

Heron Island Research Station (HIRS) Energy Management Program

1. Scope

This program is limited to management of electricity as an energy source.

2. Objectives

- To minimise the energy consumed by the Heron Island Research Station by identifying areas of wastage and possibility for minimisation and implementation of systems through an auditing and monitoring programme;
- Define responsibilities and budget allocations for energy management;
- To ensure that all relevant licences, permits and approvals are in place regarding energy management activities; and
- To determine the Heron Island Research Station's energy management performance when judged against current, relevant industry standards

3. Energy Minimisation Strategies

3.1 Energy Monitoring

The amount of energy utilised at the Heron Island Research Station is monitored through daily electrical readings.

3.2 Energy Auditing

Energy audits are conducted to identify areas of energy wastage. Results of energy audits are used to determine further actions, if necessary, and which strategy is most suited to addressing the identified issue.

Energy audits shall be conducted in accordance with the procedures set out in *The University of Queensland Auditing Manual* (Held by Environmental Services, Property and Facilities Division).

For further information on the environmental auditing program, contact Environmental Services, Property and Facilities Division on Ext 51587.

3.3 Technology and Equipment

When new equipment is being purchased, energy ratings should be taken into account. New technology, plant and equipment are often more energy efficient. Examples of measures that may be taken include:

- Purchase of high-energy rated white goods; and
- Purchase and installation of low-energy bulbs.

Selection of larger installed plant, electrical circuitry and wiring, etc should be looked at as part of the briefing process for any significant projects.

3.4 Control Systems

All large energy consuming plant should be controlled to minimise run times to hours it is needed. Control systems can also be used to make the plant run more efficiently.

Systems to be implemented include:

- Set point relaxation of cooling plant;
- Timers for running of plant. Timers should commence on a push button system and run for a period of one hour; and
- The use of off peak hot water systems.

3.5 Education

An educational campaign is in place to focus the users of Heron Island Research Station on energy conservation. The campaign includes:

- Awareness campaigns in the form of posters and notices reminding to turn off lights and the operation of other energy consuming items.
- General Energy Management training as part of the EMS training and awareness. *(Refer to the Training Program in this manual for further information).*

4. Registers

Information from energy billing is held electronically by Administration, Centre for Marine Studies.

5. Training

It is the responsibility of the Manager, Heron Island Research Station to ensure that their personnel are adequately trained in respect of environmental management issues.

Refer to the Training Program for further information.

6. Energy Management Working Party

The Energy Management Working Party is responsible for deciding methodology for energy management strategies. The party meets as issues are identified to discuss strategies, methods by which energy management goals can be achieved and the effect of various programs on the end users.

Membership of the working party is Property and Facilities staff associated with any aspect of energy management. Issues for the Heron Island Research Station may be sent to members of the working party to be raised at the meeting. Alternately, the Manager, of the Heron Island Research Station may be invited to attend the working party meetings as required.

7. Responsibilities

Energy Management at the University of Queensland is the responsibility of the Environmental Engineer. Successful energy management schemes require input from energy users. Levels of responsibilities under the energy management program are displayed in Table 1:

Table 1. Responsibilities

Responsible Person	Duties
Users (Staff, students, researchers, etc).	<ul style="list-style-type: none">• Understand the energy management procedures applicable to their area of impact/work;• Make a conscious effort to enact energy management procedures.
Manager, Heron Island Research Station	<ul style="list-style-type: none">• Ensure staff are aware of the Energy Management minimisation strategies.• Provide adequate Energy Management training.• Ensure that Energy Management is carried out wherever viable.
Property and Facilities Division	<ul style="list-style-type: none">• Provide Energy monitoring and control equipment.• Liase with the University community to ensure that Energy Management is effectively carried out at University sites.• Conduct energy auditing and/or monitoring to ascertain the efficiency of the energy management program.

8. Budget

It is the responsibility of the Environmental Engineer, Property and Facilities Division to allocate the necessary resources to the Energy Management Program on a yearly basis. Other contributions may come from other areas of the University; including Property and Facilities and the Centre for Marine Studies.

9. Records

All documents issued with respect to energy management are held by the Property and Facilities Division or the Manager, Heron Island Research Station as required. The term documents, for the purpose of this program includes the following:

- Energy contracts;
- Operational Procedures;
- Checklists;
- Notes;
- Letters;
- Invoices;
- Reports;
- Electronic information; and
- Energy management computer programs.

10. Enquiries

For further information regarding energy management, please refer to Table 2:

Table 2. Energy Management Contacts

Subject	Contact	Person	Telephone
Engineering Management	Engineering Services, Property and Facilities Division.	Engineering Manager	(07) 336 53205
Energy Management	Engineering Services, Property and Facilities Division	Environmental Engineer	(07) 336 51587
Air Conditioning Issues	Maintenance, Property and Facilities Division	Supervisor Refrigeration/Fitting	(07) 336 56635