



Case Study: Philippine Regular Holiday Bonifacio Day 2021

■ Bonifacio Day

- Bonifacio Day is a national regular holiday in the Philippines celebrated every 30th of November to remember the birth anniversary of Andrés Bonifacio.
- The purpose of this case study is to illustrate how power demand fluctuates when Bonifacio Day occurs on different days of the week.
- Bear in mind though, that weather is still a major driver of power demand. To prevent any weather-driven results from skewing our analysis, we have used weather-corrected demand.

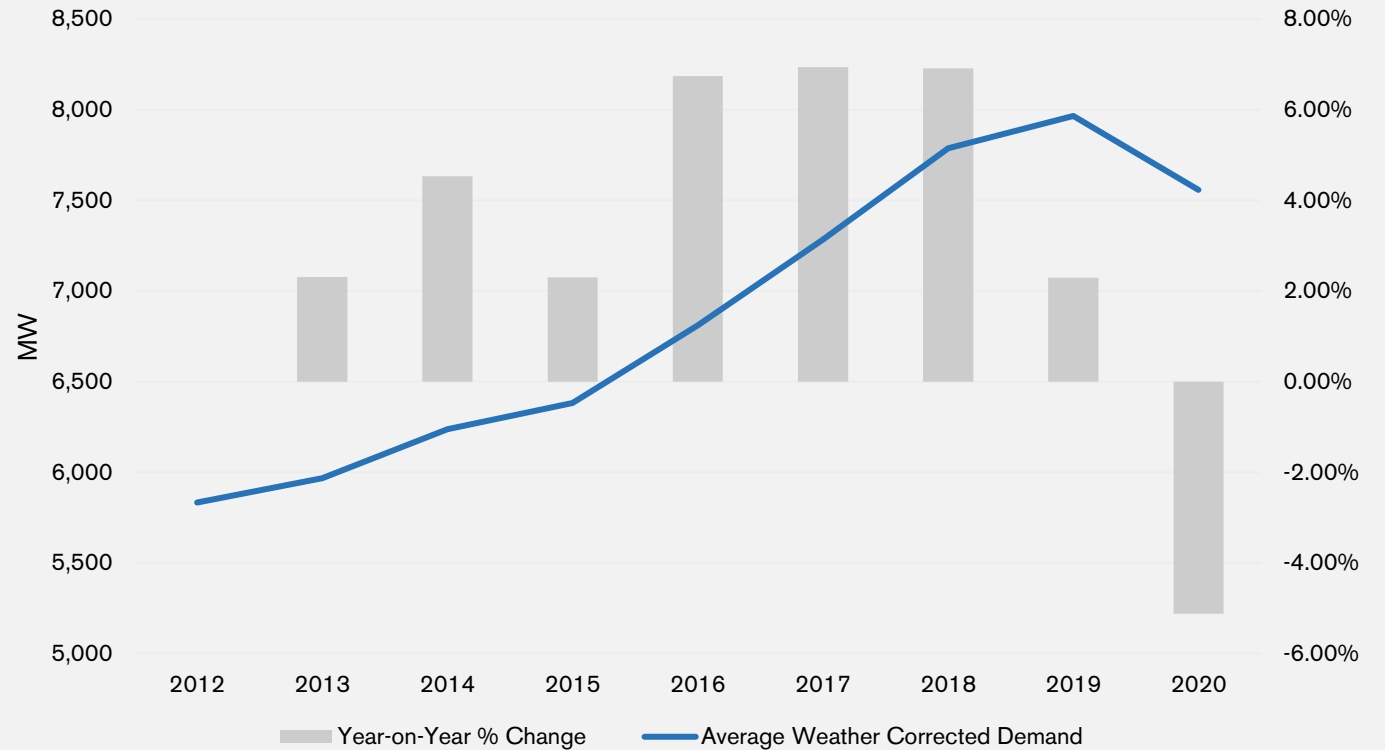
■ Bonifacio Day

- Although we forecast loads for all three regions of the Wholesale Electricity Spot Market (WESM), this analysis focuses on Luzon. Of the three regions, Luzon is by far the largest.
- Data from 2012 is used – as far back as the data goes. This means that we have observed Bonifacio Day on all days of the except for Tuesday.
- This year, Bonifacio Day falls on a Tuesday.

Luzon Demand Growth

- Firstly, it is worth pointing out how rapidly power demand has grown in Luzon over the last decade.
- Since Bonifacio Day occurs on 30th November each year, we analyze average weather corrected power demand for November & December each year.
- Ignoring 2020's low pandemic induced demand, we can see that power demand grew by a whopping 37% from 2012 – 2019.
- For reference, 2021's power demand has just about recovered to 2019's level.

