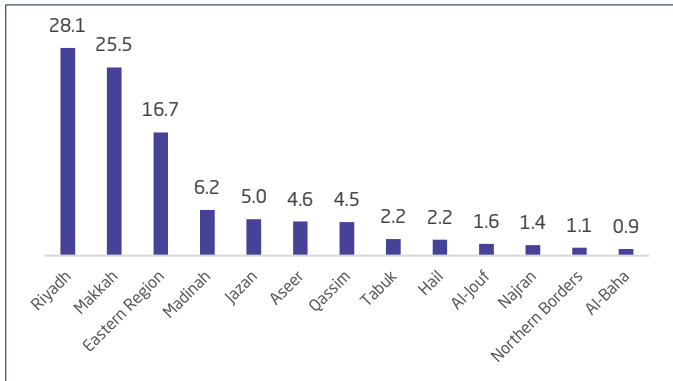


## Riyadh region leads residential electrical energy consumption with 28.1% in 2023

Riyadh Region accounted for the highest share of residential electrical energy consumption with 28.1%, followed by Makkah Region with 25.5%, and Eastern Region with 16.7%. The results showed that Al-Baha Region consumed the least amount of electrical energy, with 0.9% at the level of administrative regions (Figure1).

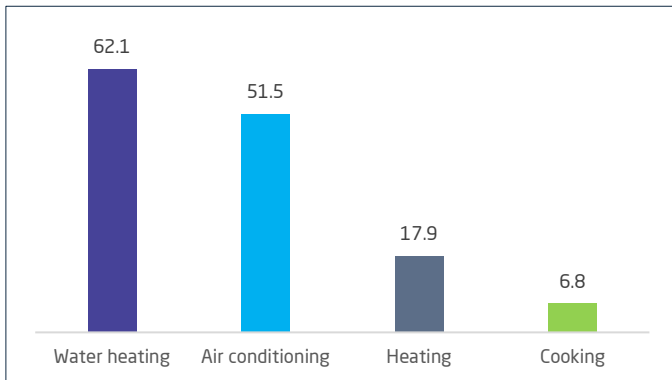
**Figure1. Percentage of electrical energy consumption in the residential sector by administrative region (%)**



### Uses of electrical appliances in the residence

The results of the household energy survey showed the average weekly operating hours of electrical water heating appliances was 62.1 hours per week in 2023, while air conditioning units operated for an average of 51.5 hours per week. Heating appliances averaged 17.9 hours of operation weekly, and cooking appliances were used for an average of 6.8 hours per week (Figure2).

**Figure2. Average weekly operating hours of electrical appliances in the Kingdom (hour/week)**



### Increase in the percentage of homes that have thermal insulation in 2023

The percentage of dwellings that has thermal insulation increased by 2.9% compared to what it was in 2022, reaching 38.9% for the year 2023, while the percentage of dwellings that does not have thermal insulation decreased by 4.5% compared to what it was in 2022, reaching 38% for 2023, the percentage of households that answered I don't know reached 23.1% across the Kingdom.

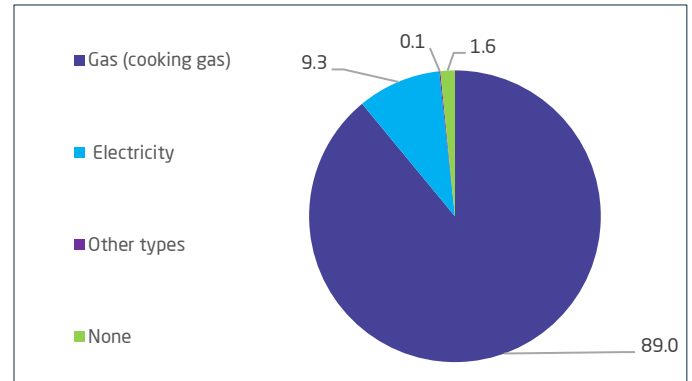
### Percentage of households very interested in rationalizing electrical energy consumption

The results of the household energy survey showed the percentage of households that are very interested in rationalizing energy consumption reached 92.1% in 2023. The percentage of households applying energy consumption guidelines in the use of electrical appliances in the dwelling reached 83.6%, while the percentage of households willing to spend money to replace old appliances with newer, more energy-efficient ones was 55.2% in 2023. The results indicate that 42.3% of households are wanting to use solar energy in the dwelling across the Kingdom.

### Energy used for cooking in dwellings

The percentage of dwellings using different forms of energy for cooking in the residential sector reached 98.4% in 2023. The results also indicated that the percentage of dwellings using gas (cooking gas) was 89% of the total energy sources used for cooking, while the percentage of dwellings using electrical energy for cooking was 9.3%. Additionally, the percentage of dwellings using other types of energy sources for cooking was 0.1% (Figure3).

**Figure3. Percentage of energy consumption used for cooking in the Kingdom (%)**



### Key indicators of household energy statistics

Indicators	%
Percentage of dwellings with thermal insulation	38.9
percentage of households that are very interested in rationalizing energy consumption in the dwelling	92.1
Percentage of households following energy-saving practices for electrical appliances	83.6
Percentage of households interested in using solar energy in the dwelling	42.3
Percentage of households using gas (cooking gas) for cooking	89
Percentage of households using electrical energy for cooking	9.3

Source: [Table](#).

### Methodology and quality report

The results of the household energy statistics publication present data on energy usage in dwellings, categorized by housing types and ownership, including villas, traditional homes, floors, and apartments. It also covers other types of dwellings, such as tents, shacks, and rooms across the Kingdom of Saudi Arabia. Data of the Household Energy Statistics Publication relies on two primary sources: data from the Household Energy Survey and administrative records from the Ministry of Energy.

[For more details, please view the methodology and quality report.](#)