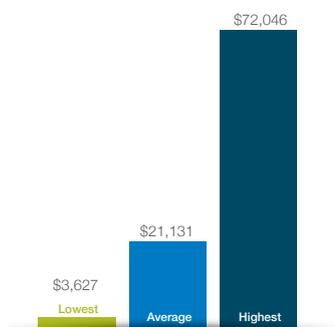
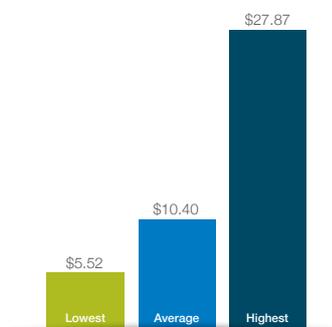


Energy use in Tasmanian dairy sheds

This info sheet is benchmarking data from 200 energy efficiency assessments conducted in Tasmanian dairy sheds from 2012 to 2015. Close to 50% of Tasmanian dairy sheds had an energy assessment in this period. The energy assessments involved: review of 12 months of power bills; shed visit for energy efficiency assessment and follow up visit/communication with farmers with recommendations. All figures below inclusive of GST.



Annual power bill for Tas dairy sheds

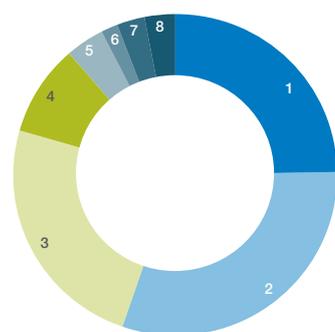


Energy cost per kL milk production
\$ per 1000 L milk



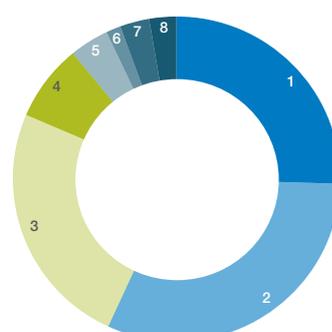
Energy cost per kgMS production
cents/kg MS

Where is power used in the dairy shed?



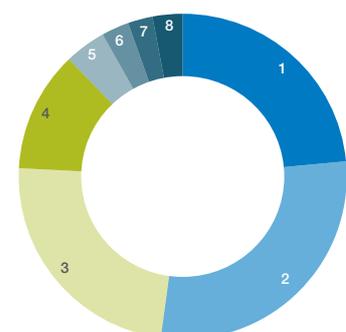
Breakdown of energy costs in the dairy
average across all sheds

1 Hot water	24.9%
2 Milk cooling	30.6%
3 Milk harvesting	24.3%
4 Cleaning & effluent	8.9%
5 Stock and dairy water	4.0%
6 Feed	1.8%
7 Shed, office, workshop, misc	2.8%
8 Lights	2.8%



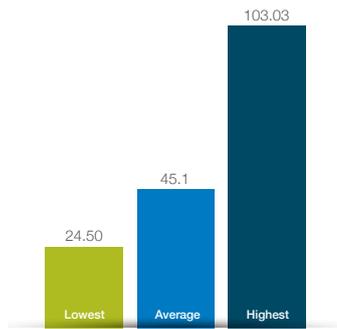
Breakdown of energy costs in the dairy
average across herringbone sheds

1 Hot water	25.5%
2 Milk cooling	31.4%
3 Milk harvesting	24.6%
4 Cleaning & effluent	7.6%
5 Stock and dairy water	3.9%
6 Feed	1.5%
7 Shed, office, workshop, misc	2.9%
8 Lights	2.7%



Breakdown of energy costs in the dairy
average across rotary sheds

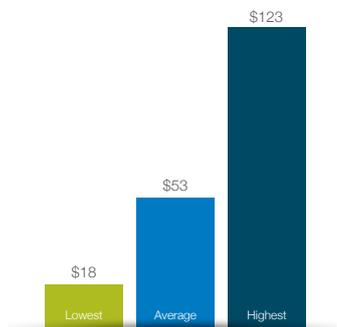
1 Hot water	23.5%
2 Milk cooling	28.6%
3 Milk harvesting	23.7%
4 Cleaning & effluent	12.0%
5 Stock and dairy water	4.1%
6 Feed	2.7%
7 Shed, office, workshop, misc	2.4%
8 Lights	3.0%



Milk production kWhr per kL
kWhr per 1000L



Averaged cost per kWhr
\$ per kWhr
Averaged from 2012 to 2015



Energy cost per cow milked
\$ per cow

What the data shows

There are significant variations in bills, costs per kL, per kg MS and per cow.

For benchmarking energy, the best comparison is cost per kL because that accounts for variations in L per cow and MS per cow. The amount of energy used largely depends on the volume of milk physically harvested and cooled.

Cost per kWhr is what you are paying for electricity. These figures only show combined averages over 2012-2015. Time of use contracts have different costs for peak, off-peak and shoulder. Maximising off-peak and shoulder use is a key strategy for reducing the overall bill.

This data only relates to dairy shed use and any other loads connected to the dairy metering point. Irrigation is typically the biggest part of the power bill for irrigated farms, depending on the season.

Savings for farmers

Energy efficiency assessments identified an average of \$1,080 per farm in energy efficiency savings alone.

For most farms, there were significantly larger savings to be made with electricity billing arrangements (eg. removal of unnecessary extra meters with annual charges) and changeover to time of use contracts. During the project period, around 130 dairy farms took up time of use contracts.

200 dairy shed energy assessments in Tasmania were conducted as part of the national Dairy Australia project “Smarter Energy Use on Australian Dairy Farms” funded by the Department of Industry and Science as part of the Energy Efficiency Information Grants Program. We also thank Aurora Energy for their assistance with this project in Tasmania.

The views expressed herein are not necessarily the views of the Commonwealth of Australia, and the Commonwealth does not accept responsibility for any information or advice contained herein.



Australian Government
Department of Industry and Science

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