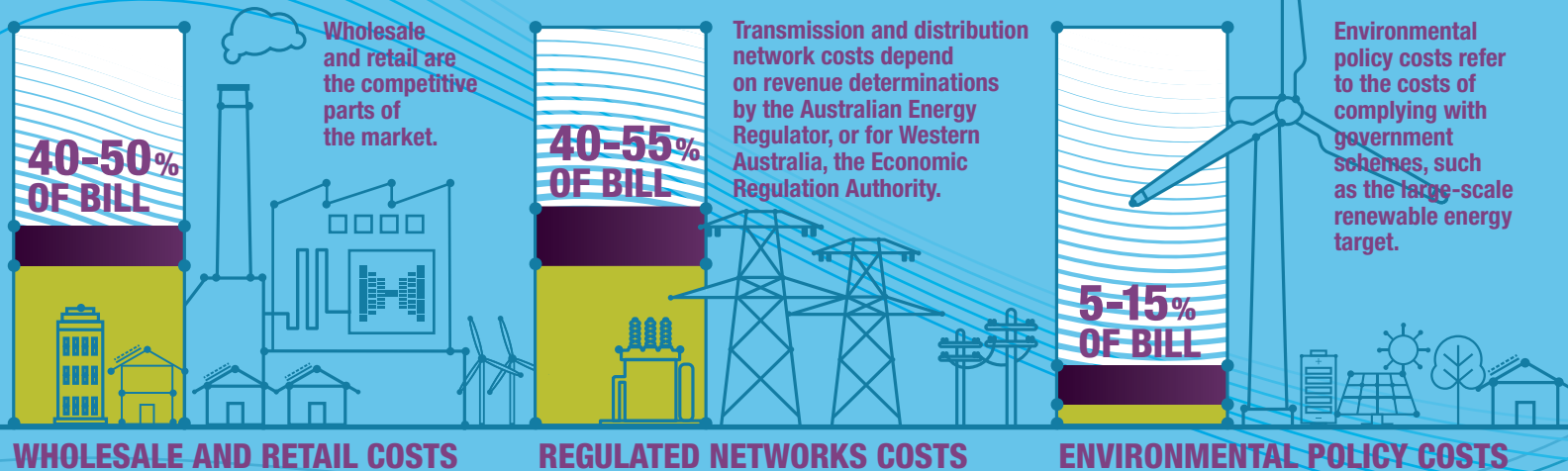


AEMC 2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

PRICES RISING WITH VARIATION BETWEEN REGIONS

Average residential electricity prices are expected to rise, driven by significant increases in wholesale costs following retirement of two large generators. The generation mix is changing as more wind and solar enters the market and coal-fired generators retire. Electricity flows across regions are changing too, leading to greater price variations.

THE COMPONENTS THAT MAKE UP YOUR ELECTRICITY BILL



PRICE DRIVERS IN OUR EVOLVING MARKET

Across most states average wholesale costs are estimated to increase by between 5% and 15% each year over 2015/16 to 2018/2019, largely driven by the closure of Hazelwood and Northern power stations, while electricity consumption remains flat.

Wholesale electricity costs are a key driver in customer bills and are increasingly connected with:

Emissions policy – the large-scale renewable energy target has led to substantial investment in wind generation – contributing to closure of coal-fired plant and recent increases in wholesale and retail prices.

The wholesale gas market – the price for gas affects electricity prices through gas-fired power stations, which are expected to play a larger role in the market.

System security – the increased reliance on renewable non-synchronous generation affects the technical characteristics of the system and the ability to supply reliable, secure energy. There is likely to be a need for additional services to manage system security, potentially impacting retail prices over the longer term.

The AEMC is responding to the interconnected nature of this market transformation in strategic ways

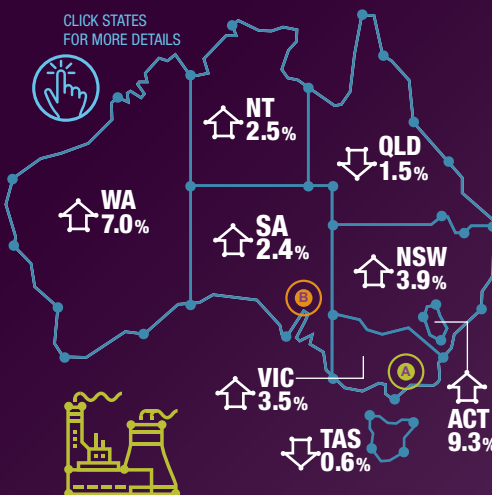
Well designed and integrated emissions reduction and energy policies can reduce emissions while delivering reliable, secure energy at the best price for consumers. The AEMC is advising energy ministers on the mechanism to achieve emissions reductions at the lowest cost to consumers.

