Ideation Phase

Define the Problem Statements

Date	27 June 2025
Team ID	LTVIP2025TMID48457
Project Name	plugging into the future: an exploration of electricity consumption patterns using tableau
Maximum Marks	4 Marks

Customer Problem Statement:

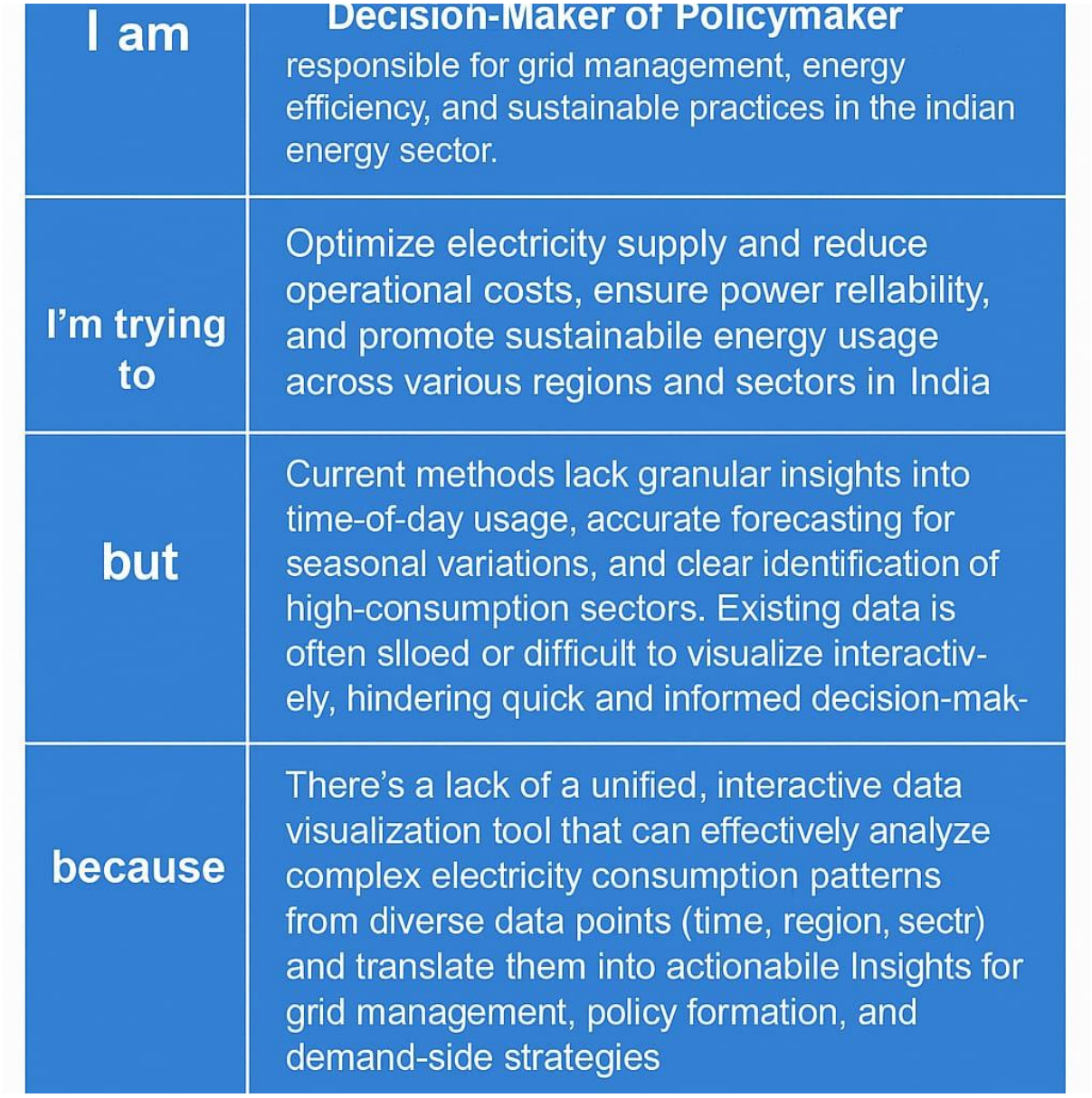
I am a policymaker responsible for energy efficiency and grid management in India.

I’m trying to improve electricity supply and promote sustainable usage.

But current systems lack real-time insights and clear visualizations.

Because data is fragmented and hard to analyze effectively.

Which makes me feel frustrated and unable to make timely, informed decisions.



Example:

Problem Statement (PS)

I am (Customer)

