FACT SHEET
ELECTRICITY PRICES

COSTS INCLUDED IN ELECTRICITY BILLS

Electricity bills reflect a number of factors - primarily the cost of generating electricity and delivering it to customers.

In all states and territories, except Victoria, electricity prices are fixed by independent regulators[1] which make judgements about how much it costs to provide a reliable supply of electricity. This rate is known as a 'standing offer' tariff. However, consumers have the option to shop around and seek a lower price from their retailer (a 'market' tariff).

In Victoria, where electricity prices are deregulated, consumers have a greater choice of retailers and more options about what sort of electricity contract they enter into - this means they are more likely to be able to find a deal to suit their needs.

Typically, an average Australian household electricity bill in 2012-13 consists of:[2]

- **Network charges** - the largest cost component, accounting for about 51 per cent of the bill, this represents the cost of building and maintaining electricity networks, i.e. the poles and wires that deliver electricity to your home.
- **Wholesale costs** - the costs associated with generating electricity and trading it in a wholesale market - around 20 per cent of the total bill.
- **Carbon price** - cost passed on by fossil-fuel generators for their carbon emissions - around 9 per cent of the household bill.
- **Retail and energy scheme costs** - the 'shop-front' for a consumer's electricity supply and costs from schemes for energy efficiency and renewables - together about 20 per cent of the bill.

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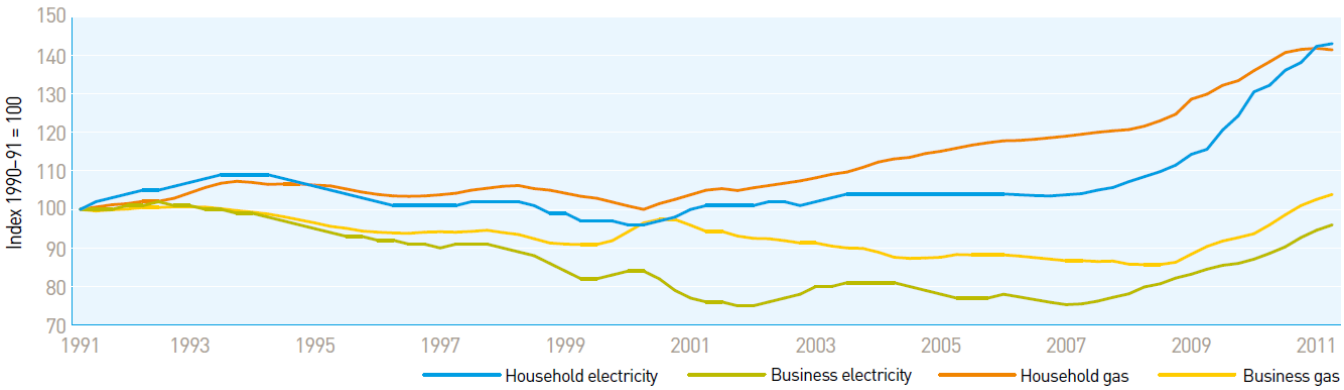
[1] The WA and NT Governments directly regulate retail electricity prices while the Queensland Government has the ability to vary the regulator's pricing decisions.
[2] National average figures provided by the Commonwealth Treasury (figures include GST).

RECENT ELECTRICITY PRICE RISES

Historically, Australia has had stable and competitive electricity prices by developed world standards.

However, over the past three years the cost of electricity has risen on average by around 40 per cent nationally.

Electricity and gas retail price index (real) – Australian capital cities[3]



This is largely because Australia's networks - the power poles and wires - that deliver electricity to homes and businesses were built 40 to 50 years ago and need replacing. This is an expensive task.

At the same time we all have more appliances, from air conditioners to laptops and flat screen TVs, putting more demand on the power system.

Consumers have the right to expect a highly reliable supply of electricity - however making power available whenever it is needed comes at a price. Maintaining or improving reliability is increasingly challenging and expensive, given the ageing nature of networks and new demand pressures.

Some state governments, including those in New South Wales (NSW) and Queensland, have increased the standards they require networks to operate to in recent years. While this improves the reliability of supply, this has also added to the costs which must be considered by regulators.

NETWORK COSTS

Networks are the biggest factor driving up the cost of electricity.

Australia's large geographic size and dispersed population means we have one of the world's largest integrated electricity networks. As a result, network charges make up a much bigger proportion of electricity bills compared with other countries. For example, Australia has around the same amount of network infrastructure as the United Kingdom, but with a third of the population to share the costs.

