

## Brainstorming – Idea Generation – Prioritization Template

Date	31 January 2026
Team ID	LTVIP2026TMIDS61425
Project Name	Plugging into the Future: An Exploration of Electricity Consumption Patterns Using Tableau
Maximum Marks	4 Marks

### Brainstroming Idea – Prioritization Template:

Electricity consumption plays a critical role in economic development, industrial growth, and daily life activities. Understanding patterns of electricity usage can help optimize resource allocation, reduce wastage, and support sustainable energy initiatives.

The dataset contains time-series electricity consumption data across Indian states and regions from January 2019 to December 2020. The presence of COVID-19 lockdown during 2020 introduces an additional dimension for comparative analysis.

This project aims to analyze:

- Time-of-day usage patterns
- Seasonal variations
- Sector-wise consumption
- Region-wise electricity distribution
- Lockdown impact analysis

Idea No	Idea Description	Feasibility	Impact	Tools Required
1	Analyze total consumption by state	High	High	SQL + Tableau
2	Compare 2019 vs 2020 usage	High	High	Tableau
3	Analyze lockdown impact	High	Very High	SQL + Tableau
4	Forecast future consumption	Medium	High	Tableau Forecast
5	Identify peak demand months	High	High	Tableau
6	Top N and Bottom N states analysis	High	Medium	Tableau

## Idea Prioritization Matrix

### Criteria:

- Social Impact
- Technical Feasibility
- Data Availability

### High Priority Features:

- Time-Series Consumption Trend
- 2019 vs 2020 Comparison
- Region-wise Usage
- Lockdown Before/After Analysis
- Top and Bottom States

### Medium Priority:

- Forecasting
- Advanced calculated fields

## Final Selected Approach

### We will:

1. Store data in SQL database
2. Perform SQL queries for aggregation
3. Connect database to Tableau
4. Create visualizations
5. Build interactive dashboard
6. Create story presentation
7. Publish to Tableau Public
8. Integrate with Flask

### Expected Outcome

- Identify seasonal trends
- Analyze pandemic impact
- Support energy policy decisions
- Provide insights for grid optimization
- Help in sustainable energy planning