

Western Australia – 18 December 2017

Residential electricity price trends report 2017

The 2017 residential price trends report identifies cost drivers across the entire electricity supply chain from 2016-17 to 2019-20.

The AEMC provides detailed analysis of forces for change in Australia's energy markets. We provide governments and stakeholders with the data they need to make market transformation work in the long term interests of consumers. This report provides an overall picture of factors driving electricity prices for households in each state and territory.

Key findings for Western Australia

This report examines wholesale electricity purchase costs, regulated network costs, environmental policy costs and retail costs.

Residential electricity prices in the South-West Interconnected System (SWIS) are expected to have an average annual increase of 6.3 per cent over the two years to June 2020, for the representative consumer.

The expected increases in the estimated residential electricity supply cost are driven by increases across all cost components except regulated network costs, with wholesale costs having the largest rise.

The Western Australia Government is currently undertaking a number of reforms of the electricity market which may affect future residential retail prices. These cover improved access to the electricity network, improved operation of the wholesale electricity market and reserve capacity pricing. Retail price deregulation for households and businesses has been announced as part of the reform.

Background

The expected movements in electricity prices for a representative consumer in the Western Australia have been based on a consumption level provided by the Western Australia government.

The annual consumption of the representative consumer in Western Australia is 5,198 kWh per year. Average electricity prices in this report are specific to the representative consumer and may not reflect pricing outcomes for all residential consumers.

Residential electricity prices paid by consumers in the SWIS do not follow price trends or necessarily reflect the underlying cost of supply electricity as residential electricity prices are set by the Western Australia Government.

Price trends identified in this report are not a forecast of actual prices. They are a guide to factors which may drive prices up or down. Actual prices will be influenced by how retailers compete in the market, the outcomes of network regulatory processes and changes in government legislation. Actual consumer bills will be affected by all these drivers as well as customers' individual consumption choices, and local factors like the weather, and where they live.

Residential electricity prices are estimated to increase by an annual average of 6.3 per cent from 2017-18 to 2019-20.

Trends in residential electricity prices

Retail prices are set by the Western Australia Government. Residential electricity prices for the representative consumer in the SWIS increased by 10.9 per cent from 2016-17 to 2017-18. Further, prices are expected to increase by:

- increase by 7.0 per cent in 2018-19
- increase by 5.6 per cent in 2019-20.

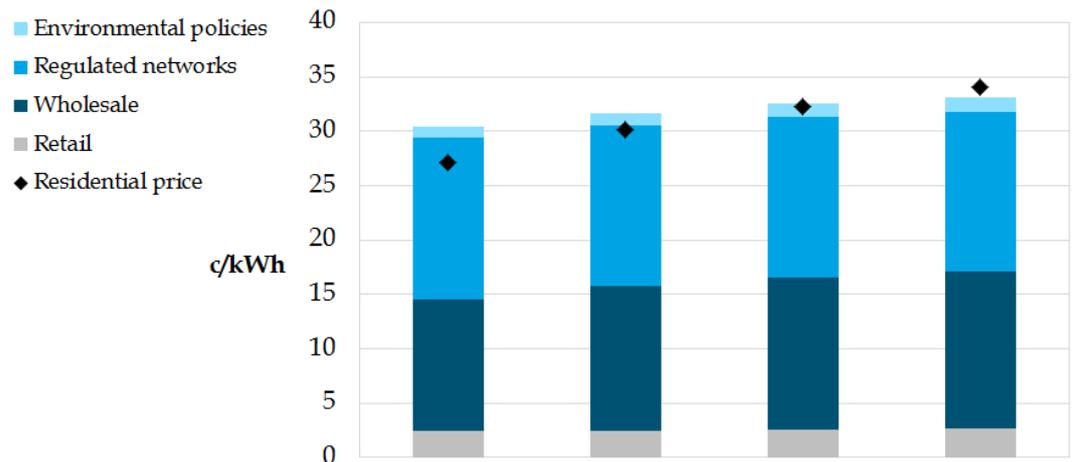
This is equivalent to an average annual increase of 6.3 per cent from 2017-18 to 2019-20. These retail prices are based on prices published by the Western Australia Government (for 2016-17 and 2017-18) and by the trend announced in the 2017-18 State Budget (for 2018-19 and 2019-20).