I'm trying to

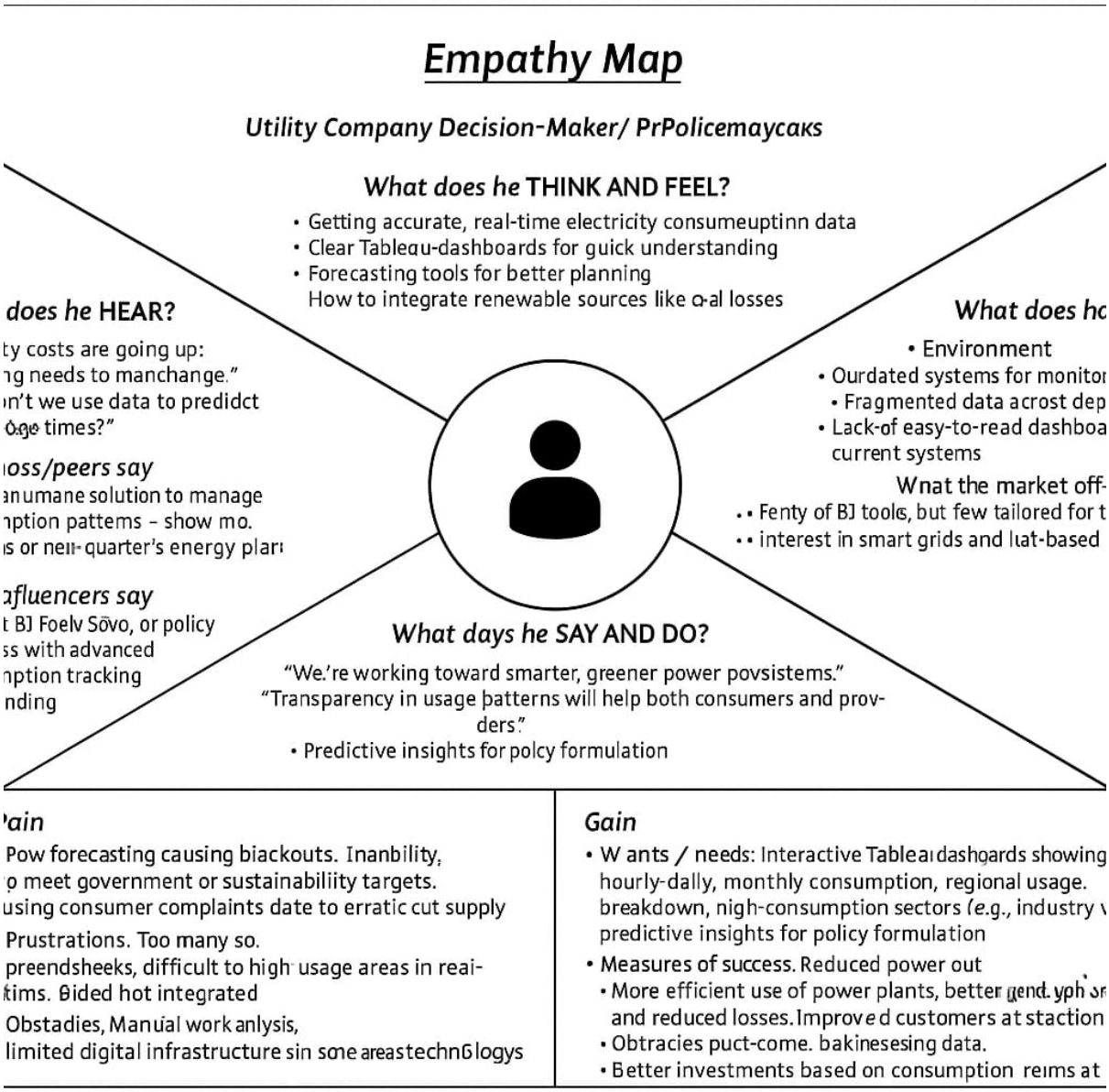
But

Because

Which makes me feel

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Utility companies, policymakers, and consumers	Enable efficient energy usage, improve grid management, and promote sustainable practices [cite:5, 6]	We lack clear, interactive insights into electricity consumption patterns across Indian regions and sectors.	Current data analysis methods don't effectively reveal time-of-day usage, peak demand, seasonal variations, or sector-wise consumption trends[2].	Frustrated by inefficient resource allocation and the inability to form effective energy policies.
PS-2	Stakeholders in the energy sector	Optimize electricity supply and reduce costs by understanding consumption trends [cite:5, 6]	It's difficult to pinpoint which sectors and regions consume the most energy, and when.	The raw electricity usage data is complex and not easily digestible for quick decision-making.	Concerned about potential energy waste and missed opportunities for cost savings.

Empathy map:


Empathy Map
Utility Company Decision-Maker/ PrPolicemaycaĸs
What does he THINK AND FEEL?
• Getting accurate, real-time electricity consumeuptinn data
• Clear Tableau-dashboards for guick understanding
• Forecasting tools for better planning
How to integrate renewable sources like o-al losses
does he HEAR?
ty costs are going up:
ıg needs to manchange."
ın't we use data to predidct
ȯ.ge times?"
ıoss/peers say
ɜnumane solution to manage
ıption pattems - show mo.
ıs or neıı-quarter's energy pları
ɜfluencers say
t BJ Foelv Sōvo, or policy
ss with advanced
ıption tracking
ıding
What does hc
• Environment
• Ourdated systems for monitor
• Fragmented data acrost dep
• Lack-of easy-to-read dashboa
current systems
Wnat the market off-
• • Fenty of BJ tools, but few tailored for t
• • interest in smart grids and luat-based
What days he SAY AND DO?
"We.'re working toward smarter, greener power povsistems."
"Transparency in usage patterns will help both consumers and prov-
ders."
• Predictive insights for polcy formulation
'ain
Pow forecasting causing biackouts. Inanbility,
ȯ meet government or sustainabiliity targets.
ısing consumer complaints date to erratic cut supply
Prustrations. Too many so.
preendsheeks, difficult to high usage areas in reai-
ktims. Ɵided hot integrated
Obstadies, Manual work anlysis,
limited digital infrastructure sin sone areastechnɢlogys
Gain
• W ants / needs: Interactive Tableaı dashgards showing
hourly-dally, monthly consumption, regional usage.
breakdown, nigh-consumption sectors (e.g., industry v
predictive insights for policy formulation
• Measures of success. Reduced power out
• More efficient use of power plants, better gend. yph or
and reduced losses. Improve d customers at staction
• Obtracies puct-come. bakinesesing data.
• Better investments based on consumption reims at