

Project Design Phase-II

Data Flow Diagram & User Stories

Date	20 February 2026
Team ID	LTVIP2026TMIDS66673
Project Name	Plugging into the Future: An Exploration of Electricity Consumption Patterns Using Tableau
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

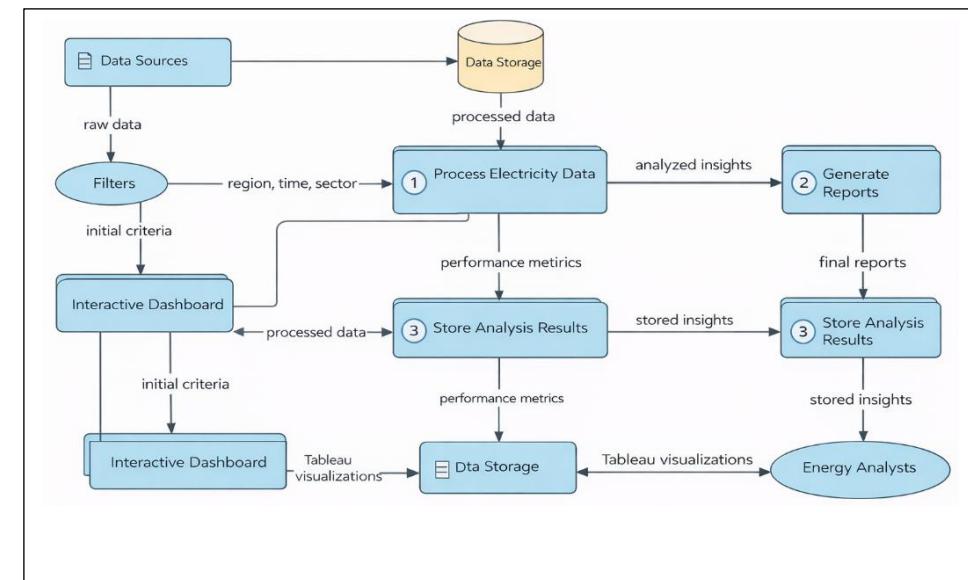
Example:

Flow (Simplified)



- 1 User collects electricity consumption data from multiple sources such as smart meters, regional databases, and weather datasets.
- 2 The collected data is uploaded and stored in a centralized database or cloud storage.
- 3 Data preprocessing and cleaning are performed to handle missing values, inconsistencies, and formatting issues.
- 4 The processed data is analyzed to identify patterns such as peak demand, regional variations, and seasonal trends.
- 5 The analyzed data is visualized using Tableau dashboards to support insights and decision-making.

Example:



User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Analyst (Web User)	Data Upload	USN-1	As a user, I can upload electricity consumption datasets through the web interface.	Dataset uploads successfully without errors	High	Sprint-1
Analyst (Web User)	Data Validation	USN-2	As a user, I can validate uploaded data for missing or incorrect values.	Data quality issues are highlighted	High	Sprint-1
Analyst (Web User)	Data Processing	USN-3	As a user, I can process cleaned data using backend services.	Data is processed and stored correctly	High	Sprint-1
Analyst (Web User)	Dashboard	USN-4	As a user, I can view interactive Tableau dashboards showing electricity trends.	Dashboards load and display insights	High	Sprint-1
Analyst (Web User)	Filtering	USN-5	As a user, I can filter data by region, time, and consumption type.	Filters update visualizations instantly	Medium	Sprint-2
Analyst (Web User)	Insights	USN-6	As a user, I can identify peak demand and seasonal patterns.	Peaks and trends are clearly visible	Medium	Sprint-2
Admin	Data Management	USN-7	As an admin, I can manage datasets and system configurations.	Admin can add/update/remove data	Medium	Sprint-2
Stakeholder	Reporting	USN-8	As a stakeholder, I can export dashboards or reports.	Reports download successfully	Low	Sprint-3