

#### Electric Consumption Analysis: UK-Wide Commercial vs Domestic Usage, Regional Insights, and Wales Focus

**NOTE:** Electricity usage measure are in *Giga Watts per Hour* (GWh)



**Box Plots:** 





Combine box plot features with kernel density

including frequency variations.

•Provide a comprehensive view of data distribution,

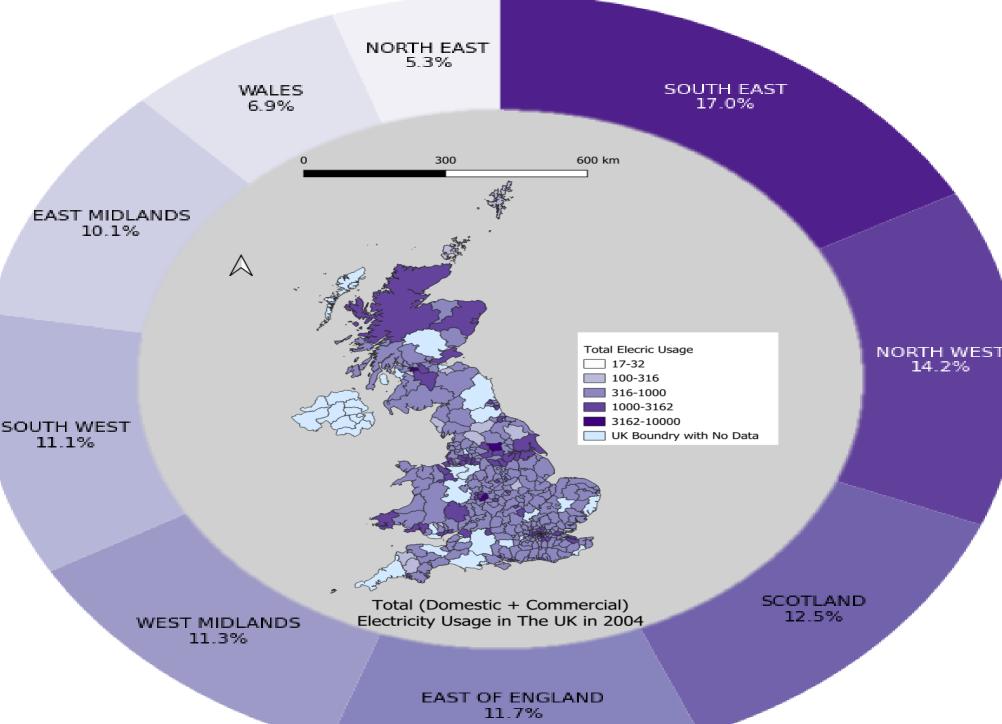


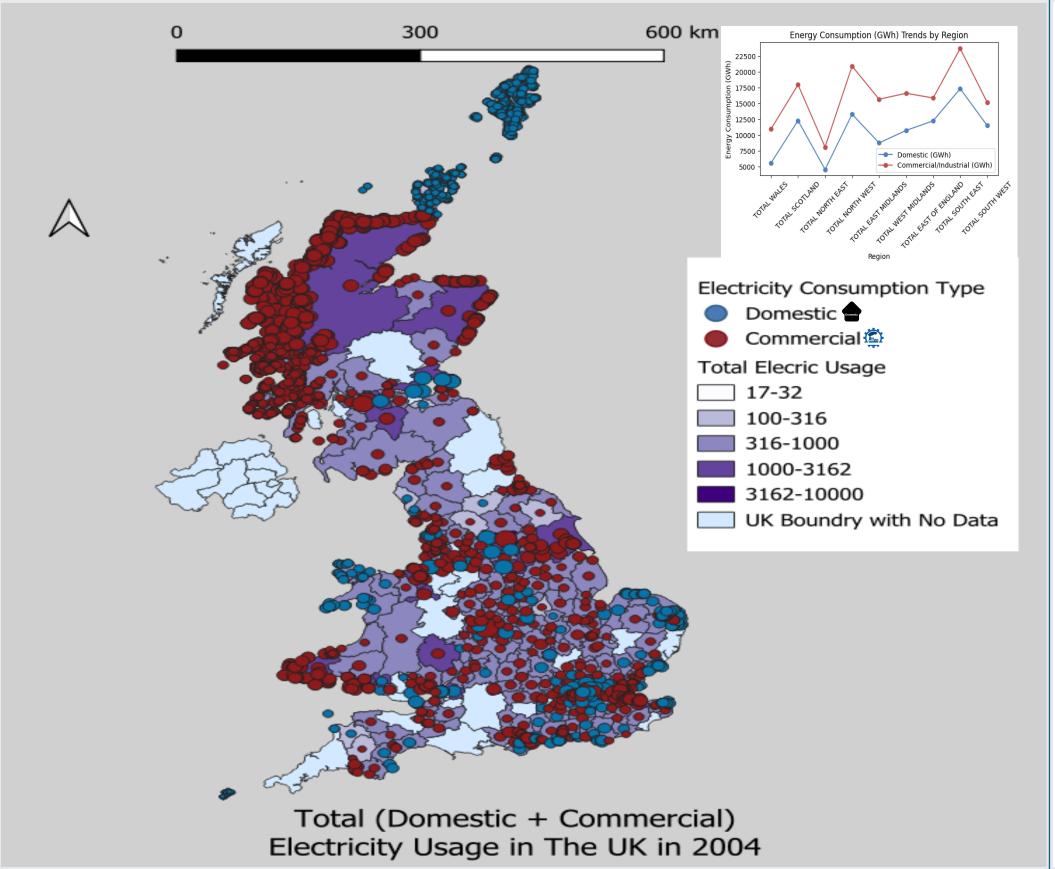
Commercial/Industrial (GWh)



