

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	20 February 2026
Team ID	LTVIP2026TMIDS66673
Project Name	Plugging into the Future: An Exploration of Electricity Consumption Patterns Using Tableau
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Authentication	User login through username & password
FR-2	Data Upload	Upload electricity consumption datasets (CSV/Excel)
FR-3	Data Validation	Validate missing values and incorrect data
FR-4	Data Processing	Process data using Flask backend
FR-5	Data Storage	Store processed data in database
FR-6	Data Visualization	Generate interactive Tableau dashboards
FR-7	Filtering & Analysis	Filter data by region, time, and sector
FR-8	Report Access	View and export dashboards/reports

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	System should be user-friendly and easy to navigate
NFR-2	Security	Secure login and protected data access
NFR-3	Reliability	System should work without failure during analysis
NFR-4	Performance	Dashboards should load within acceptable time
NFR-5	Availability	System should handle large datasets efficiently
NFR-6	Scalability	Application should be available during working hours

