



## What causes changes in electricity prices?

### Factsheet 4

*The price we pay for our electricity and the factors that affect that price have changed over time.*

#### Energy Contracts

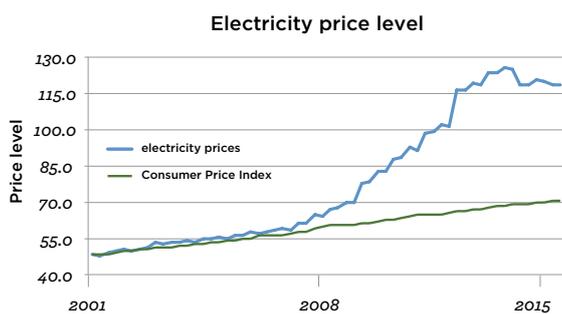
##### 1. What is a retail energy contract?

These changes can be explained, in part, by how and when we use electricity and the pressure it places on the network. Australian governments are responding to these changes by introducing reforms to reduce this pressure and ultimately deliver fairer prices for all consumers. Consumers can also help to reduce the pressure on the network by managing their electricity use.

Your household electricity bill is made up of the costs of:

- generating electricity in power stations and farms for sale to retailers
- delivering electricity through 'poles and wires' to customers
- selling electricity by retailers to customers
- environmental schemes such as solar feed-in tariffs.

These costs will change over time.



Source: Adapted from Australian Bureau of Statistics (ABS)

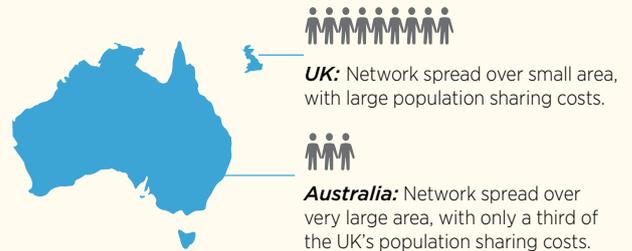
Australians have enjoyed historically low electricity prices, but over the period from 2008 – 2014 prices increased by over 80 per cent, and this is significantly more than inflation. The biggest driver of these price increases has been the costs of maintaining and upgrading the electricity network. However, these costs are now stabilising in most states and territories and are explained in more detail in this factsheet. Another factor that added to these price increases was the cost of environmental schemes, including premium feed-in tariffs for solar power, the renewable energy target and the carbon tax. Premium feed-in tariffs have now closed to new customers and the carbon tax has been removed.



**Network cost (poles and wires)** increases have been driven by the need to build and maintain the network. Our network needs to be built to meet the high demands that Australians place on the network at busy times. Consumers also pay for a network that is safe and reliable, and does not have many blackouts or brownouts.

#### Australia vs United Kingdom

For example, Australia has around the same amount of network infrastructure as the United Kingdom, but spread over a much larger geographic area and with only a third of the population to share the costs of building and maintaining our vast network.



Australia's size and low population density mean that we have the world's largest integrated electricity network, which can be costly to operate, particularly in remote areas.

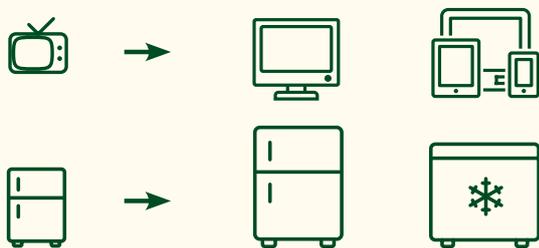
Other factors, like damage resulting from storms and bushfires, also affect overall network costs. As a result, network charges make up a much bigger proportion of electricity bills in Australia, compared to other countries.

##### 2. What is peak demand and how does it affect electricity prices?

Australian households have increased the number, use, and size of appliances, such as air conditioners, fridges and televisions. This has placed greater pressure on the electricity network, particularly at high use times. When we get home each day most of us do the same things:

- We turn on TVs, computers, air conditioners/heaters.
- We make dinner, put on the dishwasher, washing machine and dryer.

