

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

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|---------------|---|
| Date | 31 January 2025 |
| Team ID | LTVIP2025TMID20763 |
| 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 Ingestion | Upload consumption data (CSV/API), Connect smart meter data |
| FR-2 | Data Preprocessing | Handle missing values, normalize formats, timestamp conversion |
| FR-3 | Dashboard Visualization | Line/bar graphs, pie charts, interactive filters (region, device, time) |
| FR-4 | Alerts & Insights | Trigger overconsumption alerts, generate daily/weekly insights |

Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|--|
| NFR-1 | Usability | Dashboards should be interactive and easy to interpret for all user levels |
| NFR-2 | Security | Data access must be restricted to authenticated users |
| NFR-3 | Reliability | System must consistently process and display accurate consumption data |

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|-------|---------------------|--|
| NFR-4 | Performance | Dashboards should load and respond within 2 seconds |
| NFR-5 | Availability | Dashboards should load and respond within 2 seconds |
| NFR-6 | Scalability | Should handle large datasets and multiple user sessions simultaneously |