mega joules per person per annum.

a AGO was established in 1998.

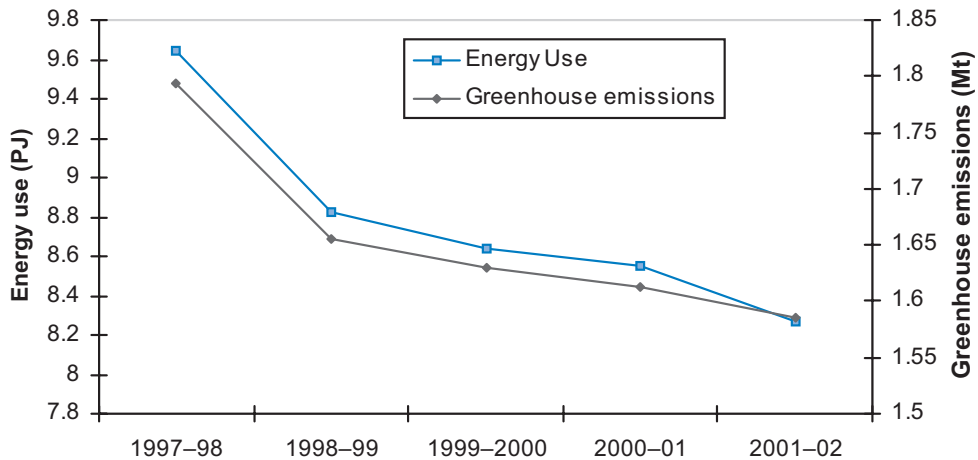
b CSIRO data not grouped into this category for 1997–98.

Source: Department of Industry, Tourism and Resources⁵⁹

⁵⁹ Department of Industry, Tourism and Resources, *Energy Use in Commonwealth Operations 2001–02*, DITR, Canberra, 2002.

Figure 6

Commonwealth energy consumption and greenhouse emissions, by financial year



Source: Department of Industry, Tourism and Resources

4.13 As is shown by Figure 6, both energy use and greenhouse emissions resulting from Commonwealth operations have been in decline over the operation of the Energy Policy. In its 2001-02 whole-of-government energy use report,⁶⁰ ITR noted that the energy intensity targets are likely to be met before 2002-03 in the OFFICE—TENANT LIGHT AND POWER and OFFICE—CENTRAL SERVICES categories.

Canberra ACT
20 December 2002

P. J. Barrett
Auditor-General

⁶⁰ *ibid.*

Appendices

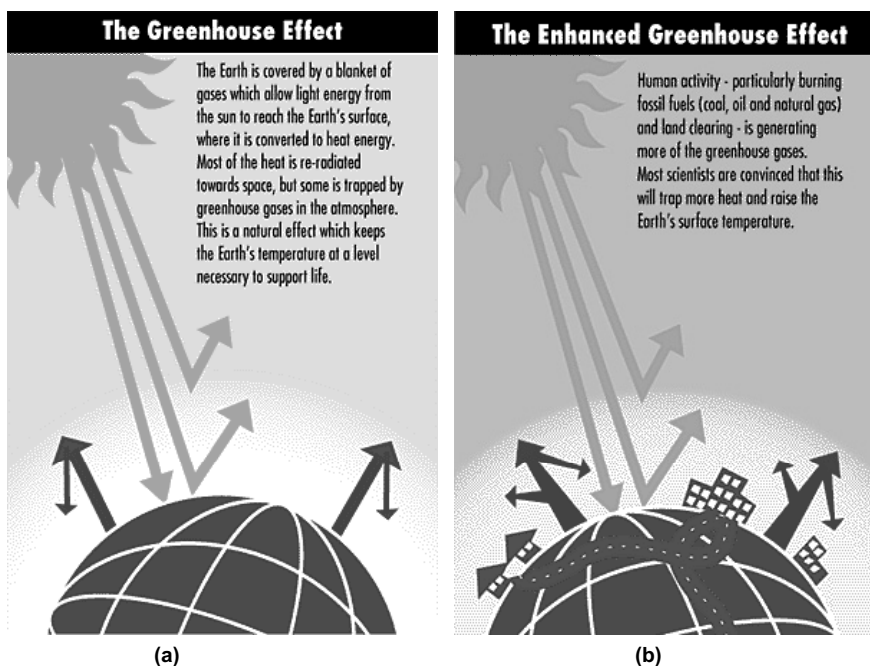
Appendix 1

Climate Change and the Greenhouse Effect

1. Greenhouse gases are a natural part of the atmosphere.⁶¹ They act like a blanket over the Earth's surface, trapping warmth from the sun and keeping the surface temperature of Earth at levels necessary to support life (see Figure 1.1a).
2. However, the majority of scientists now believe the concentrations of these greenhouse gases in the Earth's atmosphere are rising as a result of economic and population growth that has occurred over the last two centuries since the industrial revolution. Indeed, current levels of carbon dioxide in the atmosphere (the principal greenhouse gas) are about 30 per cent higher than at the start of the industrial revolution. This is primarily as a result of the burning of fossil fuels and land clearance.
3. Higher concentrations of greenhouse gases in the Earth's atmosphere will trap more heat, producing an enhanced greenhouse effect leading to global warming and climate change (Figure 1.1b).

