

# ENERGY EFFICIENT GOVERNMENT BUILDINGS

BE ENERGY SMART. THE FUTURE IS IN OUR HANDS.

Guidelines for the implementation of the 15% energy reduction target and the purchase of 5% Green Power for Government buildings.



**SUSTAINABLE  
ENERGY  
AUTHORITY**



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# Introduction

Global warming and climate change are now key environmental issues. How the world responds to these issues will affect future generations and the future of our environment. Per capita, Australia's greenhouse gas emissions are the highest in the world.

The Victorian Government is committed to pursuing a comprehensive strategy to reduce greenhouse gas emissions within Victoria. A key element of this is tackling emissions arising from Government operations. To this end, the Government has established the following targets for reducing greenhouse gas emissions within Government buildings.

- ▶ Reducing energy use in Government buildings by 15% by the financial year 2005/06.
- ▶ Committing Departments and Statutory Authorities to purchase 5% of their electricity as Green Power.

As a package, the two initiatives constitute a significant step towards more sustainable energy use within Government operations, by reducing energy use and increasing the use of renewable energy forms.

The initiatives also make good economic sense. The energy reduction target will be achieved through cost-effective actions and will lead to cost savings estimated at \$5 million by 2005/06, with ongoing savings of \$11.5 million per annum.

These initiatives are important as a demonstration of the Government's commitment to effective greenhouse action and provide strong leadership to the community. They build on the voluntary energy management programs that have already been adopted by a number of Government agencies.

Each Department and Statutory Authority will be accountable for the implementation of these initiatives within their operations and will have the flexibility to determine and pursue the most cost-effective options within their areas of responsibility.

The Sustainable Energy Authority will assist Departments and Statutory Authorities with the implementation of this policy and will prepare whole-of-government reports on progress with implementation.

We can all be more energy smart in the way we do things. These guidelines will help Departments and Statutory Authorities to play their part and realise the many benefits of energy efficiency and renewable energy technologies.

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# Key features of government energy targets

## 15% ENERGY REDUCTION TARGET

- ▶ The target applies to the energy used in buildings owned and/or occupied by each Department and Statutory Authority within the general government budget sector. Examples of facilities covered are offices, schools, TAFEs, police stations, prisons, courts, research facilities, hospitals and health and community services. Excluded are public housing and small-scale residential services.
- ▶ The base year for the target is 1999/2000. Agencies can seek an adjustment to their baseline, to provide credit for early action and/or take account of factors impacting on levels of energy use and intensity over the target period. Adjustments will also be considered in the event that an individual Department or Statutory Authority can demonstrate that it would be unable to deliver the full 15% target through cost-effective measures (i.e. with paybacks of five years or less).
- ▶ Measures undertaken to meet the 15% target are to be funded out of existing Departmental and Statutory Authority budgets or through external sources of funding, as determined by Departments and Authorities, and savings arising from energy reduction measures will be retained by Departments and Authorities.

## 5% GREEN POWER PURCHASE TARGET

- ▶ The 5% target for Green Power purchase applies to all electricity contracts entered into by Departments and Statutory Authorities, with the exception of those for the supply of electricity to acute health services (and other co-located services). The 5% Green Power purchase will be phased in over the period to 2005/06, as new government electricity contracts commence.
- ▶ The cost of the 5% Green Power purchase will be built into the electricity bills of each Government agency and is to be funded directly from existing agency budgets.

## INITIAL REVIEW OF IMPLEMENTATION

- ▶ A review of the agency-by-agency implementation arrangements for the 15% target will commence in February 2002 with a report to Ministers in April on issues including: the likely capacity of individual Departments or Statutory Authorities to deliver the full target through cost effective measures; and the implications of adjusting targets to provide credits for early actions.

## ANNUAL REPORTING

- ▶ Departments and Statutory Authorities are to provide electronic reports annually to the Sustainable Energy Authority relating to their total energy use, implementation of the 15% energy reduction target and the extent to which their operations are covered by the 5% Green Power purchase. Reporting procedures are detailed further in these guidelines and a database will be provided by the Sustainable Energy Authority.
- ▶ The Sustainable Energy Authority will provide Ministers with an annual report on implementation across government of the 15% energy reduction target and the 5% Green Power purchase target, and will also prepare an annual public report on a whole-of-government basis.