A more efficient gas market lowers the wholesale cost of electricity by decreasing the costs of operating gas-fired generators. In 2016, following the AEMC's gas market review, governments committed to implementing a gas market reform package to enable faster and more efficient gas trading along the east coast.

The AEMC's power system security review is developing and implementing new market frameworks to support the entry of new technologies and participants in a way that delivers secure energy at the least cost for consumers.

AVERAGE ANNUAL PRICE TRENDS BETWEEN 2016/17 and 2018/19*

Trends in the underlying cost components of residential electricity bills vary across the country and over time as a result of differences in population, climate, consumption patterns, government policy and other factors.



- Ⓜ Hazelwood power station – to close March 2017
- Ⓜ Northern power station – closed May 2016

* From 2016/17 to 2018/19 annual average change in bill

PRICE IMPACTS OF HAZELWOOD POWER STATION CLOSURE

The owners of Hazelwood power station, which provides around 20% of Victoria's electricity, made a commercial decision to close in 2017. This will lead to large changes in electricity flows across regions and wholesale costs.

Increase in annual typical bill in 2018/19*



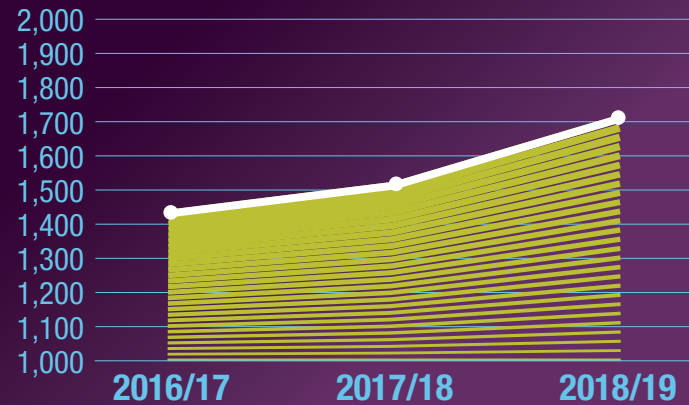
* Compared to a scenario where Hazelwood power station did not retire

2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

Higher costs are expected across all bill components – wholesale and retail, network and environmental policies – with environmental policy costs having the largest increase mainly due to the increased costs of Feed-In Tariff schemes. Network costs are uncertain due to ongoing legal proceedings.

ACT

\$ Average annual residential electricity bill



From 2016/17
to 2018/19
annual average
change in bill

UP **9.3%**



WHOLESALE AND RETAIL COSTS

INCREASING



REGULATED NETWORKS COSTS

UNCERTAIN



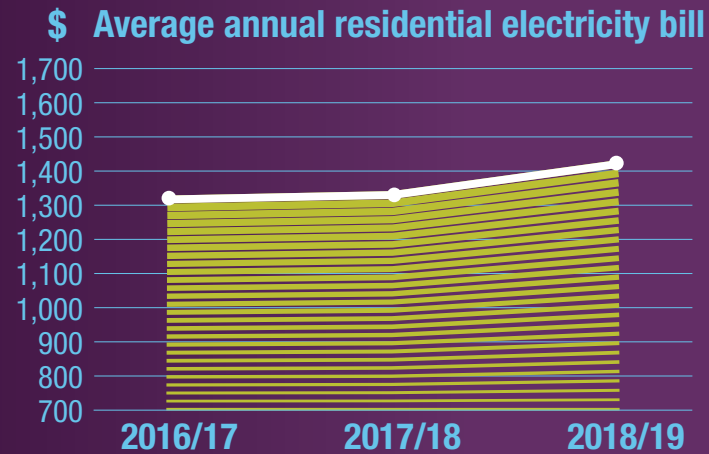
ENVIRONMENTAL POLICY COSTS

INCREASING

2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

Wholesale costs are expected to rise, largely driven by the closure of Hazelwood power station. The effect of the Hazelwood exit is mostly seen in 2018/19. Network costs may rise, although this is uncertain due to ongoing legal proceedings.

