CORNWALL INSIGHT AUSTRALIA
CREATING CLARITY

# Chart of the Week

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# You'll have to share your cake: wind v gas in 'epeak' battle

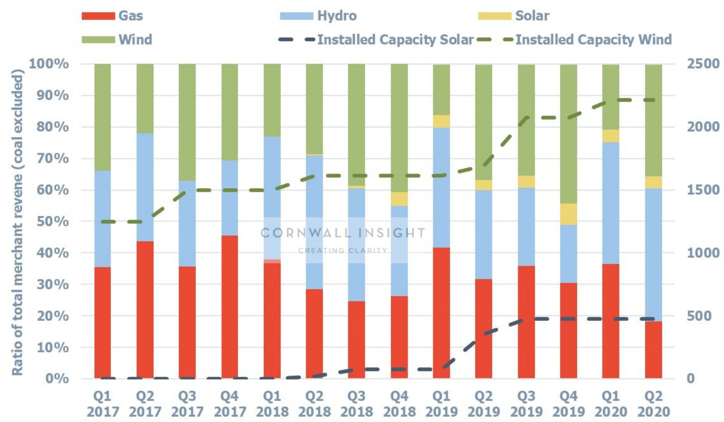
Spot prices are back in the headlines with increased renewable generation impacting both long term price trends as well as driving intraday value shifts; especially across mainland regions. With significant renewable generation still to come to replace exiting coal as covered in Issue 39, the key question then becomes: how much value is there in the merchant market (excluding coal) and how are other technologies faring?

In this Chart of the Week, we look at spot revenues in Victoria for coal replacement technologies, and the impact the transition is having on captured value for these technologies. A clear trend in intraday value shift is now evident mainly driven by increased solar; both rooftop (reduced grid demand during the day) and grid-scale (coincident increased supply during the day).

As shown in Figure 1, the merchant value (unadjusted for losses) captured by solar and wind in the state are showing early signs of divergence. In Q1 2020, solar revenue was ~4% of the total spot earnings (excluding coal revenues). This was about the same share for solar from Q1 2019. However, in that time, available capacity for solar increased by ~160MW (accounting for stability constraints imposed on solar farms during Q1 2020). By contrast, wind revenue made up ~21% of total non-coal spot earnings in the state in Q1 2020. This was up 5pp from Q1 2019; with wind seeing ~600MW increase in generation capacity in that time.

A key driver for this increase in the value share for wind is its continued displacement of gas especially during evening peaks when prices tend to be higher (with solar out of the generation stack). GPG's share of these spot earnings were down by ~5pp between Q1 2019 and Q1 2020; with hydro's share slightly increasing by 1pp. Interestingly, GPG's share of these merchant revenues in Victoria had grown by 3pp between Q1 2017 and Q1 2018

**Fig.1: Merchant revenue ratio (excluding coal) in Victoria (2017-20)**




and by another 4pp between Q1 2018 and Q1 2019. These trends further emphasise the competition GPG will continue to face from wind especially during high-value periods of the day.

Coincident solar generation, and consequent intraday value spreads are also creating ideal market conditions for energy storage. With impending retirements, and increased solar output (rooftop/grid), there will be an increasing need to shift large amounts of excess energy during the day (with reduced operational demand) to meet evening peaks. So far, we have not seen any storage technology with a large exposure to the merchant market; how long this remains is left to be seen.

Overall, the merchant outlook for coal replacement technologies continue to look healthy. However, exactly what role GPGs will play during the transition remains unclear as they continue to feel the squeeze from wind (and potentially storages) for high-value pockets of the day. We cover more on these trends and what we are seeing in other regions in our upcoming webinar: Merchant outlook for renewable projects.