

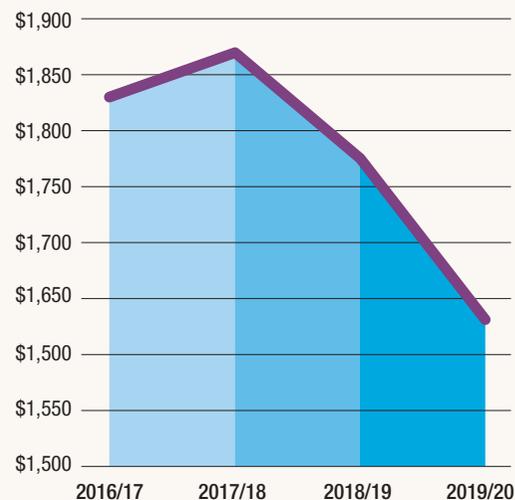
AUSTRALIAN ENERGY MARKET COMMISSION

ELECTRICITY PRICE TRENDS REPORT 18 DEC 2017

This report looks at factors driving residential power prices in Tasmania over the next two years July 2018-2020

WHAT'S DRIVING THE ANNUAL BILL FOR A TYPICAL HOUSEHOLD IN TASMANIA

\$ Annual electricity bill for a typical residential consumer



Standing offer prices increased by 2% this year and are estimated to fall by an annual average 6.5% over the next two years driven by wholesale costs.

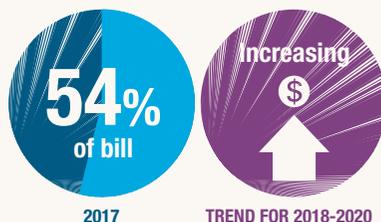
6.5% ↓ **TAS**

THE COMPONENTS MAKING UP ELECTRICITY BILLS TODAY

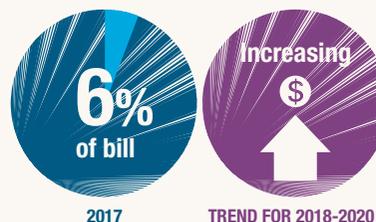
WHOLESALE COSTS



REGULATED NETWORKS COSTS



ENVIRONMENTAL COSTS



COSTS AT A GLANCE



WHOLESALE

The cost of generating electricity

- Increased by 36.4% this year due to the exit of Northern and Hazelwood coal generators, and higher gas prices which increase the costs of operating gas-fired generators. The Tasmanian government has capped the wholesale power price for 12 months from 1 July 2017.
- Estimated to decrease by an average 25.8% each year as new wind and solar generation enters the market and the Swanbank E gas generator in Queensland returns to service.



NETWORKS

Poles and wires costs depend on regulator revenue determinations

Transmission and distribution costs are estimated to increase by an average 2.5% each year over the next two years.



ENVIRONMENTAL

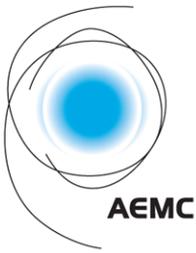
Direct costs of government schemes like the renewable energy target

Estimated to increase by an average 11.7% each year. Rising costs include RET certificates.



RESIDUAL

The residual component reflects costs and risk incurred by retailers, and their profit or loss. It also includes calculation errors in the costs of other supply chain components. It does not represent retail margins.



Tasmania residential electricity price trends

2017 Residential electricity price trends report

Households in Tasmania will see prices drop by an estimated 6.5% each year over the next two years from 1 July 2018 as more variable wind and solar generation comes online.

But over time, without investment in replacement dispatchable capacity, wholesale costs will start to rise again as older generators exit. Uncertainty is stopping investment and will put upward pressure on prices in the medium term.

The AEMC's annual report on price trends provides an overall picture of factors driving electricity prices for households in each state and territory. While the report is not a forecast of prices, it analyses cost trends across the electricity supply chain including generation, the regulated networks sector; and price impacts resulting from government environmental and system security policies.

The report found residential electricity prices in Tasmania rose by around 2% this year. Price increases across the national electricity market, including Tasmania, were largely due to a 36% increase in wholesale energy costs following the closure of Northern and Hazelwood coal power stations, and higher gas prices which increase the cost of operating gas-fired generators.

However, the price impacts in Tasmania were partly offset by the state government's legislation to cap the wholesale power price at \$83.79 per MWh for 12 months from 1 July 2017.

Wholesale cost increases are expected to reverse over the next two years as more wind and solar generation comes online and a Queensland gas generator returns to service. More supply means downward pressure on prices.

While welcoming the expected price falls, AEMC Chairman John Pierce cautioned that without investment in replacement dispatchable generation, wholesale costs will start to rise again in the medium term

"Older, unprofitable thermal generators are exiting the market – reducing the supply of dispatchable energy," said Mr Pierce.

