

CowTime

CASE STUDY

Mark Petersen,
Northern Victoria



Super savings!

As a result of attending CowTime's *Watts 'n' Your Dairy*, Mark Peterson has saved energy, money, time and the environment.

Mark and his wife, Lynne and their children Emma (12), Bayden (10) and Teagan (5), milk 130 cows year round at *Alcheringa Jersey Stud*, on their property near Nathalia in northern Victoria.

Their 12-unit double up herringbone dairy was built four years ago, to accommodate future expansion of the herd. Conscious of the environment, the Peterson's installed a solar hot water system when the dairy was built.

Attending *Watts 'n' Your Dairy* gave Mark some ideas for further energy savings on his farm. One of the first changes he made was to install a heat recovery system. Usually a heat recovery system harnesses heat produced in the milk cooling process to pre-warm water in the hot water system. This wasn't suitable for the Peterson's dairy as they already had solar heating. Instead, Mark uses the heat from the milk cooling process to warm water in a barrel that's used in the first rinse.

"We'd been starting the wash routine with a cold rinse but I heard at *Watts 'n' Your Dairy* that the first rinse does 90% of the cleaning if it is warm," he said. Mark now starts with warm water from the heat recovery system. This change has produced a better quality wash routine, saved 10 minutes and helped the vat cool milk faster, which is important as the tanker arrives at about 7:45am.



Did you know?

- most farms use far more energy than needed; many could at least halve their energy use
- some farmers use four times the energy that others use to harvest the same amount of milk
- water heating and milk cooling account for 80% of energy used in the dairy

(based on research conducted for SEAV/Bonlac)

It's also saved energy. "Since we installed the heat recovery system, I haven't heard the condenser fans running, although they will kick in soon when the weather warms up.

Mark also checked the temperature of the hot water system. "Ours was set at 95 degrees Celcius which is actually too hot for an effective wash routine," he said. He turned it down to 85 degrees and expects to save a lot of energy as a result.

When the Peterson's pressure pump blew up recently, Mark chose to spend a little extra on one with a variable speed drive.

"On a farm situation like ours, there's often relatively low demand, say to fill water troughs. A variable speed pump is more efficient than others that cut on and off all the time," he said. Not only will this save energy, it also means less wear and tear on the pump.

Mark is pleased with the results. He recently ran his dairy through CowTime's Energy Monitor which showed that his energy use is now below the average for similar dairies.

"CowTime is a really good way to use our levy funds - it gives us practical and cost saving ideas to make improvements in the dairy," said Mark.

Find out how energy efficient your dairy is. Run your dairy through CowTime's Energy Monitor. Log on to www.cowtime.com.au and follow the prompts; or phone CowTime on 03 5624 2221 and ask us to fax you the Energy Monitor form.

CowTime is proudly supported by Dairy Australia, DPI VIC, DPI&F QLD, Sustainability Victoria and the University of Melbourne. Your Dairy Australia levy making milking easier.

