

## Project Design Phase-I Problem – Solution Fit Template

Date	09 February 2026
Team ID	LTVIP2026TMIDS80901
Project Name	Plugging in to the future : An exploration of electricity consumption patterns
Maximum Marks	2 Marks

### Problem – Solution Fit Template:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

#### Purpose:

- Solve complex problems in a way that fits the state of your customers.
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- Understand the existing situation in order to improve it for your target group.**

### Problem–Solution Fit – Electricity Consumption Analysis

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> Who is your customer? i.e. working parents of 0-5 y.o. kids  <b>Primary Customers:</b> Students performing academic data analysis Data analysts studying energy consumption patterns Faculty evaluating electricity usage trends  <b>Secondary Customers:</b> Energy policy researchers Small organizations analyzing consumption reports	CS	<b>6. CUSTOMER CONSTRAINTS</b> What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.  Limited technical knowledge Time constraints for assignments No access to advanced analytics tools Difficulty understanding statistical methods	CC	<b>5. AVAILABLE SOLUTIONS</b> Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? Is there any alternative to digital notetaking?  <b>Current alternatives customers use:</b> Excel spreadsheet analysis Manual calculations Static charts in basic tools  <b>Pros:</b> Easily accessible Familiar tools  <b>Cons:</b> Time-consuming Limited interactivity	AS	Explore AS, differentiate
Focus on J&P, tap into BE, understand RC	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.  <b>Functional Jobs:</b> Analyze monthly and yearly electricity consumption trends Compare consumption across regions Prepare visual reports for presentations  <b>Emotional Jobs:</b> Feel confident while explaining analysis Avoid confusion from large raw datasets  <b>Problems:</b> Raw CSV files are hard to interpret Manual Excel analysis is time-consuming Difficult to detect seasonal patterns quickly	J&P	<b>9. PROBLEM ROOT CAUSE</b> What is the real reason that this problem exists? What is the back story behind the need to do this job? i.e. customers have to do it because of the change in regulations.  Large datasets are not human-readable Lack of visual representation No structured trend identification Students are trained in theory but struggle with practical analysis	RC	<b>7. BEHAVIOUR</b> What does your customer do to address the problem and get the job done? i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)  Open the electricity dataset in Excel Scroll through rows to understand consumption values Create basic charts manually Try calculating monthly averages Compare regions manually using pivot tables Re-check numbers repeatedly to avoid mistakes Seek help from classmates when confused Rework analysis multiple times before submission	BE	Focus on J&P, tap into BE, understand RC
Identify strong TR & EM	<b>3. TRIGGERS</b> What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.  They receive a dataset for assignment/project Faculty asks for trend analysis Need to prepare presentation or viva	TR	<b>10. YOUR SOLUTION</b> If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour. Cleans and processes raw electricity dataset  Generates monthly and yearly trend charts Enables region-based comparisons Provides interactive filters Highlights peak and low consumption Allows structured presentation and reporting	SL	<b>8. CHANNELS OF BEHAVIOUR</b> What kind of actions do customers take online? Extract online channels from #7 Download datasets Search YouTube tutorials  <b>8.2 OFFLINE</b> What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development. Manually interpret printed reports Prepare notes for presentation Discuss analysis with classmates	CH	Extract online & offline CH of BE
	<b>4. EMOTIONS: BEFORE / AFTER</b> <b>Before Using Solution:</b> Confused Overwhelmed by large data <b>After Using Dashboard:</b> Confident Clear understanding of trends	EM					