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# Objectives

The 15% energy reduction target and 5% Green Power purchase are intended to achieve three objectives:

- ▶ to demonstrate the Government's commitment to effective greenhouse action and provide strong leadership to the community;
- ▶ to reduce greenhouse gas emissions arising from the Government's operations; and
- ▶ to drive cultural change across all Government agencies with respect to improvements in energy management and the integration of environmental considerations.

Energy reduction targets will realise carbon dioxide (CO<sub>2</sub>) savings that can be achieved through cost-effective action, without compromising productivity and working conditions, and will assist in holding down electricity costs within the Government budget sector over the medium term.

The Green Power purchase target will reduce CO<sub>2</sub> emissions and will support the development of the Victorian renewable energy industry.

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# Review of implementation arrangements for the 15% energy reduction target

The Sustainable Energy Authority will prepare a report by April 2002 on agency-by-agency implementation arrangements for meeting this important initiative. To facilitate this, all Departments and Statutory Authorities will need to provide the Sustainable Energy Authority with details regarding their implementation planning by 1 February 2002.

This initial report from Departments and Authorities will include the following information.

## **Energy use data**

For each facility/building within the property portfolio of the Department/Authority, provide data on total energy use (and associated greenhouse gas emissions), staff numbers and floor areas. Two years data is required including;

- ▶ the financial year 1999 to 2000 (baseline year) and
- ▶ the financial year 2000 to 2001.

If these figures are not known, a benchmarking study should be used to establish them. The electronic energy management database GEMtool (Government Energy Management tool) can be used to assemble the data.

The electronic reporting tool EDGAR (Energy Data Gathering and Reporting) must be used to provide the data to the Sustainable Energy Authority.

## **Claim for baseline adjustment**

Details of any claim for baseline adjustment including any adjustment for early actions.

## **Progress towards implementation**

Details of actions already undertaken to implement the energy reduction target—the initial implementation steps are outlined in more detail on pages 7–9. Those completed by February might include:

- ▶ adoption of a strategic corporate approach and formal energy management policy;
- ▶ appointment of an energy manager or management team;
- ▶ baseline study undertaken and establishment of a data monitoring and tracking system;
- ▶ identification (via energy audits) and implementation of energy savings projects; and
- ▶ introduction of staff awareness initiatives.

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## RECOGNITION OF EARLY ACTION

Agencies will need to notify the Sustainable Energy Authority by February 2002 if they wish to seek to have prior action recognised for the purposes of the target. These applications will be assessed and determined by the Sustainable Energy Authority on a case-by-case basis, and by reference to the following principles:

- ▶ the action represented a significant commitment to improved energy efficiency and energy management;
- ▶ the action was part of a planned approach to energy management rather than a one-off, incidental saving; and
- ▶ the primary purpose of the action was to reduce energy consumption and recurrent cost.

Departments and Statutory Authorities that can demonstrate significant action and that have achieved substantial reductions prior to 1999/2000 will be provided with an option of nominating an alternative base year or will gain credits for early action. An applicable base year may be the year before the Department or Statutory Authority commenced the program.

Based on the information received from Departments and Statutory Authorities, the Sustainable Energy Authority will compile a report surveying the status of implementation arrangements and addressing issues such as:

- ▶ the likely capacity of individual Departments or Statutory Authorities to deliver the full target through cost-effective measures; and
- ▶ the implications of claim for early actions.

# 15% energy reduction target

## AGENCIES COVERED BY THE 15% ENERGY REDUCTION TARGET

Departments and larger Statutory Authorities within the general Government budget sector are required to implement the 15% target within their organisations. Included within the target are facilities such as offices, schools, TAFEs, police stations, courts, prisons, research facilities, hospitals and health and community services. The Government Budget sector includes entities which source 50% or more funding through appropriations, and which are directly accountable through Ministers to Parliament. The target will cover both existing and proposed (i.e. new occupation) facilities.

It should be noted that where small budget-sector Statutory bodies are co-located within Departmental buildings, these activities should be included within the Departmental data.

For a list of agencies covered refer to the Sustainable Energy Authority website at [www.seav.vic.gov.au](http://www.seav.vic.gov.au)

Outsourcing the management of a facility to a third party (i.e. external property manager) will not exempt it from the target and reporting requirements.

