

# Find out how Power Factor Correction can help reduce your electricity charges



Ausgrid Power Factor Correction  
[www.ausgrid.com.au/powerfactor](http://www.ausgrid.com.au/powerfactor)



# Power Factor Correction

- Power factor is a measure of how effectively a business uses its electricity supply.
- If your power factor is low, you may be paying more than you need for electricity.
- It is a user obligation that customers maintain a power factor of 0.9 or above.

Low power factor means your business is not using its electricity supply as efficiently as it could and you may be paying more than you need for your electricity.

Your business may be able to reduce its electricity costs and save on its bills by identifying if it has a low power factor and if you should manage your supply more efficiently. We can assist by providing you with interval meter data that your electrical service provider can use to calculate your power factor.

We recommend engaging a Level 2 accredited service provider to assist you in correcting power factor issues.

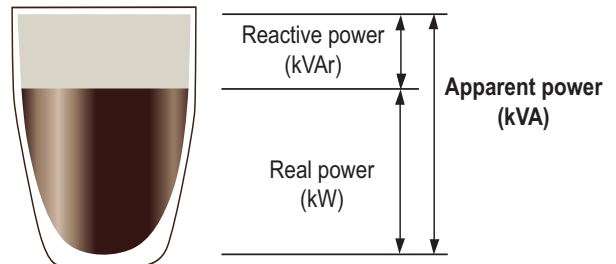
What's more, Power Factor Correction helps us operate our network more efficiently, keeping electricity costs down for the entire community.

Power factor is the ratio of real power (kW) which is actually consumed to apparent power (kVA) which is what must be supplied by the network.

If your business has low power factor, your electricity supplied will draw more reactive power or higher currents than is necessary. You are charged more for this supply as a tariff based on the additional demand, if you have a kVA demand charge.

Put more simply, low power factor can be compared to buying a frothy cappuccino. You pay for the whole cup, that is, the coffee and the froth (apparent power).

But what you really want to pay for is just the coffee (real power). The more froth you have, the less coffee. So as with low power factor you are paying more than you need for your coffee supplied.



# Power Factor Correction

There are a number of solutions we can help you put in place to improve your power factor. You may need to install Power Factor Correction equipment at your main switch board, or if you already have this equipment installed and it is not operating correctly, you may need to repair it. Certain energy efficiency measures can also improve power factor.

These solutions can be quoted through your preferred electrical or power factor correction specialist.

Power Factor Correction equipment is usually contained in a cabinet within or near the main switchboard. The cost of new Power Factor Correction equipment and installation depends on a number of factors including:

- the size of the equipment required
- the condition and capacity of the main switchboard
- whether the main switchboard has a service protection device
- the available space within the main switch room.

If the switchboard is satisfactory, the cost of the new equipment should be such that the cost is paid back in as little as 1-3 years. The lower the existing power factor is, the quicker the payback.

Installation of Power Factor Correction equipment in Ausgrid's network area requires approval by Ausgrid inspectors, before you start.

Installation may require a power outage affecting part or all of your business. The outage can be organised with Ausgrid at a service fee. The installation can be done outside work hours to minimise site disruptions to your business.

Our analysis shows a typical business customer that has existing capacity of 300kVA and power factor of 0.8 could save over \$7,000 per annum by correcting their power factor to 0.99.

## Benefits

- Reducing electricity costs so you can save on your bills
- Delivering improvements to the shared network to keep electricity costs down for all customers.

### About Ausgrid

The Ausgrid electricity network provides power to 1.6 million homes and businesses throughout Sydney, the Hunter and the Central Coast. Ausgrid is proud to continue the 100 year tradition of managing a safe and reliable electricity network.

### For further information

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