

Renewables produced more energy than brown coal and gas over summer

Report finds rise in solar and wind generation almost eclipsed capacity lost when Hazelwood power station closed



The Hazelwood power station in 2018. Almost all of the generation capacity lost in Hazelwood's closure has been replaced by renewables. Photograph: Mike Bowers/The Guardian

Growth in wind and solar energy over the past two years has almost entirely replaced the lost output from the Hazelwood power station during summer, a new report says.

The latest Green [Energy](#) Markets report says renewable energy produced 128% more megawatt hours of electricity than gas and 23% more than brown coal over the 2018-19 summer in the national electricity market states.

It also shows that output from solar energy alone exceeded that from brown coal and gas when averaged across the 9am-5pm period.

Demand for electricity hits a peak between 11.30am and 5.30pm in the summer months.

Green Energy Markets' figures, which are drawn from data published by the Australian [Energy](#) Market Operator, shows output from solar exceeded both gas and brown coal every hour from 9am until 3pm. From 3pm to 4pm, it was exceeded by brown coal, and then from 4pm to 5pm, it was exceeded by both brown coal and gas.

Black coal remains the dominant source of energy, but its output across the entire summer is below 2017-18 summer levels.

Wind and solar output was 2,821GWh higher this summer than it was in the summer of 2016-17, prior to Hazelwood's closure, according to the report.

Most of this increase is attributed to new renewable projects coming online over the past year.

Tristan Edis, a Green Energy Markets director, said this growth had almost completely made up for the drop in summer brown coal output of 2,908GWh since the Victorian power station's closure.

"I think what this data is illustrating is actually we have been able to replace the output from Hazelwood over the summer period," Edis said.

"If we were concerned about the closure of coal and not being able to have reliable electricity supply, what this demonstrates is [that] renewables have been able to fill the gap left by a pretty large electricity generator – and over the period where we have peak demand."

Edis said solar capacity was on track to double in the next three years, with a large amount of both rooftop and large-scale solar expected to be online by next summer.

The report suggests output from solar will exceed that from brown coal and gas over the entire 9am-to-5pm period during summer by 2021-22. Edis said storage options would start to fill the gap left of an evening. "One of the points we're seeing is what's going to happen – fossil fuels will be pushed into a smaller and smaller period late in the afternoon and early evening," he said.

"At that point, you say we only need a few hours worth of storage and you fill that gap."

