

Note: This document refers to a decision made under a superseded delegation. The notified prices in this document will not apply.

How do energy costs affect electricity prices?

The QCA uses a network plus retail cost methodology to determine regulated electricity prices in regional Queensland. Energy costs are one of the components that contribute towards the retail cost.

How have energy costs changed since 2016–17?

In 2017–18 total energy costs have increased between 35 per cent and 37 per cent for all retail tariffs. These increases have largely been driven by wholesale energy costs, which are responsible for 70 to 92 per cent of the increases in total energy costs.

What are wholesale energy costs and why have they changed?

Wholesale energy costs are the costs that electricity retailers incur when purchasing electricity for their customers from the National Electricity Market (NEM).

The QCA’s consultant, ACIL Allen has advised that wholesale energy costs are expected to increase in 2017-18. The increase is due to the projected continuation of the increase in gas prices for gas-fired generation and the continued tightening of the supply–demand balance in the NEM due to:

- increased demand from in-field gas compression associated with the liquefied natural gas (LNG) export facilities in Queensland
- the closure of Hazelwood Power Station in 2017 and the continued operation of the Portland aluminium smelter in Victoria
- little new renewable energy capacity entering the market in 2017–18—particularly in Queensland.

The increase in wholesale energy costs since the draft determination has largely been driven by the increase in the price of electricity contracts, which occurred in the summer period between the draft determination and final determination.

What is an electricity contract and why are they used ?

An electricity contract generally ensures its holder a price or maximum price at which wholesale electricity will be exchanged in the future.

As the electricity spot market can be very volatile, most retailers purchase various electricity contracts to limit the risk of having to purchase electricity at high wholesale spot prices.

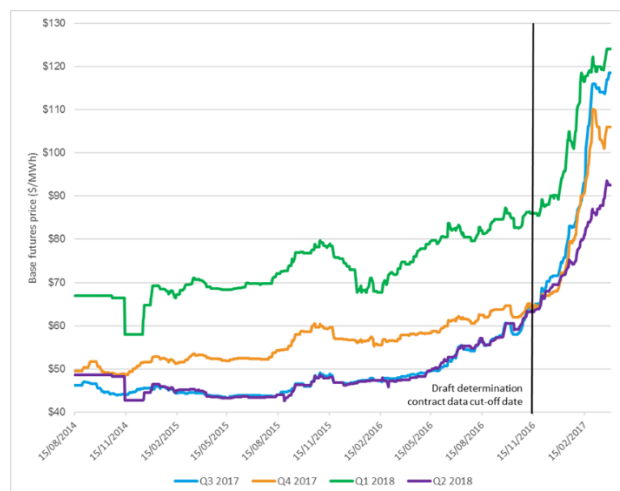
Because these contracts are typically bought ahead of their commencement date, their prices are based on the expected future price of wholesale electricity.

How have electricity contract prices changed between draft and final?

Contract prices for future periods, including 2017–18, have increased significantly between the draft determination and final determination. Figure 1 shows Queensland quarterly electricity base contract prices (the most commonly traded exchange based electricity contract) for 2017–18.

It shows that contract prices started increasing significantly, between the draft determination contract data cut-off date and the final determination contract data cut-off date.

Figure 1 ASX quarterly base electricity futures prices for Queensland (Q3 2017 – Q2 2018)



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What has caused electricity contract prices to change between draft and final?

Contract prices have increased due to a marked change in market participants' expectations about future wholesale spot prices, market volatility, and the demand–supply balance (particularly in summer 2017-18).

Changes in the demand-supply balance of the NEM

Two key developments in the Victorian region of the NEM have likely impacted contract prices since the draft determination data cut-off date.

The first of these was the announced closure of the Hazelwood Power Station in November. As the announcement was made shortly before the draft-determination cut-off date, the effects might not have been fully reflected in the draft energy cost estimates.

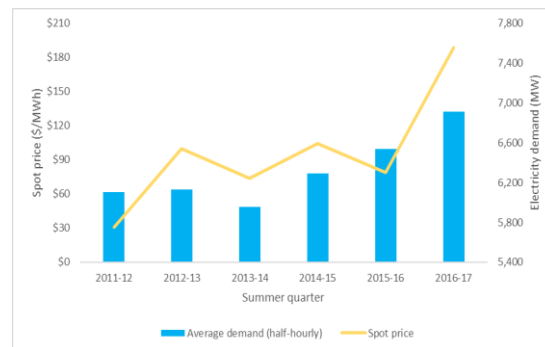
The second major development was the announcement on in January 2017 that the Portland aluminium smelter would remain open. This outcome was generally not expected, as many market participants had assumed it would close in 2017.

While Hazelwood and Portland are both located in Victoria, due to the size of their operations, they have had an effect on contract prices across the NEM.

Weather

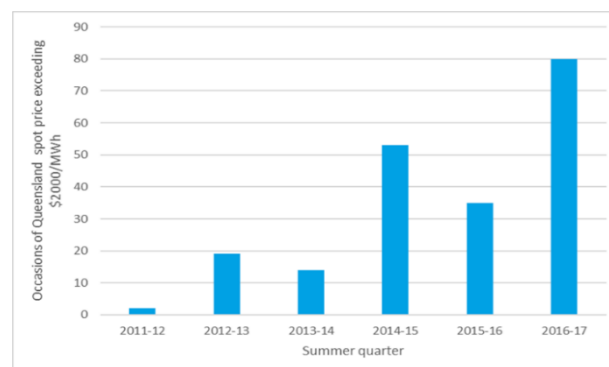
Hot weather in summer is generally related to higher electricity demand and higher prices. Summer in 2016–17 saw a record number of consecutive days over 30 degrees Celsius. This is likely to have contributed to a higher level of electricity demand and higher spot prices relative to those in past years, as observed in Figure 2.

Figure 2 Queensland average demand weighted electricity spot price and electricity demand during summer: 2011–12 to 2016–17



Spot price outcomes were also far more volatile, with a far greater number of significant high price events in the summer of 2016–17 as can be seen in Figure 3.

Figure 3 Frequency of significant high Queensland spot price events during summer: 2011–12 to 2016–17



Market participants take into account the current level of demand and prices when considering future prices. The recent higher and more volatile spot prices, coupled with robust demand for electricity during the 2016–17 summer period, are likely to have contributed to higher contract prices, particularly in the first quarter of 2018.

Volume of trade

As ACIL Allen uses a trade-weighted approach to calculate contract prices, both price movements and the volume of contracts traded are important. As with previous determinations, there has been a substantial increase in the volume of contracts traded between the contract data cut-off dates of the draft determination and final determination, with 40.2 per cent occurring after this year’s draft determination data cut-off date.