

ENRAMS Australia's energy audit services are tailored to identify the latest technologies and cost effective opportunities to reduce energy consumption.

Our Energy Efficiency Audit looks at the main use of energy within a building or facility to provide an analysis of cost-effective energy efficiency opportunities.

We offer three levels of audits based on the Australian Energy Audits Standard AS/NZ 3598:2000.

### Audit Level 1

An introductory first step assessment investigating cost-effective energy saving opportunities. It provides an assessment of the overall energy consumption of a site, benchmarks the energy consumption as reasonable or excessive and allows for energy measures to be tracked and evaluated.

This audit provides a cursory guide to potential savings and costs at an accuracy of  $\pm 40\%$

### Audit Level 2

Provides a more detailed assessment of your pattern of energy usage and a more comprehensive energy saving and costing analysis. It includes a greater assessment and detailed descriptions of relevant energy efficient technology. It is intended for sites that have some knowledge of energy efficiency and energy management and require a detailed assessment of opportunities to reduce their energy consumption.

It identifies the sources of energy for a site, the amount of energy supplied, and what the energy is used for, via tracking and some monitoring. It also identifies areas where savings may be made, recommends measures to be taken, and provides a statement of costs and potential savings.

This audit provides a preliminary assessment of costs and savings at an accuracy of  $\pm 20\%$ .

### Audit Level 3

Provides a comprehensive analysis of energy usage, savings and costs. It incorporates both tracking and monitoring, and may cover the whole site or focus on an individual operational area. The results identified within the report require an appropriate level of accuracy and economic analysis to justify capital investment by stakeholders.

This audit provides a firm estimate of saving and costs at an accuracy of  $\pm 10\%$

**An Energy Efficiency Audit provides organisations with three direct benefits:**

**Financial** gains accrued from low, medium or high cost investment measures. These can be realised in several ways and are not only dependent on investment. These include reduced expenditure on energy, reduced maintenance costs, savings in other costs, improved employee well-being and more.

**Operational** Benefits: in addition to direct operational cost, further benefits can be achieved from the information being made available to upper management. This is beneficial in asset planning and decision making, all of which can lead to improved workplace efficiency. These can include reduced maintenance or increased productivity, long term options involving major refurbishment or influencing future policy on design and operation, and planning for a more effective approach to ongoing energy management.

**Environmental** Benefits: these arise from using energy more efficiently, therefore reducing greenhouse gas emissions, reduction of environmental impacts related to energy, a reduction of regional and national energy demand and conservation of natural resources.

**Key deliverables guide of, and the differences between, a Level 1 and Level 2 Energy Audits**

Deliverables	Level 1	Level 2
Verbal report	Yes	Yes
Abbreviated report	Yes	No
Full analysis & report	No	Yes
Metering	No	Desirable
Formal presentation to senior managers	No	If requested
Provision of an itemized and prioritized list of recommendations to reduce energy consumption	Yes	Yes
Level of detail of recommendations for implementation	Recommendations for further action if relevant	Recommendations with brief description of necessary works
Analysis and benchmarking of 24 months bills	Yes	Yes
Preparation of energy consumption profiles	Yes	Yes
Preparation of energy consumption targets and indicators	No	Yes
Site visit and commenting on major wastes	No	Yes
Tariff analysis	Yes	Yes
Listing of major energy users	No	If relevant to audit
Model of energy use	No	If requested
Daily load curves for the site	No	Yes
Daily load curves for major plant	No	If requested
Measurement of light levels	No	Yes
Monitoring of temperature and other key indicators	No	No
Detailing key aspects of building fabric	No	Yes
Implementation specifications	No	If requested
Tariff negotiations with utilities	No	If requested
Bill monitoring for 18 months after report handover	No	If requested

Source Australian Standard AS/NZ Ver 3598:2000 (Appendix C).