

THE ABC OF INTERMITTENT ENERGY

WHY WIND CAN'T REPLACE COAL

It's as simple as ABC.

- A. Input to the grid must continuously match the demand.
- B. The continuity of RE is broken on nights with little or no wind.
- C. There is no feasible or affordable large-scale storage to bridge the gaps.

So the transition to wind and solar power can't proceed with current storage technology.

Wind droughts happen.

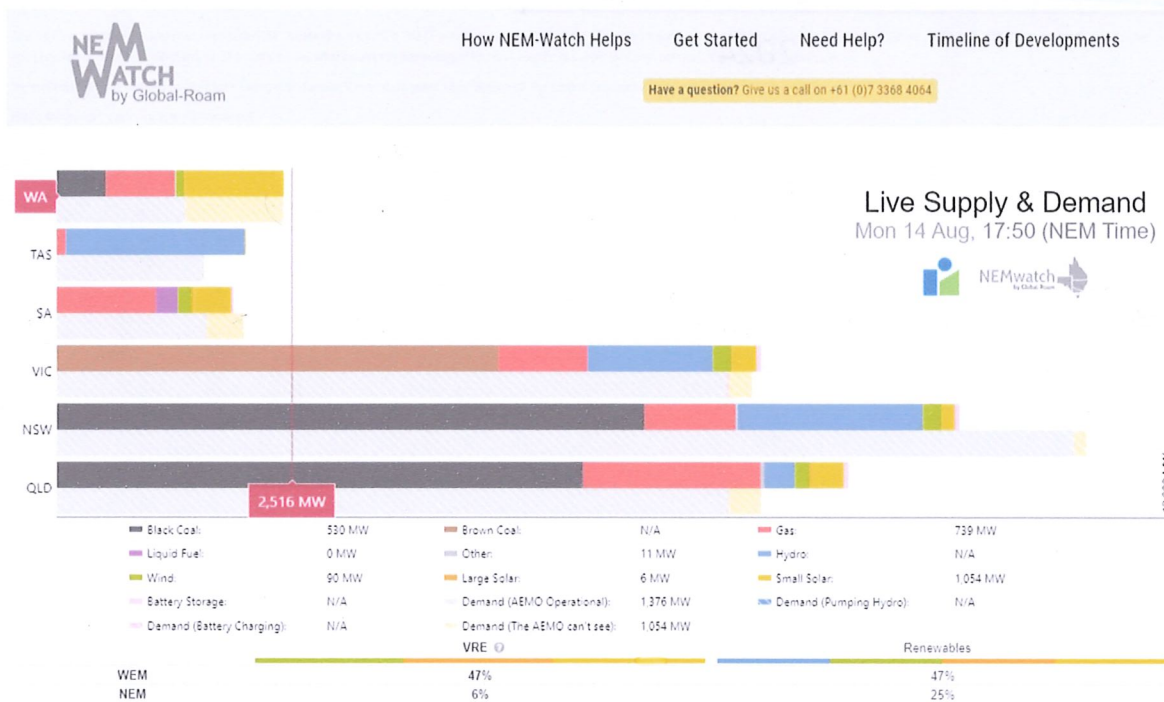
Many people assume that the wind is always blowing somewhere not far away but there are periods of very little wind power, approaching zero, across the whole of the SE Australia for periods up to 3 days.

BECOME WIND LITERATE LOOK AT THE NEMWATCH WIDGET AT SUNRISE AND SUNSET

<https://www.nem-watch.info/widgets/reneweconomy/>

Dinnertime 14 August 2023

The wind (GREEN) was meeting less than 3% of demand



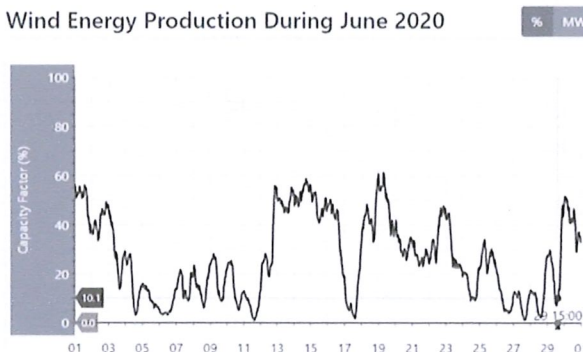
The most serious episode in very recent memory was a spell of **40 hours in August 2022**.

A KILLER MONTH

CRITICAL DROUGHT PERIODS

35 hours 5th-6th
18 hours 11th
16 hours 17th
15 hours 26th

Wind Energy Production During June 2020



THE TIPPING POINT

Over the last 12 years since 2012 coal capacity ran down as plants closed and were not replaced.

Now Liddell is gone and the (simplified) chart below shows how the capacity of conventional power (mostly coal) has reached the level of the base load. **When more capacity is lost, a gap will open up between capacity and demand.**

The expectation is that RE will make up the difference but on windless nights there is no wind and solar power.
Installing more capacity does not help.
As the gap increases, blackouts become longer and more frequent.

The chart has to be revised to clarify the level of demand that is a band from 20GW which is the minimum base load overnight to 35+ during extreme hot weather.