"Without new investment, wholesale prices will go up again and remain volatile, and the rollercoaster will be repeated."

To this end, the AEMC is working with other market bodies on the Energy Security Board on the national energy guarantee design.

"We have a window right now for the COAG Energy Council to continue its work on mechanisms that can work in the long term interests of consumers and keep the lights on as the energy sector continues to restructure," Mr Pierce said.

Network costs – the poles and wires - which make up around half of the typical residential electricity bill in Tasmania are estimated to increase slightly over the next two years.

Environmental policy costs, which make up around 6% of the bill, are estimated to increase by around 12% each year over the next two years. The main driver is the rising cost of certificates under the large-scale renewable energy target.

“Without new investment, wholesale prices will go up again and remain volatile, and the rollercoaster will be repeated.”

Background

Price trends identified in the 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, the availability of mains gas, and the prevalence of solar PV systems.

Modelling for price trends in Tasmania

The report estimates electricity prices for the most common type of Tasmanian residential electricity consumer (the 'representative consumer').

The representative consumer is defined by their electricity consumption characteristics including:

- total annual electricity consumption
- quarterly electricity consumption, to reflect seasonal changes in power use
- use of off-peak tariffs
- gas use
- the number of people in the household.

For Tasmania, the report uses a figure of 7,908 kWh per year for annual electricity consumption, of which 4,349 kWh is for heating and hot water. These consumption figures are based on AER bill benchmarking data from a survey of around 8,000 households (across all jurisdictions except for Western Australia) where participants are asked about their homes and the way they use electricity.

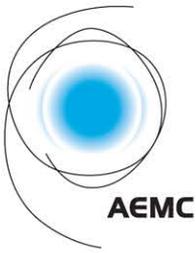
In Tasmania the representative consumer is a two-person household with electric water heating but no mains gas connection or pool.

Representative retail prices for Tasmania are based on the regulated standing offer from Aurora Energy, which applies to almost all residential consumers.

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18 December 2017



Tasmania – 18 December 2017

2017 Residential electricity price trends: report 2017

The 2017 residential electricity 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 of changes in Australia's energy markets. We provide government 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 Tasmania

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

Annual electricity prices for the representative consumer on a standing offer in Tasmania:

- increased by 2.0 per cent from 2016-17 to 2017-18 due to higher wholesale electricity costs, driven by the retirement of Northern and Hazelwood generators and increasing gas prices. It is noted that Tasmania's 2017-18 wholesale market costs are based on the Wholesale Electricity Price Order which sets the wholesale electricity price at \$83.79 / MWh for 12 months starting 1 July 2017.
- are expected to decrease by an annual average of 6.5 per cent in 2018-19 and 2019-20. This trend is largely attributable to decreases in wholesale electricity costs driven by 4,100 MW of new generation across the NEM, the return to service of Swanbank E generator (385 MW in Queensland), and reduced short-run costs for South Australian gas plants due to the Energy Security Target.

Background

The expected movements in electricity prices for a representative consumer in Tasmania have been based on an annual consumption level calculated from benchmark value data published by the Australian Energy Regulator (AER). The AER published updated benchmark values in December 2017. These new figures have been used in the report.

The annual consumption of the representative consumer in Tasmania is 7,908 kWh per year.

Average electricity prices in this report are specific to the representative consumer in Tasmania and may not reflect pricing outcomes for all residential consumers.

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 process and changes in government legislation. Actual consumer bills will be affected by all these drivers as well as customer's individual consumption choices, and local factors like the weather, and where they live.

The key driver of the trend in annual electricity bills is wholesale electricity purchase costs.

Trends in residential electricity prices

Residential electricity standing offers for the representative consumer in Tasmania increased by 2.0 per cent from 2016-17 to 2017-18. However, prices are expected to:

- decrease by 5.2 per cent in 2018-19
- decrease by 7.9 per cent in 2019-20.

