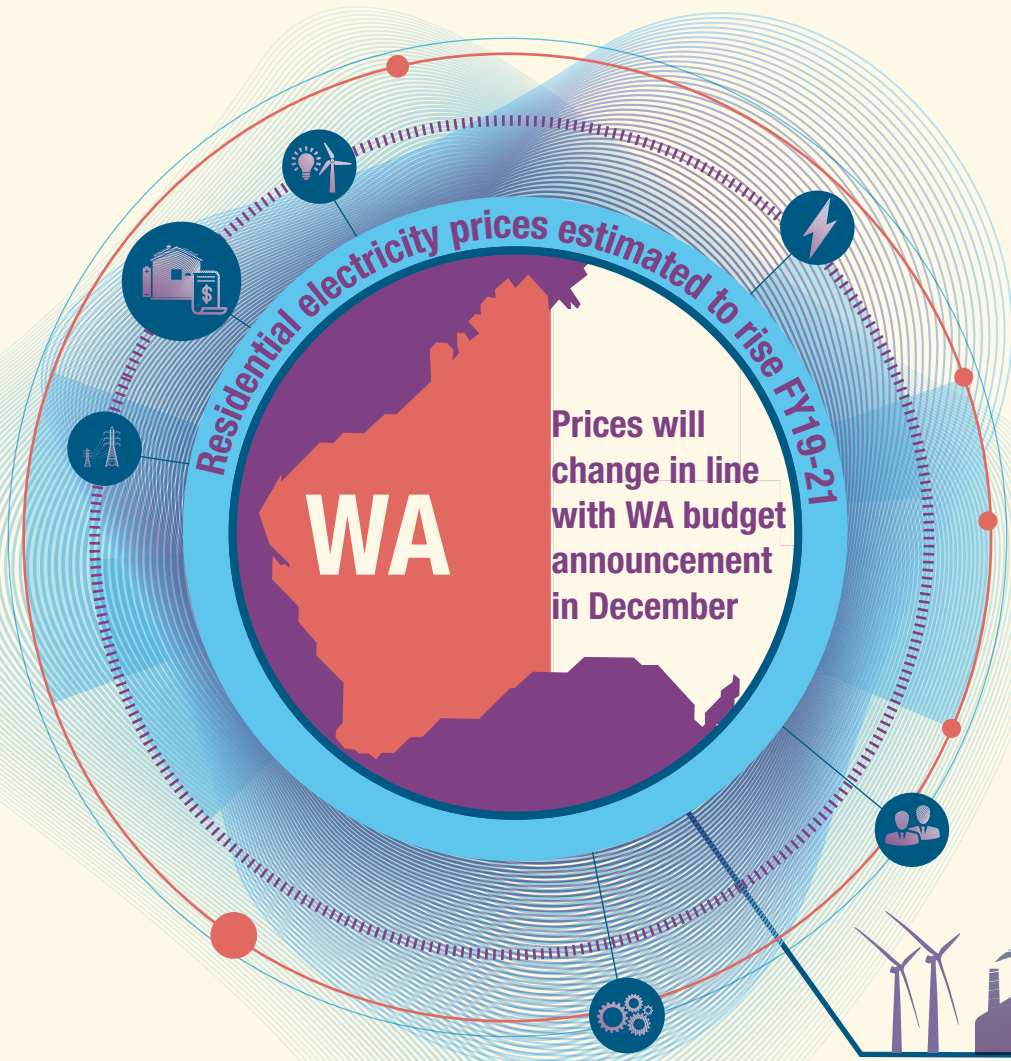


# AUSTRALIAN ENERGY MARKET COMMISSION ELECTRICITY PRICE TRENDS REPORT 21 DECEMBER 2018

WESTERN AUSTRALIA'S RESIDENTIAL ELECTRICITY PRICES ARE INCREASING SLIGHTLY

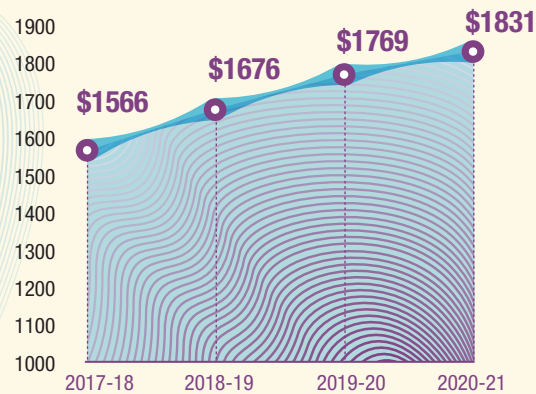
After a 7% increase this year, prices are expected to increase by a further 9% in total over the next two years. Annual price changes are set by the Western Australian Government.



