

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

Date	14 June 2025
Team ID	LTVIP2025TMID47623
Project Name	Exploration of Electricity Consumption Patterns
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	Data Upload	Upload electricity consumption dataset (.csv file) into Tableau or MySQL
FR-2	Data Preparation	clean and preprocess the data: rename columns, parse dates, handle missing values
FR-3	Dashboard Development	Create key visualizations: bar chart, line graph, filled map, area chart, highlight table
FR-4	Dashboard Interaction	Add filters for: Year, Region, State, and Lockdown Status
FR-5	Data Exploration	Enable drill-down analysis using time-based (monthly, quarterly) filters
FR-6	Insight Delivery	Provide key insights such as peak consumption periods and lockdown impact
FR-7	Export Functionality	Allow dashboard or visual export to PDF/image for reporting purposes
FR-8	Storyboarding	Develop a Tableau Story to guide users through insights in a step-by-step format

Non-functional Requirements:

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

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	The dashboard must be intuitive, interactive, and easy to navigate for non-technical users such as government analysts or policymakers.
NFR-2	Security	The dataset and Tableau workbook should be securely stored and shared via controlled access (e.g., Tableau Public link permissions or secure file sharing).
NFR-3	Reliability	The dashboard must return accurate and consistent results regardless of the filters applied (e.g., year, region, lockdown)
NFR-4	Performance	The dashboard should load and respond within 5 seconds, even with 1,000+ records and multiple filters.
NFR-5	Availability	The solution should be available through Tableau Public or exportable as PDF/images so it can be accessed by stakeholders anytime.
NFR-6	Scalability	The solution should support future expansion—such as adding new years, more states, or updated data—without needing a complete redesign.