## FACILITIES NOT INCLUDED IN THE TARGET

There are specified limited exemptions to the target. The 15% energy reduction does not apply to public housing and small-scale residential services managed by the Department of Human Services (e.g. group homes). These facilities are to be identified by reference to the classification system adopted by the Department of Human Services in the Capital Development Guidelines Series 7 (and as amended from time to time). The categories that are exempted from the target are: Category 4 Supported Community-Based Homes; Category 7 Community Based Homes; Category 8 Single Dwelling; Category 9 Boarding House; and Category 10 Multi-Storey Housing.

Improvements to energy efficiency in these facilities shall continue on a voluntary basis via such means as client/staff energy awareness and through specifying standards for new residential stock.

In addition, small budget-sector Statutory Authorities, below a threshold of ten full time equivalent staff, will not be subject to the formal requirements of the 15% energy reduction target but will be encouraged to undertake energy management actions.

There are a number of non-budget sector Statutory Authorities that are already actively pursuing energy management programs. The Sustainable Energy Authority will continue to work with these and to encourage them and other Government Agencies to participate in the Energy Smart Government program.

## IMPLEMENTING THE 15% ENERGY REDUCTION TARGET

Energy management must be seen as a continuous process. It is a series of well-planned actions aimed at reducing recurrent energy costs of Government and reducing detrimental greenhouse gas emissions.

There are two central energy management strategies;

- ▶ **conservation:** the avoidance of wasteful energy use and the reduction in demand for energy-related services (e.g. if you don't need it—turn it off). This is achieved mainly through changes in operational practices and increased staff awareness;
- ▶ **efficiency:** the reduction in consumption of energy by introducing more efficient equipment and systems (e.g. if you need it—do it more efficiently). This is achieved mainly through the acquisition of efficient new equipment/plant and the energy efficient design of new facilities.

Appropriately-applied energy management strategies will lead to a reduction in the costs of delivering government services, meet the target requirements and improve the quality of services provided.

## KEY STEPS TO IMPLEMENTING THE ENERGY REDUCTION TARGET

The following is an overview of the key steps Government Agencies should undertake to implement the energy reduction target.

### 1. Identify a strategic corporate approach

An energy management program should be strategically designed to suit your organisation. This strategy should:

- ▶ include high-level commitment from senior management;
- ▶ recognise that energy reduction is an important key result area;
- ▶ provide for adequate staffing and financial resources; and
- ▶ provide resources that can be directed to monitoring, tracking and reporting energy use.

This strategic corporate approach is the starting point.

### 2. Formalise an energy management policy

A written energy management policy comprising the major points of this guideline is required. The policy can take the form of an overarching environmental policy that addresses energy management, or can be a simple declaration of the organisation's commitment to reduce energy.

### 3. Appoint an energy management team

An energy manager or energy management team should be appointed to ensure someone in the organisation is directly responsible for energy use. Depending on the size of the organisation, the roles within the team can vary. The energy manager or team are 'change agents' for the organisation.

### 4. Set up a monitoring and reporting system

A management system should be set up to collect, analyse and report the organisation's energy cost and consumption. This system is distinct from the EDGAR energy reporting system. In the first instance Departments and Statutory Authorities should carry out a benchmarking exercise to establish total energy use, greenhouse gas emissions, staff numbers and floor areas of each facility within the organisation. For the purposes of reporting, the base line is 1999/2000. To assist this exercise the Sustainable Energy Authority has an energy management database freely available for use within Departments and Agencies.

By February 2002, all agencies covered by the target should provide this benchmarking data to the Sustainable Energy Authority in electronic format.

## 5. Undertake energy audits

An energy audit will include a survey and review of energy using systems, an analysis of energy using systems and the preparation of an energy budget. The audit report will form the basis of actions that will result in energy and cost savings actions. Energy audits can be carried out by professional engineers or by employees of the organisation. The Sustainable Energy Authority has assembled a panel of contractors to carry out energy audits and project management of energy savings projects.

## 6. Implement a staff awareness program

Motivating staff to save energy is a key aspect for ensuring the 15% energy reduction target is realised. It is vital that organisations develop a program that enlists the cooperation of staff. In tenancies, staff can have direct control over nearly all of the electrical load. There are also likely to be broader benefits as employees who are motivated to save energy at work may be more motivated to save energy at home.

