

Australian Government

Department of the Environment and Water Resources Australian Greenhouse Office

ENERGY EFFICIENCY IN GOVERNMENT OPERATIONS (EEGO) POLICY



Published by the Australian Greenhouse Office, in the Department of the Environment and Water Resources.

© Commonwealth of Australia 2006, Second Edition 2007

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from the Commonwealth, available from the Department of the Environment and Water Resources. Requests and inquiries concerning reproduction and rights should be addressed to:

Assistant Secretary

Energy Efficiency and Community Branch Department of the Environment and Water Resources GPO Box 787 CANBERRA ACT 2601

IMPORTANT NOTICE - PLEASE READ

While reasonable efforts have been made to ensure that the contents of this publication are factually correct, the Commonwealth does not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this publication.

ISBN 978-1-921297-85-4

Designed by Roar (DE&WR 4000)

Printed on an environmentally responsible paper, manufactured under the environmental management system ISO 14001 with Elemental Chlorine Free (ECF) pulps sourced from sustainable, well managed forests.



Energy Efficiency in Government Operations (EEGO) is an updated version of the Australian Government's 1997 policy *Measures for Improving Energy Efficiency in Commonwealth Operations.*

This 2006 policy:

- > sets the strategy for Australian Government agencies to achieve revised energy intensity portfolio targets by the 2011-2012 financial year: 7,500 Megajoules (MJ)/person/annum for office tenant light & power; and 400 MJ/m²/annum for office central services;
- provides an enhanced proactive management framework for agencies to identify, monitor and manage their energy consumption by specifying minimum energy performance standards (generally 4.5 stars on the Australian Building Greenhouse Rating (ABGR) or equivalent scheme) in contracts, leases and other relevant documentation for new buildings, major refurbishments and new leases over 2,000m²;
- provides flexibility for exceptions where it is not practical or cost effective to achieve 4.5 stars ABGR or equivalent;
- actively engages all stakeholders through industry workshops and energy forums and assists them to identify the whole of life and environmental benefits of adopting energy efficiency initiatives;
- offers day to day support for agencies through a help desk function to clarify reporting requirements, energy efficiency advice and technical issues; and
- includes a comprehensive communications and existing building strategy to identify and address misinformation about energy efficiency.

Secretaries of departments and heads of budget-dependent agencies will:

- report their organisations' energy performance to their respective Ministers and the Department of the Environment and Water Resources (DEW) annually;
- > determine how they can most effectively adopt the minimum energy performance measures to meet their individual needs and the revised portfolio energy intensity targets.

The Department of Defence will:

- develop a comprehensive energy management strategy; and
- progressively install sub-meters at Defence bases as part of a coordinated programme in order to better monitor and manage energy and to more accurately report against specific end use categories.

DEW will:

- > aggregate, summarise and analyse the verified data and produce a whole-of-government energy performance report, *Energy Use in the Australian Government's Operations,* to be tabled in Parliament before the last working day of April of each year;
- undertake scoping studies to identify energy efficiency opportunities and develop energy intensity targets for public buildings, laboratories and computer centres;
- develop an existing building upgrade strategy to improve the energy efficiency of existing buildings and assist agencies in meeting energy intensity portfolio targets; and
- undertake periodic reviews of the progress of the policy with results and recommendation to be brought to Government in 2008.

ENERGY EFFICIENCY IN GOVERNMENT OPERATIONS (EEGO)

TABLE OF CONTENTS

POL	LICY OVERVIEW	1
1	AIM	4
2	GOALS	4
3	SCOPE	4
4	BACKGROUND	5
	4.1 Policy context	5
	4.2 Why is energy efficiency important?	5
	4.3 What is good energy management?	5
5	KEY FEATURES	6
	5.1 Achievable energy intensity targets and performance standards	6
	5.2 Lease-based partnership management model	6
	5.3 Enhanced value for money	6
	5.4 Improved consistency across Government	6
	5.5 Flexibility to integrate other sustainability outcomes and reporting frameworks	6
	5.6 Comprehensive education & awareness programme	7
	5.7 Practical tools available to support implementation	7
	Table 1 – Summary of 2006 EEGO policy	8
6	ANNUAL ENERGY PERFORMANCE REPORTING	10
	6.1 Purpose	10
	6.2 Submission of agency data	10
	6.3 Review of agency data	11
	6.4 Reporting to Ministers	11
	6.5 Energy Use in the Australian Government's Operations	11
7	ENERGY INTENSITY PORTFOLIO TARGETS	12
	7.1 Purpose	12
	7.2 Revised portfolio targets	12
	7.3 Calculation of energy intensity based on agency reports	12
	7.4 Specific Department of Defence requirements	12
	Table 2 – Description of end-use categories and energy intensity targets	14
8	MINIMUM ENERGY PERFORMANCE STANDARDS	16
	8.1 Purpose	16
	8.2 New office buildings & major refurbishments	16
	8.3 New lease agreements & Memorandums of Understanding (MOUs)	16
	8.4 Ongoing energy management framework	17
	8.5 Exceptions – Lower energy performance standards	17

	8.6 Existing buildings - lease extensions, voluntary improvement plans & minor refurbishments	18
	8.7 Appliances & office equipment	18
	8.8 Energy procurement	18
	8.9 Funding options & alternative project delivery mechanisms	18
	Table 3 – Minimum Energy Performance Standards for new Office Buildings, Major Refurbishments and new leases	19
	Table 4 – Green Lease Schedule/Australian Building Greenhouse Rating, reporting & performance validation requirements for new leases	20
9	DEW POLICY ADMINISTRATION RESPONSIBILITIES	_21
	9.1 Programme management	_21
	9.2 Communications	_21
	9.3 Evaluation & reporting	_21
ANN	EX A – ANNUAL ENERGY CONSUMPTION REPORTING GUIDELINES	_22
	A1 What must be reported?	_22
	A2 How to estimate energy consumption rates when actual data is not available	22
	A3 Changes in levels of activity within organisations	_22
	A4 Changes in administrative responsibilities	_22
ANNI	EX B - CONSISTENCY WITH OFFICE ACCOMMODATION MINIMUM ENERGY PERFORMANCE STANDARDS	_23
	B1 Purpose	_23
	B2 Agency self assessment	_23
	B3 Consultation with DEW	_23
	Table 5 - Policy checklist for new office buildings, major refurbishments & new leases ≥ 2 years (including options for extension)	_ 24
ANN	EX C – POSSIBLE EXCEPTIONS TO MINIMUM ENERGY PERFORMANCE STANDARDS	_26
	C1 Purpose	26
	C2 Process for seeking DEW endorsement	_26
	C3 Short term leases (< 2 years)	_26
	C4 Medium term leases (2 – 5 years)	26
	C5 Lease options	_26
	C6 Location constraints	26
	C7 Heritage, security or other constraints	26
	C8 Tenancy fit-out	27
	C9 Exceptional circumstances	27
ANNI	EX D – DEFENCE ENERGY MANAGEMENT STRATEGY	28
	D1 Purpose	28
	D2 Background	_28
	D3 Comprehensive portfolio energy management strategy	28
	D4 Defence bases metering, monitoring & management programme	28
ANNI	EX E – EEGO IMPLEMENTATION SUPPORT TOOLS	_29

IN GOVERNMENT OPERATIONS (EEGO)



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



1. Overall reduction in the Australian Government's energy intensity of its operations by 2011, including:

- 25 per cent reduction in energy intensity for office tenant light and power; and
- 20 per cent reduction in energy intensity for office central services.

2. Implementation of a consistent and transparent approach to the procurement and ongoing management of energy efficient buildings,

3. Development of realistic energy intensity targets for non-office building categories (laboratories, public buildings and computer centres) and Department of Defence bases

4. Establishment of a model framework for achieving other sustainability outcomes through efficiencies in government operations.



This policy applies to all Australian Government departments and agencies covered by the *Financial Management and Accountability Act 1997* (and all agencies and statutory bodies covered by the *Commonwealth Authorities and Companies Act 1997* and whose operations are substantially budget-dependent.¹)

Other public and private sector organisations are encouraged to adopt a similar approach and to use the implementation resources provided on the AGO website, with appropriate acknowledgment.