Luzon – November/December Average Demand
Weather Corrected

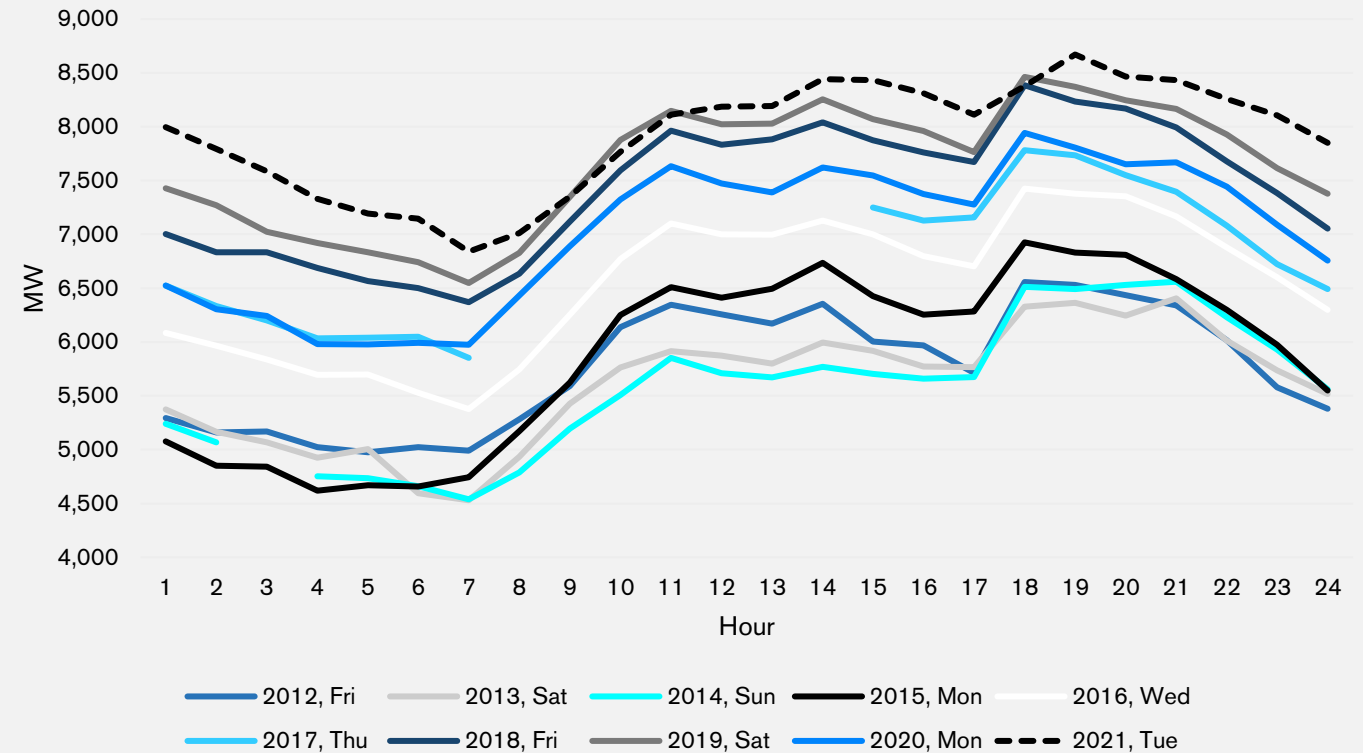


Luzon

- With such rapid demand growth over the years, it can be difficult to “eyeball” any day of week differences for Bonifacio Day.
- However, despite strong growth from 2012 to 2014, 2012’s Bonifacio Day is higher than both 2013 and 2014. This quickly points to higher demand when the holiday falls on a weekday.
- Although we have not observed Bonifacio Day on a Tuesday, we expect it to follow a pattern similar to that of Wednesday or Thursday.
- Some rogue observations had to be omitted from 2014 and 2017.

Luzon – Bonifacio Day

Weather Corrected



Other considerations

- Although beyond the scope of this case study, there are implications on the surrounding days as well. For example, the precedent and subsequent days will have varying effects depending on when the holiday lands.
- This year when the holiday falls on a Tuesday, it's reasonably expected that demand on the precedent day (Monday) will be lower than if the holiday fell on a Wednesday, when the precedent day is a Tuesday. This is since some may use this as an opportunity to take a 4-day holiday.
- The challenge of course is that we are dealing with a short dataset and have yet to observe this specific pattern. It requires TESLA's forecasting team to apply their global experience.

■ Questions?

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