Figure 1.1

The greenhouse and enhanced greenhouse effect



Source: Australian Greenhouse Office⁶²

⁶¹ Although water vapour makes an important contribution to greenhouse warming, greenhouse gases that human activities have direct impact upon include: Carbon dioxide (CO₂), Methane (CH₄), Nitrous dioxide (N₂O) and halocarbons (chlorofluorocarbons—CFC's, and perfluorocarbons—PFC's).

⁶² *What is Greenhouse?* Available on the world wide web at <www.greenhouse.gov.au/ago/about/whatis.html>.

Appendix 2

The United Nations Framework Convention on Climate Change⁶³

The United Nations Framework Convention on Climate Change

1. The United Nations Framework Convention on Climate Change (the Convention) was adopted in response to growing concern over global environmental issues. The Convention is the result of intense negotiations at the international level and came into force on 21 March 1994. Membership is almost universal with 186 nations, including Australia, being Party to the Convention.
2. The Convention sets the overall framework for intergovernmental efforts to address climate change. It establishes an objective and principles, commitments for different groups of countries, and a set of institutions to enable governments to monitor the Convention's implementation and continue their talks on how best to tackle the problem.
3. The Convention imposes a set of commitments which requires Parties to the Convention to respond to climate change. Under these commitments, all Parties must:⁶⁴
 - compile an inventory of their greenhouse gas emissions and submit reports on the action they are taking to implement the Convention;
 - prepare and regularly update national climate change mitigation and adaptation programmes;
 - promote the development and transfer of greenhouse technologies and practices;
 - promote sustainable management and prepare for adaptation to the impacts of climate change;
 - take climate change considerations into account in their other relevant social, economic and environmental policies;
 - promote and participate in climate research, systematic observation and information exchange; and
 - promote education, training and public awareness relating to climate change.

⁶³ Further information on the UNFCCC and the Kyoto Protocol can be found on the official world wide web site at <<http://unfccc.int>>. Much of the discussion that follows has been adapted from material published by the UNFCCC Secretariat.

⁶⁴ See Article IV of the United Nations Framework Convention on Climate Change for a comprehensive list of Commitments under the Convention.

4. The Convention did not specifically set binding targets for greenhouse emission reduction, although it did commit Annex I parties⁶⁵ to aim to reduce emissions to 1990 levels by the year 2000.
5. The Kyoto Protocol to the United Nations Framework Convention on Climate Change reflects efforts at the international level to address concerns associated with the greenhouse effect. The Protocol was developed and adopted during the Third Climate Change Conference in Kyoto, Japan in November 1997, and as at August 2002, 80 nations have thus far ratified the protocol.⁶⁶
6. Although only countries that are already Parties to the Convention can ratify the Protocol, the Protocol and its commitments are only binding upon countries who also become Parties to the Protocol.
7. Based on the general framework established by the Convention, the Protocol sets ambitious targets for reducing greenhouse gas emissions by the Parties to the Protocol. Annex I Parties to the Protocol commit to binding emissions targets which, if implemented, amount to a reduction in the greenhouse emissions of industrialised countries of at least five per cent of the 1990 levels by 2008–12.
8. Each Annex I Party has its own individual emissions target. For example, the member States of the European Union have committed to an eight per cent reduction on 1990 emission levels by 2008–12, Canada to a six per cent reduction and New Zealand has committed to maintaining 1990 levels. Australia agreed to limit greenhouse emissions to 108 per cent of 1990 levels over the period 2008–12. Although Australia has indicated that it will not ratify the Protocol, the Government has noted that it will nevertheless continue to develop and invest in programs to meet the agreed 108 per cent Kyoto target.⁶⁷

⁶⁵ The UNFCCC divides countries into two main groups: *Annex I Parties*—consisting predominantly of the relatively wealthy industrialised countries; and—*all other countries*—mostly developing countries.

⁶⁶ Ratification indicates the State's consent to be bound by the Protocol. A full list of the Parties to the Protocol can be found on the UNFCCC world wide web site.

⁶⁷ Australian Greenhouse Office, *Australia's Third National Communication on Climate Change*, AGO, Canberra, 2002.

Appendix 3

Selected Commonwealth Greenhouse Policies

The National Greenhouse Strategy

1. The NGS is aimed towards the achievement of three overarching goals:
 - fostering knowledge and understanding of greenhouse issues;
 - limiting greenhouse gas emissions; and
 - laying the foundations for adaptation to climate change.
2. The NGS outlines 86 individual measures which are grouped into eight sectoral modules:
 - profiling Australia's greenhouse gas emissions;
 - understanding and communicating climate change and its impacts;
 - partnerships for greenhouse action: governments, industry and the community;
 - efficient and sustainable energy use and supply;
 - efficient transport and sustainable urban planning;
 - greenhouse sinks and sustainable land management;
 - greenhouse best practice in industrial processes and waste management; and
 - adaptation to climate change.

