

Data Collection and Preprocessing Phase

Date	22 December 2025
Team ID	XXXXXX
Project Title	Global Energy Trends: A Comprehensive Analysis of Key Regions and Generation Modes Using Power BI
Maximum Marks	10 Marks

Data Exploration and Preprocessing Template

Identifies data sources, assesses quality issues like missing values and duplicates, and implements resolution plans to ensure accurate and reliable analysis.

Section	Description
Data Overview	The dataset contains global energy consumption and power generation data by year, region, country, and energy source (in TWh).
Data Cleaning	Unnecessary rows were removed, duplicates were checked, and column headers were standardized using Power Query..
Data Transformation	Data was filtered, unpivoted, and columns were reordered to enable effective analysis in Power BI.
Data Type Conversion	Correct data types were assigned to year, numeric energy values, and text fields to ensure accurate calculations.
Column Splitting and Merging	Columns were split or merged where required to improve data structure and readability.
Data Modeling	Relationships were created between tables, and measures were defined for analyzing energy trends..

Save Processed Data	Cleaned and transformed data was saved for reporting and future use.
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