

ENERGY PRICING

- The facts about what energy costs you

The old adage: “you can’t manage what you don’t measure” holds true when it comes to energy consumption. Reading and understanding your energy bills, and where you are using energy in your store, is vital to improving energy efficiency and saving money.

In a typical supermarket, by far the greatest energy use relates to refrigeration and cold rooms, followed by lighting, air conditioning, and kitchens or preparation areas. Using Figure 1 below as a guide together with your most recent energy bills, you can estimate the cost of providing these services to your store and identify areas with the greatest potential for energy and cost savings.

A breakdown of electricity use within a typical store is as follows:

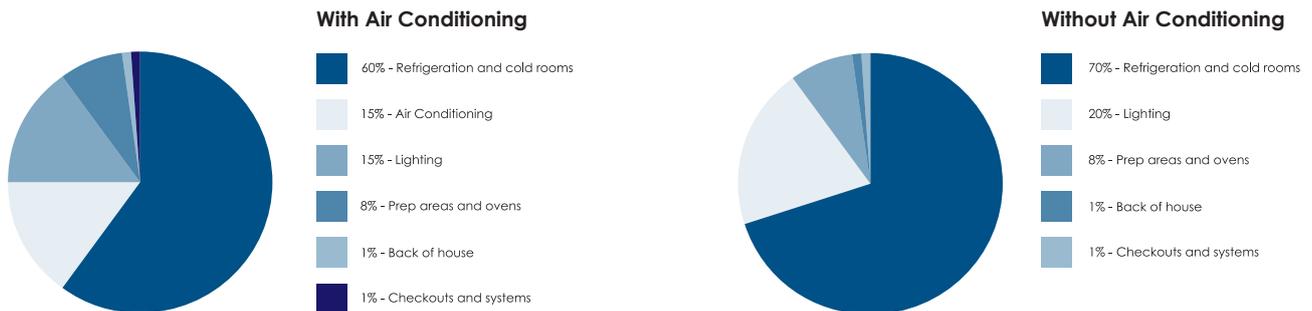


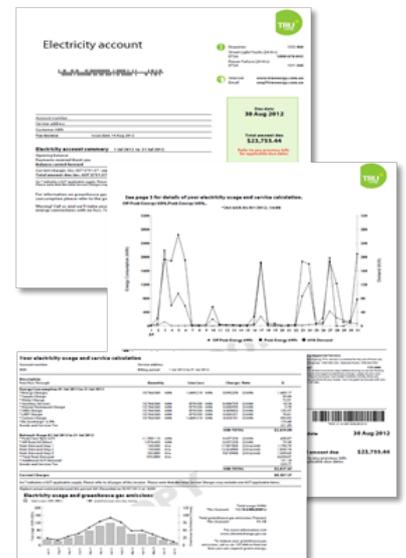
Figure 1: Typical electricity consumption (with and without air conditioning) Source: Ausmart 2012

It’s also important to note that energy use in a store is a complex and interrelated system and the whole-of-store energy use needs to be considered when identifying opportunities.

UNDERSTANDING YOUR ENERGY BILL

A good understanding of your energy bills will help you to identify:

1. The cost of the energy you are using: energy has a different cost per unit at different times of the day, as reflected in your tariffs. Your retailer will be able to tell you when the tariffs start and end e.g. peak may be 7am to 10pm, Monday to Friday.
2. When you use energy: knowing when you use energy will also put you in a better position to negotiate a suitable supply contract with your retailer.
3. Your peak demand: the maximum amount of energy you use during a period and how that relates to your average demand. This can help you unearth any savings by better managing your use of energy.
4. Your energy use trends: the variability in the energy you use across the day, week, month and year. Understanding how your energy use varies and determining which factors alter the variation is very important when trying to determine the most effective ways to reduce your energy use and cost.



Energy bills provide you with an overall snapshot of energy use only. If you're interested in detailed information on energy use by specific pieces of equipment in your store, sub-metering may be required, especially in support of an Energy Management System. Refer to Section 2 of the Handbook for more information.

Section 2 of the Handbook also has a detailed description of all the elements of your energy bill with diagrams showing where to find important information.

SUCCESS STORY- CONTRACT ANALYSIS AND NEGOTIATION

On average, 50 per cent of electricity consumption costs are related to network charges.

A recent network tariff review conducted by Schneider Electric resulted in over \$10,000 in monthly savings for a client over four sites. These savings had an immediate impact on what the client was paying for electricity consumption by changing the network tariff that was being applied by the retailer/distributor.

The responsibility of the network tariff applied lies with the customer and unless this is reviewed each year (in line with the network cost increases), businesses can miss out on these opportunities.

Network costs are 'regulated' costs, so the price cannot be negotiated, but the transfer to a lower Network tariff can result in significant savings.

"We are very happy with the savings we were able to pass onto our client through a rigorous process of contract analysis and negotiation with the retailer "

- Schneider Electric, Chris Tracey, General Manager Business Development

THE BUSINESS CASE – POWER FACTOR CORRECTION

Power Factor is the ratio between the power that is supplied to your site (kVA) and the power that is actually used (kW). It is a measure of how efficiently an installation uses electrical energy. A Power Factor of 0.9 or less should be corrected to save money on your energy bills.

New Food Coatings has been operating in Wetherill Park for over 20 years with a focus on developing and delivering the latest trends in food coatings and seasonings. New Food Coatings installed three Power Factor Correction units.

The forecast outcomes for the 37.5kVAr unit are:

PFC unit installed	37.5kVAr	Capital cost	\$5,670
Power Factor	0.83 to 0.98	Annual Savings	\$1,170
Peak Power Savings	14kVA	Simple payback	4.8 years

Source: A project under the SME power factor correction program supported by the NSW Government's Climate Change Fund. Data courtesy of Demand Manager.

MORE INFORMATION

For further information about the opportunities to reduce your energy costs and how efficiently energy is supplied to your site, refer to **Section 2** of the Handbook.

Cost	\$ = lowest cost, \$\$\$ = highest cost
Benefit	☺ = lesser energy efficiency, ☺☺☺ = greater energy efficiency
Simplicity	✓ = requires external/technical expertise, ✓✓ = can be undertaken in-house but may require some external expertise, ✓✓✓ = can be undertaken in-house.