Renewable energy comes at a cost for inefficient states

Graham Lloyd

Victorian Premier Daniel Andrews is a firm believer in wind power. Picture:Rob Leeson.

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It is the billion-dollar question that won't go away: why do states with the most "cheapest" sources of energy, wind and solar, have the highest electricity prices?
When the spot electricity price maxed out at the $14,500-a-megawatt hour limit in Victoria last week, Queenslanders were paying $105.63 and NSW $109. Wind capital South Australia was paying $9666.67.

The short answer is that following the closure of coal-fired power plants in Victoria and South Australia, while NSW and Queensland had a supply and demand balance for electricity, the southern states were in deficit.

Angus Taylor has accused the Andrews government of "deliberately trashing" the reliability of the Victorian electricity grid.

At 4.50pm on January 24, with a demand of 9221MW in Victoria, renewables were supplying 595MW from a total wind power capacity of 1740MW. In South Australia from a demand of 2954MW, wind and solar were contributing 303MW from a total wind power capacity of 1929MW.

Planned and unplanned withdrawal of some coal-fired capacity at peak demand did not help. But it is a snapshot of the disaster that wishful thinking has been unable to avoid. Australian Energy Market Operator advice that there would be sufficient generation to supply maximum demand for the 2018-19 summer measured against the NEM's reliability standard proved incorrect.

Last week's supply squeeze eventually will be felt by consumers in Victoria and South Australia, but calculating the cost burden is not as simple as it might seem. Some estimates have put the cost as high as $930 million for two days last week.

Under the bidding rules of the national electricity market, all generators theoretically receive the highest accepted price. But the big energy players have ways to lessen the impact.

Renewable energy might be the cheapest option to build but it makes sense only if there is power available when it is needed. Picture: Liam Kidston.

AEMO says the spot market does not reflect costs that retailers or market customers actually pay, due to hedging arrangements. Most retailers in the NEM have hedges in place where they have locked in their cost for a fixed volume of energy at an agreed price to provide shelter from extremes in the pool price. Most generators will have sold energy at an agreed price and may not benefit from the high spot market. But everything will come at a cost.

Asking industry to stop using power is expensive, and capacity markets in which generators agree to be available for times of high demand have proved costly in other countries where they have been used. Unless the market is brought back into balance, the cost of hedging will become more expensive still. Users will always foot the bill.

Renewable energy might be the cheapest option to build but it makes sense only if there is power available when it is needed.