## 7. Develop and implement a plan to realise energy saving projects

Following from strategic energy audits and information gathered as part of the staff awareness program, a detailed plan should be developed to ensure that energy saving opportunities are fully realised. The detailed implementation plan should be endorsed by senior management and should provide time-lines and state budgetary and funding requirements. Concurrently with the energy saving work, the organisation should ensure that good housekeeping practices are being followed, energy is being purchased at the best price and the best performance is obtained from plant and equipment.

There will be initial costs to departments and statutory authorities in the identification and implementation of energy saving projects. This will mainly involve capital expenditure for energy audits and implementing energy saving projects.

A systematic approach must be taken to the implementation plan to set priorities that will deliver long-term cost effective savings. Experience has shown that for many energy management actions the payback on this initial investment will be realised in approximately two years. Net savings will then be achieved through the adoption of improved energy efficiency in government building operations.

**Note: The 15% reduction in energy use must be consistent with a similar reduction in greenhouse gas emissions. Agencies will need to ensure that energy management options do not have the effect of increasing greenhouse gas emissions whilst reducing energy use.**

Measures undertaken to meet the 15% target shall be funded out of existing Department and Statutory Authority budgets or through external sources of funding, as determined by Departments and Authorities, and savings arising from energy reduction measures shall be retained by Departments and Authorities. Energy performance contracts (EPC) are an acceptable form of third-party funding, however due diligence and care should be paramount when documenting, tendering and negotiating EPCs.

## 8. Report and review energy use/reduction

Reviewing the progress towards meeting the energy management targets and strategies in light of the results achieved so far, will form the basis for developing an implementation plan for the next 12 months.

The Sustainable Energy Authority will provide all Departments and Statutory authorities with the web-based Energy Data Gathering and Reporting tool (EDGAR) for this purpose. This tool was developed by the Commonwealth Department of Industry Science and Resources, and has been customised to reflect Victoria's greenhouse gas intensity and the reporting requirements of the 15% energy reduction target.

Each Department and Authority must use this EDGAR tool to report: all site details, annual energy consumption and cost; floor area; number of staff; and other relevant data. A separate, secure home page will be provided for this purpose.

Energy use must be recorded throughout the year (using the monitoring and reporting system as outlined in point 4 above) and reported via this mechanism.

### *Procedures for obtaining a variation to the baseline*

Variations to the baseline may be required from time to time in response to changes in agency responsibilities, staff numbers, facilities, adoption of new technology etc.

Departments/Authorities should be mindful of these issues and notify the Sustainable Energy Authority if modifications to base-year data are indicated.

### *Energy normalisation factors*

The normalisation factor for energy use and greenhouse gas emissions in offices will be net lettable area (square metre) as defined by the Property Council of Australia. Other facilities shall use a normalisation factor of gross floor area (square metres).

The aggregate energy usage will be reported in gigaJoule (GJ).

Total portfolio energy use per floor area will be measured in megaJoule per square metre per annum (MJ/m<sup>2</sup>/pa) and megajoule per full-time equivalent (FTE) staff member per annum (MJ/FTE pa). For specific facilities such as schools it may be appropriate to report on energy use per student and hospitals may also find other reporting measures useful.

Total portfolio greenhouse gas emissions will be measured in kilograms of CO<sub>2</sub> per square metre per annum (CO<sub>2</sub> kg/m<sup>2</sup> pa) and kilograms of CO<sub>2</sub> per FTE staff member (CO<sub>2</sub>/FTE) (or CO<sub>2</sub>/student etc).

The Department/Agency must report the floor area of entire building use or tenant light and power. Use net lettable area for office space, gross floor area for other facilities.

### *Adjustment of target in cases of hardship:*

Where a Department or Statutory Authority can demonstrate that it is unable to achieve the target through cost-effective actions (i.e. with paybacks of five years or less), it can apply to the Sustainable Energy Authority for an adjustment to its target. Applications must be received before the first annual reporting period, i.e. 31 October 2002.

# 5% Green Power purchase target

## AGENCIES COVERED BY THE 5% GREEN POWER PURCHASE TARGET

The Green Power purchase target covers all electricity contracts entered into by Departments and Statutory Authorities within the general Government budget sector, with the exception of those facilities noted below. The Government Budget sector includes entities which source 50% or more funding through appropriations and which are directly accountable through Ministers to Parliament.