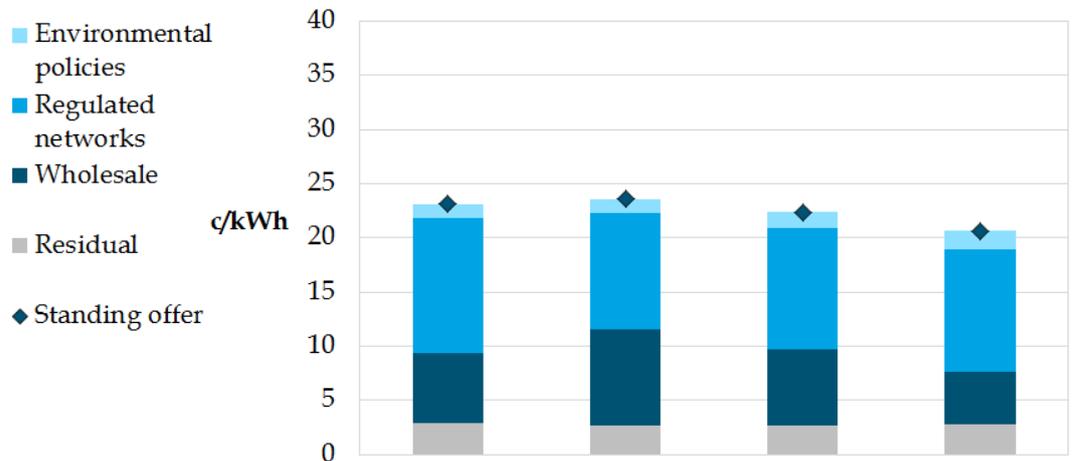
This is equivalent to an average annual decrease of 6.5 per cent from 2017-18 to 2019-20.

Full retail contestability was introduced from 1 July 2014 and retailers were able to offer market contracts. No new retailer has entered the Tasmanian residential electricity market and Aurora Energy continues to be the sole supplier of electricity to residential retail consumers. Since most residential customers remain on standing offers, this report does not cover market offers for Tasmania.

In 2016-17, a representative consumer on the regulated standing offer using 7,908 kWh per year had a total annual bill of \$1,831 exclusive of GST.

Trends in supply chain cost components

The below figure shows the expected movements in the supply chain cost components for the representative consumer on a standing offer in Tasmania.



	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	1.31	\$103	1.32	\$104	1.49	\$118	1.65	\$130
LRET - LGC cost	0.84	\$66	0.93	\$73	1.08	\$86	1.25	\$99
SRES - STC cost	0.47	\$37	0.40	\$31	0.41	\$32	0.39	\$31
Regulated networks	12.44	\$983	10.79	\$853	11.16	\$883	11.34	\$896
Transmission	2.82	\$223	2.76	\$218	2.81	\$223	2.86	\$226
Distribution	9.61	\$760	8.03	\$635	8.35	\$660	8.48	\$670
Wholesale	6.51	\$515	8.88	\$702	7.05	\$558	4.89	\$387
Residual	2.90	\$229	2.63	\$208	2.69	\$213	2.76	\$218
Standing offer	23.15	\$1,831	23.62	\$1,868	22.40	\$1,771	20.64	\$1,632

*The residual component is derived for 2016-17 and 2017-18 by subtracting wholesale, environmental and network costs from the standing offer price. The residual cost is assumed to increase at an inflation rate of 2.5 per cent for future years in the reporting period. The residual component is derived specifically for the representative consumer using the methodology in this report and is not equivalent to the regulated retail margin set by Tasmanian Economic Regulator.

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

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 2017-18
Tasmania's
wholesale market
costs are based
on the Wholesale
Electricity Price
Order which sets
the wholesale
electricity price at
\$83.79 / MWh.**

In Tasmania, wholesale market costs comprised approximately 28.1 per cent of the representative standing offer in 2016-17. Wholesale market costs are expected to:

- increase by 36.4 per cent in 2017-18
- decrease by 20.6 per cent in 2018-19
- decrease by 30.7 per cent in 2019-20.

This is equivalent to an average annual decrease of 25.8 per cent from 2017-18 to 2019-20.

The drivers of wholesale market costs are set out in key findings above.

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.

The regulated network costs comprised approximately 53.7 per cent of the representative standing offer in 2016-17.

Transmission network costs are expected to increase at an average annual rate of 1.8 per cent from 2017-18 to 2019-20. The trend in transmission costs is based on transmission use of system charges in TasNetworks' (distribution) approved pricing proposal for 2017-18 and revenue growth in the AER's revenue determination for the TasNetworks' (transmission) business for the 2014–19 regulatory period in 2018-19. In 2019-20, costs are based on transmission network revenues being kept constant in nominal terms with 2018-19.

Distribution network costs are expected to increase at an average annual rate of 2.7 per cent from 2017-18 to 2019-20. Trends for distribution costs in Tasmania reflect TasNetworks' (distribution) approved pricing proposal for 2017-18 and revenue growth in the AER's revenue determination for the TasNetworks (distribution) business for the 2014–19 regulatory period for 2018-19. For 2019-20, costs are based on distribution revenues being held constant in nominal terms with 2018-19.

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

In 2016-17, environmental schemes comprised 5.6 per cent of the representative market offer 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. Against this background, residential prices nationally follow the same general trend as that seen for Tasmania. This is as a result of the trend in wholesale electricity purchase costs which is the key driver of the price trends during the reporting period.

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