



Australian Government
Department of Industry



Ethnic Communities'
Council of NSW inc.

BEST

BUSINESS ENERGY SMART TIPS

Smart changes for a more energy efficient and profitable business

Akai Japanese Restaurant, Campsie

Background

Belinda Zhang is a first time restaurant owner of the Akai Japanese Restaurant, which has been open for two years. The restaurant serves a variety of Japanese food, including sushi, sashimi and noodle dishes. Five staff work there and it is open seven days a week, serving lunch and dinner. The restaurant is running better than ever and is a successful business.

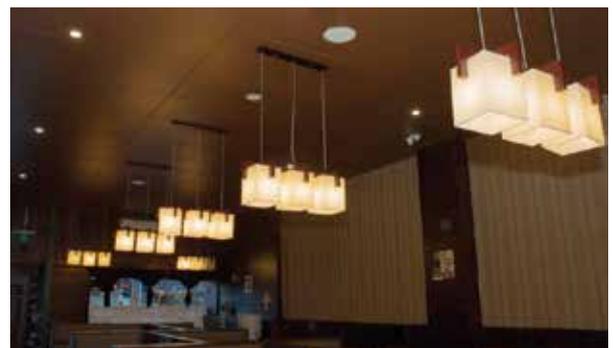
Belinda has always tried to save on electricity costs as she does not want to waste resources. The restaurant uses gas and electricity, and the electricity bill was expensive. Belinda was worried about this and started looking for energy efficiency solutions to lower costs.

Some energy retailers approached Belinda and as a consequence she changed her electricity supplier to one with a lower price and she also received a discount. However, she knew she could do other things to save more energy.

Measures Implemented

A Cantonese speaker educator from the Business Energy Smart Tips program (BEST) visited Belinda's restaurant and completed a free assessment report. The report provided small practical tips to further save money on her bill.

The assessment identified that refrigeration used the highest amount of electricity at the Akai Japanese Restaurant (41%), followed by kitchen equipment (20%) and hot water (15%).



The small kitchen has five fridge / freezer units, opposite or near the gas stoves. The assessment identified that the refrigeration units could be a lot more efficient with more ventilation. The challenge was that there was limited space in the kitchen so Belinda began opening the back door facing the fridges more often to allow more air in and to reduce the heat in the kitchen. This also meant that the exhaust fan and the large range hood did not need to be on as much and this saved further costs. As a result, the kitchen is also quieter. The energy assessment suggested that the freezers should be defrosted 2-3 times a year to maintain efficiency and reduce approximately 8% of energy use. Belinda also moved the fridges around ten centimetres away from the wall to further increase ventilation.

In the dining area, Belinda uses a drink display fridge to sell cold drinks. Since her shop uses electronic menus for ordering, she switched off the fridge lights as the drinks were already advertised at each table. The display fridge also did not need to be on during non-opening hours, as the drinks do not require cold storage (soft drinks, reconstituted juice drinks). By placing a timer on the drinks fridge to turn it off automatically when the restaurant is closed further savings can be made.

The restaurant has 24 hanging lights in the dining area. Belinda has installed warm fluorescent bulbs that retain the ambience of the original restaurant lighting design. In between shifts Belinda also switches off most of the lights to save energy.

The kitchen still uses a few fluorescent T8 tubes on magnetic ballasts. The energy assessment report identified that if the lighting were changed to 20W light emitting diodes tubes (LED) at a \$400 investment, the restaurant would make a saving of around \$230 per year paying for itself in 22 months.

Another measure that Belinda has implemented was to take the lights out of the ventilation hood in the kitchen as they were not needed. She also turns off lights, the exhaust fan and the deep fryer between 3pm-5pm when there is less business in the restaurant.

Belinda uses a dual well open deep fryer in the kitchen. Switching on just one side of the fryer is often enough for the restaurant. Additional heat loss is avoided by keeping the other well empty.



The restaurant requires air conditioning during hot weather. Belinda was advised to install ceiling or wall fans as an alternative. Until this is done, Belinda only turns on the air-conditioning when it is needed. When it is turned on the doors are kept closed so that it can be used at the lowest possible setting.

Outcomes

Belinda's electricity bill is reducing. The energy assessment conducted by BEST provided her with low cost changes to save electricity that helped her to take action. She now understands the electricity bill that is sent to her and can see the changes in the bill.

'Electricity is a running cost that cuts into your profit' Belinda says. She will continue to make changes that reduce her costs including upgrading to more energy efficient refrigeration equipment when possible.

The customers and staff of Akai have said that the changes have been no trouble at all and that they can get used to them easily. The big difference to the business is the running cost of electricity that has dropped. Belinda had wanted to save energy for a long time, but, apart from using efficient lighting, did not know how to do it. The detailed tips from the BEST energy assessment report have led to a smart path into a more sustainable and profitable business.