Greenhouse Gas Abatement Program

3. The Greenhouse Gas Abatement Program aims to reduce Australia's net greenhouse emissions by supporting industry and community activities that are likely to result in substantial emission reductions or substantial sink enhancement. This measure is a key part of the Measures for a Better Environment package announced by the Commonwealth Government in May 1999.⁶⁸
4. The Commonwealth has invested approximately \$150 million for projects under this program, expected to deliver over 26 Mt CO₂-e in emission reductions.⁶⁹

⁶⁸ Australian Greenhouse Office, *Australia's Third National Communication on Climate Change*, AGO, Canberra, 2002, p. 43.

⁶⁹ *ibid.*, p. 44.

Greenhouse Challenge Program

5. The Greenhouse Challenge—launched in 1995—is a joint initiative between the Commonwealth and industry to abate greenhouse gas emissions. Participating organisations sign agreements with the Commonwealth Government that provide a framework for voluntary actions to abate emissions. Through the Greenhouse Challenge program, participants are developing inventories of their greenhouse gas emissions, developing action plans to reduce those emissions and report on their progress in achieving emissions reductions.⁷⁰

6. There are now over 700 participants in the Greenhouse Challenge program, and this is expected to increase to more than 1000 by 2005.⁷¹

Greenhouse Friendly Program

7. The Greenhouse Friendly Program is a voluntary certification and labelling initiative applying to products and services. It is designed to engage consumers on climate change issues and greenhouse gas abatement and to broaden the basis for investment in greenhouse gas abatement. The supplier invests in abatement projects to offset the greenhouse emissions produced during the life of the product or service.⁷²

⁷⁰ *ibid.*

⁷¹ *ibid.*

⁷² *ibid.*

Appendix 4

Recommendations of the Earlier Audit

**Recommendation No.1
Para. 2.14** The ANAO recommends that agencies develop and implement a priority schedule of energy efficiency initiatives drawing on both the mandatory requirements of the Energy Policy and other non-compliance activities which involve the day-to-day management of work practices and facilities.

All agencies agreed.

**Recommendation No.2
Para. 2.17** The ANAO recommends that CEO instructions clearly indicate how agencies will comply with the Energy Policy, including the method of implementing energy audits, the BOMA Guidelines and new property leases.

DOD and DOFA agreed in principle; all other agencies agreed.

**Recommendation No.3
Para. 2.22** The ANAO recommends that CEOs incorporate in their Energy Policy annual report to their respective Ministers a statement that, among other things, either all the requirements of the Energy Policy were complied with or, where this did not occur, an indication of the areas of non-compliance and steps being taken to remedy the situation.

Attorney-General's, DOD and DOFA agreed in principle; all other agencies agreed.

**Recommendation No.4
Para. 2.23** The ANAO recommends that the Department of Industry Science and Resources and the Australian Greenhouse Office advise the Department of Prime Minister and Cabinet (PM&C) of the Energy Policy annual reporting requirements so they may be taken into account in the next review of PM&C's Guidelines for the Preparation of Departmental Annual Reports.

**Recommendation
No.5
Para. 3.8**

AGO and DISR agreed.

The ANAO recommends that DISR's and AGO's Energy Policy interpretation should:

- (a) include a glossary of energy terms;
- (b) clearly highlight the requirements that are mandatory and those that are not;
- (c) provide lists of which agencies have particular responsibilities;
- (d) identify, for each requirement if applicable, which agency is developing related standards, systems and/or procedures;
- (e) provide an organisation chart or use some other suitable approach which clearly indicates the links between the agencies involved in the general administration of the Energy Policy;
- (f) indicate that action is required well before 200203 to achieve compliance with the Energy Policy and to realise the benefits of energy efficiency initiatives; and
- (g) take into account practical limitations to implementing mandatory requirements.

AGO and DISR agreed.

**Recommendation
No.6
Para. 3.19**

The ANAO recommends that DISR and AGO include measures in their formal Energy Policy implementation plans which address the Government requirement to 'lead by example'.

AGO and DISR agreed.

**Recommendation
No.7
Para. 3.44**

The ANAO recommends that the AGO finalise, as a matter of priority, the EESU's new administrative arrangements, work schedule and resourcing to ensure that the 10 EESU functions are achieved efficiently and effectively.

AGO agreed.

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Core Public Sector Corporate Governance (includes Applying Principles and Practice of Corporate Governance in Budget Funded Agencies)	Jun 1997
Management of Corporate Sponsorship	Apr 1997
Telephone Call Centres	Dec 1996
Telephone Call Centres Handbook	Dec 1996
Paying Accounts	Nov 1996
Asset Management	Jun 1996
Asset Management Handbook	Jun 1996
Managing APS Staff Reductions	Jun 1996