Capstone Two – Project Proposal

Proposed Project Title: Forecasting Electricity Demand in Texas

Problem Statement

Texas operates one of the largest and most independent electricity grids in the United States through ERCOT. Rapid population growth, extreme weather events, and increasing energy consumption have placed significant strain on grid reliability and pricing stability.

The objective of this project is to analyze historical electricity demand and related factors in Texas to identify key drivers of demand fluctuations and develop predictive models.

Context

The energy sector is one of the most profitable and economically critical industries in Texas.

Client and Stakeholders

Primary Client: Texas-based electricity providers or grid operators (ERCOT-affiliated utilities).

Criteria for Success

Clear EDA, predictive modeling accuracy, and actionable insights.

Deliverables

GitHub repository, project report, slide deck, and PDF proposal.