

# McNAE ELECTRICAL SOLUTIONS

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12 May 2016

## Snapchill

P.O. Box 10033, Terrace End  
Palmerston North

Dear Dale and Trevor

After completing the power logging of the Stewart farm cowshed on Watershed road Palmerston North, I have compiled the following results.

### Background:

To measure the difference in power use, at the cowshed, of the hot water and the refrigeration. This monitoring is to be completed both before and after the Snapchill unit is installed. As well as to monitor the power use of the Snapchill unit itself. Once the monitoring is completed. The total power use of the hot water and refrigeration is added together, for the period prior the Snapchill unit being installed. Then, after the Snapchill is installed, the total power use of the hot water, refrigeration and Snapchill unit is added together to get the combined power use over the same length period.

### Purpose:

To ascertain the power saving, if any, by using the Snapchill, milk precooling system.

### Time period of test:

Each test period was over a 48 hour time from 12 noon to 12 noon.

The tests were carried out between 15 January 2016 and 26 March 2016.

### Results:

<u>Item being tested</u>	<u>Before Snapchill is installed</u>	<u>After Snapchill is installed</u>
Refrigeration	224 KWH	91 KWH
Hot water	109 KWH	30 KWH
Snapchill	-----	91 KWH
<u>Total power used</u>	333 KWH	212 KWH

If we deduct the power usage after the Snapchill is installed from the power usage prior, the savings are as follows.

333 KWH Less 212 KWH = 121 KWH saved in each 48 hour period.

Multiplying 121 KWH by 15 to get a 30 day month is 1815 KWH per month saving

In Dollar terms it as follows:

1815 KWH @ 22cents per KWH = \$399.30 + GST per month. (depending on power cost)

Disclaimer:

The tests were done in good faith that the equipment was operated in the same way during the test period.

It assumes that there is no appreciable difference in the work being carried out at the shed during the test period.

Test equipment:

Fluke 1735 power logger

Technician:

Clayton McNae Electrical registration E53

I have attached the 5 test graphs for your reference. If you require any further information or data please contact me

Regards

Clayton McNae | Managing Director



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