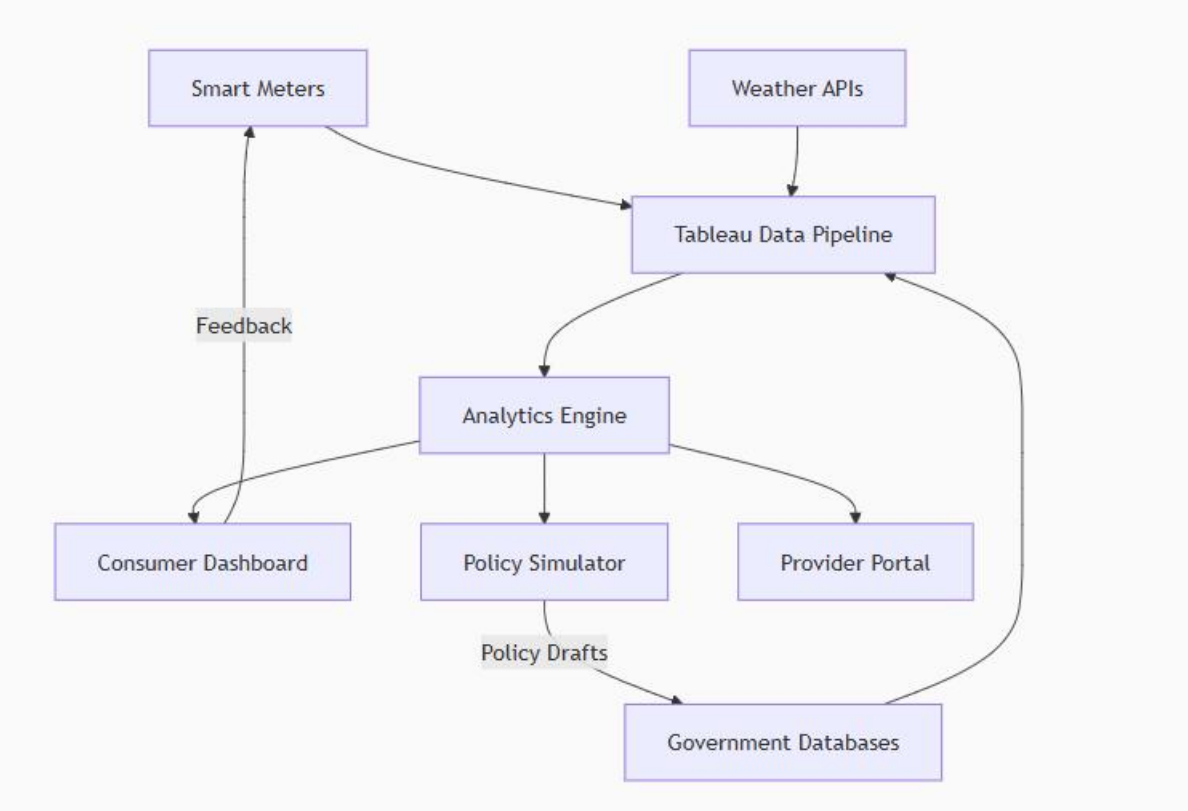
Project Design Phase-II
Data Flow Diagram & User Stories

Date	29 June 2025
Team ID	LTVIP2025TMID50075
Project Name	Plugging into the Future : An Exploration of Electricity Consumption Patterns Using Tableau
Maximum Marks	4 Marks

Data Flow Diagram (DFD) Level 0 - Context Diagram



Level 1 - Key Processes

Process	Inputs	Tools	Outputs
Data Ingestion & Cleaning	Raw usage data, weather	Tableau Prep, Python (Pandas)	Cleaned CSV files (no outliers/missing)
Peak Demand Detection	Historical usage	TabPy (Prophet model)	Anomaly alerts (JSON)
Policy Impact Simulation	Subsidy rules, rural data	Tableau Parameters	Scenario comparisons (PDF/Tableau viz)

Process	Inputs	Tools	Outputs
Consumer Nudge Engine	Real-time usage, benchmarks	Tableau Pulse	Personalized tips (SMS/MAILS)

User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Residential Consumer	Real-time Usage Monitoring	USN-1	As a consumer, I want to see my hourly electricity usage compared to neighbors	Dashboard shows my usage vs. street average with % difference	High	Sprint-1
		USN-2	As a consumer, I want alerts when my usage spikes abnormally	SMS/email sent if usage exceeds 20% of baseline	High	Sprint-1
Policymaker	Policy Impact Simulation	USN-3	As a policymaker, I want to simulate how solar subsidies affect rural demand	Slider adjusts subsidy % → updates map with projected demand changes	Medium	Sprint-2
Energy Provider	Grid Load Forecasting	USN-4	As a provider, I need 3-day peak demand predictions by zone	Tableau dashboard shows risk scores for each substation	Medium	Sprint-1
All Users	Multi-Device Access	USN-5	As any user, I want to access dashboards on mobile and desktop	Responsive UI works on screens ≥5 inches	Medium	Sprint-1