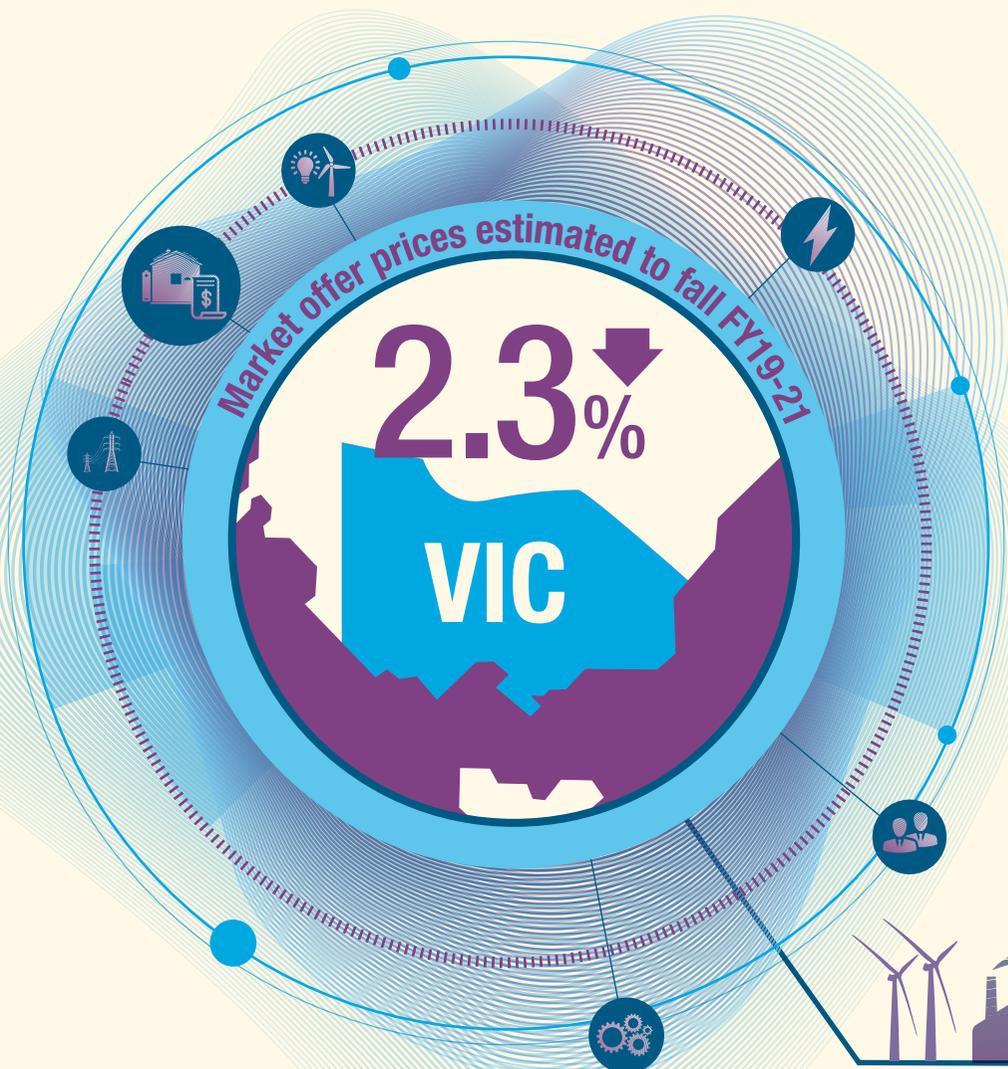


# AUSTRALIAN ENERGY MARKET COMMISSION ELECTRICITY PRICE TRENDS REPORT 21 DECEMBER 2018

VICTORIA'S ELECTRICITY MARKET PRICES ARE DECREASING

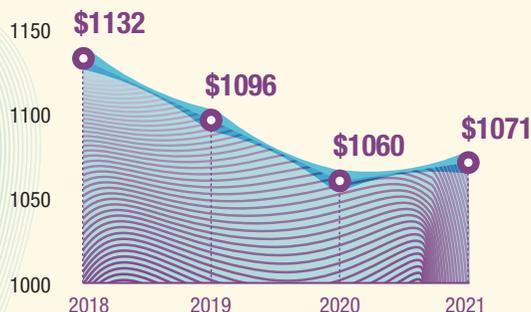
After a fall of around 3.2% this year, prices are estimated to fall again by 2.3% in total over the next two years as more renewable generation drives costs down.



