

- Electricity and gas prices have doubled in many universities since 2003
- Payback from water efficiency investment is often under a year
- The energy required to supply a megalitre of water creates 404kg of CO2 emissions

HIGHLY COMMENDED

University of Plymouth - £1.6 million savings from water conservation

Water in the South West has one of the highest unit charges in the country, leading the University of Plymouth to instigate a water conservation programme in 1991. Between then and 2004 this reduced water consumption per student by 45% and created cumulative savings of £1.6 million, for a total expenditure (other than staff time) of £50,000. Without the measures, the University believes that its annual expenditure on water and sewerage would be over £600,000, double the amount that it currently spends. It is also estimated that the initiative has achieved savings in CO2 emissions to the atmosphere of 332 tonnes per annum.

The savings have been achieved by identifying and repairing leaks; reducing water meter sizes to lower standing charges; and installing water conservation equipment such as cistern dams, timed urinal controls, and flow controls for taps and showers. During this period of time, refunds of sewerage charges have also been claimed for water that has not returned to sewer as a result of leaks.

Paul Lumley, the University's Energy and Environmental Manager, highlights the importance of sub-metering to all these actions. "They provide good management information, can identify leaks quickly and facilitate the re-charging of faculties and departments. Users become much more aware of water conservation when they are re-charged from a sub-meter."

He also reveals some of the practical secrets of success. "People can be resistant to reduced water flows, you can minimise opposition by doing the work during vacations. Also keep an eye on maintenance and project teams, and the work they undertake. It's important to ensure that design briefs and specifications include water conserving equipment. However, you must implement such equipment wisely. Cleaners will not thank you for restricting the flows on the taps they fill their buckets from! And remember that water conservation isn't rocket science. A great deal of money can be spent on the new and innovative, but you must not forget the 'bog standard' strategies that cost a fraction to implement, and are equally effective."



Alan Lumley

Judges' Comments on Energy and Water Efficiency (continued)

These points are also demonstrated by the University of Plymouth, whose long-standing programme has generated remarkably cost-effective savings over the last decade. As with Sheffield Hallam, a major factor in its success is considerable sub-metering, which allows easy detection and prevention of leaks. Another factor has been a very practical approach to the topic, which has allowed some of the most common barriers to be overcome."