This policy replaces previous guidance in the 1997 policy *Measures for Improving Energy Efficiency in Government Operations* (Commonwealth of Australia 1998).



¹ Budget dependency is defined as deriving more than half of departmental/agency funding either directly or indirectly from Commonwealth funds. For example, an agency is indirectly budget dependent if it derives most of its funding by selling its services to other budget dependent agencies.



4.1 POLICY CONTEXT

Energy Efficiency in Government Operations (EEGO) is an updated version of the 1997 policy Measures for Improving Energy Efficiency in Commonwealth Operations. The 1997 policy was one of a number of greenhouse gas emission reduction policies announced by the Prime Minister in Safeguarding the Future: Australia's Response to Climate Change.

This 2006 policy retains the original emphasis on progressively improving overall agency energy performance through annual energy intensity reporting and minimum efficiency requirements. However, the office building performance standards and portfolio energy intensity targets have been adjusted to take into account recent improvements in energy efficiency technologies and rating tools. The energy performance standards will also be expanded in the future to cover a broader range of end use categories such as laboratories, public buildings and computer centres.

A comprehensive management framework has been developed that incorporates energy efficiency standards into Australian Government leases and other procurement activities. While the focus is on energy, other sustainability outcomes such as water conservation and waste reduction can be integrated into this framework now or in the future.

The 2006 policy is supported by practical implementation tools and an ongoing communications and education strategy.

4.2 WHY IS ENERGY EFFICIENCY IMPORTANT?

Energy use contributes more than 95 per cent of the Australian Government's greenhouse gas emissions. Improved energy efficiency by Australian Government agencies will reduce Australia's total energy consumption and help to meet its greenhouse gas emission reduction targets. It also demonstrates Government leadership and encourages wider market acceptance of related management tools and other efforts to mitigate further climate change impacts. This can be achieved through good energy management and using cost effective methods that do not distort markets or reduce productivity.

4.3 WHAT IS GOOD ENERGY MANAGEMENT?

Good energy management means not using more or paying more for power than is necessary. Improved energy efficiency means providing the same or better energy service by using less or the same amount of energy. Energy should be planned and managed in the same way as other important operational resources of an organisation, such as personnel, budgets and information technology equipment. This is consistent with the *Commonwealth Procurement Guidelines, January 2000,* and its emphasis on value for money and whole of life costing.

Good energy management is a function of:

- informed energy and building managers, employees, tenant advocates and other service providers;
- > senior management support;
- leases, performance agreements and other contracts that acknowledge the joint responsibilities of developers, property owners, building managers and tenants and provide an appropriate profit or other incentive or obligation to achieve energy efficiency outcomes;
- systems-based management structures that address staff turnover and competing priorities;
- access to energy data, fault reports and other records that can be used to negotiate costs and detect problems; and
- regular review and reporting of actual performance and targets.

The 2006 EEGO policy will facilitate good energy management by setting out enhanced processes and frameworks that empower Australian Government agencies to:

- > address energy efficiency in an holistic manner;
- manage their current energy budgets more cost effectively; and
- meet revised energy intensity portfolio targets.

IN GOVERNMENT OPERATIONS (EEGO)



5 KEY FEATURES

5.1 ACHIEVABLE ENERGY INTENSITY TARGETS AND PERFORMANCE STANDARDS

As the 1997 portfolio targets no longer provided an incentive for continuous improvement, more challenging but achievable targets for office – tenant light and power and office – central services have been introduced that are to be met by 2011.

A number of recent Australian Government office projects have successfully demonstrated that energy efficient buildings up to the equivalent to 4.5 stars on the Australian Building Greenhouse Rating (ABGR) Scheme or other equivalent standard can be achieved with no additional upfront cost, using proven technology and well established design and construction methods.

While some energy efficiency options involve higher capital costs, such as better quality insulation and double glazing, these can often be offset by cost savings achieved in the building as a whole, such as smaller heating, ventilation and air conditioning (HVAC) systems or different window: masonry ratios in exterior walls. Good energy management practices are required to ensure that buildings operate at their potential efficiency level and that ongoing savings are actually realised.

5.2 LEASE-BASED PARTNERSHIP MANAGEMENT MODEL

The 2006 policy acknowledges the need for cooperation between building owners and tenants (and any relevant service providers and contractors). It addresses traditional structural barriers to implementation, such as split incentives between developers, building owners and tenants, by ensuring that the parties with influence over key aspects of energy performance obtain some benefit from implementing the improvements. It provides a transparent legal and management framework, the Green Lease Schedule (GLS) to ensure that the parties identify and address problems promptly and efficiently.

Attaching a GLS to a lease for a commercial building obliges both the tenant and building owner to work towards achieving the operational ABGR requirement. The emphasis is on prevention and rectification, rather than retribution. The GLS and Energy Management Plan (EMP) templates make it easier to identify problems, work out who is responsible and ensure that appropriate steps are taken to remedy the situation promptly. This approach recognises that there is an ongoing relationship between the parties and reduces the need for litigation and penalties in resolving disputes.

5.3 ENHANCED VALUE FOR MONEY

The policy puts the Australian Government's value for money and whole of life costing procurement principles into action. An improved building energy management framework, regular performance review and enforcement mechanisms can ensure that agencies get what they paid for and that projected energy and dollar savings are actually realised for the life of a building or lease.

5.4 IMPROVED CONSISTENCY ACROSS GOVERNMENT

The GLS templates aim to provide consistency in lease agreements across agencies. They focus on a few essential energy management components to achieve and maintain the target ABGR rating with optional clauses covering water, waste and other issues. Minor variations may be negotiated where agencies have less bargaining power or to accommodate occupational health and safety (OH&S), heritage, security or other special or conflicting requirements. The GLS will minimise the need for compliance effort through a clear assignment of responsibilities and dispute resolution processes.

Other risks have been addressed by providing templates and guides and by focusing on practical and cost-effective approaches. The systems-based approach ensures that good energy management does not depend on the expertise and motivation of individual employees (or contractors) or on pure chance.

5.5 FLEXIBILITY TO INTEGRATE OTHER SUSTAINABILITY OUTCOMES AND REPORTING FRAMEWORKS

The GLS framework can be adapted to include clauses that cover water and waste management, cleaning contracts, alternative transport options and other environmental management issues.

Agencies are encouraged to integrate their energy efficiency targets, management procedures and reporting into broader environmental management systems, Greenhouse Challenge agreements, public environment reports and annual reports.²

²The *Environment Protection & Biodiversity Conservation Act 1999* s. 516 provides for reporting of measures taken to minimise the impact of their activities on the environment in Agencies' annual reports.



Note: Agencies should seek legal advice about potential cost impacts, risks and legal/contractual obligations and implications of including other sustainability clauses into Green Lease Schedules and other agreements.

5.6 COMPREHENSIVE EDUCATION & AWARENESS PROGRAMME

A comprehensive communications strategy has been developed to raise awareness amongst internal & external stakeholders about the 2006 policy requirements and Australian Government expectations in relation to energy efficiency. Training and information sessions will also be used to expand agencies' knowledge of energy management and to build confidence that energy efficiency is a desirable objective and does not have to cost more upfront.³

Communications activities will target:

- senior managers in terms of accountability, transparency, government energy policy, and hidden costs and other risks associated with poor energy management practices;
- professional service providers, such as property lawyers, tenant advocates, engineers, architects and builders;
- > building owners and investors;
- > energy and building managers and contractors; and
- > energy suppliers.

The EEGO Inter-Departmental Committee (IDC) will continue to play an important consultative role, while joint working parties will be established to provide input to the development of strategies for laboratories, public buildings and computer centres. Agencies will receive information updates through agency forums, circulars and the Online System for Comprehensive Activity Reporting (OSCAR) online system.

Key industry groups will be contacted directly and their members will be informed through journal articles and conference presentations. General information about the programme will be available via the AGO website.

5.7 PRACTICAL TOOLS AVAILABLE TO SUPPORT IMPLEMENTATION

A range of practical resources have been developed to support implementation, including: an energy efficiency building design brief for inclusion in statements of requirements; generic green lease schedule templates; energy management plan templates; information guides; practice notes; and case studies. These include guidance to agencies on raising employees' awareness and understanding of the importance of energy efficiency and their responsibilities under relevant tenancy agreements.