## CONSUMER

The most common electricity consumer in Victoria is a two-person household consuming 3,865 kWh annually and with a gas connection. In Victoria 94% of residential electricity consumers are on a market offer.

### Annual electricity bill for a typical Victorian household



## AT A GLANCE



### WHOLESALE

The cost of generating electricity

Wholesale costs account for 43.9% of the typical bill and are expected to keep putting downward pressure on bills in the next two years as more renewable supply comes in to the market and demand stays flat.



### NETWORKS

Poles and wires costs depend on regulator revenue determinations

Regulated network costs account for 40.1% of the typical bill and are expected to remain stable over the next two years.



### ENVIRONMENTAL

Direct costs of government schemes like the renewable energy target

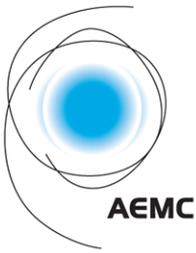
Environmental policy costs in customers' bills include the Commonwealth Government's renewable energy target (RET) and the State Government's feed-in-tariffs and energy upgrades scheme. These schemes account for 7.2% of the representative electricity market offer and are expected to remain stable.



### RECENT ANNOUNCEMENTS

The AEMC's estimate of the change in the standing offer retail price from 2018 to 2019 is within the range announced by EnergyAustralia, AGL, and Origin on 30 November 2018. Our estimate was standing offer prices would decrease by 1.5%, while recent announcements included: AGL decrease of 1.6% and both EnergyAustralia and Origin flat at 0%.





## Power prices falling in Victoria over the next two years

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

**Power prices are estimated to fall in Victoria over the next two years in response to rising renewable generation capacity. This year consumers who are still on standing offers could save \$465 by switching to the lowest competitive market offer.**

Power prices are estimated to fall over the next two years in Victoria according to the Australian Energy Market Commission's annual report on price trends released today.

After a fall of around 3.2% this year (2018 to 2019), prices are estimated to fall again by 2.3% in total over the next two years (2019 to 2021) as lower wholesale costs from increasing renewable generation capacity flows through to consumers.

The report found:

Over the next 2 years (from Jan 2019 to Jan 2021) Victorian households are likely to save around \$12.50 a year - \$25 in total - on their electricity bills as wholesale costs continue to fall.

Wholesale costs are estimated to fall by around \$56 this year (2018 to 2019) for the average consumer as more supply comes into the market and demand stays flat. Network and environmental costs are estimated to remain flat/stable

Victoria's representative consumer (the most common type of household based on electricity consumption) will be paying around \$61 less than today January 2021.

In Victoria 94% of residential electricity customers are now on market offers. This year Victorian electricity customers with representative consumption who are still on a standing offer could save \$465 by switching to the best competitive market offer available.

The most common electricity customer in Victoria is a 2-person household, with no off-peak hot water, consuming 3,865 kWh of electricity each year in addition to having a mains gas connection.

Actual bills of course depend on how and when electricity is used in each home.

AEMC Chief Executive, Mrs Anne Pearson, said today that understanding what's driving prices can help give the Victorian Government the information it needs to determine if price changes announced by retailers each January are consistent with changes in the power system's underlying costs

"In response to the retirement of Hazelwood power station and subsequent wholesale price volatility, we have applied a new wholesale cost estimation method to our modelling this year that better reflects how retailers manage their risk and wholesale costs. As a result we now have a clearer picture of what consumers can expect in the next few years.

Mrs 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.

**“It’s in the strong interest of consumers that government and regulatory policy is focused on long-term planning, and on low cost solutions to issues raised by energy transition.”**

## Continued

“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.

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.

The AEMC’s estimate of the change in Victoria’s standing offer retail price from 2018 to 2019 is within the range announced by EnergyAustralia, AGL and Origin on 30 November 2018. Our estimate was standing offer prices would decrease by 1.5%. Recent announcements included: AGL decrease of 1.6% and both EnergyAustralia and Origin flat at 0%.

## 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 spot and contract markets, the outcomes of network regulatory decisions, and changes in policy and regulation.*

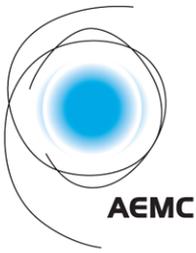
*The AEMC residential price trends focuses on the drivers of household bills across the three key parts of the electricity supply chain – wholesale (generation); regulated networks (transmission and distribution); and environmental (government policy schemes). A residual applies in most jurisdictions. It is the difference between bill outcomes and these three key cost components.*

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21 December 2018



## Victoria 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 2018 to 2021 in all states and territories, and nationally.**

#### Key findings for Victoria

In 2018, the electricity bill for the representative residential consumer on a market offer in Victoria was approximately \$1,132 exclusive of GST.