## FACILITIES NOT INCLUDED IN THE TARGET

There are specified limited exemptions to the target. The target does not apply to the supply of electricity to acute health services, i.e. public hospitals and sub-acute and aged-care services where these are co-located with public hospitals.

There is broad public interest in ensuring that acute health services maintain high standards of environmental performance, including energy efficiency. A number of major Victorian hospitals also utilise cogeneration as a means of electricity production. Cogeneration is a method of electricity generation that is less greenhouse gas intensive than that generated from brown coal. The Department of Human Services and the Sustainable Energy Authority are presently undertaking cogeneration feasibility studies for hospitals.

## IMPLEMENTING THE 5% GREEN POWER PURCHASE

All electricity contracts entered into by Departments and Authorities, whether or not the purchases are made through the centralised contracts administered by the Department of Treasury and Finance, must contain a proportion of 5% Green Power. This purchase will apply to new contracts and amendments to existing contracts or renegotiations on expiry.

### **Green Power specifications**

The following specification should be used as a guide to purchasing Green Power. The green electricity products and generators must be recognised under the National Green Power Accreditation Program. This Program requires that 70% of the Green Power sold is from new sources, that is, generators commissioned after 1 January 1997.

The electricity contractor should be requested to specify:

- ▶ the total cost for Green Power in cents per kilowatt hour, for each year of the contract;
- ▶ the geographical location of each Green Power generator;
- ▶ the type of generation of each source of Green Power;
- ▶ the expected percentage of each source of Green Power by generator; and
- ▶ the expected percentage of 'new' Green Power.

Different Green Power sources may be phased in over the term of the contract. As new renewable sources become available, information including quantity and timing, and details of the sources, must be provided to the customer.

The 5% Green Power purchase will be funded directly from existing Department and Statutory Authority budgets.

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# Reporting progress towards the targets

Departments and Statutory Authorities shall provide reports annually to the Sustainable Energy Authority. This report will provide total building energy use and related greenhouse gas emissions; staff numbers; and floor areas of each facility within the Department or Statutory Authority.

The EDGAR software tool should be used for reporting internally within agencies and for compiling whole-of-government reports. To enable consistent and uniform reporting all Departments and Statutory Authorities are required to report via this means.

The Sustainable Energy Authority will consolidate these reports and provide Ministers with an annual report on the implementation of the 15% energy reduction target and the 5% Green Power purchase target across Government. This report will form the basis of an annual whole-of-government public report. Major variance due to changes of Department/Agency activity will also be noted and a brief explanation provided.

Annual Reports to the Sustainable Energy Authority must be provided by 31 October each year for all Departments and Agencies, with the exception of the Department of Education, Employment and Training who will provide this information by the end of February each year.

Where a branch/unit of a Department is reorganised under another Department during any part of one year, the energy use will be reported by the second Department in the reporting period, as if that branch/unit had been in the Department for the full year.

**An initial report on implementation arrangements and the establishment of baseline issues will need to be completed by all Departments/Authorities and forwarded to the Sustainable Energy Authority by February 2002.**

A base year of 1999/2000 will be used for reporting. Departments and Statutory Authorities that can demonstrate significant action and that have achieved substantial reductions prior to 1999/2000, will be provided with an option of nominating an alternative base year or will gain credits for early action. An applicable base year may be the year before the Department or Statutory Authority commenced the program.

The energy consumption reporting principles (see page 12) will apply for all premises (leased and Government owned) that are occupied by agencies covered by this target. Consistent reporting methodology is required to enable accuracy across Departments and Agencies over a period of time. In particular, there is potential for confusion with regard to tenancy arrangements.

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**Each Department/Authority will report:**