Most EEGO implementation support tools are available free of charge via the AGO website or on request from the OSCAR Help Desk.

Refer to Annex E for an annotated list of EEGO implementation support tools or check the AGO website.

³Agency consultation revealed confusion over minimum energy performance standards and an assumption that energy efficient buildings and appliances cost more than less efficient alternatives.

IN GOVERNMENT OPERATIONS (EEGO)

TABLE 1 - SUMMARY OF 2006 EEGO POLICY

ANNUAL ENERGY REPORTING REQUIREMENTS

- > Continued agency reporting against core energy performance indicators.
- Energy data and draft summary reports to be submitted to DEW by close of business on the last working day of October each year. Reports to include an explanation of any inconsistencies with the requirements of this policy for new office buildings, major refurbishments & new leases. Thirty days to verify final data and reports, including changes recommended by DEW to address anomalies & gaps.
- > Energy Use in the Australian Government's Operations to be tabled in Parliament before the last working day of April each year.

ENERGY INTENSITY PORTFOLIO TARGETS

- > Minor revisions to some end use category definitions. Updated energy intensity portfolio targets for office buildings to be achieved by June 2011:
 - 7,500 MJ/person/annum for office tenant light & power; and
 - 400 MJ/m²/annum for office central services.
- Recommendations for specific targets for non-office building categories (including laboratories, public buildings and computer centres) to be developed by June 2008.
- > Development of a comprehensive metering, monitoring and energy management strategy by the Department of Defence by the end of 2006. Strategy to be reviewed in 2008. Progress to be reported annually.
- > Progressive installation of sub-meters at relevant Department of Defence bases as part of a coordinated programme to facilitate energy performance reporting against specific end use categories by 2011.
- Recommendations for revised vehicle efficiency targets & appliance procurement procedures to be developed by June 2008.
- Housing building requirements to reflect upgraded buildings codes and State and local government regulations. No specific targets or other requirements included in the 2006 policy.

MINIMUM ENERGY PERFORMANCE STANDARDS

- Revised efficiency measures for new office buildings, major refurbishments & new leases incorporate:
 - new minimum energy performance standard generally 4.5 stars ABGR or equivalent;
 - no leniency for major refurbishments;
 - option to adopt and report a lower performance standard if 4.5 stars ABGR or equivalent is not practical or cost effective; and
 - ABGR assessment & evidence of market testing required before exercising a lease option.
- Lease-based management model (Green Lease Schedule GLS). The GLS is based on mutual obligations and rewards for new buildings & major refurbishments with leases over 2 years & over 2,000m². Separate metering and lighting requirements apply to leases under 2,000m². No transfer of building owner compliance costs to tenants.
- > Separate metering of tenanted areas and central services required in new buildings & leases.
- Ongoing energy management framework (including building management committee & written energy management plan) for new leases > 2 years & >2,000m².
- Independent energy performance validation (eg ABGR assessment) required for all new office buildings, major refurbishments and new leases over 2,000m² within 15 months of handover. Annual performance validation required in new leases for office buildings over 2,000m².
- > Appliances must be US EPA 'Energy Star' compliant. Power management features to be enabled at the time of supply.



- Training & guidance to be provided by DEW on developing agency-specific voluntary improvement plans for existing government owned & leased buildings. Implementation of cost effective upgrade opportunities is optional unless specific minimum energy performance standards apply.
- > Energy audits are optional. The GLS includes details of circumstances under which a party can initiate an audit and cost sharing arrangements.
- Recommendations for revised performance standards and reporting requirements for special purpose areas, such as computer centres, to be developed by June 2008.
- > Continued requirement to purchase only office equipment that complies with the US EPA 'Energy Star' standard, where it is available, fit for the purpose and cost effective and to enable power management features at the time of supply.
- > Adoption of 'Greenpower' is optional and does not contribute towards ABGR rating.
- Focus on energy efficiency with option to integrate greenhouse gas emission reduction, water conservation, waste minimisation and other sustainability issues. Agencies are advised to seek legal advice about potential cost impacts, risks and legal/contractual obligations and implications.
- Use of energy performance contracting (EPC) is encouraged but referral to DEW is no longer necessary as detailed EPC guides and templates are now available.

COMMUNICATIONS & PROGRAMME MANAGEMENT

- Comprehensive education and awareness programme to build capacity of agencies and other stakeholders to implement the policy. Range of support tools available.
- Management by single agency DEW. Inter-Departmental Committee (IDC) comprising relevant key departments & agencies and chaired by DEW to play a consultative role. Joint Working Parties (JWP) to advise on development of implementation of strategies & targets for special purpose facilities.
- > Mid-term and end of term independent policy reviews to be commissioned in 2008 and 2011 respectively.

IN GOVERNMENT OPERATIONS (EEGO)

6

ANNUAL ENERGY PERFORMANCE REPORTING

6.1 PURPOSE

The reporting process aims to ensure that departments and agencies are aware of how much energy they use and the relative efficiency of their energy use.

Individual reports are incorporated into an annual whole-of government energy report (*Energy Use in the Australian Government's Operations*) to produce a simple measure of the total energy consumption of the Australian Government. This provides important information about the efficiency of energy use by Government and of the rate of progress in improving energy management.

6.2 SUBMISSION OF AGENCY DATA

Each department and agency covered by this policy will forward an energy performance summary report to DEW via OSCAR by the close of business on the last working day of October each year.

Reports to DEW that are not submitted or verified on time may be excluded from the annual report (*Energy Use in the Australian Government's Operations*) and the organisations concerned clearly identified in the report.

The energy performance summary will report on the following criteria:

- The annual energy consumption data and relevant normalisation factors for all relevant end use categories (as outlined in Annex A).
- The number of leases (including pre-commitment leases) signed for office facilities over 2,000m² in tenanted area and longer than two years (including options for extension) that specified less than 4.5 stars ABGR or equivalent and/or did not include all five essential elements of the 'Green Lease Schedule'.
- The number of design and construction contracts signed for new office facilities or major refurbishments over 2,000 m² in tenanted area or office space that specified less than 4.5 stars ABGR or equivalent.
- The number of DEW-endorsed exceptions to office accommodation MEPS (over 2,000m² in area and longer than two years including options for extension).

The number of instances where a required ABGR or equivalent performance assessment was not undertaken or the relevant ABGR target rating (or equivalent) was not achieved in two consecutive years for a building over 2,000m² with a lease over two years in length.

The new reporting requirements take effect from the 2006–2007 reporting year. Agencies will be notified of any changes to the reporting guidelines via OSCAR.

Electronic reporting software, provided by DEW, will be used to facilitate this process. Agencies may use this software to record energy consumption data on a more frequent basis, eg monthly or quarterly, but must only submit the required annual data in their summary report to DEW.

Agencies are encouraged to use the 'Notes' section to explain unusual energy consumption and to promote examples of voluntary improvements & individual facility performance above 4.5 stars ABGR or equivalent.

6.3 REVIEW OF AGENCY DATA

DEW will review each agency's energy performance summary report for completeness and accuracy. DEW will then forward a final energy performance summary report to the agency, including any proposed changes that address identified anomalies or missing information.

Agencies must verify their final energy performance summary report (including agreed changes) within 30 days of the date on which it was provided by DEW.

6.4 REPORTING TO MINISTERS

Secretaries of departments and heads of budget-dependent agencies will report the energy performance of their organisations to their Minister annually. As a minimum, the report will include total energy consumption for the previous financial year and progress towards achieving the energy intensity targets described in this policy.

Agencies are encouraged to validate their data before reporting performance to their Minister as final energy performance summary reports cannot be changed after they have been verified by agencies.

6.5 ENERGY USE IN THE AUSTRALIAN GOVERNMENT 'S OPERATION S

DEW will aggregate, summarise and analyse the verified data and produce the whole-of-government energy performance report (*Energy Use in the Australian Government's Operations*), to be tabled in Parliament before the last working day of April each year. The report will include estimates of unreported central services energy consumption and total greenhouse gas emissions.

Agencies may also voluntarily include their energy performance data and energy efficiency initiatives in their annual report or Greenhouse Challenge and other sustainability reports.

Refer to Annex A for more details about annual energy consumption reporting guidelines.



