Saudi Electricity Demand Drops for the First Time on Record

Since 1990, Saudi Arabia’s electricity consumption has risen rapidly and consistently, at an average rate of around 6% per year (Figure 1). This growth rate is considerably high when compared with the global average growth rate of 3% and 4.8% in developed countries. In 2012, Saudi Arabia established the Saudi Energy Efficiency Center (SEEC) and Saudi Energy Efficiency Program (SEEP) to curb inefficient electricity consumption. In 2016, the country launched a first round of energy price reforms, followed by a second round in 2018. As a result, Saudi electricity demand flattened between 2016 and 2018.

Key observations and takeaways

• The Electricity and Cogeneration Regulation Authority (ECRA) regulates Saudi Arabia’s electricity and water desalination sectors and is charged with collecting and validating the sectors’ data. According to recent reports, between 2016 and 2018, electricity demand growth slowed to 0.5% per year, on average.

• In 2019, electricity consumption dropped by 3.5% year-on-year. It is the first time on record (the available data goes back to 1970) that year-on-year demand has declined. The drop in total electricity demand resulted from two energy price reforms (in 2016 and 2018) and efficiency measures to promote the rationalization of electricity consumption. Although peak demand increased marginally by 0.5% in 2019 because of a warmer summer season, the reduction in overall yearly consumption suggests that the impact of the price reforms, enhanced efficiency and a growing awareness of responsible electricity consumption outweighed the increased consumption during the summer months.

• The decline in Saudi Arabia’s electricity demand comes despite a steady increase in the customer base, which grew at 5% per year on average from 2016 to 2019, reaching 9.8 million customers in 2019. This increase in the customer base resulted in electricity demand per customer declining by 5% annually from 2016 to 2019. In 2019, it reached 29.5 megawatthours (MWh) per customer, the lowest level since 1993. From 2016 to 2019, per capita electricity consumption declined by 3% per year on average. In 2019, it fell to 8.4 MWh per year, but it remains 2.8 times above the world average.
Figure 1. Total electricity sales from ECRA.

Source: ECRA.

Access the related dataset from the KAPSARC data portal for further analysis.

Source:
- ECRA

View this Data Insight online with interactive charts

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