

Power Forecast Assignment

Power Retail companies need an accurate power consumption prediction to buy electricity in the wholesale market. They have available the consumption data of each customer per hour. The data structure is depicted in the following table:

Field	Meaning
CUPS	Customer Code (Código Único de Punto de Suministro)
ZipCode	Postal Code
Rate	Customer type
Date	Date of consumption
Hour	Hour of consumption
Value (Wh)	Consumption in watts-hour

You will be given a file with the described structure that contains detailed consumption data from 2016-01-01 to 2017-06-30. Your task is to predict the total energy consumption of your customer base for dates between 2017-08-01 to 2017-11-01.

You must consider things like:

- Seasonality
- External factors
- Customer base variations

Deliverables:

- A presentation describing
 - Global approach
 - The data analysis process
 - Data Transformations
 - External data
 - Feature engineering
 - Modelling
- The program implementing these steps and getting the results
- A CSV file with the results with the recommended buys for the 2017-08-01 to 2017-11-01 period with following format:

Field	Meaning
Date	Date of prediction
Hour	Hour of prediction
Consumption	Forecasted consumption (Wh)

Grading:

- The grade will be calculated as a combination of:
 - Quality of approach and problem resolution (30%)
 - Quality of presentation (40%)
 - Ranking of your solution