Problem-Solution fit canvas 2.0

Purpose / Vision: To visualize electricity consumption patterns and empower smarter, data-driven energy decisions for a sustainable future.

Define CS, fit into

1. CUSTOMER SEGMENT(S) — CS

- Utility company decision-makers
- Government policymakers (energy departments)
- Energy analysts and researchers
- Public sector monitoring authorities

6. CUSTOMER — CC

- Limited technical/data visualization skills
- Budget constraints for tool adoption
- Reliance on manual Excel-based workflows
- Limited access to cleaned, centralized data
- Low IT infrastructure in smaller utility companies

5. AVAILABLE SOLUTIONS — AS

- Static government reports in PDF/Excel
- Manual data analysis using spreadsheets
- Internal dashboards with limited scope
  Pros: Familiar tools, simple setup
  Cons: No interactivity, slow, difficult to analyze, lacks filtering

Explore AS,

Focus on J&P, tap into BE, understand

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

- Understand state-wise and sector-wise electricity usage patterns
- Forecast demand for better grid management
- Identify peak hours and plan energy-saving programs
- Analyze seasonal usage trends and post-lockdown impacts
- Make data-driven decisions from raw usage data

9. PROBLEM ROOT CAUSE — RC

- No centralized platform for data-driven electricity consumption insights
- Datasets are raw, unfiltered, and not visualized
- Decision-makers lack tools and training to interpret the data easily
- Growing complexity in managing supply-demand post-COVID and climate events

7. BEHAVIOUR — BE

- Use Excel to sort and manually analyze usage
- Request reports from IT/data team
- Refer to government portals for downloads
- Discuss patterns informally within departments
- Use experience-based intuition over data evidence

Focus on J&P, tap into BE, understand

Identify strong TR & EM

3. TRIGGERS — TR

1. **External pressure from government mandates, public reports, or new datasets** requiring improved energy planning and transparency.
2. **Operational challenges like blackouts, peak season budgeting, or rising interest in sustainability** prompt action from utility stakeholders.

4. EMOTIONS: BEFORE / AFTER — EM

Before: Overwhelmed, frustrated, unsure, data-blind
After: Informed, empowered, confident, able to make smart decisions

10. YOUR SOLUTION — SL

A web-based dashboard using Tableau embedded into a Flask app.
Pre-processed data stored in MySQL, integrated with real-time filtering.
Visualizations include: Time-wise, region-wise, lockdown comparison, and top/bottom usage states.
Interactive filters for users to select year, region, and time period.
Optional ML-powered demand forecasting.
Published on Tableau Public for easy access and sharing.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

Download datasets from energy portals (POSOCO, Ministry of Power)

Read insights or trends from news portals or LinkedIn

Watch dashboard demos (YouTube, Tableau Public)

8.2 OFFLINE

Attend government briefings

Internal review meetings and printed reports

Collaborate on planning documents manually

Extract online & offline CH of BE