## CONSUMER

The most common electricity consumer is a household consuming 5,198 kWh annually. Residential electricity prices are set by the Western Australian government and may not reflect the underlying cost of the supplying electricity.

### Annual electricity bill for a typical residential customer



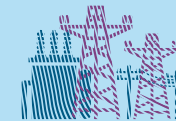
## AT A GLANCE



### WHOLESALE

The cost of generating electricity

Wholesale costs in the Western Australian Market (WEM) account for 40.8% of the typical bill this year and are expected to continue to increase in the next two years driven by higher gas and coal prices. Changes in residential demand related to increased penetration of rooftop solar are also contributing to an increase in wholesale costs.



### NETWORKS

Poles and wires costs depend on regulator revenue determinations

Regulated network costs account for 46.7% of the typical bill this year and are expected to increase based on the latest Access Arrangements from the Western Australian Economic Regulation Authority (ERA).



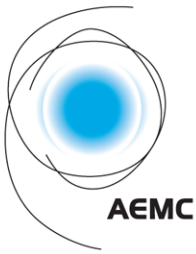
### ENVIRONMENTAL

Direct costs of government schemes like the renewable energy target

Environmental costs in customers' bills are a result of the Commonwealth Government's Renewable Energy Target which accounts for 4.4% of the representative residential bill. Environmental policy costs are expected to contribute to upward pressure on costs in the next two years driven by continued growth in solar penetration and the consequent increase in costs for the Commonwealth Government's small scale renewable scheme.

### ABOUT THIS REPORT

The price trends report is a core document used to inform a range of stakeholders including the Australian Energy Market Operator, the International Energy Agency and the Reserve Bank of Australia. It helps consumers understand costs included in their electricity bill. It also provides governments with information they need to understand changes in electricity prices and provides context for long-term decision making on energy policy. Price trends identified in this report are not a forecast of actual prices, but rather are a guide to pricing and bill directions based on current expectations, policy and legislation. Actual price movements will be influenced by how retailers compete, the dynamics of wholesale markets, the outcomes of network regulatory decisions, and changes in policy and regulation.



## Western Australia's power prices depend on state budget

### Australian Energy Market Commission 2018 residential electricity price trends report

**Power prices are estimated to increase over the next two years from FY19 to FY21 in line with the price path set by the Western Australian Government, according to the Australian Energy Market Commission's annual report on price trends released today.**

Residential electricity prices paid by consumers are set by the Western Australian Government and may not reflect the underlying costs of supplying electricity.

Over the next two years the price paid for electricity by Western Australia households was estimated to increase on average by \$77.50 each year (or 4.5%) from FY19 to FY21.

The final outcome will be determined by state government decision.

Western Australia's price trend is being driven by rising wholesale and network costs.

The state's representative consumer (the most common type of household based on electricity consumption) was estimated to be paying around \$155 more in July 2020 than they are today but this will be subject to pending government decisions.

These estimated changes are based on the most common electricity customer in Western Australia which is a four-person household, consuming 5,198 kWh of electricity each year. Actual electricity bills depend on how and when electricity is used in each home.

AEMC Chief Executive, Mrs Anne Pearson, said the energy sector's challenge in years ahead will be to continue balancing electricity supply and demand as the energy market restructures.

"Cost control helps contain prices," she said.

"The changing generation mix is affecting supply and demand at the wholesale end of the supply chain.

"Our report also shows networks account for around half of consumer bills. Managing the costs of connecting new generation will be a major challenge. We must avoid over-engineered solutions to stop gold plating and price spikes," she said.

Mrs Pearson said it was in the strong interest of consumers that government and regulatory policy focused on long-term planning, focusing on low cost solutions to the issue of energy transition.

She said there was a need to:

- establish more certainty in wholesale markets through more effective management of environmental and security costs
- facilitate greater price competition in the retail market through open and transparent price setting that consumers can trust; and
- develop an integrated, modernised power grid that reduces costs to consumers.

