

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

Date	18 February, 2026
Team ID	LTVIP2026TMIDS40169
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	Data Upload	Upload electricity consumption dataset (.csv or database connection)
FR-2	Data Preparation	Clean null values, format date fields (Month, Quarter, Year), create calculated fields in Tableau
FR-3	Dashboard Development	Create visuals: State Map, KPI Card, Pie Chart, Bar Chart, Line Chart, Quarter Chart
FR-4	Dashboard Interaction	Add filters for: Year, Region, State, Quarter
FR-5	Data Exploration	Allow users to drill down from Region → State and analyze Top N & Bottom N
FR-6	Data Delivery	Generate insights like peak demand months, lockdown impact, high consumption states
FR-7	Export Functionality	Allow dashboard export to PDF or image for reporting purposes
FR-8	Storyboarding	Build a Tableau Story to present key insights step-by-step

Non-functional Requirements:

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

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	Dashboard must be intuitive and easy to use for non-technical users
NFR-2	Security	Dataset and Tableau workbook should be secure and shareable via permissions
NFR-3	Reliability	Dashboard should return consistent insights with any applied filters
NFR-4	Performance	Dashboard should load within 5 seconds after applying filters
NFR-5	Availability	Dashboard should be accessible via Tableau Public or exported PDF format
NFR-6	Scalability	System should support addition of future data (new years, new states, extended datasets)