The electricity bill for the representative residential consumer in Victoria:

- decreased by 3.2 per cent from 2018 to 2019
- is expected to decrease by an annual average of 1.2 per cent from 2019 to 2021, based on a decrease of 3.3 per cent in 2020; and an increase the following year of 1.0 per cent in 2021.

The expected decrease in in the representative residential electricity bill from 2019 to 2021 is primarily due to decreasing wholesale costs, driven by new generation supply entering the national electricity market (NEM).

In Victoria consumers can choose between a market offer and a retail standing offer. Approximately 94 per cent of small customers are on a market offer (small customers includes residential and small business customers). The table below shows the total annual bill for a representative consumer in Victoria on a market offer and a standing offer.

Victoria	2018
Standing offer total annual bill	\$1,132 excluding GST
Market offer total annual bill	\$1,597 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.

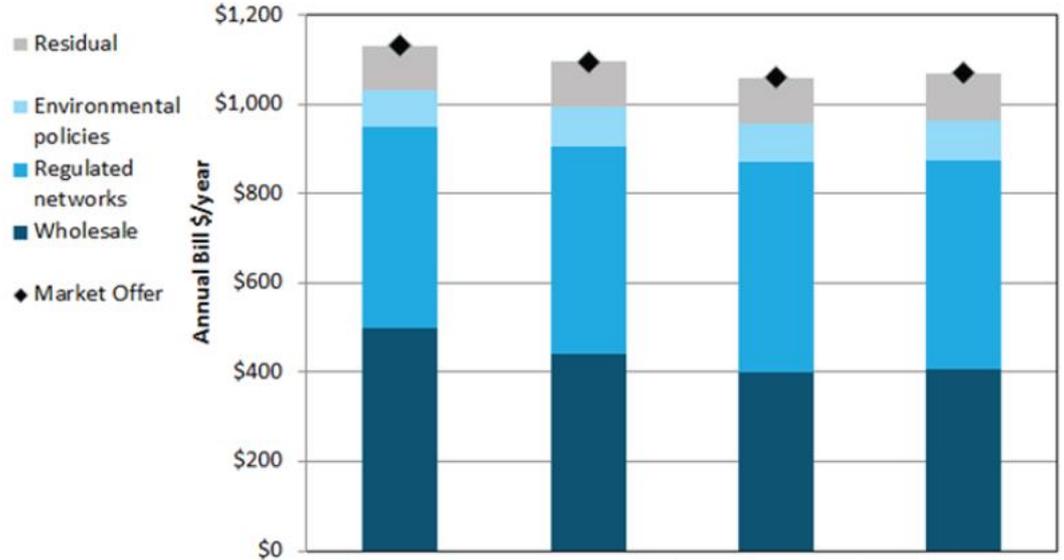
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The price trends report is a core document used to inform a range of stakeholders including the Australian Energy Market Operator, the International Energy Agency and the Reserve Bank of Australia. It helps consumers understand costs included in their 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.

In 2017-2018, the representative consumer on an electricity market offer in Victoria was \$1,132

## Trends in Victoria electricity supply chain components

Figure: Expected trends in Victoria supply chain components from 2018 to 2020-21 for the representative consumer on a market offer.



	2018 Base Year		2019 Current Year		2020		2021	
	c/kwh	\$/year	c/kwh	\$/year	c/kwh	\$/year	c/kwh	\$/year
<b>Environmental policies</b>	<b>2.12</b>	<b>\$82</b>	<b>2.33</b>	<b>\$90</b>	<b>2.17</b>	<b>\$84</b>	<b>2.31</b>	<b>\$89</b>
LRET - LGC cost	0.95	\$37	0.97	\$37	0.71	\$28	0.69	\$27
SRES - STC cost	0.63	\$25	0.75	\$29	0.73	\$28	0.82	\$32
Feed-in Tariff Schemes	0.34	\$13	0.38	\$15	0.41	\$16	0.43	\$17
VEU	0.19	\$7	0.23	\$9	0.32	\$12	0.37	\$14
<b>Regulated networks</b>	<b>11.74</b>	<b>\$454</b>	<b>11.98</b>	<b>\$463</b>	<b>12.18</b>	<b>\$471</b>	<b>12.13</b>	<b>\$469</b>
Transmission	1.45	\$56	1.41	\$54	1.42	\$55	1.43	\$55
Distribution	8.62	\$333	8.86	\$342	9.15	\$354	9.09	\$351
ACS Metering	1.67	\$65	1.71	\$66	1.61	\$62	1.61	\$62
<b>Wholesale</b>	<b>12.86</b>	<b>\$497</b>	<b>11.41</b>	<b>\$441</b>	<b>10.37</b>	<b>\$401</b>	<b>10.49</b>	<b>\$406</b>
<b>Residual</b>	<b>2.57</b>	<b>\$99</b>	<b>2.64</b>	<b>\$102</b>	<b>2.70</b>	<b>\$104</b>	<b>2.77</b>	<b>\$107</b>
<b>Market Offer</b>	<b>29.29</b>	<b>\$1,132</b>	<b>28.35</b>	<b>\$1,096</b>	<b>27.42</b>	<b>\$1,060</b>	<b>27.70</b>	<b>\$1,071</b>

