

During a public debate ahead of the South Australian state election, SA Liberal leader Steven Marshall said that the state's residents had been left with:

... the highest energy prices in Australia — some say in the world — and the least reliable grid.

And it's all because this (Labor) government decided we had to go headlong into intermittent renewable energy without the baseload to support that transition.

A spokesperson for Marshall responded to The Conversation's request for sources and comment to support these statements, for consideration in [this FactCheck](#).

Questions from The Conversation in bold:

Mr Marshall stated that South Australia had the highest “energy” prices in the country.

Could you please confirm whether Mr Marshall was referring to energy prices (including petrol, diesel, gas, etc), or electricity prices?

Was Mr Marshall referring to wholesale electricity prices, or retail electricity prices?

Residential electricity prices.

Could you please provide a link to a source, or sources, to show that South Australia has “the highest energy prices in Australia”?

See [attached article](#) from the Australian Financial Review, 04 August 2017.

Could you please provide a link to a source, or sources, to show that South Australia has what some say are the highest energy prices in the world?

See [attached article](#) from Australian Financial Review, 04 August 2017.

Could you please provide a link to a source, or sources, to show that the price rises are due to the Labor government going “headlong into intermittent renewable energy without the baseload to support that transition”?

I refer to two documents:

1) Australian Energy Regulator’s [State of the Market Report](#) . Pages 10-11 best explain the transition to intermittent renewable energy and the impact on prices.

2) Essential Services Commission of South Australia [letter to SA Minister for Energy](#) explaining increase in prices includes: “The spot price of electricity in SA has increased significantly since the closure of Northern Power Station.” (Baseload power.) Page 3.

Steven Marshall said South Australia had “the least reliable grid”. Grateful if you could confirm the point of comparison, and provide a link to a source to support the statement.

Figure 1, page 2 of the Australian Energy Market Operator’s [Electricity Statement of Opportunities](#) (ESOO) shows in 2017/18 South Australia has the highest percentage of unserved energy at 0.0025%. The reliability standard is 0.0020% (Victoria second at 0.00225%).

For further reliability information regarding South Australia, see attached document titled: [SA System Strength 2017](#), (pp. 7-8: explanation as to why South Australia has the least reliable grid and international comparisons).

Response from Dylan McConnell, lead author of [the FactCheck](#) :

The sources provided by Steven Marshall's spokesperson are from reputable government agencies. However, it's far from clear that the sources support the conclusions Marshall drew in the leaders' debate.

The [Electricity Statement of Opportunities](#) is a report prepared annually by the Australian Energy Market Operator (AEMO).

(It's also updated after significant changes occur, such as the announcement of the closure of the Hazelwood Power Station.)

But this report is a *prediction* of major market events factors in the next 10-year period, not a reflection of what has happened.

Its purpose is providing information to market participants and jurisdictional bodies to assist them in making decisions – for example, whether to invest in new power plants or generation capacity.

A key part of this document is the projection of energy shortfalls. This is intended to signal future opportunities for new generation capacity for market participants. Indeed, this is why it is called the "statement of opportunities".

The Electricity Statement of Opportunities has regularly projected reserve shortfalls and potential breaches of the reliability standard, which have not eventuated.

For example, the [2011 statement of opportunities](#) projected a reserve deficit of 341 megawatts in Queensland for 2013-14. This deficit did not occur.

This is to say that forecasts of unserved energy are made on the basis of *nothing changing in the market*.

But companies read the statement in order to find new investment opportunities – and in doing so forestalling the predicted shortfalls.

In essence, the statement itself is an important document that's used to help *prevent* the shortfall it is projecting. It's not a reflection of events that have occurred, or necessarily will occur – only what might occur, should no action be taken.

What's not included in the 'Statement of Opportunities' source

Some of the factors *not* included in the Electricity Statement of Opportunities have important implications for South Australia.

One very important exclusion is the impact of non-market operated developments.

The statement of opportunity aims to identify the potential need for additional capacity to be procured either through market or government developments, or through AEMO's Reliability and Emergency Reserve Trader function – not non-market operated developments.

Therefore, the [2017 statement](#) does not include:

- the non-market component of the SA Energy Plan's battery
- the SA Energy Plan's 276 MW diesel generation, or
- the joint AEMO and Australian Renewable Energy Agency DSP project.

These developments reduce the chances of unserved energy. Indeed, if the assessment included these developments, there would likely be no projections of unserved energy.

Marshall is correct to say AEMO has projected unserved energy (and a breach of the reliability standard) for South Australia this summer.

But the past has shown that the prediction of a shortfall helps support decisions that make breaches less likely, or non-existent.

System strength is different to reliability

Marshall's spokesperson pointed The Conversation to the AEMO South Australia System Strength Assessment, published in September 2017.

System strength relates to power system's ability to remain stable under normal operating conditions. This includes the ability to recover from a disturbance, and is an important aspect of system security.

System security is different from reliability.

Reliability is a measure of the ability of generation and transmission capacity to meet consumer demand.

A *secure* power system does not imply that the system is reliable.

Written by Madeleine De Gabriele, Deputy Editor: Energy + Environment

For example, a system can be secure (operating with with specific operating bounds and able to tolerate disturbances) but also unreliable (that is, not meeting all customers' demand at all times).

[Read the full FactCheck here](#) .

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Read more <http://theconversation.com/full-response-from-a-spokesperson-for-steven-marshall-for-a-factcheck-on-electricity-issues-in-south-australia-93131>