

*These application notes are for general guidance and information only. Users will need to undertake independent analysis for specific sites if any of these measures are to be implemented. Consideration should be given to engaging the services of a suitable consultant to assist with this task.*

## Summary

It is the staff who control many of the items that consume energy in a hospital. Therefore one of the most cost effective and straightforward ways to save energy is to increase staff awareness regarding the issues that affect energy usage. The impact on energy consumption would be immediate, and would give a good return on the investment in training and/or publicity. An additional benefit that has been recognised is the improved morale that comes with staff involvement and from taking action to improve the environment.



## Background

Staff awareness covers a wide range of issues including control of energy usage, wastage, and efficient usage of equipment and facilities as well as procurement policies. This can also be extended to other items with 'embedded energy' such as paper and other consumables. Staff Awareness programs can be engaging, and involve all staff.

Staff can be hesitant about implementing some energy saving measures due to possible OH&S concerns, which are magnified in a hospital environment.

Formal training can help in a cultural shift and give staff an awareness of what the key issues are in these circumstances. This would give the staff confidence to implement measures such as switching off lights and opening windows where appropriate.

Awareness campaigns can extend across the entire hospital. They can also include specialist training sessions for maintenance personnel who monitor and are responsible for building services and central plant. Their engagement with an energy reduction program is crucial to its success.

## Opportunities and Constraints

Implementation of a staff awareness program requires time, planning and organisation. The success of staff awareness programs depend on the following factors:

- Staff willingness to participate.
- Management support and displays of that support.
- Age of the hospital (older hospitals with less automation may get better returns as staff control a greater amount of equipment)
- Longevity of the program. (Over time staff turnover and motivation can be lost, reminders and updates are required to maintain the momentum of any staff program).

Training sessions may need to be staged, so that staffing levels are not strained. This is critical in Hospitals where staffing levels must be maintained at a certain level at all times.

## Impact of Implementation

The initial and recurrent costs involved with staff awareness includes use of training funds, the use of facilities and staff time.

A successful staff awareness program will have an immediate impact on the way in which day to day activities are carried out throughout the hospital. The following are some of the advantages that a hospital can expect from developing staff awareness:

- Reduction in energy use (staff would use energy saving features and be less wasteful).

- Increased effectiveness of other energy saving measures. (Sophisticated controls that can be over ridden manually by staff members would reduce).
- Better monitoring and reporting
- Increased morale
- Compliance with government initiatives which require hospitals to have an 'energy manager' and an energy management plan.
- Even small measures such as implementing the 'sleep' mode on PC's, printers and photocopiers can have a large impact when applied across the whole of the DHS portfolio.
- Increased staff knowledge
- Increase in life of equipment by switching off or using sleep mode when equipment not needed.
- Increased tolerance of those energy saving measures which may have some element of inconvenience (for example reduced flow shower heads).
- Encouragement for staff to get involved and come forward with other good ideas.

It is important that management give ongoing feedback to staff so they know the impact of their actions. This will lead to a sense of achievement and satisfaction for employees. Staff who are educated at work are likely to take good energy saving practices home and educate other staff, family and friends, which will have a flow on effect and save energy in other buildings and homes.

## Analysis

The capital spent on staff awareness programs could vary from negligible (putting signs up in tearooms) to significant (hiring an external trainer to come to the hospital and give a formal presentation to staff over a number of sessions, and distribution of literature). Obviously, the impact of the program will depend on the importance that it is given by the hospital, and the investment that is made. The following example illustrates the way in which a budget for staff awareness could be developed:

If a hospital spends \$800 000 a year on energy costs (including water, gas, electricity etc.) and they target to save 5% of energy through staff awareness, they could invest \$40 000 in formal introductory training and literature, followed up by regular reminders and updates, with a payback period of one year.

The ongoing costs of reminders and updates could be minimal, using a medium such as email, and an overview in staff newsletters or staff meetings.

## Conclusions

The hospitals that would see the greatest benefit from staff awareness programs are the older ones with less automatic controls. These are the hospitals that rely on staff more heavily to manually control the energy consumed by the building.

Newer hospitals would also benefit, as staff would feel involved, and if systems operate correctly from the beginning, the life of systems will be extended, the whole of life costs would be reduced, and new staff will pick up on the good habits.

Before implementation, consultation and training with managers to gain their support should be undertaken. The most effective means of communication with staff should be established, and a training schedule that does not impede on staff work commitments should be developed.

## References and Sources for Further Information

- The Sustainable Energy Authority of Victoria (SEAV) have published a number of fact sheets on their website [www.seav.vic.gov.au](http://www.seav.vic.gov.au), which may assist in developing a staff awareness program. The SEAV also have posters available to put up in tearooms, and stickers for light switches reminding people to turn them off.
- The Australian Greenhouse Office has published toolkits, fact sheets and case studies on their website: [www.greenhouse.gov.au](http://www.greenhouse.gov.au) which may also assist in the development of a suitable program.