

Casey's IGA

Case study level 2 audit

There is one thing that supermarkets can't shelve – escalating power bills.

Terry Casey, owner of Casey's IGA in Woree, decided to do something about it. He contacted the Kill-a-Watt campaign.

Regional Development Australia has launched the campaign – funded by the Department of Industry and exclusive to Far North Queensland – to help local businesses and community organisations identify ways to slash their electricity usage.

For supermarkets, power bills are like dodgy trolleys – very hard to steer in the right direction. Mr Casey asked a local energy assessor and qualified engineer, Cary White, to put him on the right track.

“Electricity prices are running rampant,” said Mr Casey. “As a small business, we find it difficult to keep pace with the cost of our electricity usage. We need to know how to get the best energy efficiency we can from our equipment.”

For the cost of a Level 2 assessment – \$990 (government-subsidised) – Mr White undertook a comprehensive on-site survey and equipment analysis that identified thousands of dollars in potential energy savings per year for Casey's IGA.

The energy assessor quickly calculated that the supermarket could save \$3750 per year by replacing the 126 (T8) fluoro tubes on the premises with more energy-efficient LEDs.

The heat lamps in the supermarket's deli display section currently consume a whopping 12,376 kilowatts per year. Mr White recommended swapping them for more energy-efficient lamps and also suggested de-lamping, where possible.

‘A de-lamping strategy can be helpful when a business does not need to fully utilise all available lighting fixtures,’ he said. ‘For example, where two lights (tubes or bulbs) are housed in a fitting, it may be possible to remove one.’

Not surprisingly, the deli section is the supermarket’s major hot spot, where the air-conditioning system has to work overtime to remove the heat produced by the professional oven and fryers.

Mr White recommended Casey’s IGA install a temperature sensor to control the extraction ceiling fans, which would reduce the heat build-up. He also advised the deli staff to strike while the iron was hot when it came to food preparation.

“Where possible, they should cook continuously for a certain period to fully utilise the build-up of latent heat in the oven, then turn it off for the rest of the time to dispel the heat load,” he said.

Air conditioning bills get business owners boiling, particularly in the Far North. Mr White recommended Casey’s IGA consider replacing their central ducted air-conditioning system – which has high maintenance and operational costs – with smaller, energy-efficient split systems.

In the meantime, the supermarket could make an immediate impact on its air-conditioning bill, simply by raising the temperature setting by one degree.

‘That would reduce the air conditioner’s power consumption by up to 10% and save the business around \$1900 per year,’ calculated Mr White.

For Mr Casey, who recently invested \$520,000 to install a more energy-efficient refrigeration system, the Kill-a-Watt assessment reinforced his pro-active attitude to reducing power consumption.

‘It confirmed we are on the right track,’ said Mr Casey. ‘We have now starting replacing all our fluoro tubes with LED lights.’