



## Industry project for smarter energy use

### Case Study: Ian Newbold and Bill Fraser, Fleurieu Peninsula, South Australia

Dairy energy assessments continue across SA as part of the *Smarter Energy Use on Australian Dairy Farms* project, delivered by DairySA and funded by the Department of Industry and Dairy Australia. Dairy farmers Ian Newbold and Bill Fraser, both from the Fleurieu Peninsula, recently hosted Chris Harding from The Energy Guys on their properties to conduct energy use assessments funded through the project.

Ian was heartened by Chris's finding that they had already implemented a number of energy saving technologies on their Yankalilla farm. "We have a variable speed drive on the vacuum pump and Chris estimated that it is saving around \$3,500/year," said Ian. "We also have most of our water gravity-fed with only a booster pump for yard washdown so the pumping costs aren't as high as they are for some others."

One area the assessment identified for improvement was water heating. The Newbolds' hot water costs were 29% of total costs compared to 20% for other dairies in SA. "In our case a solar hot water system is an option. We would use the solar system to heat and store water in a secondary reservoir during the day then transfer it to our existing service for boosting on night tariff."

"We are currently reviewing potential systems and would like to install a system in the future," commented Ian. "The assessment is a good yardstick to see where we are at. You don't know how you are situated until you do it," he concluded.

Bill Fraser, who farms near Victor Harbor, also found the assessment worthwhile. "Chris was thorough, he went through everything and gave us ideas of where we could save power," said Bill. "We found we were pretty efficient, but compared to other farms we were paying too much, so we reviewed our options and changed electricity supplier. We are making significant savings as a result."

The assessment suggested a range of low-cost maintenance activities that the Frasers need to regularly undertake in order to keep equipment running efficiently. "We make an effort to ensure this maintenance is done regularly," confirmed Bill.

As a result of the assessment, they also made a change to their plate cooler pump. The more efficient pump costs less to run and is also cooling the milk more effectively before it enters the vat, thereby reducing the time the vat refrigerator needs to run. "Our water temperature in the plate cooler can vary but we can save 30-40 minutes of refrigeration time at peak milk flow." Chris estimated that a one degree reduction in milk temperature entering the vat could save \$300 per year.

"I would absolutely recommend that others participate in the free assessment program. It has been a success on our farm," he finished.

#### Acknowledgements

This activity received funding from the Department of Industry as part of the Energy Efficiency Information Grants Program. Dairy Australia gratefully acknowledges the contributions made by many people in producing this factsheet. Dairy Australia also acknowledges the co-funder who made this factsheet possible, the Department of Industry.

Published by Dairy Australia Limited.

Whilst all reasonable efforts have been taken to ensure the accuracy of the *Industry project for Smarter energy use* case studies, use of the information contained herein is at one's own risk. To the fullest extent permitted by Australian law, Dairy Australia disclaims all liability for any losses, costs, damages and the like sustained or incurred as a result of the use of or reliance upon the information contained herein, including, without limitation, liability stemming from reliance upon any part which may contain inadvertent errors, whether typographical or otherwise, or omissions of any kind.

© Dairy Australia Limited 2015. All rights reserved.

**Dairy Australia Limited** ABN 60 105 227 987  
Level 5, IBM Centre  
60 City Road, Southbank VIC 3006 Australia  
T + 61 3 9694 3777 F + 61 3 9694 3701  
E enquiries@dairyaustralia.com.au  
[dairyaustralia.com.au](http://dairyaustralia.com.au)

  
**Dairy  
Australia**  
Your Levy at Work