NSW



From 2016/17
to 2018/19
annual average
change in bill



UP 3.9%



WHOLESALE AND RETAIL COSTS

INCREASING



REGULATED NETWORKS COSTS

UNCERTAIN



ENVIRONMENTAL POLICY COSTS

STABLE

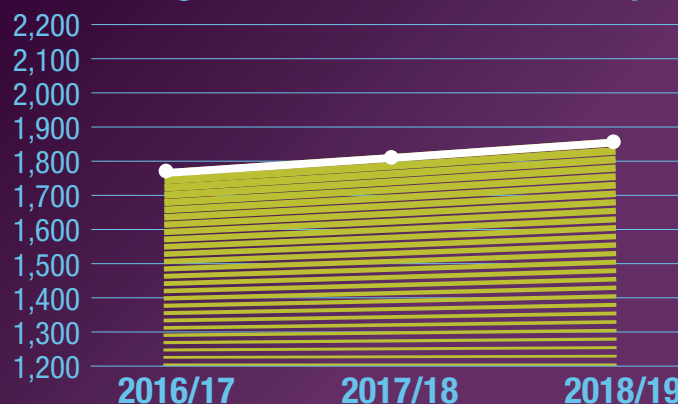
2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

Residential electricity prices in the NT are set by the territory government. The prices paid by consumers are less than the cost of supply.

NT



\$ Average annual residential electricity bill

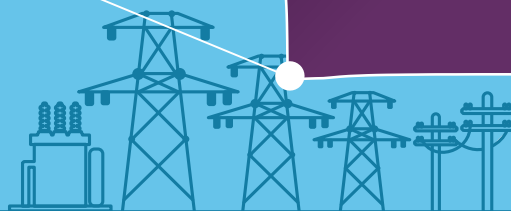


From 2016/17
to 2018/19
annual average
change in bill

 **UP 2.5%**



WHOLESALE AND RETAIL COSTS



REGULATED NETWORKS COSTS

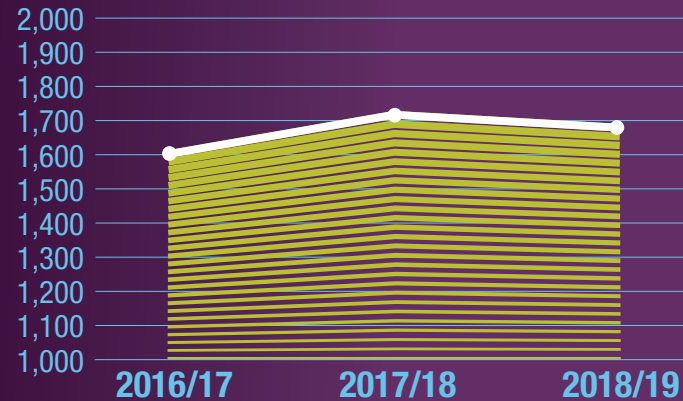


ENVIRONMENTAL POLICY COSTS

2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

Wholesale costs are expected to rise, largely due to the closure of Hazelwood power station, followed by a slight decrease in 2018/19 as more wind power comes on line. Network costs may increase slightly, although this is uncertain due to ongoing legal proceedings.

\$ Average annual residential electricity bill



From 2016/17
to 2018/19
annual average
change in bill



UP 2.4%

SA



WHOLESALE AND RETAIL COSTS

INCREASING



REGULATED NETWORKS COSTS

UNCERTAIN



ENVIRONMENTAL POLICY COSTS

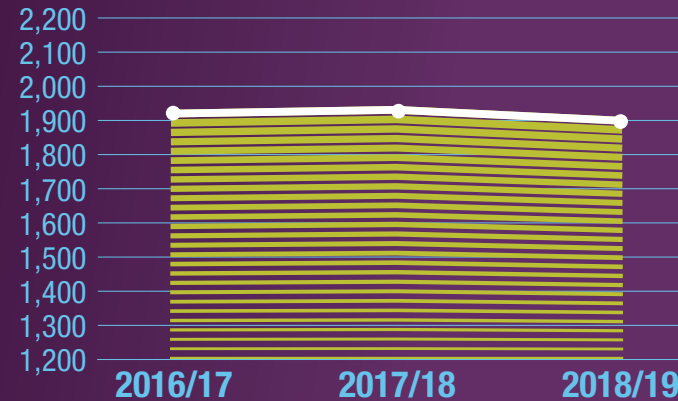
STABLE

2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

Residential electricity prices in Tasmania are set by the Office of the Tasmanian Economic Regulator. Wholesale costs are expected to rise, largely driven by the closure of Hazelwood power station. This is offset by decreasing network costs.

