



Monitoring energy use leads to increased efficiency

Maria Kielmas looks at how one company has tried to reduce the impact of the climate change levy



the plant to determine what was going on and in which areas. The meter data was pulled together using software provided by Tascomp, based in Stockton-on-Tees. Tascomp's Prodigy software is designed as an integrated control and monitoring system to handle the needs of an entire enterprise. It is designed around the Microsoft Windows NT/2000 operating system and provides an event-driven real-time response with millisecond time stamping.

"At any moment you can see how much electricity is being used," says Paul Sanderson, Tascomp's sales and marketing executive. He believes that it is crucial for companies to collect good quality data and then use it well. "However, the reality is that most businesses work with poor information," he says.

The Tascomp system is adaptable and can be connected to any sensor: electricity metering, effluent outflow or emissions monitoring. "You can keep a very accurate record of the information, upgrade it to the internet and make it public," says Sanderson.

Results

The energy monitoring system provided quick results for Westler – it immediately highlighted a problem with a compressor. Once this was rectified, electricity consumption fell by 30%. Previously there was no way of knowing when unexpected faults would occur in the system. "The only reason we used to do anything was when we thought we had a problem," Taylor says. "We didn't actually know where the bulk of the electricity was being used as we didn't usually measure it."

Westler also discovered that their cold stores used quite a lot of energy. The steam system, which sterilises the cans once they have been lidded, has also been targeted for energy efficiency.

Over the past six months, Westler has spent £10,000 on the energy monitoring system. Taylor believes that the company will get payback on this expenditure within one year through savings on energy bills, though he admits that it's just a gut feeling at this stage.

"I think the energy monitoring system is paying for itself. It's identifying the basis for maintenance and highlighting problems which we might not realise," Taylor adds. The company will need to demonstrate where it has an improvement in energy management. "But if you have something you can measure, you already have an improvement."

Tascomp's software costs between £990 and £6,500 depending on its application which could put off small and medium-sized companies – many of which haven't started to monitor energy use and implement energy efficiency measures. However, with the spectre of the climate change levy looming, initial investment can help to save money in the long run.

● Westler Foods (01653) 693971

North Yorkshire-based Westler Foods, is facing a 20% increase in energy costs from the climate change levy, despite having an 80% discount on its levy liabilities through a negotiated agreement between the Food and Drink Federation and the government.

The key to reducing the impact further is by monitoring energy use. "But establishing how much energy you use and how you target improvements can be difficult," says Westler's systems manager, David Taylor. This is the first time that Westler Foods has tackled the issue of electricity consumption.

The company has two sites at Malton, a canning plant and a beef packing site. It produces a variety of canned and vacuum-packed products including individual meals. Westler has its energy supplied by Northern Electric, with the contract reviewed on an annual basis. There is no gas on the plant sites – coal and fuel oil are used in boilers to produce steam.

Alternative energy has been considered in the past but Westler was unable to find a supplier. "When we started looking at energy use, we looked at options such as combined heat and power and renewables, but no-one would come forward to offer it," Taylor explains. The company's energy bill is about 1.5% of turnover, which Taylor says compares well with other food manufacturers.

The energy monitoring exercise started with the canning plant – most of the energy consumption is in the cannery and the on-site cold stores for raw materials. After looking at the plant's overall energy needs, two areas seemed to need attention: compressed air and boilers.

A system of meters was installed throughout

Westler Foods has started to monitor energy use on-site

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