

Silver Fern Farms gets big savings by installing needle valves

Silver Fern Farms, the country's largest meat exporter, has achieved significant energy savings at its Pacific Hawke's Bay site simply by swapping ball valves for needle valves in its sterilisers and then decommissioning some sterilisers that were little used.

[Silver Fern Farms gets big savings by installing needle valves \[pdf 82 KB\]](#)

OVERVIEW

Savings of around \$40,000 a year meant the \$16,000 investment to implement the change gave a payback period of five months.

New steriliser settings and better monitoring, which is part of the project, means further savings are assured. As well, Silver Fern Farms is replicating the initiative across several of its other 16 sites.

The initiative is just one of several energy efficiency measures within the umbrella of Silver Fern Farms' company-wide Energy Management Plan, established in 2013, to reduce the group's 400 GWhs energy use, that costs \$30 million annually.

Silver Fern Farms' 2016 monitoring and verification report showed that savings across seven sites had cuts power use by 24GWh – or about 7% -- with cost savings in the order of \$1.3 million. Savings across the entire company have been substantially greater.

Energy experts Enercon, who were contracted to assist Silver Fern's to cut its energy use, found in its audit that extremely hot water – at 82°C – used in sterilisers and elsewhere, accounted for over half of the site's thermal energy consumption.

The Hawke's Bay site uses sterilisers throughout its butchery room but Enercon found a good number were in low use areas. They recommended eight could be turned off without compromising food hygiene and with no drop in efficiency.

They also found water flow to the sterilisers was over seven times the recommended rate. Enercon discovered the sterilisers relied on a ball valve for flow control. These were very difficult to adjust accurately and meant that too much water was invariably used. They recommended putting in needle valves that gave far greater control. Reduced hot water flows were trialled and Silver Fern Farms found they could further cut the flow with minor changes to hot water pipes.

EECA Business has a list of expert energy companies that meet the performance criteria to become an approved business partner. Information and funding is available to assist large energy using businesses develop energy efficiency programmes. For more information click [here](#)

BIG NUMBERS

- A \$16,000 investment resulted in \$40,000 annual savings
- Modifying sterilisers cut thermal energy consumption by 5% at the site
- Silver Fern Farms' company-wide Energy Management Plan has slashed its \$30 million energy bill by over 7%

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