TAS

\$ Average annual residential electricity bill



From 2016/17
to 2018/19
annual average
change in bill

DOWN
0.6%



WHOLESALE AND RETAIL COSTS

INCREASING



REGULATED NETWORKS COSTS

DECREASING



ENVIRONMENTAL POLICY COSTS

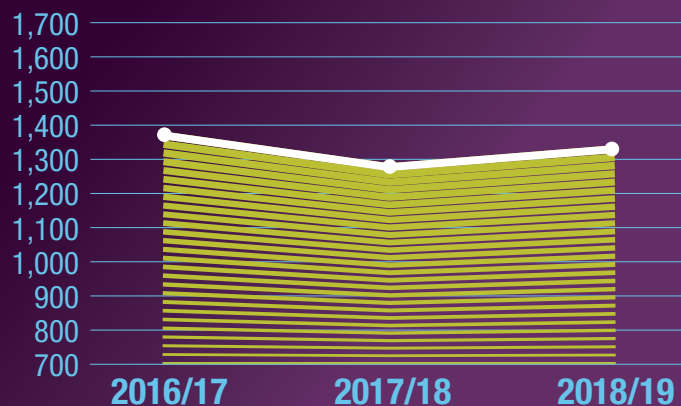
STABLE

2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

Increasing wholesale costs, largely driven by the closure of Hazelwood power station, are expected to be offset by decreases in QLD Solar Bonus Scheme costs.

QLD

Average annual residential electricity bill



From 2016/17
to 2018/19
annual average
change in bill

DOWN
1.5%



 **WHOLESALE AND RETAIL COSTS
INCREASING**

 **REGULATED NETWORKS COSTS
STABLE**

 **ENVIRONMENTAL POLICY COSTS
DECREASING**

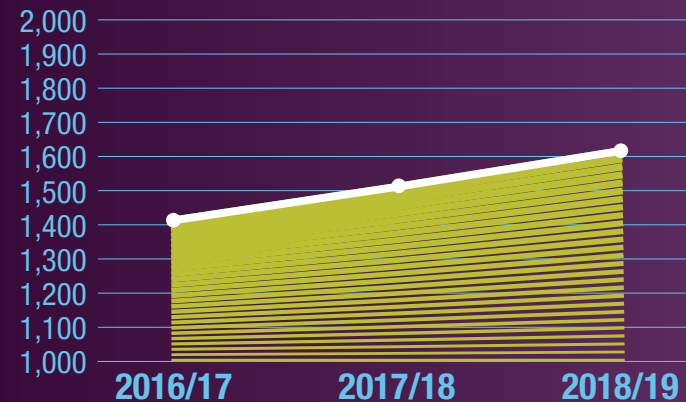
2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

Residential electricity prices in WA are set by the state government.

The prices paid by consumers are currently less than the cost of supply. The expected increase in the cost of supply is mostly due to higher wholesale costs.

WA

\$ Average annual residential electricity bill



From 2016/17 to 2018/19 annual average change in bill



UP 7.0%



WHOLESALE AND RETAIL COSTS

INCREASING



REGULATED NETWORKS COSTS

STABLE



ENVIRONMENTAL POLICY COSTS

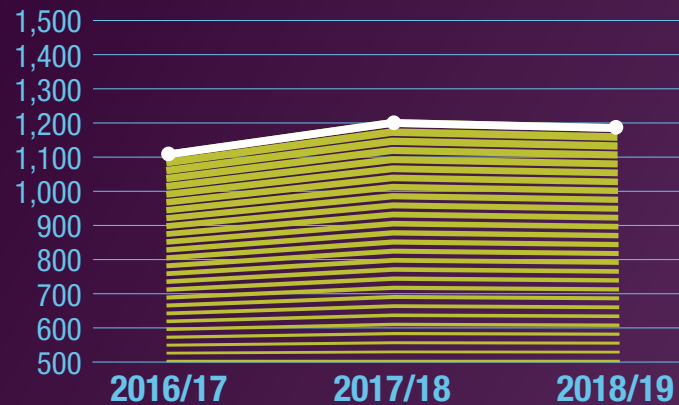
STABLE

2016 RESIDENTIAL ELECTRICITY PRICE TRENDS REPORT

Wholesale costs are expected to rise, largely due to the closure of Hazelwood power station, followed by a slight decrease in 2018/19 as more wind power comes on line. Network costs may decrease, although this is uncertain due to ongoing legal proceedings.