Network charges are set by a regulator as networks are natural monopolies - unlike generation there is no market to competitively set prices.

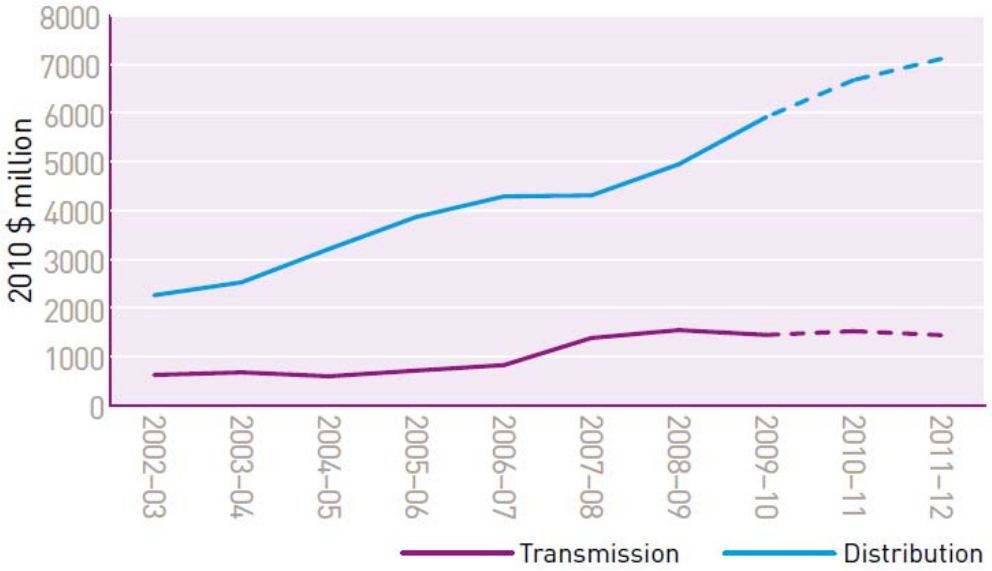
In the National Electricity Market (NEM)[4], the Australian Energy Regulator (AER) sets network businesses' revenues and prices based on their assets, investment needs and operating environments. The aim is to ensure prudent and efficient network investment for a reliable energy supply with minimal costs to consumers.

[3] ABS (various years). Consumer Price Index and Producer Price Index data for electricity (cat. no. 6401.0 and 6427.0)
[4] The NEM is a fully interconnected electricity market throughout Queensland, NSW, the ACT, Victoria, South Australia and Tasmania.

With most of Australia's electricity networks built throughout the 1960s and 1970s, major investment is now needed to replace and upgrade these networks as they reach the end of their service life. The cost is then passed on to consumers via increased electricity prices.

The investment needed in the NEM is forecast to exceed $7 billion for transmission and $35 billion for distribution over the current regulatory periods. This is a rise in investment from the previous periods of 82 per cent and 62 per cent (in real terms) in transmission and distribution networks respectively (see below).

Total electricity network investment[5]



The contribution of network investment drivers is highlighted by the AER's current determinations for NSW distributors. It shows that of the $14 billion of approved capital expenditure:

- growth in energy demand represents around 42 per cent;
- asset replacement accounts for around 31 per cent;
- reliability and quality of service enhancements are about 9 per cent; and
- costs associated with safety, statutory obligations, climate change, environmental, and other system and non-system assets such as IT and business support makes up 18 per cent.

INCREASING PEAK ENERGY DEMAND

The need to replace ageing assets is compounded by the need for networks to cope with rising peak demand.

