Hackathon Delaware Consulting Group 8: Weather Data

Quick synopsis: The electricity market in France is controlled mostly by one major player, EDF (Électricité de France), with several other smaller providers also operating with minimal market share. In recent years, wind and solar power deployment has increased substantially, changing the landscape of electricity consumption. However, its relative recency to the market means output can be greatly influenced by weather temperatures. Therefore, we will examine temperature, wind and solar data from Paris, Marseille, Lyon and Toulouse (4 largest metropolitan cities by population, all cover separate geographical regions in France) from the beginning of 2015 to the end of 2018.

Data source: <https://www.ncdc.noaa.gov/cdo-web/>

Weather data for the four cities (Jan 2015 - Dec 2018) was retrieved from National Centers for Environmental Information (National Climatic Data Center), an American scientific agency that focuses on the conditions of the oceans, major waterways, and the atmosphere. Basetables for each city have been constructed with variables including daily minimum, maximum and average temperature and precipitation. This information will be matched with the electricity market prices and price-related variables over the same time period to determine if there are identifiable cause and effect trends.