Mrs Pearson said the report recognised there were a range of issues unique to each jurisdiction that were also influencing price outcomes.

**The changing generation mix is affecting supply and demand at the wholesale end of the supply chain.**

## Continued

Price trends will affect individual households differently depending on how much 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 is important in controlling electricity bills in the future as new technologies become more affordable and energy entrepreneurs expand demand response options for consumers.

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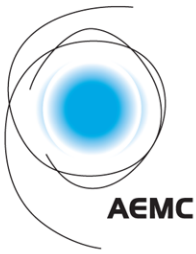
*The AEMC residential price trends focuses on the drivers of household bills across the three key parts of the electricity supply chain – wholesale (generation); regulated networks (transmission and distribution); and environmental (government policy schemes). In addition to these three key cost components the WA cost stack includes a retail cost component that includes operating cost and retail margin.*

Media:

**Prudence Anderson 0404 821 935 or DL (02) 8296 7817**

**Bronwyn Rosser 0423 280 341 or DL (02) 8296 7847**

21 December 2018



## Western Australia household electricity prices

### Residential electricity price trends report 21 December 2018

**Our 2018 residential electricity price trends report identifies what's driving household prices and consumer bills over the next few years from 2017-2018 to 2020-2021 in all states and territories, and nationally.**

#### Key findings for Western Australia

In Western Australia, the residential electricity cost of supply for a representative consumer in the South-West Interconnected System (SWIS) in 2017-18 was approximately \$1,573 exclusive of GST.

In 2017-2018, the electricity bill for the representative residential consumer on the electricity price set by the Western Australian Government has an annual bill of approximately \$1,566 exclusive of GST.

The electricity bill for the representative residential consumer in Western Australia:

- increased by 7.0 per cent from 2017-2018 to 2018-2019
- is expected to increase by an annual average of 4.5 per cent from 2018-2019 to 2020-2021, based on a increase of 5.6 per cent in 2019-2020; and an increase the following year of 3.5 per cent in 2020-2021.

The expected increase in the representative residential electricity bill from 2018-2019 to 2020-2021 is attributable to the annual increase set by the Western Australian Government. Residential electricity prices are set by the Western Australian government and may not reflect the underlying cost of the supplying electricity.

The table below shows the cost of supply and the government set price for Western Australian customers in the SWIS for 2017-18.

Western Australia (SWIS)	2017-2018
Cost of supply	\$1,573 excluding GST
Government set price	\$1,566 excluding GST

#### About this report

Trends in the underlying supply chain cost components and drivers of trends will vary across jurisdictions and over time. This reflects differences in population, climate, consumption patterns, government policy and other factors across the states and territories. The way these trends affect an individual consumer will depend on how that consumer uses electricity. This is particularly relevant as the consumption profiles of consumers become increasingly diverse.

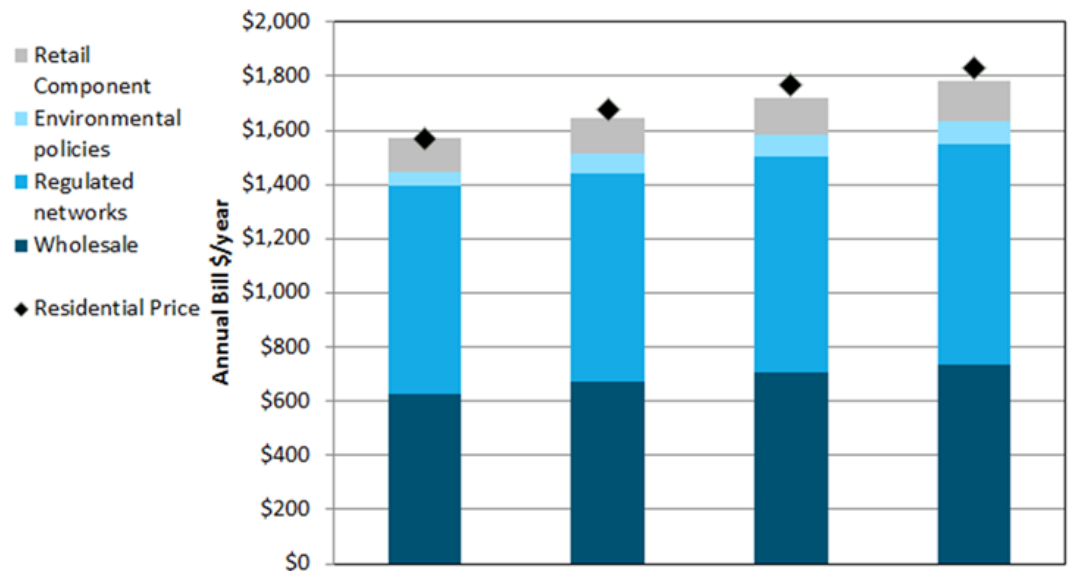
Price trends identified in this report are not a forecast of actual prices, but rather are a guide to pricing and bill directions based on current expectations, policy and legislation. Actual price movements will be influenced by how retailers compete, the dynamics of the wholesale spot and contract markets, the outcomes of network regulatory decisions, and changes in policy and regulation.