VIC

\$ Average annual residential electricity bill



From 2016/17
to 2018/19
annual average
change in bill

UP **3.5%**



WHOLESALE AND RETAIL COSTS

INCREASING



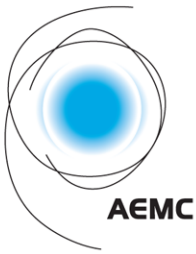
REGULATED NETWORKS COSTS

UNCERTAIN



ENVIRONMENTAL POLICY COSTS

STABLE



NEWS

South Australia residential electricity price trends

2016 Residential Electricity Price Trends report

Average residential electricity prices in South Australia are expected to increase over the next two years as wholesale costs rise following the retirement of Hazelwood power station.

The AEMC's annual report on household price trends looks at what is driving changes in the underlying cost components of household electricity bills. It analyses the competitive market sectors of wholesale generation and retail; the regulated networks sector; and price implications from government environmental policies.

AEMC Chairman John Pierce said the report found South Australian residential electricity prices are expected to rise by 2.4 per cent on average for each of the next two years, largely due to a 19 per cent increase in wholesale energy costs between 2016/17 and 2017/18 following the closure of Hazelwood power station.

"Across the national electricity market the generation mix is changing – with the large-scale renewable energy target leading to substantial investment in wind generation. This is contributing to the closure of coal-fired plants and increasing wholesale and retail prices," said Mr Pierce.

The report estimates that a typical South Australian consumer will pay an extra \$150 for their electricity in 2018/19 due to Hazelwood retiring, compared with Hazelwood continuing to operate.

At the same time, more wind power is forecast to come on line in 2018/19 to meet the requirements of the large-scale renewable energy target. This is offsetting some of the effects of the Hazelwood retirement in the short term, while demand remains flat.

The report found a range of factors will drive wholesale electricity costs over the longer term.

"Wholesale electricity costs are a key driver in customer bills. These costs are increasingly connected with the mechanisms used to achieve emissions policy objectives – that is, how the energy sector will contribute to the emissions reduction target set by the government as part of the Paris commitment," said Mr Pierce.

System security costs will also increasingly drive wholesale costs.

"Having more renewable non-synchronous generation affects the technical characteristics of the electricity system. We can expect that additional services will be needed to manage system security, potentially impacting retail prices over the longer term," Mr Pierce said.

Electricity prices are also affected by the price for gas through gas-fired power stations, which are expected to play a larger role in the market in the future.

"Any future increase in the price of gas will result in higher input costs for generators, flowing through to higher costs in the wholesale electricity market," said Mr Pierce.

"The report says gas prices are expected to remain flat but this is a volatile sector."

Network costs, which make up around half of a residential electricity bill, are expected to increase slightly in South Australia, although there is some uncertainty due to the current legal challenge of distribution network revenues by the South Australian network business.

Lots of new wind and solar generation has entered in response to mechanisms like the large-scale renewable energy target.

Now the generation mix is changing as old coal-fired power stations leave the market. Contract supply is shrinking and prices are rising

Mr Pierce said price trends would impact individual households differently depending on how each consumer uses electricity, and how willing they are to switch to a better energy deal where market offers are available.

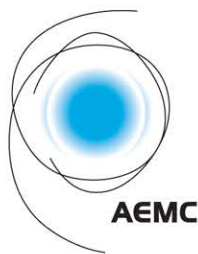
"No two households use energy in the same way. Knowing how much power you use and when, will be the key tool in controlling electricity costs in the future," Mr Pierce said.

Reforms are underway to give consumers greater control over how they manage and use energy:

- From 1 July 2017 network businesses will be required to structure their prices to better reflect the consumption choices of individual consumers. This aims to give consumers price signals about the cost of using electricity in different ways and at different times, so they can make more informed energy choices.
- New rules to open up competition in metering come into force from 1 December 2017 and will give consumers more opportunities to access a wider range of new energy products and services with real time information about their energy use.

Media: Communication Director, Prudence Anderson 0404 821 935 or (02) 8296 7817

14 December 2016



South Australia – 14 December 2016

2016 Residential Electricity Price Trends: Final Report

The 2016 Residential Electricity Price Trends report (the report) identifies drivers of movements in electricity prices from July 2016 to June 2019.

