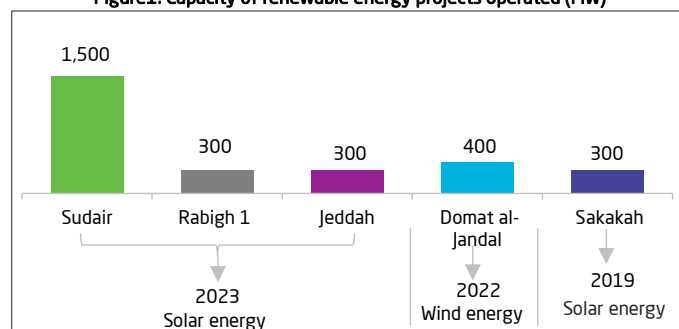# Capacity of renewable energy projects operated reaches 2,800 MW by the end of 2023

According to the renewable energy statistics publication 2023, three renewable energy projects- Jeddah, Rabigh 1 and Sudair- were operated in 2023, with a total capacity of 2,100 megawatts (MW). By the end of 2023, the total capacity of renewable energy projects reached 2,800 MW, including both solar and wind energy projects (Figure1).
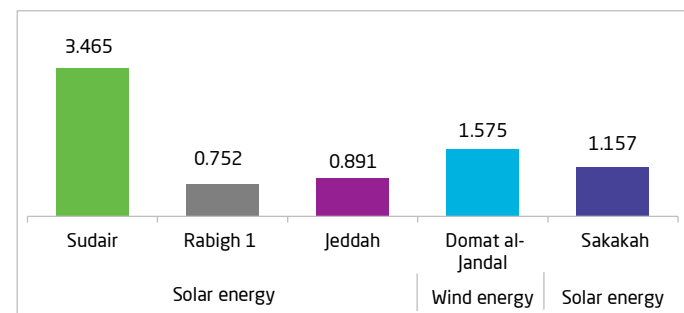
Figure1. Capacity of renewable energy projects operated (MW)

Total investment volume in renewable energy projects by the end of 2023

As of the end of 2023, the total investment volume in renewable energy projects operated reached approximately SAR 7.84 billion. This includes SAR 6.27 billion invested in solar energy projects and SAR 1.58 billion allocated to the wind energy project (Figure2).
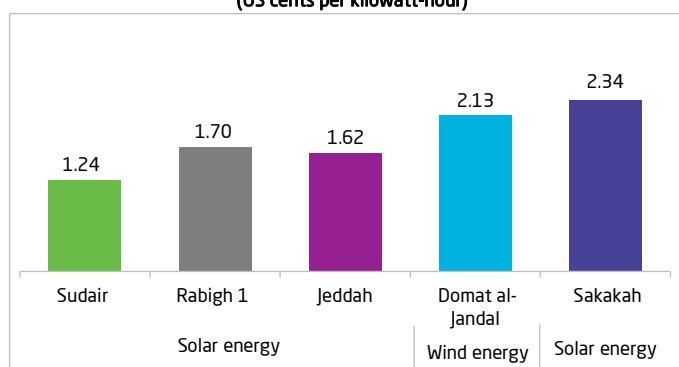
Figure2. Investment volume in renewable energy projects operated (Billion SAR)

LCOE for renewable energy projects by the end of 2023

Sakaka Solar Power project recorded the highest Levelized Cost of Energy (LCOE) at 2.34 US cents per kilowatt-hour, while Sudair Solar Power had the lowest LCOE, at 1.24 US cents per kilowatt-hour (Figure3).

Figure3. Levelized Cost of Energy (LCOE) for renewable energy projects (US cents per kilowatt-hour)
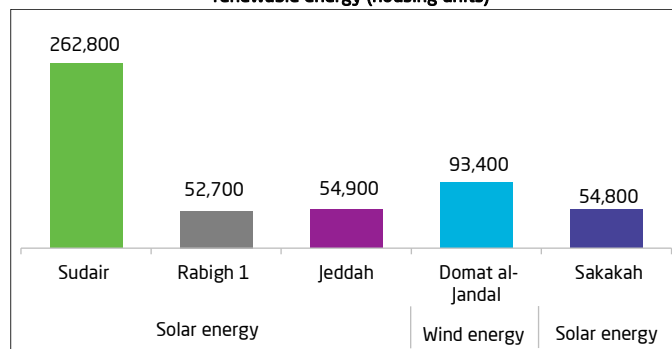

*LCOE: Levelized Cost of Electricity

Number of housing units estimated to be supplied with electricity from renewable energy by the end of 2023

By the end of 2023, the number of housing units estimated to be supplied with electricity from renewable energy achieved approximately 518,600 housing units. The breakdown for each project is detailed below (Figure4).

Figure4. Number of housing units estimated to be supplied with electricity from renewable energy (housing units)

Indicators of renewable energy statistics by the end of 2023

Indicators	Unit	Value
Total capacity of renewable energy projects operated	MW	2,800
Total investment volume of renewable energy projects operated	Billion SAR	7.84
Total number of housing units estimated to be supplied with electricity from renewable energy Housing units	Housing units	518,600

Methodology and Quality

The renewable energy statistics publication presents data on renewable energy in the Kingdom of Saudi Arabia. The Ministry of Energy is the primary source of this data, which is available as a time series covering 2019–2023. The publication is published annually. Methodology and Quality Report , Table