# Supermarket Upgrade avoids 10% total energy.

Refrigeration systems use the most power in your supermarket. This case study shows how upgrading the condenser fans in your refrigeration system positively impacts your energy bill.

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Atherton Fresh St. Market IGA, a supermarket in North Queensland, has a longstanding focus on quality and innovation, coupled with its 2800m<sup>2</sup> size, busy trade, complete retail offer and tropical climate – it was the ideal candidate to flagship ebm-papst's new EC AxiBlade in Australia.

All 16 standard staged AC fans, on 4 racks, were upgraded to variable speedcontrolled EC AxiBlade fans. ebm-papst monitored one medium temperature rack with 5 fans, and verified the avoided energy use over a period of 12 months, using regression analysis, the result obtained is shown in the graph.



# 166.4MWh/Year avoided.166.4MWh/Year of<br/>electricty154<br/>acres of forest<br/>carbon capture117.65<br/>metric tons<br/>of CO225<br/>passenger cars<br/>driven11<t

A single fan saves 10.4 MWh/year. For 16 upgraded fans this translates to 166.4 MWh/year or 10% reduction out of the supermarket's total energy consumption of 1,587 MWh/year.

#### EC Upgrades – Actual consumption vs baseline consumption.



\* Medium temperature rack power consumption includes: compressors & condenser fans



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