

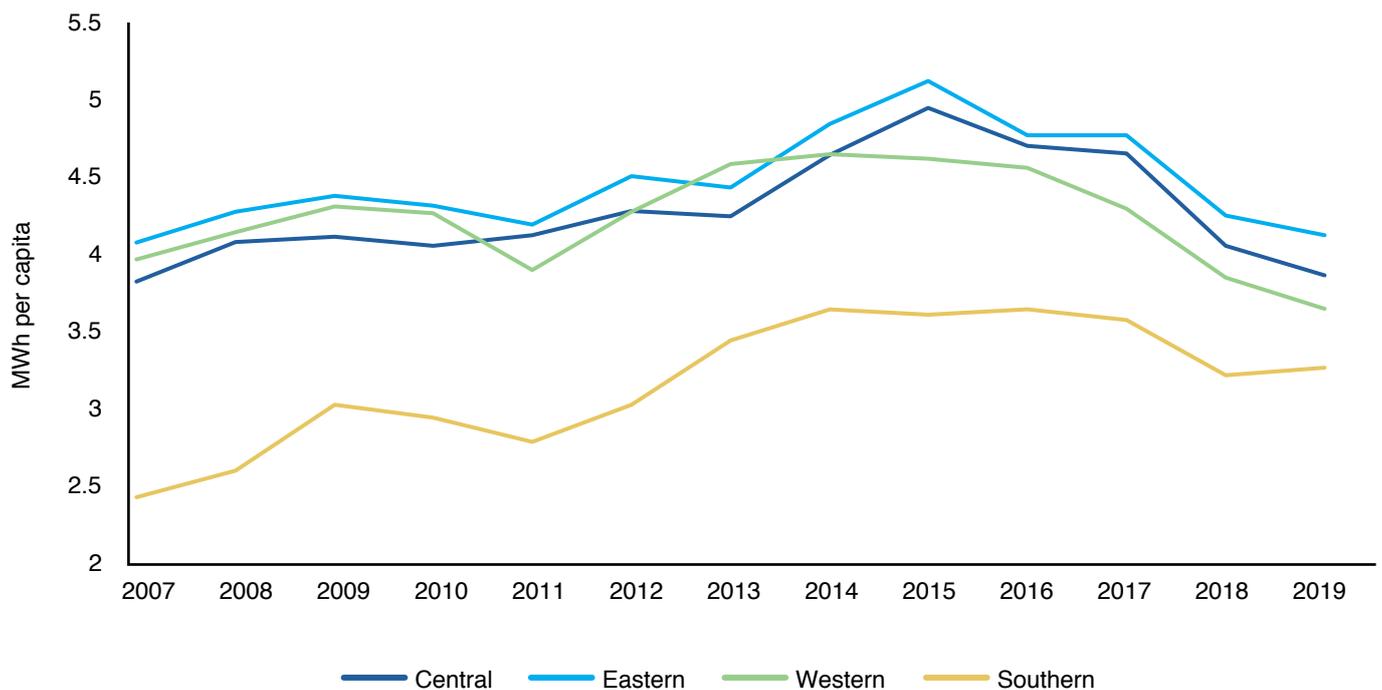
Data Insight

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Per Capita Regional Electricity Consumption in the Saudi Housing Sector

Aggregate residential electricity consumption data for Saudi Arabia conceals regional disparities. Although electricity prices are unified across the country, electricity consumption patterns can be driven by regional factors such as wealth, population size, and weather conditions, among others. Per capita electricity consumption, measured separately for each region in the Kingdom, can help capture these variations in consumption. It also allows for a fair comparison across regions by controlling for the population size. A focus on regional variation could help the Saudi government in its effort to reduce energy intensity in sectors in different regions. This data insight provides an overview of per capita electricity consumption on a regional level. The analysis divides the country into four regions, which correspond to the Saudi Electricity Company’s four operating areas (Figure 1).

Figure 1. Per capita regional electricity consumption in the Saudi housing sector.



- The southern region has the lowest electricity consumption per capita. This could be largely driven by its moderate weather conditions and lower demand for cooling, typically one of the largest contributors to electricity consumption.
- From 2007 to 2015, electricity demand per capita increased in all regions. Since 2016, however, per capita demand has trended down. This is in part due to the electricity price reforms of 2016 and 2018, as well as enhanced energy efficiency in the housing sector.
- Electricity consumption peaked in the eastern and central regions at around 5 megawatt-hours (MWh) per capita in 2015. The western and southern peaks occurred in 2014, but they maintained almost the same consumption per capita in 2015 and 2016.
- In 2018, electricity consumption per capita dropped significantly in all regions by at least 10%. This was likely due to the long-run response to the 2016 electricity price reform. Electricity consumption continued to decline in 2019 in all regions except the southern region, which experienced a slight increase.

References: SAMA

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