**<P-219- Hourly Energy Consumption Forecast >**

**Business Objective:**

**PJM Hourly Energy Consumption Data**

**PJM Interconnection LLC (PJM) is a regional transmission organization (RTO) in the United States. It is part of the Eastern Interconnection grid operating an electric transmission system serving all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia.**

**The hourly power consumption data comes from PJM's website and are in megawatts (MW).**

**The regions have changed over the years so data may only appear for certain dates per region.**

* Split the last year into a test set- can you build a model to predict energy consumption?
* Find trends in energy consumption around hours of the day, holidays, or long term trends?
* Understand how daily trends change depending of the time of year. Summer trends are very different than winter trends.
* Forecast for next 30 days.

**Milestones:**

**30 days to complete the Project**

|  |  |
| --- | --- |
| **Milestone** | **Duration** |
| **Kick off and Business Objective discussion** | **21-Mar-2023** |
| **Data set Details** | **1 week** |
| **EDA** | **1 week** |
| **Model Building** | **1 Week** |
| **Model Evaluation** | **1 week** |
| **Feedback** |
| **Deployment/**  **Final presentation** | **1 day** |

**Protocols:**

1. **All the documentation – Final presentation and python code to be submitted before the final presentation day**
2. **All the participants must attend review meetings**