7 ENERGY INTENSITY PORTFOLIO TARGETS

7.1 PURPOSE

Energy intensity targets, in contrast to absolute energy consumption data, allow for changes in the size and activity levels of organisations and can be used to compare consumption rates over time and between departments and agencies. They will also highlight departments and agencies that have improved their energy performance as other elements of this policy are implemented and provide an incentive for continuous improvement.

7.2 REVISED PORTFOLIO TARGETS

Subject to the two-year review of the program in 2008, it is expected that all organisations will be performing at, or below, the target energy intensities in the 2011–2012 financial year.

DEW will conduct scoping studies to develop energy intensity targets for laboratories, public buildings and computer centres and passenger vehicles in consultation with departments and agencies reporting within these categories. Departments and agencies will be notified via OSCAR about new targets and relevant compliance dates when they have been agreed. Energy efficient new buildings and major refurbishments can help to balance the effect of less efficient buildings as the energy intensity targets represent an average across the whole portfolio. Minor refurbishment of lighting systems and operating plant can improve the performance of less efficient buildings, although their cost effectiveness is influenced by the length of time remaining before the lease expires or major work is undertaken. Review of operating times, control settings, fault reports and metering data often reveals potential savings at little or no cost. Purchasing energy efficient appliances and office equipment also plays a key role in meeting the revised targets.

In order to progressively reduce portfolio energy intensity levels, it is highly recommended that agencies:

- > discourage use of exceptions (eg. meet minimum 4.5 stars ABGR or equivalent) for all new buildings, major refurbishments & new leases;
- > consider cost effective voluntary improvements & incorporation of energy efficiency measures into minor refurbishments (eg tenancy fit out, replacement of plant and equipment (P&E))
- purchase energy efficient appliances & office equipment;
- improve energy management systems (eg review building management system settings, monitor & report faults, analyse digital metering data, commission ABGR assessment or energy audit);
- > install separate digital metering to increase the accuracy of reported energy use, isolate energy intensive facilities, such as computer centres, and avoid over-estimation using the EEGO formula based on floor area;
- incorporate energy efficiency considerations into service contracts eg maintenance, cleaning, security, facilities management; and
- introduce internal reporting mechanisms that provide early notification of problems, such as energy and cost blowouts, potential breaches of lease obligations and inconsistencies with policy requirements.

7.3 CALCULATION OF ENERGY INTENSITY BASED ON AGENCY REPORTS

Energy intensity is calculated automatically by the reporting software using the reported energy consumption data and



relevant normalisation factors, such as building floor area, number of people, and kilometres travelled. Each end use category has been allocated the indicator that best represents its energy efficiency, such as MJ/person.annum, MJ/m².annum or MJ/km.annum.

Where metering data is not available, agencies should estimate their energy consumption using the following formulae:

- Tenant Light & Power 50 per cent of electricity pro rata to the portion of total floor area or 500 MJ/m² if no other data is available.
- Central Services 50 per cent of electricity and 100 per cent of gas.

Note: Estimates for non-metered premises based on floor areas are likely to raise reported energy intensity levels as the formulae slightly overestimate energy consumption rates. Agencies are therefore advised to obtain actual metering data wherever possible. For more information about reporting against these categories and targets, contact the OSCAR help desk.

7.4 SPECIFIC DEPARTMENT OF DEFENCE REQUIREMENTS

The Department of Defence will:

- develop a comprehensive energy management strategy by 2006;
- establish a pilot metering, monitoring and management programme for select Defence bases;
- > report progress annually; and
- review the strategy in 2008 and make a recommendation to Government for a roll out of the pilot programme to other Defence bases responsible for up to 80 per cent of the Department's energy use.

For more information about the Department of Defence's energy management strategy and metering, monitoring & management programme for Defence bases, see Annex D.

TABLE 2 – DESCRIPTION OF END-USE CATEGORIES AND ENERGY INTENSITY TARGETS

End-use category	Description	Key indicator	Target
Office – Tenant Light & Power	Energy used for tenant operations in buildings whose primary function is office space. It includes tenancy lighting, office equipment, supplementary air conditioners, boiling water units etc. The key indicator recognises that overall energy efficiency is a combination of the efficient use of space as well as the energy efficiency of the space. If not directly measured, energy consumption is approximately equal to 50% of electricity pro rata to the portion of total floor area, or 500 MJ/ m ² if no other data is available.	MJ/person/annum	7,500 MJ/ person/ annum
Office – Central Services	Energy used in the provision of services in office buildings common to all tenants. It includes building air conditioning, lifts, security & lobby lights, domestic hot water etc. If not directly measured, energy consumption is approximately equal to 50% of electricity and 100% of gas.	MJ/m²/annum	400 MJ/m²/ annum
Public Buildings	Energy consumed in buildings visited by the public in significant numbers. Typical buildings in the category are public libraries, museums or art galleries.	MJ/m²/annum	
Laboratories	This category covers all energy use in buildings which, as their primary function, are used as laboratories.	MJ/m²/annum	
Computer Centres	Energy consumed in buildings or parts thereof containing computer centres (where separately metered).	MJ/m²/annum	
Climate Controlled Stores	Relates to buildings that are required to maintain 24-hour climate controlled conditions for the protection of the goods they house. This includes archives, safety equipment stores, art stores etc.	MJ/m²/annum	
Other Buildings	This category is for facility types that do not fit the other buildings categories, eg. simple storage sheds, radio transmitter buildings. The actual type of building must be defined in the report.	MJ/m²/annum	
Other Uses	Energy consumption of facilities that do not fit any of the above categories.	No key indicator as category is too diverse	

TABLE 2 - DESCRIPTION OF END-USE CATEGORIES AND ENERGY INTENSITY TARGETS (cont.)

	End-use category	Description	Key indicator	Target
-	Passenger Vehicles	Energy consumption of passenger cars, light commercial vehicles and mini buses and includes the consumption of Senior Executive Service (SES) vehicles.	MJ/km/annum	
	Other Transport	Energy consumption of all forms of transport other than passenger vehicles. It includes transport systems engaged exclusively for operational purposes. It does not include energy used for general public transport such as airlines, trains and buses.	No key indicator as category is too diverse	
-	Defence Bases	Covers all buildings and facilities that are within established Defence bases. It might include other building categories unless they are separately measured. It does not include office buildings and stores outside bases that must be reported under the appropriate category.	GJ	
1	Defence Operational Fuels	This category covers the fuel used in Defence Operations for aircraft, tanks, ships, vehicles etc.	No key indicator as category is too diverse and dependent on operational requirements	
-	Law Courts	This category includes all types of court facilities, whether a relatively small space in a larger building, or housed in a specialised building.	MJ/m²/annum	
/	Antarctic Bases	Covers all buildings and facilities at Antarctic Bases. Does not include transport at Antarctic Bases.	GJ	

8

MINIMUM ENERGY PERFORMANCE STANDARDS

8.1 PURPOSE

Minimum energy performance standards aim to encourage agencies to progressively improve their energy performance and meet the revised energy intensity targets through the procurement and ongoing management of energy efficient office buildings and appliances. The focus is on being cost effective from day one. This is most likely to be achieved when energy efficiency is considered from the beginning of a project and is incorporated into other design, construction and procurement proposals.

8.2 NEW OFFICE BUILDINGS & MAJOR REFURBISHMENTS

All new and substantially refurbished buildings, whether owned or leased by the Australian Government, must meet minimum energy performance standards based on the Australian Building Greenhouse Rating Scheme (ABGR) or other approved scheme (Refer to Table 4 for details)⁴. These standards take effect immediately.

For the purposes of this policy, a 'major refurbishment' includes work that impacts at least 2,000m² and represents:

- > over 50 per cent of the base building, such as changes to the building envelope, HVAC system, other plant & equipment, and common areas; and/or
- > over 50 per cent of the tenanted area, such as changes to workstation layout, lighting, switching, floor and window dressings, and office appliances and equipment.

Lower performance standards or variations to lease requirements may be permitted where it is not cost effective or practical to achieve the minimum 4.5 stars ABGR or equivalent standard. (Refer to 'Exceptions' below).

Separate on market status digital metering of tenanted areas and central services (and computer centres where cost effective) is required in all new buildings and major refurbishments.

An independent ABGR performance assessment must be undertaken for all new buildings and major refurbishments within 15 months of handover.

