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

Date	17 June 2025
Team ID	LTVIP2025TMID51709
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 Import & Integration	Import electricity consumption data from Excel, CSV, or SQL databases.
FR-2	Time-of-Day Usage Analysis	Visualize hourly usage trends across regions and sectors.
FR-3	Sector-wise Consumption Dashboard	Show consumption comparisons between residential, commercial, and industrial sectors.
FR-4	Seasonal Trend Visualization	Display month-wise/seasonal usage changes with forecasting.
FR-5	Interactive Filters	Let users filter data by time, region, and sector dynamically.
FR-6	Report Exporting	Allow users to export charts and insights in PDF/Image format.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The dashboard must be clean, user-friendly, and intuitive to operate-even for non-technical users.
NFR-2	**Security**	If deployed on Tableau Server or Online, data must be protected through authentication and access controls.
NFR-3	**Reliability**	The solution should function correctly under expected usage without crashes or misrepresentation of data.
NFR-4	**Performance**	Dashboards must load within 3-5 seconds for standard datasets (under 1M rows).
NFR-5	**Availability**	Hosted dashboards should be available 24/7 (if public/shared), with minimal downtime.
NFR-6	**Scalability**	The system should handle larger datasets or more filters without performance degradation.