Dear Candidate,

please read the task description below carefully and do your best to solve the mentioned problems. If you have any problems understanding the task, do not hesitate to contact us.

Good Luck!

In the electricity market, auction mechanisms are used to facilitate the buying and selling of energy. Market participants submit orders to buy or sell a specific amount of energy at a certain price for the following day at a designated time interval. The length of the interval may vary depending on the country. For example, in the Czech Republic, the interval is one hour. Orders must be submitted by a specific time, which also varies by country, such as before 12 noon. The system operator then processes the orders, determines the equilibrium price, and allocates the energy.

Data:

The data contains 3 time series of hourly frequency in the size of 5 years. The target variable is price, the other two are independent variables that are good predictors for the latter.

Task:

1) Conduct an exploratory analysis of the data to gain insights and identify patterns.
2) Develop a model that predicts energy prices for the next day, for each hour from 0 to 23, given the constraint that the forecast must be delivered before the auction closes, at 11:30 a.m.

Time: 1 week

Resources that can be used: no restrictions