

Business Case Study

Greenwood's Dairy



Lynette and Lance Greenwood Dairy

The Greenwoods have been in the dairy business for 20 years. They have a herd of 1100 cows with 400-500 milking at any one time on their Learmonth property. Their efficiency goals were to reduce their energy costs and stay afloat financially.

Case Study Summary

In their quest to reduce energy costs the Greenwoods undertook a comprehensive energy assessment to identify where they were using the most power. This benchmarked them against similar businesses and showed them where they could make the most savings. Power bills whilst large, are less than similar farms. Significant energy savings have been made by doing many simple things. Installing a rotary milking system freed up time and resources with a much more efficient than their previous setup.

What they did

The Greenwoods began investigating more than five years ago to see whether wind power was a viable option for their dairy farm. They found that two turbines, 24 batteries and backup with surplus to grid would have covered all power needs with a payback over 10 years. This initially seemed to be a viable option, however new technology can come with unexpected challenges. Given the uncertainty and costs involved they ultimately erred on the side of caution and did not proceed with the \$250,000 investment.

Still determined to find viable ways to become more resource efficient, they more recently sought professional advice about other energy options. They undertook a comprehensive assessment to identify where they were using the most power. This also gave them a benchmark they could measure their improvements against.

What they discovered surprised them. Despite having a massive power bill they are doing better than most farms of their size and type.

Savings have been made in small ways by doing the simple things - with energy efficient lighting, switching off unnecessary power, milking at 5am and using their crush grain feeder before 7am. They installed reverse cycle water heating for their hot water.

Another efficiency measure they undertook was to install a rotary milking system. The rotary system is faster than a traditional herringbone set up. The cows have a close point of entry and the dairy staff can work from the same spot. This means savings on energy consumption and water use.

They have identified that bigger savings can still be made and are progressing with their investigation into alternative forms of energy supply - wind turbines, solar arrays and bioenergy from methane.

Outcomes and Measurable Impacts

These small efficiencies enabled the Greenwoods to compare well with dairies of similar size. They average 39kWh/kl milk compared to an average of 46kWh/kl milk. This equates to a comparative financial saving of \$1.49 per litre of milk produced.

Lessons learnt and advice

Key lessons include the importance of making the small changes, persevering with efficiency goals and researching thoroughly. Also proceeding with caution when engaging suppliers; check credentials, ask a lot of questions and ask to speak with others who have used that supplier. It is also valuable to check with more than one supplier; advice, method, pricing and projected return of investment can vary significantly.

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