- ▶ the entire building energy usage where they occupy and manage the entire Government-owned building. Data will either be available directly from the energy retailer or, for some buildings, via the Victorian Government Property Group. Facilities where energy is recurrently funded from Victorian Government budget allocations (irrespective of ownership (i.e. public hospitals and TAFEs) will be considered under this clause;
- ▶ the entire building energy usage where they occupy and manage the entire leased building. (including central services such as air conditioning, lifts, external lighting, etc.);
- ▶ light and power usage only for:
  - ▷ their tenancies in multi-tenanted all leased buildings (i.e. air conditioning is paid for as part of the lease agreement). Energy use data will either be available direct from the energy retailer or, for some offices, via the Victorian Government Property Group;
  - ▷ their tenancies in multi-tenanted Government-owned buildings. Data will either be available direct from the energy retailer or, for some offices, via the Victorian Government Property Group.
- ▶ where multiple tenants occupy a single building with common electricity and gas meters for all tenants, an energy consumption apportionment will be based on tenancy floor area, until a more accurate method of measurement is obtained. Where necessary, submeters should be installed to ascertain true energy usage for tenants;
- ▶ a number of Departments have small statutory bodies co-located within Departmental buildings. To avoid duplication and administrative complexity, these agencies should be included within each Department's targets.

**The Victorian Government Property Group will report on:**

- ▶ the common area/central services energy usage for Government-owned office buildings managed directly by them.

**MONITORING IMPLEMENTATION/INTERIM TARGETS**

It is important that all agencies work consistently over the target period, including setting and achieving short-term targets.

The following interim targets are to be used by Departments and Statutory Authorities to check and measure progress:

- ▶ 3% reduction in energy use by year 1 (end financial year 2001/2002)
- ▶ 6% reduction in energy use by year 2 (end financial year 2002/2003)
- ▶ 9% reduction in energy use by year 3 (end financial year 2003/2004)
- ▶ 12% reduction in energy use by year 4 (end financial year 2004/2005)
- ▶ 15% reduction in energy use by year 5 (end financial year 2005/2006)

# Department/Authority annual report

Using the data collated in the Energy Data Gathering and Reporting tool (EDGAR), Departments and Statutory Authorities should include energy performance and progress towards the energy usage targets within their annual report. This energy performance should be submitted in the form of a report provided as part of the annual reporting process. This option is not mandatory however it demonstrates the Departments' and Statutory Authorities' commitment to reducing energy and greenhouse gas emissions.

An Appendix to the Financial Report will be included to detail the following information.

<b>Total energy</b>	<b>Total consumption (GJ)</b>	<b>Cost (\$)</b>
Electricity	XX	XX
Natural gas	XX	XX
LPG	XX	XX
Other energy	XX	XX
TOTAL	XX	XX
<b>Energy/greenhouse gas emissions intensity</b>	<b>(base financial year)</b>	<b>(this financial year)</b>
Total area of building portfolio	XX	XX
Energy intensity per area (MJ/m <sup>2</sup> )	XX	XX
Energy intensity per FTE staff (MJ/FTE staff)	XX	XX
Total greenhouse gas emissions intensity (CO <sub>2</sub> kg/m <sup>2</sup> )	XX	XX
Total greenhouse gas emissions per staff member (CO <sub>2</sub> /FTE staff)	XX	XX
Total of light and power (floor area m <sup>2</sup> )	XX	XX
Total of all energy costs (\$)	XX	XX
<b>Implementation measures</b>	<b>(this financial year)</b>	
Number of major energy saving projects implemented >\$10 000 (number)	XX	
Total cost of implementation (\$)	XX	
Total energy savings—electricity (GJ and percentage)	XX	XX%
Total energy savings—natural gas (GJ and percentage)	XX	XX%
Total energy savings—LPG (GJ and percentage)	XX	XX%
Total energy savings—other fuel sources (GJ and percentage)	XX	XX%
Greenhouse gas emission savings (tonnes CO <sub>2</sub> and percentage)	XX	XX%
<small>(Savings relative to the base year)</small>		

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# New construction and leases

It is recognised that the most opportune time to achieve energy reductions in a portfolio is when constructing new facilities or leasing new buildings, or entering into new leases of existing buildings. As a major property owner/occupier the Victorian Government has a significant role in leading by example with the new property market.

Departments/Authorities that are involved at the development stage of a project have an opportunity to ensure that energy reduction considerations are incorporated into the design of the building. This is particularly important for agencies that have direct responsibility for, and management of, government building projects. However, there are also opportunities for Departments/Authorities to influence the supply of energy efficient buildings as tenants by specifying energy efficiency as part of their leasing arrangements.

Attention to the detail necessary to design for energy efficiency can provide many other benefits such as high amenity, lower maintenance costs, higher staff productivity and complementary capital cost savings.

