

Supermarket receives super EC upgrade.

Fresh St. Market IGA gets a fresh fan upgrade.

ECupgrades

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Comprehensive table of energy savings

Period	Avoided kWh*	Avoided kWh percentage	Avoided kWh costs **
January 2019	5302	24%	\$1,465

*Calculated per hour for a month, based on a 6-week measurement period post-upgrade and 6-month baseline data
**Average electricity usage rates per kWh are 27.6246c/kWh in Queensland.

Project

Application

Product Performance and Benefits



Atherton Fresh St. Market IGA, a supermarket in North Queensland, has a longstanding focus on quality and innovation. Coupled with its 2800m² size, busy trade, complete retail offer and tropical climate – it was the ideal candidate to flagship ebm-papst's new EC AxiBlade in Australia.

A total of 16 standard, 6-pole, 800mm, 3-phase fans on 4 racks were upgraded to 5 variable speed-controlled EC AxiBlade fans (W3G800KS3903).

ebm-papst monitored a condenser with 5 fans, for medium temperature rack, with compressor 1 on a VSD and compressor 2 and 3 with a soft starter to measure and verify the avoided energy use.

The remote monitoring equipment measures voltage, current draw, power factor and input power in real-time.

Energy usage before the upgrade was compared against 6 weeks of data after the upgrade to calculate the avoided energy.

The peak energy demand before the upgrade was 79.27 kW, which decreased to 68.90 kW after the upgrade. Therefore, peak demand reduces by 10.37 kW, which equates to \$25,095 per year or \$249 a day.

Comparing consumption before and after the upgrade, the avoided energy was 90,052kWh for 5 fans and the compressors, which is equivalent to \$24,876** in savings per year.