Note: These electricity prices and bills are based on a weighted average of retailer's lowest market offers for the representative consumer in Victoria.

The expected trends in Victoria electricity supply chain cost components (wholesale, regulated networks and environmental policies) 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 Victoria, wholesale market costs comprised approximately 43.9 per cent of the representative market offer in 2018 and are expected to account for a decreasing proportion of the representative consumer's bill from 2018 to 2021.

Wholesale electricity costs:

- decreased by 11.3 per cent from 2018 to 2019
- are expected to decrease by an annual average of 4.1 per cent from 2019 to 2021, based on a decrease of 9.1 per cent in 2020 and an increase of 1.2 per cent the following year in 2021

As noted, the main driver of this trend is increased generation entering the market.

The expected decrease in representative residential electricity market offer prices from 2018-19 to 2020-21 is mainly due to falling wholesale costs, driven by new generation supply entering the market.

**Regulated network costs:** these costs relate to transmission network services provided by AusNet Services and distribution network services provided by AusNet Services, Jemena, United Energy, Powercor and CitiPower.

Regulated network costs comprised approximately 40.1 per cent of the representative residential market bill in 2018, and are expected to account for an increasing proportion of a residential electricity consumer's bill from 2018 to 2021, based on the latest available network pricing decisions by the Australian Energy Regulator (AER).

Regulated network costs:

- increased by 2.0 per cent from 2018 to 2019
- are expected to increase by an annual average 0.6 per cent from 2019 to 2021, based on an increase of 1.7 per cent in 2020 and a following decrease of 0.4 per cent in 2021.

The main driver of this trend is the increase in distribution network costs.

**Environmental policy costs:** these costs are related to the Commonwealth Government's renewable energy target (RET) and the Victorian Government's Victorian Energy Upgrades (VEU) scheme and the feed-in-tariff (FiT) schemes. 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 2018, the environmental policies comprised 7.2 per cent of the representative residential market bill in Victoria and are expected to comprise an increasing proportion of the representative consumer's electricity bill from 2018 to 2021.

Environmental policy costs:

- increased by 10.1 per cent from 2018 to 2019
- are expected to decrease by an annual average of 0.5 per cent from 2018-19 to 2020-21, based on a decrease of 6.8 per cent in 2020 and an increase of 6.2 per cent in 2021.

This trend is primarily driven by the increase in costs associated with:

- the Commonwealth Government's SRES, due to increased uptake of small-scale renewable energy technologies, such as rooftop solar, and
- Victorian Energy Upgrades (VEU).

### New approach to modelling wholesale costs

This year's report has changed the method used to calculate wholesale costs. Previous price trends reports modelled future spot prices and added a contract premium to estimate retailers' wholesale electricity purchase costs. This approach effectively assumes that a retailer buys all of its electricity and hedging contracts at a single point in time.

However, it became apparent in the past two years that with high volatility in forward prices after generator retirements, short-term estimates made through this method were largely inconsistent with market outcomes. For this reason, the report estimates wholesale costs using a blended method. Where possible, the analysis uses observable market contract prices that retailers use to build up their hedge contract book over time. Where there is limited forward contract data available, a spot price estimate and contract premium is used. This method more closely resembles how retailers actually hedge their loads, and is therefore considered a more realistic basis for estimating forward prices.

### 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.

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

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 Victoria, the representative consumer:

- is a two-person household that consumes 3,865 kWh of electricity per year
- is on a market offer
- has a mains gas connection, and therefore is a dual fuel customer
- is not on a “controlled load” tariff.

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:

- 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.

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