The Sustainable Energy Authority has developed a *Building energy brief* which discusses the approaches and considerations for maximising the energy efficiency of new buildings. The *Building energy brief* should be used by Departments/Authorities when building or commissioning new buildings.

Life cycle costing assessment of building options, in terms of the energy use requirements and outcomes for those occupying the building, will be necessary for Government Agencies that commission or build new buildings, and also for those negotiating leases on new or existing buildings. A Practice Note dealing with the application of life cycle costing/assessment is being developed by the Sustainable Energy Authority to assist Departments and Statutory Authorities assess existing buildings and building designs with a view to pursuing low energy building options. Life cycle costing will be most important for new construction projects where there must be consideration of both the capital costs of incorporating some level of energy efficiency, and the ongoing operating costs of the energy that will be used within that building. This assessment will vary according to building type. For example, while more energy efficient office buildings can be constructed with little or no additional capital costs, projects such as hospitals may require additional capital investment but can also provide significant paybacks due to their high operating costs.

In addition to the assessments outlined above, Departments and Statutory Authorities should ensure that new buildings or buildings that are the subject of new leases, must achieve at least a 3 star Building Greenhouse Rating (not including any Green Power purchases). The Sustainable Energy Authority administers the Building Greenhouse Rating Scheme which can be used to assess the greenhouse performance of an existing building, and to identify ways in which greenhouse performance can be improved.

For all new property leases through the Victorian Government Property Group, the *Office accommodation guidelines* and *Office building standards guidelines* should be referred to for further details.

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# Assistance from the Sustainable Energy Authority

The Sustainable Energy Authority is a Victorian Government agency established to promote energy efficiency and support and facilitate the development and use of renewable energy. Its aim is to achieve environmental and economic benefits for the Victorian community.

The Sustainable Energy Authority will work in partnership with Departments and Statutory Authorities to pursue energy savings in recurrent cost and greenhouse gas reductions through sound energy management programs. Support is available to Departments/Authorities to meet the requirements of the Energy Efficient Government Buildings targets.

The Sustainable Energy Authority can help your Department or Statutory Authority in various ways.

Assisting in:

- ▶ establishing an inventory of energy usage for buildings and identifying the potential for savings;
- ▶ structuring a specific program to reduce costs associated with energy usage;
- ▶ developing Department/Agency energy management policy; and
- ▶ developing an implementation plan.

Advising on:

- ▶ developing and training an energy management team;
- ▶ adopting energy efficient best practice measures in new buildings and fitouts; and
- ▶ purchasing energy efficient office equipment and appliances.

Providing:

- ▶ energy audits and seed funding as necessary;
- ▶ an electronic database to allow accurate reporting as well as monitoring and tracking energy consumption;
- ▶ training and seminars on energy management including Government Energy Managers Network (GEMnet) meetings, seminars, workshops and programmed training.
- ▶ the *Building energy brief* to facilitate new construction and fitouts; and
- ▶ the Building Greenhouse Rating Scheme.

Developing:

- ▶ a staff awareness program specific for Departments or Agencies.

Appropriately-applied energy management strategies will lead to a reduction in the costs of delivering government services and a reduction in greenhouse gas emissions.

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# Further information

The Sustainable Energy Authority is able to assist all Departments and Statutory Authorities establish and operate energy management programs. For further information relating to energy management, please contact:

Sustainable Energy Authority  
Ground floor, 215 Spring Street  
Melbourne Victoria 3000

**T** 1300 363 744

**F** (03) 9655 3256

[www.seav.vic.gov.au](http://www.seav.vic.gov.au)

## ADDITIONAL READING

*Victorian greenhouse strategy: Discussion paper* (2000), Department of Natural Resources and Environment

*Property Council of Australia energy guidelines* (2001), Property Council of Australia

*Energy smart government: Identifying cost-effective opportunities in Government buildings* (2001), Sustainable Energy Authority Victoria

*Building energy brief* (2001), Sustainable Energy Authority Victoria ([www.seav.vic.gov.au/building/ESCB/brief](http://www.seav.vic.gov.au/building/ESCB/brief))

*Energy smart building design: A directory of building professionals* (2000), Sustainable Energy Authority Victoria ([www.seav.vic.gov.au/building/ESCB/directory](http://www.seav.vic.gov.au/building/ESCB/directory))

*Energy smart building design: How to make it happen* (2001), Sustainable Energy Authority Victoria

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