Problem Statement: Demand/Load Forecasting

TANGEDCO (Tamil Nadu)

Currently, the DISCOM is projecting day to day demand based on the past data with hourly consumption information (15 min duration). This data is collected from 9 regions of Tamil Nadu and maintained physically in logbooks.

Previous day's hourly consumption data is provided to Load Dispatch centre for projecting the next day's demand. Therefore, the DISCOM is interested in Accurate Demand Forecasting via AI/ML solutions to meet the next day's demand requirement for all the electricity distribution circles.

Around past 5 years data is available at its Headquarters in Chennai. The DISCOM will furnish any other relevant information if required to arrive solution for the areas identified in problem.

After getting approval for pilot project in Chennai, the entire state of Tamil Nadu shall be covered under the scale of intervention.

Problem Statement: Demand/Load Forecasting

TSNPDCL (Telangana)

Presently, for Load forecasting, DISCOM is projecting day to day demand based on the past data which is further sent to SLDC for future projection. Discom is interested to explore accurate Demand Forecasting techniques to meet the demand requirement for next day through AI/ML solution. Past 1 year data is available and any other relevant information if required would be provided by DISCOM to arrive at a solution for the area mentioned in the problem. Discom is ready to implement the pilot project in the city of Warangal which can later be scaled up.

Problem Statement: Demand/Load Forecasting

PSPCL (Punjab)

DISCOM has informed that Demand forecasting is already being carried out by them through AI/ML solution in association with a private firm. However so far, there is no satisfactory outcome via same. There has always been a mismatch between the Load Forecasting data from the AI/ML tool and the actual data during weather condition variations. Hence DISCOM envisage to explore solution for accurate demand forecasting, which can support in optimising, streamlining and fine tuning the power procurement strategy. Accordingly, DISCOM proposes the above problem statement for potential AI/ML based implementable solutions.

Problem Statement: Load /Demand Forecasting

MPPoKVVCL (Madhya Pradesh)

DISCOM already has an LSTM (Long Short-Term Memory) based Load forecast System for all the Electricity Distribution Circles which hereby requires improvisation. The system yields satisfactory results in normal days, but failed during the peak covid period. Around past 1 year data is available for smart and interval meters. DISCOM is interested in improvisation of the model with a judicious tuning of some of the parameters which can bring the prediction very close to actuals.

Problem Statement: Demand/Load Forecasting

UHBVNL (Haryana)

Currently, in UHBVNL, around 2 lakh smart meters are installed across the DISCOM. The DISCOM has established a dedicated Smart Meter Operation Center (SMOC) for smart meter output data to implement a few pilot studies in the areas of Billing, Tampering and Revenue areas. Further, DISCOM is interested to join National level program to expand its areas of study such as Power Purchase Cost Optimization by accurate load data prediction, reduction of DSM Charges by Energy Demand Forecasting and other Value-added services using smart meter data. Load profile data for 15-minute time interval of smart meters is available for last 18 months. At present, Discom is interested to run the pilot project for 11,000 HT consumers in the smart meter divisions of Karnal, Panipat & Panchkula. UHBVNL further plans to scale the pilot projects to 1.7 lakh Smart Meter consumers covered across the Discom.