*Increasing use and number of appliances is putting additional pressure on networks*



**Old habits:** Smaller number of appliances; less use

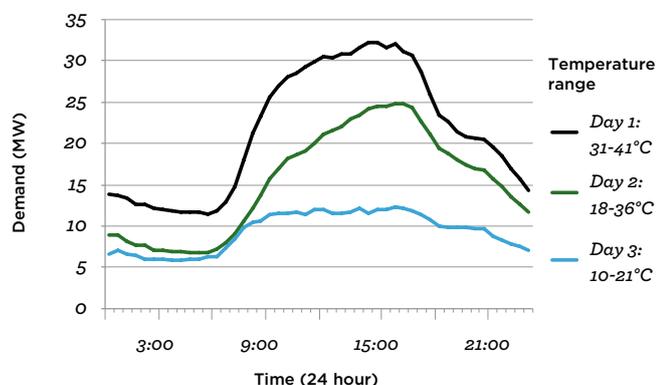
**New habits:** Greater number of appliances; more use

At the same time many businesses are still providing the services and products we all use, placing greater demands on our network at certain points in time.

This leads to a large increase in electricity use across the network for only a few hours each day. The electricity network has to be able to cope with these hours of peak demand when it is most costly to get power to homes and when there is most risk of blackouts (loss of all power) and brownouts (fluctuating or surging power that can cause issues with home appliances and equipment). Your bill includes a payment for network costs, so you are paying for use when the network is its most busy.<sup>1</sup>

**Example of how electricity demand varies with temperature on three different days**

(February 2014)<sup>1</sup>



To minimise the impact and costs of this peak, there are a number of things that energy consumers can do which can reduce network costs into the future:

- Shift electricity use away from peak times (for example, this might mean putting on the washing machine just before bed instead of after dinner).
- Reduce use during peak times (turning off TVs and computers when we are not using them).
- Have some appliances remotely controlled (some appliances can now be controlled by your energy services provider and remotely turned down during peak times – e.g. pool pump, hot water system, floor heater).

**3. What are governments doing to help reduce costs and ensure everyone pays their fair share for an efficient electricity network?**

Governments are implementing a series of reforms to help make networks more efficient and put downward pressure on network prices.

- **Making sure networks are efficient** - The Australian Energy Regulator, which approves network spending, now has more powers to assess proposals put forward by network businesses. This will ensure network investment is efficient and consumers pay no more than necessary for a safe and reliable electricity supply.
- **Better price signals** so you pay for when and how you use electricity. Changes are being made to the way network businesses set their tariffs. Customers with smart meters can access tariffs which bill network charges based on when they use electricity. Time of use and capacity based pricing enable customers to receive lower prices in return for not using as much electricity at peak times – which in turn reduces demand on the network.
- **More choices** – governments are helping by changing the rules to encourage new technologies, such as smart meters, and the development of new products and services to help customers better understand and manage their bills.

By helping to reduce the costs of the network, these changes will mean better prices for everyone in the long term.

These changes will help support the development of new tools, innovative tariff designs and products which give customers better access to more services to help you manage your bills.

*Want to know more?*

This is one of a series of factsheets.

**Factsheet 1** explains key aspects of our electricity network. **Factsheet 2** has advice on how you can reduce your electricity costs by reducing how much electricity you use or by changing how you purchase your electricity. **Factsheet 3** explains the protections you have under the National Energy Customer Framework and how to deal with any problems you have with your electricity contract.

*For further information please see:*

**Australian Energy Market Operator**  
[www.aemo.com.au](http://www.aemo.com.au)

**Australian Energy Regulator**  
[www.aer.gov.au](http://www.aer.gov.au)

**Australian Energy Market Commission**  
[www.aemc.gov.au](http://www.aemc.gov.au)

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<sup>1</sup> Data compiled from South Australian Power Networks and Bureau of Meteorology 2014. Example of one sub-station at Kent Town.