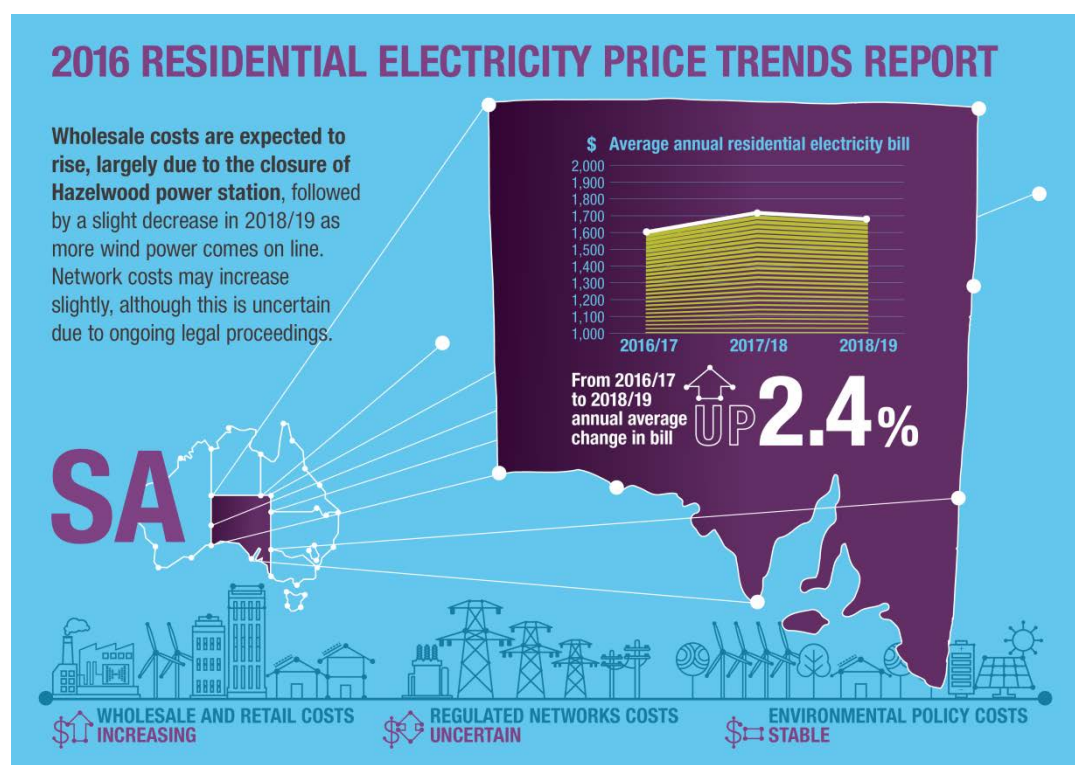
Key findings

The key supply chain cost components under analysis are the competitive market component, regulated network component and environmental policy component.

Residential electricity prices in South Australia are expected to increase by an annual average of 2.4 per cent over the two years to June 2019 for the representative consumer on a *market offer*. The trend in residential electricity prices is expected to be mostly driven by:

- increasing wholesale costs in 2017/18 as a result of the retirement of Hazelwood power station; and
- decreasing wholesale costs in 2018/19 as a result of on-going wind generation investment driven by the Large-scale Renewable Energy Target (LRET) scheme design across the National Electricity Market (NEM) and relatively flat demand.

The trend in regulated network costs is subject to more than the usual degree of uncertainty due to on-going legal proceedings.



The trend in residential electricity prices is expected to be mostly driven by changing wholesale costs.

Background

The report presents expected movements in electricity prices for a representative consumer in South Australia using an annual consumption level that was provided by the South Australian government.

- The annual consumption of the representative consumer in South Australia is 5,000 kilowatt hours (kWh) of electricity each year.
- Average electricity prices in this report are specific to the representative consumer and may not reflect the pricing outcomes for all residential consumers.

The report analyses trends in the competitive market sector (comprising wholesale and residual retail market components), the regulated networks component and government environmental policies. The report shows how these trends affect overall prices paid by residential consumers, and identifies the relative contribution of these drivers to electricity price movements.

Price trends identified in this report are not a forecast of actual prices, but rather a guide as to what may influence prices based on current expectations, assumptions and government legislation. Actual price movements will be influenced by how retailers compete in the retail market, the outcomes of network regulatory processes and any changes in government legislation.

Trends in residential electricity prices

Residential *market offer* electricity prices for the representative consumer in South Australia increased by 7.7 per cent in 2016/17 and are expected to:

- *increase* by 7.2 per cent in 2017/18; and
- *decrease* by 2.2 per cent in 2018/19.