DEW will undertake a scoping study of the impact of computer centres on energy management in government office buildings and will provide future management and reporting recommendations to the 2008 policy review.

Refer to Annex B for more information about 'Consistency with office accommodation minimum energy performance standards'.

For more information about the design and construction of energy efficient office buildings, refer to Considerations for incorporating energy efficiency into requirements for Australian Government owned and leased buildings (DEW 2006) or ESD Design Guide for Australian Government Buildings (DEW 2005). See Annex E for more details.

8.3 NEW LEASE AGREEMENTS & MEMORANDUMS OF UNDERSTANDING (MOUs)⁵

All lease agreements and MOUs for new office buildings, major refurbishments and new leases over 2,000m² must include:

- > a mutual obligation to achieve and maintain the relevant ABGR or equivalent performance standard;⁶
- annual ABGR (or equivalent) performance validation by an independent assessor;

⁴ The Australian Building Greenhouse Rating (ABGR) Scheme has been selected as the preferred rating tool due to its broad acceptance by the industry and access to a low cost independent performance certification scheme. Agencies will be advised of other approved schemes that meet similar criteria via OSCAR. Contact DEW to have an alternative scheme recognised by this policy.

⁵ MOUs are used when one government department/agency leases premises from another department/agency.

⁶ This obligation should also be extended to facility managers, tenant advocates, maintenance contractors, cleaners, security and other relevant sub-contractors. Also note that the type of lease is relevant, eg gross leases provide a financial incentive for the building owner to select energy efficient plant and equipment (P&E) and to operate it in a way that minimises energy consumption of central services but not necessarily tenanted areas. Net leases should require building owners to consult with tenant on selection of P&E.

- separate on market status digital metering of tenanted areas and central services (and computer centres where cost effective);⁷
- establishment of a formal management committee comprising both tenant and building owner representatives (or integration into an existing building management committee);⁸
- development of an Energy Management Plan outlining minimum procedures required to maintain the relevant performance standard; and
- > remedial action/dispute resolution clauses.

Departments and agencies must note in their annual energy intensity report if any of these elements were not included in a lease for a building over 2,000m² and with a lease term of over two years.

The Green Lease Schedule (GLS) templates are designed to facilitate implementation and ongoing compliance with the relevant energy performance standard – otherwise savings are unlikely to be realised. The five essential elements of a GLS are:

- agreed target ABGR or equivalent performance standard (including annual assessment);
- > separate digital on market status metering;
- > building management committee (BMC);
- > energy management plan (EMP); and
- > remedial action/dispute resolution clauses.

Refer to Annex B for more information about 'Consistency with office accommodation minimum energy performance standards'

For more information about green lease schedules, obtain a copy of the Green Lease Schedule (GLS) templates & practice notes. See Annex E for more details.

8.4 ONGOING ENERGY MANAGEMENT FRAMEWORK

Lease agreements for buildings over 2,000m² must include an obligation to:

- commission an annual independent ABGR (or equivalent) performance assessment;
- review metering data and other building reports at least quarterly;

- establish an internal energy or building management committee; and
- > develop an energy management plan.

Ongoing energy management provisions are also highly recommended for buildings that are owned and occupied by the agency (i.e. not leased) and in existing leased buildings where this is cost effective and likely to facilitate energy performance or reporting improvements.

An effective ongoing energy management framework ensures that the building will achieve and maintain its potential energy performance standard. Most buildings operate well below their design rating unless there is a clear delineation of tenants' and building owners' roles & responsibilities; and processes to monitor, review and enforce achievement of specified performance standards.

For more information about ongoing energy management procedures, an energy management plan template and checklists, refer to the Energy management guide for Australian Government owned and leased buildings (DEW 2006). See Annex E for more details.

8.5 EXCEPTIONS – LOWER ENERGY PERFORMANCE STANDARDS

Short term leases (i.e. less than two years including options) do not require any specific energy performance standard. These are deemed to be consistent with the policy (regardless of their level of energy performance) and do not need to be reported.

In all other cases where achieving 4.5 stars ABGR or equivalent may be impractical or not cost effective, agencies or their representatives may submit a proposal for a lower energy performance standard to DEW for consideration.⁹

While exceptions may apply, lower energy performance standards affect future property operating expenses and average portfolio energy intensity levels. They also take the same amount of time and other resources to properly manage a less energy efficient building.

Refer to Annex C for more information about possible exceptions & the DEW endorsement process.

⁷ Preferably with separate revenue meters for tenanted areas.

⁸A formal management committee is not required where tenanted area is less than 50 per cent of total net lettable area.

⁹There is scope in the GLS template to downgrade the performance standard if the original design rating proves not to be viable for the remainder of the lease term. Contact DEW for details.

IN GOVERNMENT OPERATIONS (EEGO)

8.6 EXISTING BUILDINGS – LEASE EXTENSIONS, VOLUNTARY IMPROVEMENT PLANS & MINOR REFURBISHMENTS

Agencies are encouraged to obtain an ABGR or other energy performance assessment and develop energy management plans for owned and leased existing buildings, especially where refurbishment or lease renewals are not planned before 2011.

While agencies are strongly encouraged to identify and implement cost effective energy improvements (such as lighting system upgrades, installation of separate digital metering and plant and equipment replacement), all buildings will eventually reach the end of their current lease or require a major refurbishment.¹⁰

DEW will develop an existing building upgrade strategy by 2008 to improve the energy efficiency of existing buildings and assist agencies in meeting energy intensity portfolio targets.

DEW will provide training and guidance on developing agency-specific voluntary improvement plans for existing government owned & leased buildings.

Voluntary upgrades or replacement of inefficient lighting systems and plant & equipment can save agencies many thousands of dollars in terms of energy and maintenance costs. They can also play an important role in helping agencies to meet their revised energy intensity portfolio targets.

They generally have payback periods of between two and ten years but are more cost effective when they are combined with other work, such as a minor refurbishment. Many factors influence the viability of voluntary improvements, such as:

- > the length of the remaining lease term;
- > 'make good' and other clauses;
- an agency's bargaining power when negotiating new leases or extensions;
- > the impact on workplace productivity;
- > the need to address recurrent faults or to replace very inefficient equipment; or
- > difficulty in meeting portfolio targets.

8.7 APPLIANCES & OFFICE EQUIPMENT

Departments and agencies must:

- ensure that office equipment purchased complies with the US EPA 'Energy Star' standard, where such equipment is available, fit for the purpose and cost effective; and
- enable power management features at the time of supply.

Purchasing energy efficient appliances and office equipment, such as computers, fridges and photocopiers, plays an important role in achieving 4.5 stars ABGR for tenant light & power.

8.8 ENERGY PROCUREMENT

Departments and agencies are strongly encouraged to undertake annual tariff reviews and to install separate revenue meters for their tenanted areas.

Note: This 2006 policy does not include any specific requirements for the purchase of 'green power'. Departments and agencies may voluntarily purchase renewable electricity from retailers but do not qualify for credits towards their buildings' ABGR ratings or energy intensity targets. They should ensure it is compliant with the updated requirements in the National Green Electricity Accreditation Scheme.

8.9 FUNDING OPTIONS & ALTERNATIVE PROJECT DELIVERY MECHANISMS

Agencies are encouraged to explore funding options and alternative project delivery mechanisms, such as energy performance contracts, grants and private public partnerships (PPP), in order to share costs, risks and benefits equitably between relevant parties.

Energy performance contracting (EPC) is a form of contracting for energy efficiency services or more general facilities improvement. The contractor guarantees a level of energy consumption savings, modifies the energy-using plant at its own expense to achieve the consumption targets, and is repaid over a number of years from the resulting stream of energy cost savings. EPC provides access to private sector capital, technology and technical expertise at minimal up-front cost to the client.

¹⁰ The GLS includes a clause to cover cases where both parties wish to achieve an improved rating mid-lease. The 'D' Green Lease Schedule template has been provided to assist agencies to voluntarily set and achieve a target ABGR rating in a small tenancy.