**In 2017-2018, the representative consumer on the electricity price set by the Western Australian government was \$1,566**

The price trends report is a core document used to inform a range of stakeholders including the Australian Energy Market Operator, the International Energy Agency and the Reserve Bank of Australia. It helps consumers understand costs included in their electricity bill. It also provides governments with information they need to understand changes in electricity prices and provides context for long-term decision making on energy policy.

### Trends in Western Australia electricity supply chain components

Figure: Expected trends in Western Australia supply chain components from 2017-18 to



	2017/18 Base Year		2018/19 Current Year		2019/20		2020/21	
	c/kwh	\$/year	c/kwh	\$/year	c/kwh	\$/year	c/kwh	\$/year
<b>Environmental policies</b>	<b>0.98</b>	<b>\$51</b>	<b>1.40</b>	<b>\$73</b>	<b>1.58</b>	<b>\$82</b>	<b>1.65</b>	<b>\$86</b>
LRET - LGC cost	0.65	\$34	0.77	\$40	0.87	\$45	0.93	\$48
SRES - STC cost	0.33	\$17	0.64	\$33	0.71	\$37	0.72	\$38
<b>Regulated networks</b>	<b>14.80</b>	<b>\$769</b>	<b>14.80</b>	<b>\$769</b>	<b>15.30</b>	<b>\$795</b>	<b>15.69</b>	<b>\$816</b>
Transmission	1.50	\$78	1.50	\$78	1.55	\$80	1.59	\$82
Distribution	12.24	\$636	12.24	\$636	12.65	\$657	12.97	\$674
Metering	1.07	\$56	1.07	\$56	1.11	\$57	1.13	\$59
<b>Wholesale</b>	<b>12.03</b>	<b>\$626</b>	<b>12.94</b>	<b>\$672</b>	<b>13.57</b>	<b>\$705</b>	<b>14.14</b>	<b>\$735</b>
<b>Retail Component</b>	<b>2.45</b>	<b>\$128</b>	<b>2.56</b>	<b>\$133</b>	<b>2.66</b>	<b>\$139</b>	<b>2.77</b>	<b>\$144</b>
<b>Cost of Supply</b>	<b>30.27</b>	<b>\$1,573</b>	<b>31.70</b>	<b>\$1,648</b>	<b>33.12</b>	<b>\$1,721</b>	<b>34.25</b>	<b>\$1,781</b>
<b>Residential Price</b>	<b>30.13</b>	<b>\$1,566</b>	<b>32.23</b>	<b>\$1,676</b>	<b>34.04</b>	<b>\$1,769</b>	<b>35.23</b>	<b>\$1,831</b>

2020-21 for the representative consumer.

**Wholesale costs:** these are wholesale costs related to the Western Australian Market (WEM).

In Western Australia, wholesale market costs comprised approximately 39.8 per cent of the representative price in 2017-2018 and are expected to account for an increasing proportion of the representative consumer's bill from 2017-2018 to 2020-2021.

Wholesale electricity costs:

- increased by 7.5 per cent from 2017-2018 to 2018-2019
- are expected to increase by an annual average of 4.6 per cent from 2018-2019 to 2020-2021, based on a increase of 4.9 per cent in 2019-2020 and an increase of 4.2 per cent the following year in 2020-2021

The increase in wholesale costs is driven by increasing gas and coal prices. In the report, wholesale costs in Western Australia were estimated using a Long Run Marginal Cost (LRMC) approach.