This is equivalent to an average annual increase of 2.4 per cent over the two years to June 2019.

South Australian consumers have the choice of two different types of retail offer: *standing offers* and *market offers*. These offers feature prices set by retailers in the competitive market. In South Australia, approximately 85 per cent of consumers are on *market offers*.

In 2015/16, a consumer on the regulated *standing offer* using 5,000 kWh per year had a total annual bill of \$1,693 exclusive of GST. This representative consumer may have saved around \$206, or 12 per cent, by switching from a *standing offer* to the representative *market offer* of \$1,487.

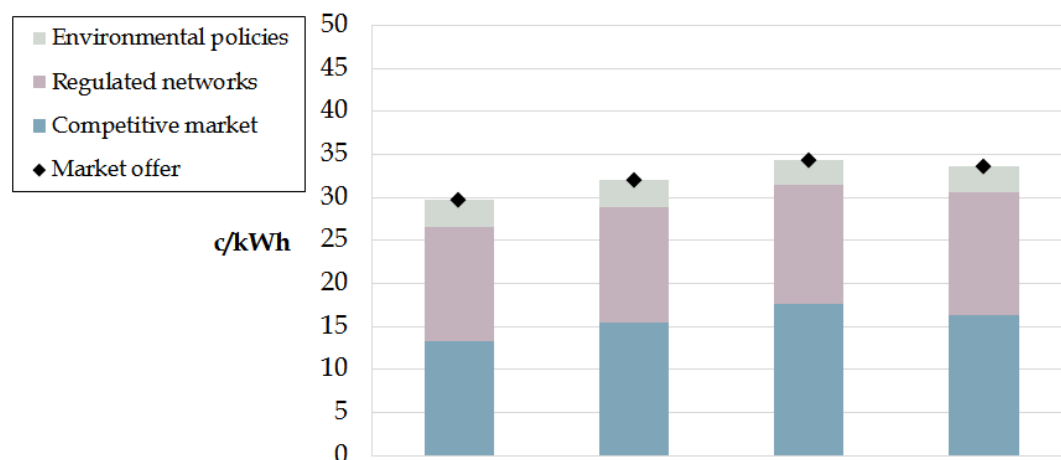
Table: South Australian *standing* and *market offers* for a representative consumer

South Australia	2015/16
<i>Standing offer</i> total annual bill	\$1,693
<i>Market offer</i> total annual bill	\$1,487
Saving by switching to representative <i>market offer</i>	\$206 or 12%

Changing wholesale electricity costs are largely driven by the retirement of Hazelwood power stations and on-going wind generation investment driven by the LRET scheme design.

Trends in supply chain cost components

The figure shows the expected movements in the supply chain cost components for the representative consumer on a *market offer* in South Australia.



	2015/16		2016/17		2017/18		2018/19	
	c/kWh	\$/yr	c/kWh	\$/yr	c/kWh	\$/yr	c/kWh	\$/yr
Environmental policies	3.13	\$157	3.09	\$155	2.88	\$144	2.99	\$149
LRET - LGC cost	0.66	\$33	0.83	\$41	0.76	\$38	0.89	\$44
SRES - STC cost	0.47	\$24	0.41	\$21	0.38	\$19	0.37	\$18
Solar FiT	1.71	\$85	1.55	\$78	1.43	\$72	1.43	\$72
REES	0.30	\$15	0.30	\$15	0.30	\$15	0.30	\$15
Regulated networks	13.34	\$667	13.52	\$676	13.86	\$693	14.28	\$714
Transmission	3.12	\$156	2.80	\$140	2.84	\$142	2.85	\$143
Distribution	10.22	\$511	10.72	\$536	11.02	\$551	11.43	\$571
Competitive market	13.27	\$663	15.43	\$771	17.60	\$880	16.32	\$816
Wholesale and Retail	13.27	\$663	15.43	\$771	17.60	\$880	16.32	\$816
Market offer	29.75	\$1,487	32.04	\$1,602	34.34	\$1,717	33.59	\$1,679

The expected movements in each of the electricity supply chain components for South Australia from 2016/17 to 2018/19 are summarised below:

Competitive market costs consist of the wholesale electricity component and the costs associated with retailing electricity to residential consumers. They comprise approximately 48 per cent of a South Australian residential electricity bill in 2016/17. They are expected to increase at an average annual rate of 2.8 per cent from 2016/17 to 2018/19.