TABLE 3 – MINIMUM ENERGY PERFORMANCE STANDARDS FOR NEW OFFICE BUILDINGS, MAJOR REFURBISHMENTS AND NEW LEASES

Floor area	100% net lettable area	50-99% net lettable area	0-49% net lettable area
≥2000m ²	• Whole building \geq 4.5 stars ABGR • Base building \geq 4.5 s or equivalent • equivalent		 Tenancy ≥ 4.5 stars ABGR or equivalent
		 Tenancy ≥ 4.5 stars ABGR or equivalent 	
<2000m ²	• ABGR rating not required	 ABGR rating not required 	No specific requirements
	• Maximum 10W/m ² for lighting	• Maximum 10W/m ² for lighting	
	• Separate digital revenue metering	Separate digital revenue metering	

Recommended procedures for new office buildings, major refurbishments and new leases DEW are available to provide advice concerning energy efficiency matters to assist agencies when making market decisions for new office buildings, refurbishments and new leases, although agencies will continue to negotiate their own lease arrangements.

- Step 1 Determine relevant minimum energy performance standard (Allow at least 18-24 months lead time to maximise energy efficiency outcomes).
- Step 2 Obtain senior management agreement to proceed based on the minimum or higher energy performance standard or seek a DEW-endorsed exception.
- Step 3 Specify agreed minimum energy performance standards in Request for Tender (RFT) and Statement of Requirements (SOR) and other relevant documentation.

Note: Agencies are encouraged to submit draft RFT, lease & other documents to DEW for assessment of consistency with the policy prior to advertising the RFT.

Step 4 Manage the procurement process to ensure that the relevant potential performance standard is achieved.

Note: Energy efficient plant & office equipment plays an important role in meeting ongoing energy performance standards.

- Step 5 Ensure that internal energy management systems and service contracts are in place to maintain actual performance at or above the relevant standard.
- Step 6 Obtain independent validation of achievement of the target energy performance standard.
- Step 7 Report any inconsistency with the policy in annual energy performance report.

> 2 year lease

TABLE 4 – GLS/ABGR, REPORTING & PERFORMANCE VALIDATION REQUIREMENTS FOR NEW LEASES

• Consult DEW prior to finalising the RFT if 4.5 stars ABGR or an equivalent performance standard is likely to be impractical

or not cost effective due to location, heritage, security constraints or other special circumstances. \leq 2 year lease • No specific ABGR or GLS requirement applies but separate digital revenue metering is highly recommended. Exception sought - $> 2,000 \text{m}^2$ $< 2,000 \text{m}^2$ Not required if ≤ 2 year lease 100% net 50 – 99% net < 50% net lettable area lettable area lettable area • GLS (A) • GLS (B) required • DEW-endorsed • GLS (D) optional • GLS (C) required • Base Building -GLS & ABGR ABGR target not required ≥ 4.5 stars ABGR or req'd •Whole target or Tenancy – equivalent • Max 10W/m² building equivalent \geq 4.5 stars • Tenancy – Inconsistent for lighting & \geq 4.5 stars ABGR or ≥ 4.5 stars ABGR or with policy if not separate digital ABGR or equivalent **DEW-endorsed** equivalent metering req'd equivalent RFT includes DEW-**RFT** includes energy RFT includes energy **RFT** specifies performance target performance target < 4.5 endorsed energy separate digital performance target & all ≥ 4.5 stars ABGR or stars ABGR or equivalent metering & lighting equivalent & all key or excludes key elements key elements of relevant $< 10 W/m^{2}$ of relevant GLS GLS (unless < 2 years) elements of relevant GLS • Report number of DEW-• Report number of • No reporting • Report number of cases endorsed exceptions cases that do not requirement as as inconsistent with • Report as inconsistent if meet lighting & consistent with policy policy not DEW-endorsed metering req't

Performance validation obtained Actual performance does not achieve VALIDATION REQUIREMENT within first 15 months & every energy target rating or performance Performance 12 months thereafter & actual validation not obtained within first assessment not 15 months and every 12 months performance achieves energy required thereafter target rating Seek appropriate remedy • No performance • Report if target rating not achieved • No performance validation reporting validation over following 12 months and/or if reporting requirement target rating is downgraded to below requirement 4.5 stars ABGR or equivalent

GLS/ABGR REQUIREMENT

REPORTING REQUIREMENT

9 DEW POLICY ADMINISTRATION RESPONSIBILITIES

9.1 PROGRAMME MANAGEMENT

DEW has responsibility for:

- > developing and providing advice on EEGO policy;
- advising on consistency of agency activities and documentation with the policy;
- providing advice and support to agencies on technical and/or administrative issues and improvements;
- developing and refining implementation support tools, including the Green Lease Schedules;
- building capacity of agencies, industry and service providers to implement the policy through targeted training and other communication activities;
- encouraging improved metering to enhance building energy management, improve accuracy of agency reporting and minimise paperwork;
- consulting with energy intensive departments and key agencies on the development and implementation of this policy; and
- providing advice to the Joint Standing Parliamentary Public Works Committee on agency submissions for new buildings and major refurbishment works.

9.2 COMMUNICATIONS

DEW has responsibility for:

 raising awareness of the 2006 policy and agency responsibilities;

- informing the market about the Australian Government's expectations in terms of energy performance in its operations;
- alerting agencies to the importance of good energy management – including the benefits of tariff reviews, load management and the hidden costs of poor energy management;
- addressing misinformation about the cost and other barriers to improved energy efficiency;
- seeking opportunities to collaborate with other programmes and organisations with similar or complementary aims; and
- undertaking ongoing consultation with stakeholders to identify communication needs, including information gaps, research projects (technical or social) and persistent attitudinal barriers.

9.3 EVALUATION & REPORTING

DEW has responsibility for:

- collating and analysing agency energy end-use intensity data;
- tabling WOGER in Parliament by the last working day of April each year;
- monitoring achievement of portfolio targets and consistency with procurement (and energy management) policy; and
- completing mid-term and end of term independent policy reviews in 2008 and 2011 respectively.



ANNEX A — ANNUAL ENERGY CONSUMPTION REPORTING GUIDELINES

A1 WHAT MUST BE REPORTED?

Departments and budget dependent agencies must report all of the energy used over which they have direct control. Reports will be on a financial year basis, by fuel type and by end-use category (see Table 2). Energy consumption by fuel type is required to estimate greenhouse gas emissions. Normalisation factors, such as building floor area, number of people, and kilometres travelled, must also be reported where appropriate. Use net lettable area for all office space. Departments and agencies should also give reasons for any major changes in energy use.

A2 HOW TO ESTIMATE ENERGY CONSUMPTION RATES WHEN ACTUAL DATA IS NOT AVAILABLE

This policy recognises that the required information may not be readily available for all end-use categories. For example, tenants in privately-owned office buildings may not have access to energy consumption data for the building's central services (eg air conditioning, lifts). In some cases, even the tenant light and power is not measured.

In Commonwealth-owned office buildings, the total energy use of the building is always available but central services energy use may not be metered separately from tenant light and power energy use.

Tenant light and power energy consumption must always be reported. If this information is not directly available, energy consumption for the space can be estimated per unit area as described in Table 2. Where only the total building consumption is known, estimation formulae are also given to apportion energy consumption from central services and tenant light and power to individual tenants.

Central services energy use will, wherever possible, be reported by the organization that is directly responsible for paying the bill. Central services energy use, for which private sector owners are responsible and which is factored into rent, will not normally be available. However, where a tenant is the sole occupant of a building, and the lease agreement requires the tenant to pay the total energy bill for the building, tenant organisations must report the central services energy use. In Commonwealth-owned buildings, the managing organisation will report the central services energy use. The estimated consumption rate is set slightly above the target figures to provide an incentive to install meters to measure actual energy use. Lack of adequate metering presents a significant disincentive to the implementation of energy saving measures and prevents effective energy management.

A3 CHANGES IN LEVELS OF ACTIVITY WITHIN ORGANISATIONS

If annual normalisation factors, such as floor area and staff numbers vary throughout the reporting year, they will be averaged to equivalent full year factors. This is achieved by summing the normalisation factors that prevail at the end of each month and then dividing by 12. This calculation applies only to significant changes in normalisation factors and department/agencies should use discretion in deciding when it is to be applied.

For example, an occupancy of 500 people for 9 months and 1000 people for 3 months would have an equivalent full year average of $500 \times 9/12 + 1000 \times 3/12$ which equals 625 people. Or, as another example, $500m^2$ occupied for 3 months is equivalent to $500 \times 3/12$ which equals $125m^2$ for a full year.