### Usage Across the UK







# Aggregated Regional Data Analysis



- Display data distribution through quartiles.
  Show the median and highlight potential outliers.
- •Offer a clear overview of data spread but limited distribution shape detail.
- Distribution of Energy Consumption (GWh) by Type

  Violin Plot of Energy Consumption (GWh) by Type

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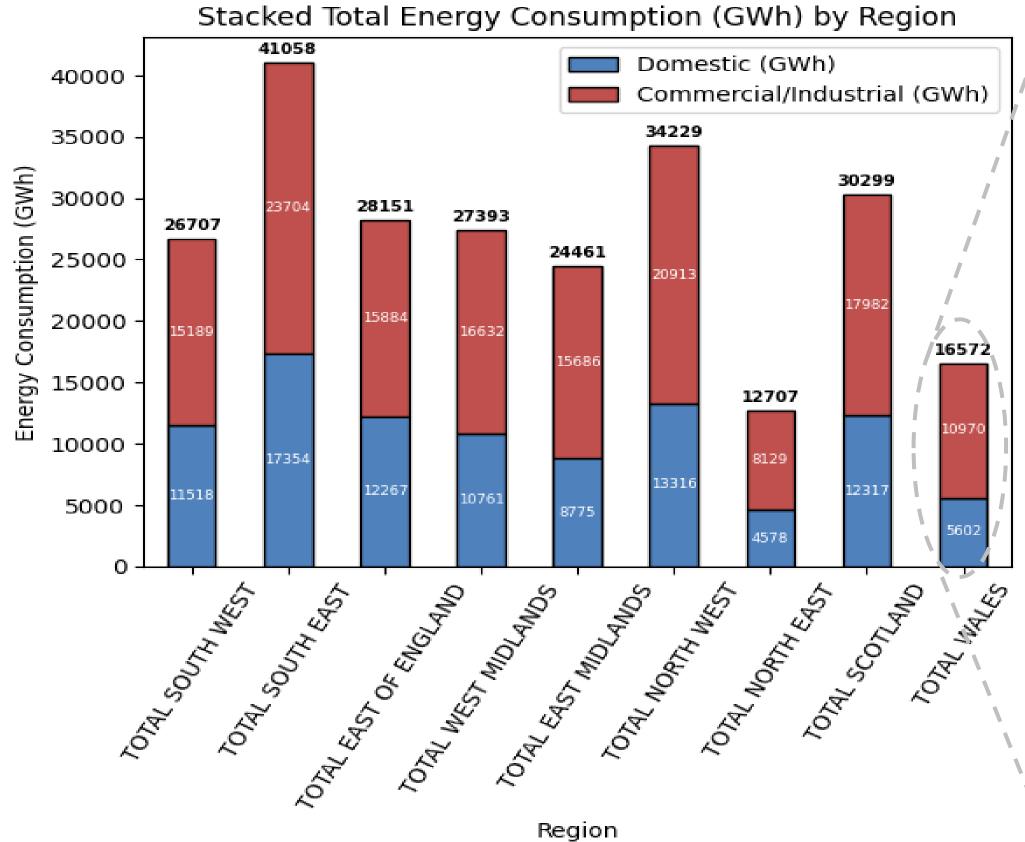
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Box plots and violin plots clearly illustrate that commercial/industrial usage is greater than domestic usage. The box plot for commercial/industrial usage reveals outliers at both the higher and lower ends of the data.



## Detailed Study of Wales (Cymru)



A comparison between the overall UK and Wales shows that, while industrial usage is higher in both regions, Wales has a larger gap between industrial and domestic usage.