In 2016-17, a representative consumer using 5,198 kWh per year paid the government set price and had a total annual bill of \$1,412 exclusive of GST. This is less than the total cost of supply of \$1,580 as shown in the table below.

Western Australia	2016-17
Total annual bill for representative consumer	\$1,412
Estimated total cost of supply	\$1,580

Trends in supply chain cost components

The below figure shows the expected movements in the supply chain cost components for the representative consumer paying the government set price in Western Australia.



	2016/17 Base Year		2017/18 Current Year		2018/19		2019/20	
	c/kWh	\$/yr	c/kWh	\$/yr	c/kWh	\$/yr	c/kWh	\$/yr
Environmental policies	1.01	\$52	1.09	\$57	1.23	\$64	1.36	\$71
LRET - LGC cost	0.65	\$34	0.76	\$40	0.89	\$46	1.03	\$54
SRES - STC cost	0.36	\$19	0.33	\$17	0.34	\$18	0.33	\$17
Regulated networks	14.80	\$769	14.80	\$769	14.74	\$766	14.65	\$761
Transmission	1.50	\$78	1.50	\$78	1.49	\$77	1.48	\$77
Distribution	13.31	\$692	13.31	\$692	13.25	\$689	13.17	\$684
Wholesale	12.19	\$633	13.25	\$689	13.97	\$726	14.48	\$752
Retail	2.40	\$125	2.50	\$130	2.58	\$134	2.67	\$139
Estimated total supply cost	30.40	\$1,580	31.64	\$1,645	32.52	\$1,690	33.15	\$1,723
Residential price	27.17	\$1,412	30.13	\$1,566	32.23	\$1,676	34.04	\$1,769

The expected movements in each of the electricity supply chain cost components for the Western Australia from 2017-18 to 2019-20 are summarised below:

The expected increases in the estimated residential electricity supply cost are driven by increases across all cost components except regulated network costs, with wholesale costs having the largest rise.

Wholesale electricity purchase costs: these costs include purchases from the spot market and financial contracts, ancillary services, market fees and energy losses from transmission and distribution networks.

In Western Australia, wholesale market costs comprised approximately 40.1 per cent of the total cost of supply in 2016-17. Wholesale market costs are expected to:

- increase by 8.7 per cent in 2017-18
- increase by 5.5 per cent in 2018-19
- increase by 3.6 per cent in 2019-20.

This is equivalent to an average annual increase of 4.5 per cent from 2017-18 to 2019-20.

Regulated network costs: these costs include transmission and distribution network service providers' costs associated with providing the necessary infrastructure to enable the power system to operate as a connected system.

Regulated network costs comprise approximately 48.7 per cent of the total cost of supply for Western Australia in 2016-17. Network costs are expected to decrease at an average annual rate of 0.5 per cent from 2017-18 to 2019-20.

Transmission and distribution networks in Western Australia are operated by the state-owned corporation, Western Power. Western Power's annual price list under its approved 2012-17 Access Arrangement was used for network prices in 2016-17.

There is uncertainty over the trend in the regulated network component from 2017-18 to 2019-20 due to ongoing processes related to Western Power's 2017-22 Access Arrangement. Network costs in these years have been estimated by keeping them constant in nominal terms.

Environmental policy costs: these costs are related to policies introduced by Commonwealth government — namely, the Renewable Energy Target.

In 2016-17, environmental schemes comprised 3.3 per cent of the total cost of supply for Western Australia and are expected to comprise an increasing proportion from 2017-18 to 2019-20.

The costs associated with the large-scale generation certificate scheme under the large-scale renewable energy target are expected to increase at an average annual rate of 16.3 per cent over the period from 2017-18 to 2019-20.

The small-scale technology certificate costs under the small-scale renewable energy scheme are expected to decrease at an average annual rate of 0.1 per cent from 2017-18 to 2019-20.

The national picture

The underlying supply chain cost components and the impact of those trends vary across jurisdictions as a result of population, climate, consumption patterns, government policy and other factors. Residential prices nationally peak in 2017-18 and decrease in both 2018-19 and 2019-20. This is as a result of the national trends being influenced by wholesale electricity purchase costs in the national electricity market (NEM) which is the key driver of the price trends during the reporting period.

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