A4 CHANGES IN ADMINISTRATIVE RESPONSIBILITIES

Departments and agencies can be created or abolished, or may gain and lose functions or operational units as a result of administrative changes. When reporting energy use, departments and agencies must report on their structure as it exists on 30 June each year as if it had existed for the whole year. The receiving organisation should liaise with the organisation that is losing the unit to obtain energy data for the entire year. In some cases energy consumption may be impossible to obtain and will need to be estimated by the receiving organisation.

Under this method, if an operational unit is abolished or sold part way through the year, its energy consumption is unreported; a similar methodology is applied to buildings that are sold during the reporting year. This anomaly is accepted in the interests of reporting simplicity.

For example, Department A may lose an operational unit part way through a financial year but gain two other units from departments B and C. Department A makes no report on the energy use of the unit that it lost but reports on the full year's energy use of the two operational units that it gained. Likewise Departments B and C make no report on the units that they lost.



ANNEX B — CONSISTENCY WITH OFFICE ACCOMMODATION MINIMUM ENERGY PERFORMANCE STANDARDS

B1 PURPOSE

This guidance note outlines the process for assessing the consistency of office building development proposals for new buildings and major refurbishments and all new lease proposals with the Energy Efficiency Government Operations (EEGO) Policy.

B2 AGENCY SELF ASSESSMENT

An EEGO Request for Tender (RFT) Checklist is provided as a rough guide to help agencies check that all relevant documentation related to new office buildings, major refurbishments and new leases is consistent with this policy.

Refer to Table 5 – Policy checklist for new office buildings, major refurbishments & new leases ≥ 2 years..

B3 CONSULTATION WITH DEW

If it is likely to be impractical or not cost effective to achieve 4.5 stars ABGR or an equivalent energy performance standard, then the agency should consult DEW to discuss whether an exception to this policy applies.

Agencies may seek advice from DEW at the draft RFT stage for any development or lease proposals over 2000m² and over 50 per cent of the net lettable area of a building or development. Agencies need to allow up to five working days in their timeline for this assessment process.

DEW-endorsed exceptions are considered to be consistent with this policy but must still be included in the notes section of the agency's annual energy intensity report for the financial year in which leases or contracts are signed. Lower performance standards that are not endorsed must be reported as being inconsistent with this policy.

Refer to Annex C for more information about possible exceptions for short term leases and location, heritage or security or other special circumstances.



TABLE 5 – POLICY CHECKLIST FOR NEW OFFICE BUILDINGS, MAJOR REFURBISHMENTS & NEW LEASES ≥ 2 YEARS (INCLUDING OPTIONS FOR EXTENSION)

For buildings over 2000 m ² , does the RFT and other relevant documentation require:	Y/N	Notes
• The base building to achieve a design rating of at least 4.5 stars ABGR or equivalent? If not, has DEW endorsed a proposal for a lower energy performance standard?		Whole building rating of 4.5 stars ABGR or equivalent is required if the tenant occupies 100% of the building. Base building requirement does not apply where the tenant occupies less than 50% of total net lettable area. No ABGR requirement < 2,000m ² .
 The tenanted area to achieve a design rating of at least 4.5 stars ABGR or equivalent? If not, has DEW endorsed a proposal for a lower energy performance standard? 		No ABGR requirement < 2,000m ² .
• Evidence of the design's potential to achieve the specified ABGR rating or equivalent?		Energy modelling or simulation is essential to demonstrate heat loads for HVAC design and should not incur additional costs. Modelling should also be undertaken when changes are proposed during the design and construction stages and at handover/commissioning. Further verification may also be required if seeking a formal environmental accreditation.
• Lighting intensity average of no more than 10W/m ² or equivalent (preferably 7.5W/m ²)?		Lighting upgrades should not incur an additional upfront cost in new buildings and major refurbishments. If no other work is planned, they are generally cost effective for leases over five years.
 Separate switching every 250m² and energy efficient lighting controls? 		Separate gas and water metering is also recommended for tenancies over 2,000m ² and over 50% of total net lettable area.
• General power intensity average (computers & other equipment) of no more than 9W/m ² or equivalent?		Ensure compliance of office equipment with US EPA 'Energy Star' standard
• Separate digital on market status electricity metering for tenanted areas and central services?		Separate market compliant revenue metering for the tenanted area is optional but highly recommended for energy procurement purposes.

For buildings over 2000 m ² , does the lease or MOU ¹¹ include a mutual obligation to:	Y/N	Notes
• Achieve and maintain the relevant ABGR or equivalent performance standard?		
• Obtain an independent annual ABGR (or equivalent) assessment?		
 Provide access to relevant energy data and building reports? 		
• Establish a formal management committee comprising both tenant and building owner representatives?		BMC is not required where tenant occupies less than 50% of total net lettable area. Representatives need not be located on site.
 Develop an Energy Management Plan outlining the minimum procedures required to maintain the relevant energy performance standard? 		Refer to EMP guide for template and guidance.
• Take remedial action and resolve disputes?		
Are contracts for facility management, tenant advocacy, maintenance, cleaning, security & other relevant services consistent with this obligation?		
Does the type of lease provide an incentive for building owners & tenants to purchase energy efficient plant & equipment and to operate it in a manner that helps both parties to meet their obligations?		Note impact of gross or net lease.
For proposed lease extensions that do not specify 4.5 stars AGBR or equivalent, has the agency:		
Obtained an ABGR or equivalent assessment?		
Provided evidence of market testing?		
 Considered improvement opportunities in consultation with the building owner? 		
For buildings under 2000m ² , does the lease, RFT and other relevant documentation specify:		
 Lighting intensity average of no more than 10W/m² or equivalent (preferably 7.5W/m²)? 		Separate switching every 250m ² , energy efficient lighting controls, and general power intensity average (computers & other equipment) of no more than 9W/ m ² or equivalent are optional but highly recommended.
 Separate electricity metering for tenanted areas and central services? 		Separate market compliant revenue metering for the tenanted area is also highly recommended for energy procurement purposes.

¹¹ MOUs are used when one government department/agency leases premises from another department/agency.

IN GOVERNMENT OPERATIONS (EEGO)

ANNEX C — POSSIBLE EXCEPTIONS TO MINIMUM ENERGY PERFORMANCE STANDARDS

C1 PURPOSE

This guidance note outlines the *Energy Efficiency in Government Operations* (EEGO) Policy's requirements when achieving 4.5 stars ABGR or an equivalent energy performance standard is impractical or not cost effective. This may be due to factors such as: short lease terms; smaller tenancies; location constraints; or specific heritage, security or other design or operational imperatives that limit agencies' bargaining power and capacity to negotiate energy efficiency improvements in existing or new buildings.

C2 PROCESS FOR SEEKING DEW ENDORSEMENT

When seeking DEW endorsement for a lower performance standard, departments, agencies or their representatives should:¹¹

- > demonstrate to DEW how the specific constraint affects the achievement of the default minimum energy efficiency performance standard (4.5 stars ABGR or equivalent);
- nominate an appropriate ABGR rating or equivalent that can be achieved and maintained over the life of the lease or building; and
- > provide supporting documentation.

DEW endorsement is not required for new leases that are less than two years in length (including any options for extension) as they do not need to meet a minimum energy performance standard.

C3 SHORT TERM LEASES (< 2 YEARS)

Short term leases reduce an agency's market power and make it difficult to justify energy efficiency measures requiring longer payback periods. However, it may still be possible and desirable to voluntarily specify 4.5 stars ABGR or equivalent and/or to negotiate minor refurbishments and good energy management practices.

C4 MEDIUM TERM LEASES (2 – 5 YEARS)

Achieving 4.5 stars ABGR or an equivalent energy performance standard for medium term leases of between two and five years may not always be cost-effective. Where this is likely to be the case, agencies should discuss options with DEW to agree an outcome that can be reported as fully consistent with implementation of the policy.

C5 LEASE OPTIONS

Where an agency wishes to exercise a lease option to remain in their current premises, it should obtain an independent ABGR or equivalent assessment. Where the building is found to be operating below the relevant minimum energy performance standard, agencies must able to demonstrate that they have conducted market testing of more energy efficient alternative premises and have tried to negotiate cost effective energy efficiency improvements, preferably as part of a comprehensive voluntary improvement plan.

