

## Energy Monitoring

Energy monitoring systems can assist businesses with operational and technical issues, including identifying where wastage or inefficiencies occur. Over the last few years, such systems have become more comprehensive while simultaneously becoming more user friendly.

Monitoring systems can be tailored to be as simple or as complex as required. They can show data on energy usage in a number of different ways, depending on your requirements. For example, you might want to:

- analyse overall usage broken down into time periods to show periods of maximum demand
- see a breakdown of the usage by individual sources, such as lights, air conditioning, pumping or refrigeration
- compare energy consumption in different locations, such as the storeroom, kitchen, gym, etc
- compare energy consumption at two separate but similar sites.

This kind of data can help businesses to pinpoint potential issues, such as:

- lights or other equipment being left on overnight
- air conditioning systems being run inefficiently
- old or inefficient equipment that requires maintenance or replacement.

Monitoring systems often have a user-friendly front end display so that data can be presented to a particular audience, including the general public. For example, after receiving an energy audit funded by QMDC, the Milne Bay Aquatic Centre – owned and run by Toowoomba Regional Council – decided to install an energy monitoring system. This has dual benefits because the pool managers have access to additional information about energy use at the pool, while the public display screen means that pool users can see where some of their fees are being spent.



Rising electricity prices were becoming an issue at the Acacia Ridge IGA in Brisbane. An energy monitoring system was implemented by the owners to provide detailed information about the energy usage within the site.



The system initially focused on particular areas of high energy consumption at the site. The data obtained enabled the owners to make decisions on the financial viability of updating their refrigeration and air conditioning equipment.

The system was also installed to address operational concerns, so the owners can now see when the lights or air conditioning have been left on overnight, or if someone has not put down the night blinds correctly.

In this way, it can be used as an educational tool for staff to improve their procedures and address efficiency.

The system implemented also enables live tracking of the savings that have been made. Overall, the site is now saving 14% (\$630) on their electricity costs each month, so the project will pay back in less than two years.

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