In South Australia, competitive market costs are expected to increase by 14 per cent from 2016/17 to 2017/18, before decreasing by 7 per cent in 2018/19.

- The large increase in 2017/18 is due to the retirement of the Hazelwood power station in Victoria. The wholesale electricity price increase affects other regions via flows on interconnectors.
- The decrease in 2018/19 is driven by increased supply from wind generation investment expected in the southern states driven by the LRET scheme design. The Heywood Interconnector capacity upgrade and a slight decline in electricity consumption due to the increased uptake of solar PV place further downward pressure on wholesale electricity costs.

For a representative South Australian customer, power bills will be about \$150 higher in 2018/19 than they would have been if Hazelwood was still operating (a rise of 9.8%).

The costs of retailing electricity in South Australia are not directly observable. The retail component is a residual and includes errors in the estimates of other supply chain cost components. It is important to recognise that offers can vary significantly over time. Retailers have different business models and cost structures. Current estimates of the

The trend in regulated network costs is uncertain due to ongoing legal proceedings.

retail component are unlikely to be a true reflection of individual retailers' operating costs and return on investment.

Regulated network costs consist of transmission and distribution costs and comprise approximately 42 per cent of a South Australian residential electricity bill in 2016/17. They are estimated to increase at an average annual rate of 2.8 per cent over the two years to June 2019. This is uncertain due to the ongoing legal challenge over distribution network revenues for the 2015-20 regulatory determination period.

Transmission network costs are expected to increase at an average annual rate of 0.9 per cent over the two years to June 2019. The trend in regulated transmission network prices in these years reflects the smoothed annual revenue in the AER's final decision for the transmission network business, ElectraNet, for the 2013-18 regulatory period.

Distribution network costs are estimated to increase at an average annual rate of 3.2 per cent over the two years to June 2019. The trend is based on the smoothed annual revenue in the AER's final determination for SA Power Networks for the 2015-20 regulatory period.

SA Power Networks has applied to the Federal Court for a judicial review of the Australian Competition Tribunal's merits review determination in October 2016, which upheld the AER's approach to the final revenue determination. Future trends in regulated network costs will depend on the outcomes of this judicial review application.

Environmental policy costs comprise approximately 11 per cent of a South Australian residential electricity bill. They are expected to decrease at an average annual rate of 1.7 per cent over the two years to June 2019. This cost decrease is driven by reductions in the costs of the Solar Feed-in Scheme and the Small-scale Renewable Energy Scheme.

The national picture

The underlying supply chain cost components and drivers of those trends vary across jurisdictions as a result of population, climate, consumption patterns, government policy and other factors. Against this background residential prices are expected to increase across the reporting period for most jurisdictions, driven to a greater or lesser degree by the same factors influencing South Australia.

Q&A

What will electricity prices be in South Australia?

For a representative consumer on a *market offer*, residential electricity prices in South Australia are expected to increase by an annual average of 2.4 per cent over the two years to June 2019.

Why are prices going up?

Electricity prices are made up of wholesale, retail, network and environmental policy costs. Trends in South Australia electricity prices over the two years to June 2019 will be driven by:

- increasing wholesale costs in 2017/18 as a result of the retirement of Hazelwood power station; and
- decreasing wholesale costs in 2018/19 as a result of on-going wind generation investment driven by the LRET scheme design across the National Electricity Market (NEM) and relatively flat demand.

The trend in regulated network costs is uncertain due to on-going legal proceedings.

What is the effect on power bills of Hazelwood power station retiring?

For a representative South Australian customer, power bills will be about \$150 higher in 2018/19 than they would have been if Hazelwood was still operating.

Residential prices are expected to increase across the reporting period for most jurisdictions, mostly driven by higher wholesale electricity costs.

How does South Australia compare to other jurisdictions?

Trends in electricity prices and bill components vary across jurisdictions and over time. This reflects difference in population, climate, consumption patterns, government policy and other factors across states and territories. The way these trends affect an individual consumer will depend on how that consumer uses electricity.

Against this background, residential prices are expected to increase across the reporting period for most jurisdictions, driven mainly by rising wholesale electricity costs.

How do consumers get a better deal?

Consumers can choose from the range of different electricity offers available in the market. A comparator website like energymadeeasy.gov.au can help consumers select the best offer for them. Actual savings will depend on consumers' individual circumstances.

For information contact:

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14 December 2016