Goldfields Revegetation

Wanted a 30% energy reduction - got 70%

Ashley Elliott: Co-Owner, Goldfields Revegetation

Goldfields Revegetation is a specialised plant nursery in Mandurang servicing extensive wholesale and retail demand for native plants, particularly those indigenous to Central and Northern Victoria.

Before its energy assessment Goldfields Revegetation had a goal of reducing energy consumption by 30%. During the energy assessment the owners learnt that up to 70% savings could be made by performing a number of actions. These actions included replacing the LPG boiler used to heat the greenhouses, with an electric heat pump and zoning the greenhouse so that hydronic heating was only used for active beds.

Energy efficiency could be even further improved by closing windows, repairing holes in the greenhouse cover to minimise air leaks, filling air leak gaps to prevent heat escaping, covering unused beds, lagging and burying pipes and installing isolation valves. Energy improvements to lighting were also identified, including switching from traditional T8 fluorescent tubes to superior energy performing T5 tubes. Replacing the large electric hot water system, which operates 24/7 to provide hot water for washing dishes and hands, with a smaller, off peak unit, would also support energy use reduction.

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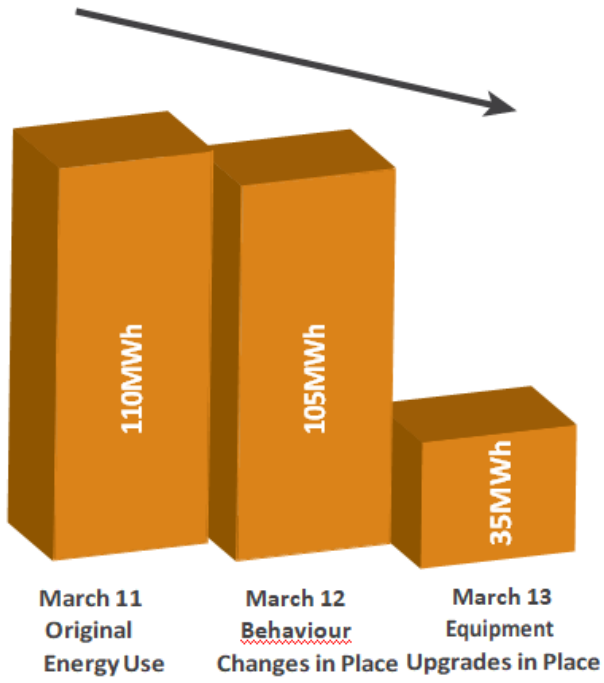
"Savings identified represent a reduction in energy consumption of 75MWh or $6000 per annum."

Goldfields Revegetation reduced energy costs by:

- Replacing 50W halogens with energy efficient 35W halogens. Stage 2: replace MR16 halogen lamps with 10W LED lamps
- Installing motion sensors on external flood lights
- Fitting a 7 day timer to the electric hot water system to turn of the element from 4pm to7am on weekdays and shut down all weekend
- Installing 1.6kW solar PV system to offset daytime electricity use
- Turning off lights in areas not being used
- Switching off computers and printers every night.



Energy use graph showing electricity bill reduction

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