The expected increase in representative residential electricity prices from 2018-19 to 2020-21 is attributable to the annual increase set by the Western Australian Government.

**Regulated network costs:** these costs relate to transmission and distribution network services provided by Western Power.

Regulated network costs comprised approximately 48.9 per cent of the representative residential bill in 2017-2018, and are expected to account for an increasing proportion of a residential electricity consumer's bill from 2017-2018 to 2020-2021, based on the latest Access Arrangement from the Western Australian Economic Regulation Authority (ERA).

Regulated network costs:

- remain stable from 2017-2018 to 2018-2019
- are expected to increase by an annual average 3.0 per cent from 2018-2019 to 2020-2021, based on a increase of 3.4 per cent in 2019-2020 and a following increase of 2.6 per cent in 2020-2021.

**Environmental policy costs:** these costs are related to the renewable energy target (RET) introduced by the Commonwealth Government. The RET applies on a national basis and consists of the large-scale renewable energy target (LRET) and the small-scale renewable energy scheme (SRES).

In 2017-2018, the RET comprised 3.2 per cent of the representative residential bill in Western Australia and is expected to comprise an increasing proportion of the representative consumer's electricity bill from 2017-2018 to 2020-2021.

Environmental policy costs:

- increased by 42.9 per cent from 2017-2018 to 2018-2019
- are expected to increase by an annual average of 8.6 per cent from 2018-19 to 2020-21, based on a increase of 12.9 per cent in 2019-2020 and an increase of 4.4 per cent in 2020-2021.

## Background

The COAG Energy Council's terms of reference for this report require the AEMC to estimate future retail electricity price outcomes for representative residential consumers in each Australian state and territory along with national electricity prices based on a weighted average of jurisdictional results.

In addition, the AEMC also reports on the trend in customers' annual electricity bills.

Representative consumers are those households with the most common electricity consumption profiles in each jurisdiction. In most jurisdictions, the annual and quarterly consumption profiles of these consumers are based on data from the AER. In Western Australia, the representative consumption profile is provided by the Western Australian government.

In Western Australia, the representative consumer:

- is a two-person household that consumes 5,198 kWh of electricity per year
- is on the electricity price set by the Western Australian Government
- has no mains gas connection.

As electricity prices and bills in this report are specific to the representative consumer, they do not reflect pricing outcomes for each individual residential consumer.

## AEMC's work program

The AEMC is cutting costs in the power system by addressing the drivers of those costs through its work program. Our focus on price impacts drives everything we do through the reliability and security frameworks; consumer choice, control and protection; the networks of the future and the continuing importance of integrating energy and environmental policies. We completed or are undertaking a number of rule changes and reviews with the potential to directly or indirectly impact consumer prices and bills, including:

**We are focussed on cutting costs in the power system by addressing the drivers of those costs through our work program**

- new obligations on retailers to give advance notice of price changes and providing advance warnings to shop around before discounts end
- stopping energy discounts that can leave people worse off, allowing electricity and gas customers to have energy bills based on their own meter reading
- raising the standard for better hardship programs and keeping new retail businesses out of the market until they have approved hardship policies in place.

At the same time we are reviewing what's needed to support adequate investment in generation as the power system evolves to include more variable, intermittent generation and demand-side innovation. Our package of reforms in this area includes:

- new technical performance standards for generators
- setting up a national register of distributed energy like small-scale battery systems and rooftop solar to help AEMO better manage the power system
- requiring generators to give at least three years' notice of closure
- reviews to improve the coordination of generation and transmission investment and to look at ways to integrate new technologies and demand response to help keep the power system secure
- requiring the AER to calculate and update values of customer reliability, used to develop reliability standards
- enabling AEMO to contract for electricity reserves up to nine months ahead of a projected shortfall under the RERT, the strategic reserve mechanism
- making networks provide minimum levels of inertia along with the services necessary to meet minimum levels of system strength.

We continue our analysis of market design changes which currently includes the market making obligations rule request, and advice on the impact of a default offer which has been requested by the COAG Energy Council.

We are fostering the efficiency of network investment and operations through major projects like the coordination of generation and transmission investment review; introducing new transmission connection and planning arrangements; introducing competition in metering; and establishing the value of customer reliability.

For information contact:

AEMC Chairman, **John Pierce** (02) 8296 7800

AEMC Chief Executive, **Anne Pearson** (02) 8296 7800

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