

**Project Design Phase-I**  
**Proposed Solution**

Date	16 February 2026
Team ID	LTVIP2026TMIDS55781
Project Name	Plugging into the Future: An Exploration of Electricity Consumption Patterns Using Tableau
Maximum Marks	2 Marks

**Proposed Solution:**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Energy regulators, utility providers, and large institutions lack a centralized, data-driven platform to monitor electricity consumption patterns, peak demand periods, regional usage variations, and efficiency trends. Data is often scattered across raw files and spreadsheets, leading to slow analysis, inefficient planning, and higher operational costs.
2.	Idea / Solution description	The Electricity Consumption Analysis Dashboard is an interactive Tableau-based solution that integrates multi-year consumption data, regional usage statistics, seasonal demand patterns, and peak load metrics into a unified visualization platform. It enables trend analysis, anomaly detection, and energy optimization through interactive filters and drill-down features.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"><li>• Combines regional comparisons, seasonal demand trends, and peak usage insights in one dashboard.</li><li>• Enables year-wise comparisons (e.g., 2019 vs. 2020).</li><li>• Uses story-based visualizations for executive presentations and policy planning.</li><li>• Simplifies complex datasets into intuitive charts for quick insights.</li></ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"><li>• Promotes energy conservation and efficient electricity usage.</li><li>• Supports sustainable energy planning and demand management.</li><li>• Helps organizations reduce electricity costs.</li><li>• Improves transparency and trust in energy usage reporting.</li></ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"><li>• B2B subscription model for government agencies, utility companies, educational institutions, and large enterprises.</li><li>• Revenue from customized dashboard deployment and advanced analytics modules.</li><li>• Consulting services for energy efficiency and sustainability planning.</li></ul>
6.	Scalability of the Solution	Built on scalable BI and cloud-enabled infrastructure, the solution can integrate smart meters, IoT sensors, and real-time consumption feeds. It can expand to support smart grid analytics, city-level monitoring, and national electricity planning initiatives.