While exercising a lease option does not generally provide scope to vary the lease agreement, building owners may agree to capital works or changes to energy management procedures that reduce their costs, encourage the tenant to extend the lease or provide other benefits, especially if a refurbishment is planned.

C6 LOCATION CONSTRAINTS

Where an agency has less market power or flexibility due to a policy directive to locate in a specific area or site, it should consult with DEW to consider what can be achieved in a restricted property market. For example, cheaper rent in some regional areas may offset the cost of lighting upgrades or other energy efficiency improvements if the pay back period is less than the lease term, especially where a refurbishment is planned.

C7 HERITAGE, SECURITY OR OTHER CONSTRAINTS

Where a heritage classification, heritage planning scheme, security requirement or other design or operational requirement constrains the integration of internal or external energy efficiency measures, agencies or their representatives should consult with DEW to consider their options or to seek endorsement for a performance standard of lower than 4.5 stars ABGR or equivalent.

Note: Buildings with specific heritage, security and other constraints may have higher maintenance and operational costs that provide extra incentive to minimise energy costs.

¹¹Agencies should allow at least five working days for DEW review of documentation and response.

C8 TENANCY FIT-OUT

A minimum energy performance standard of 4.5 stars ABGR or equivalent for tenant light and power applies when more than 50 per cent of the tenanted area is undergoing a tenancy fit-out.

Even seemingly cosmetic changes, such as painting, recarpeting and changing window dressings, can have a significant impact on heating and cooling loads and lighting requirements. Agencies or their representatives may, however, seek a DEW-endorsed exception as long as the proposed fit-out is not likely to result in increased energy consumption.

C9 EXCEPTIONAL CIRCUMSTANCES

Requests for a lower performance standard may be considered if the government is already committed to an alternative standard or a government decision necessitates an unexpected change to accommodation circumstances with little notice.

However, exceptions are not intended to apply where the problem is caused primarily by a failure to pre-plan accommodation needs or to ensure a sufficient lead time (at least 18-24 months) for the procurement process. In such cases, the Government has little bargaining power is likely to pay far more for energy as well as rent and other outgoings. This does not represent value for money from the government's point of view.



IN GOVERNMENT OPERATIONS (EEGO)

ANNEX D — DEFENCE ENERGY MANAGEMENT STRATEGY

D1 PURPOSE

The aim of this section is to outline the approach being adopted by the Department of Defence to improve its capacity to manage energy across all of its operations. The strategy includes a metering, monitoring and management programme for relevant Defence bases that will facilitate reporting against EEGO's mainstream end use categories by 2011.

D2 BACKGROUND

The Department of Defence accounts for around half of the energy used by the Australian Government and has a significant impact on this sector's energy consumption and greenhouse gas emissions. The Department has sought to improve its energy performance in the past, through initiatives such as the Defence Energy Efficiency Program (DEEP).

Defence bases comprise a wide range of end use facilities that may not be separately metered, such as offices, climate-controlled stores, laboratories, hospitals, accommodation and extensive communications and computer facilities. In recognition of this problem, the 1997 policy established a notional energy intensity target for Defence bases of 2.5 Petajoules per annum.

Energy reporting at bases is further complicated by 24-hour operations and variable operational loads, such as national and foreign ships at berth. Many buildings are also subject to strict heritage and security requirements that constrain potential energy efficiency improvements, such as external shading or natural ventilation.

D3 COMPREHENSIVE PORTFOLIO ENERGY MANAGEMENT STRATEGY

The Department of Defence will develop a comprehensive energy management strategy for the entire portfolio by the end of 2006. It will include:

- integration of energy efficiency considerations into corporate systems, procedures, user behaviour and culture by the end of 2007;
- establishment of a pilot metering, monitoring and management programme for a selection of large Defence bases by the end of 2006;

- development of voluntary improvement plans by the end of 2007, for existing buildings on relevant defence bases which account for approximately 80 per cent of defence energy consumption. The voluntary improvement plans are to identify cost effective opportunities to reduce energy costs and improve overall portfolio energy intensity and will be undertaken in consultation with DEW. They will take into account the approach recommended by the proposed EEGO existing building upgrade strategy; and
- an ongoing awareness and education strategy for all relevant energy users.

The strategy will be reviewed in 2008. A progress report on the pilot project will be provided to Government in 2008 with a recommendation for a roll out of a refined metering, monitoring and management programme for relevant Defence bases responsible for approximately 80 per cent of the Department's energy consumption.

D4 DEFENCE BASES METERING, MONITORING & MANAGEMENT PROGRAMME

The Department of Defence will progressively install sub-meters at relevant Defence bases in order to measure and monitor energy usage and to identify efficiency opportunities, address problems and evaluate outcomes. Installation of meters and ongoing monitoring of energy data will be based on a strategic energy plan that takes advantage of recent improvements in metering technology and expertise.

This will also allow the Department to more accurately calculate and report energy consumption against specific end use categories, such as: office – tenant light & power; office – central services; climate-controlled stores; and laboratories, rather than being incorporated into a single 'Defence bases' category.

Defence will liaise with DEW to ensure that the programme takes into account the results of scoping studies for non-office buildings and computer centres.

End uses, such as drill halls, hospitals and depots, that do not fit into other specific end use categories will continue to be reported under the 'Defence bases' category.

Any recommendations for changing the name and definition of the 'Defence bases' end use category will be communicated to DEW for inclusion in reviews of the EEGO policy in 2008 and 2011.

The 2006 EEGO policy does not include an aggregate energy consumption target for the 'Defence bases' category due to its diverse nature and the impact of highly variable internal and external operational demands on power consumption.

Defence will continue to report against end use categories that do not rely on the implementation of the Defence bases metering, monitoring and management programme. These categories include: passenger vehicles; other transport; Defence operational fuels; and other uses.

ANNEX E — EEGO IMPLEMENTATION SUPPORT TOOLS

- ESD Design Guide for Australian Government Buildings (DEW 2005) outlines the principles of environmentally sustainable building design and describes a wide range of ESD opportunities, including energy use, ozone depletion, waste minimisation, water conservation, biodiversity, indoor air quality and occupant comfort. It is supported by numerous photos, diagrams and detailed case studies that highlight recent success stories in the public and private sectors.
- Considerations for incorporating energy efficiency into requirements for Australian Government owned and leased buildings (DEW 2006) provides an overview of the environmental impacts of office buildings and stresses the importance of incorporating sustainability goals as early as possible in the design process. It also provides case studies and handy tips on monitoring and managing the design and construction process from concept to handover and acceptance to ensure that such goals are integrated into the design process and are not compromised along the way.

A detailed template of possible design & construction specifications assists agencies and their representatives in developing statements of requirements to achieve specific energy efficiency goals related to the site layout, building envelope, central services, tenancy fit-out, metering and landscaping.

Green Lease Schedule (GLS) templates define building owner & tenant responsibilities and establish a cooperative measurable and enforceable framework for ongoing energy management and achievement of target energy performance standards. The specific template clauses in each schedule vary according to the floor area of the tenanted area and the per centage of the net lettable area involved. *GLS practice notes* assist property managers and lawyers in negotiating an effective lease schedule without compromising the original intent of the EEGO policy or energy efficiency outcomes.

- Energy management guide for Australian Government owned and leased buildings (DEW 2006) includes an energy management plan template & checklists to help building owners, tenants and other key stakeholders to identify and review critical management practices, energy data and building reports on a regular basis and to conduct walk-through audits. The guide also includes suggestions for employee education & awareness strategies and new staff orientation.
- Information sheets and other publications on topics such as:
 - the hidden costs of poor energy management;
 - the importance of separate on market status digital metering;
 - developing voluntary energy improvement plans for existing buildings;
 - purchasing energy efficient appliances and fleet vehicles; and
 - linking to other sustainability issues and reporting frameworks.

Many other support tools and energy management publications are available via the AGO website, such as: the Working Energy Guide; environmental purchasing and other checklists; Greenhouse Challenge & Greening of Government publications. The ABGR, AEPCA, state/ territory government and relevant industry association, professional institute and other websites also provide useful information.