



Australian Government
Department of Industry



Ethnic Communities'
Council of NSW inc.

BEST

BUSINESS ENERGY SMART TIPS

A low cost and energy efficient solution to lighting sets the path towards a full energy saving implementation

Eagle Boys Pizza at Minto

Background

Mr Suresh Kumar Thangavel has been operating the Eagle Boys Pizza franchise in Minto for one year. Eagle Boys Pizza serves mainly take away pizza and soft drinks however the shop also seats 15 customers. There are six to eight part-time staff employed and they share the everyday jobs with the owner.

The business is a small franchise, requiring long hours and the management duties are demanding. Consequently, Mr Suresh has not had enough time to look into energy efficiency until recently. Over the past year, he has been struggling to pay electricity bills on time due to the rise of energy costs. A bilingual (Tamil) energy assessor visited his business to inform him about the Business Energy Smart Tips program (BEST). Mr Suresh immediately asked for an assessment and report to help him find ways to save energy and money.

The energy assessment showed that refrigeration was the highest electricity cost to the business consuming 42% of the overall consumption. This is because the business has a large cool room, a three door soft drink fridge, a 120 litre bar refrigerator, three 280 litre freezer chests and an ice cream display unit.

The kitchen equipment used 20% of the overall electricity consumption. This included a ten-shelf cooler display unit for pizza toppings with no doors, a cooler with food tray, electric fans in the gas pizza oven as well as coffee machines and grinders, fryers and other appliances.

The office and shop equipment used 17% of the overall electricity consumption.

Mr Suresh was very surprised that the energy assessment identified that the shop's lighting comprised 21% of the total electricity use. He thought he was just using a few lights and that these would be around 5-10%.

Measures Implemented

The BEST energy assessment report recommended no cost, low cost and higher cost actions for Mr Suresh's business. He chose to implement the no cost and low cost actions which were easy to do and cost effective, and would still help him to reduce the cost of his electricity bill.

Mr Suresh was able to use less energy on his refrigeration by implementing some no cost actions.

These included defrosting the refrigerators two to three times a year. This would ensure that the refrigerators were not losing cool air and were running as efficiently as possible. Another recommendation was to consolidate the stock to use less refrigeration space. Mr Suresh was able to do this and is now using two chest freezers instead of three.



He was also advised to check refrigeration seals regularly, as seals in poor condition allow cool air to escape, resulting in higher energy consumption and costs. This is easily done by closing the fridge door on a \$5 note. If the note comes out easily then the seals need replacing. Visually inspecting the seals for cracks and signs of wear, particularly at the bottom of the door was also recommended.

The drinks refrigerator (with non-perishable food) had a 24-hour timer installed that turns it off from 11:00pm to 10:00am the next morning. The timer is set up so that when the business opens business opens at 11:30 am the drinks are cold and ready to sell.

Switching off all kitchen equipment at the power point is also helping to save the business money as equipment that is in 'standby' mode is still using up to 10% of overall energy use. Mr Suresh was already turning off office and shop equipment at the power point when not in use.



The assessment showed that there were some ways of using less electricity for lighting that did not cost anything to the business. The shop had some natural light, but was able to have much more light when Mr Suresh removed unnecessary stickers from the windows. He also cleaned the light covers of the fluorescent lights to increase the light level.

Other lighting recommendations for the business included:

- ✓ training staff/personnel to use lights only when needed
- ✓ locating switches throughout each area of the building to take into account the usage patterns of work areas, and also to avoid having one or only a few switches controlling lights in large areas.

BEST also recommended that Mr Suresh replace the 14 halogen 50 Watt downlights (12V) in the dining area to 11 Watt Light Emitting Diodes (LED) downlights. The estimated cost of installing these was around \$700, including the labour cost. This would potentially save \$683.90 per year, paying for itself in just over 12 months. However, he was able to change the lights himself as it was a domestic fixture and the final cost was below \$500. The new LED down lights are able to be brightened or dimmed, and his staff have been trained to use the lights effectively.



Halogen lights generate heat and customers used to complain that it was very hot in the dining area. Now his dining area is very bright and cool.

Other higher cost energy saving actions were suggested such as replacing lighting in the kitchen areas, fridges, menu boards and signage.



Finally, further savings could be made by using an insulated cover on the ice cream display unit when the shop is closed.

The overall cost of these actions was estimated around \$1,700 with a potential annual savings of \$677.92.

Outcomes

Mr Suresh was able to make many no cost and low cost changes to Eagle Boys Pizza. Cleaning light covers, removing window stickers, managing and maintaining refrigeration and stock consolidation were all actions that cost nothing, but will mean that less electricity is used and the business will save some money.



The biggest change was to LED down lights in the dining area, which will save the business approximately \$683.90 every year. This area is now more pleasant for customers to be in, and staff are trained in how to use the right amount of lighting. The timer on the drinks refrigerator also was a low cost way of saving electricity and it doesn't involve an extra everyday task.

More changes could be made for Eagle Boys Pizza and Mr Suresh is considering implementing the high cost actions once he is financially set. He will change the rest of the lighting to LED down lights (in the kitchen, refrigerators and outdoor areas) and use an insulated cover overnight on the ice cream display unit.

Mr Suresh is very pleased about the help he has received from the BEST program, and he is already organising his finances in order to implement higher cost actions. As he states: "I'm going to save \$200 dollars every three months, so I can use that money to go to the next step and change the rest of the lights to low cost energy ones".