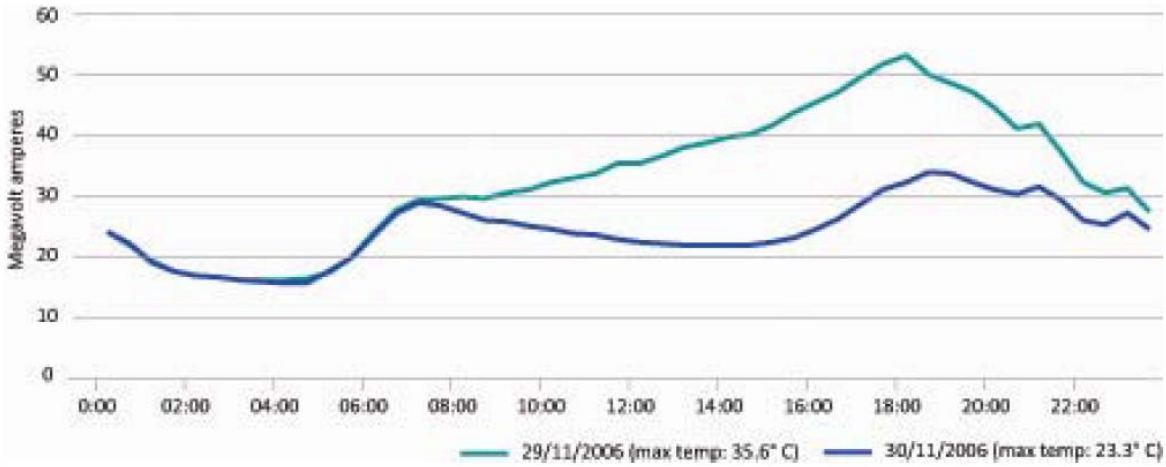
Australia's economic growth and increasing use of appliances like air conditioners have put new demand pressures on networks, particularly at peak times – typically a few hours in the afternoon on the hottest days of the year.

Network companies must build their infrastructure to meet energy demand at its forecast peak – much higher than the average (see below).

This means that around $11 billion worth of infrastructure across the NEM is only being used for 100 hours each year.[6]

[5] AER (2011). State of the Energy Market 2011. www.aer.gov.au/content/index.phtml/itemId/751331.
6 Ausgrid (2011) Supply and demand: our five year network plan, 2011-12 update

Summer peak energy demand[7]



WHAT DOES THE CARBON PRICE MEAN FOR ELECTRICITY BILLS?

Australia's carbon price commenced on 1 July 2012 and is designed to reduce greenhouse gases in the most environmentally effective and economically efficient way.

A carbon price will directly impact the wholesale component of electricity prices through its inclusion in fossil-fuelled generators' bids for wholesale electricity – this will flow through to consumers' electricity bills.

Recognising cost of living pressures, the Australian Government is providing assistance to those most in need, particularly pensioners and low and middle income households, to help manage increases in living costs from a carbon price.

The Government estimates that a $23 carbon price will lead to an average increase in household spending of $9.90. Households will receive, on average, $10.10 per week in assistance to help cover the increased costs, including the expected rise in electricity prices of around $3.30 per week.

WHAT OTHER FACTORS IMPACT ELECTRICITY BILLS?

Renewable Energy Target (RET) - Under the RET scheme, energy retailers must ensure that a proportion of their electricity supply is from renewable sources which, at the moment, are generally more expensive compared with traditional generation sources, thereby adding to supply costs.

The Australian Energy Market Commission (AEMC) estimates the RET comprises under 3 per cent of household electricity prices nationally in 2012-13.[8]

Feed-in tariff schemes - Most states and territories have introduced feed-in tariffs (FiTs) to encourage renewable electricity generation typically through small scale systems such as rooftop solar photovoltaics. The costs associated with FiTs are passed on to all customers through electricity price rises.

There has been relatively strong demand for these schemes in most states. For example, higher than expected demand for FiTs in NSW led to a decision by the NSW Government in 2010 to drastically reduce the FiTs payment to limit the cost of the scheme to consumers.

State energy efficiency and demand management schemes - Some states and territories have also implemented schemes which affect retail electricity prices to varying degrees according to their scope, scale

7 Energex (2010). Network management plan - Part A 2009-10 to 2013-14.
[8] AEMC (2011). Final Report: Possible Future Retail Electricity Price Movements: 1 July 2011 to 30 June 2014.

and objective. Mostly, these schemes encourage energy efficiency, demand management and carbon abatement by requiring retailers or distributors to undertake specific activities.

They include initiatives such as smart meters in Victoria, the Queensland Gas Scheme, the Energy Savings Scheme in NSW and South Australia's Residential Energy Efficiency Scheme.

The AEMC estimates that these schemes make up around 3 per cent of household electricity prices in 2012-13 at a national level and are not expected to significantly impact prices in most jurisdictions.[9]

WHAT ARE GOVERNMENTS DOING TO MINIMISE FUTURE PRICE RISES?

While the Australian Government does not set electricity prices, it is very aware of the impact of rising electricity bills on households and businesses.

The Australian Government is working with the states and territories through the Standing Council on Energy and Resources (SCER) to ensure the right energy market and regulatory frameworks to minimise price rises.

There are no quick fixes to electricity prices. However there is scope to examine the potential for longer term efficiency gains in our energy market and regulatory frameworks. In this regard, the Prime Minister, on 7 August 2012, sought firm commitments on reform through COAG by the end of 2012.

Networks regulation - The Government is working through SCER to ensure that energy network regulation is delivering the right balance between network investment and reliability of supply at least cost to consumers.

To test if the network regulatory framework is continuing to deliver efficient outcomes to consumers, the AEMC is currently examining a series of rule change proposals that apply when the AER undertakes its assessment of appropriate returns to network businesses.

This work is timed to be completed in advance of the next round of determinations by the AER, scheduled to begin for the distribution networks of NSW and the ACT from 1 July 2014.

In addition, the Australian Government announced as part of the Clean Energy Future package in July 2011 that it will seek to:

- bring forward a statutory review of the current network regulatory appeals process to ensure it delivers outcomes that are both fair for consumers and network businesses – recommendations will be considered by SCER before the end of the year; and
- commission an independent review to benchmark distribution network efficiency, to assess whether the incentives in the existing regulatory framework are delivering improved efficiency in networks businesses and identify opportunities to improve productivity, regardless of ownership structure - the Productivity Commission's final report is expected by April 2013.

Networks reliability – The Australian Government is working through SCER to ensure networks reliability settings are appropriately balanced with costs for consumers, including through current reviews by the AEMC of reliability settings in NSW and nationally.

Demand side participation (DSP) – DSP relies on consumers learning how to better manage their energy use, particularly during peak periods. The Australian Government is working with the states and territories to help all Australians learn ways to reduce their power consumption and their power bill.

The AEMC is looking into this through its 'Power of Choice' review which is investigating the potential for wider deployment of cost-effective DSP opportunities to provide for a more efficient energy system, as well as ways to assist consumers in understanding their energy use. The review is expected to conclude in late 2012.

Customer frameworks – The Australian Government has implemented the National Energy Customer Framework (NECF). The NECF strengthens protections for vulnerable customers and improves transparency in pricing and offers to consumers.

[9] AEMC (2011). Final Report: Possible Future Retail Electricity Price Movements: 1 July 2011 to 30 June 2014.

A key feature of the NECF is a national price comparator website developed by the AER to help consumers make more informed choices on their energy supply (see www.energymadeeasy.gov.au).

The NECF is already underway in Tasmania and the ACT. Other participating states and territories have committed to adopt the NECF as soon as practicable.

Retail energy pricing – The Australian Government will continue to work with the states and territories on retail energy pricing reform to promote greater choice for consumers on their energy supply and more efficient pricing outcomes.

Carbon price – The Australian Government will use over 50 per cent of the carbon price revenue to assist households with the impact of carbon pricing on electricity bills and their overall cost of living.

The Government is also committed to assisting households manage rising energy costs through helping make homes and travel more efficient.

Information on the assistance package is available from the Clean Energy Future website at www.cleanenergyfuture.gov.au or by phoning 1800 057 590.

GOING FORWARD

The Australian Government will continue to drive reform in our energy markets to achieve our objectives on competitive pricing, reliability and clean energy.

Ensuring efficiencies in networks is a key aspect of this regulatory reform process. Existing processes aim to ensure the regulatory framework delivers appropriate and efficient network investment and supply reliability at least cost to consumers.

Enhancing the ability of consumers to better understand and manage their energy use is central to addressing issues around rising peak demand and the associated investment and pricing pressures. Greater DSP, including through innovative metering technologies and pricing structures, will be critical in this regard. Further empowerment of consumers through improved price signalling, greater competition and choice in retail energy markets, along with robust protections for vulnerable consumers will also be fundamental.

In addition to progressing the above reforms, the Australian Government will continue to push for improved corporate governance of energy businesses to ensure they are more customer-oriented - particularly in the case of government-owned network businesses. There is a need for these businesses, and the states that choose to retain their ownership, to have a much greater focus on efficiency, service delivery and ultimately reducing costs to consumers.

The Australian Government will continue to work with the states and territories, the energy sector, and the broader community to progress ongoing reform and efficiencies in the energy sector and its markets - as demonstrated through the Energy White Paper process.

AUGUST 2012