

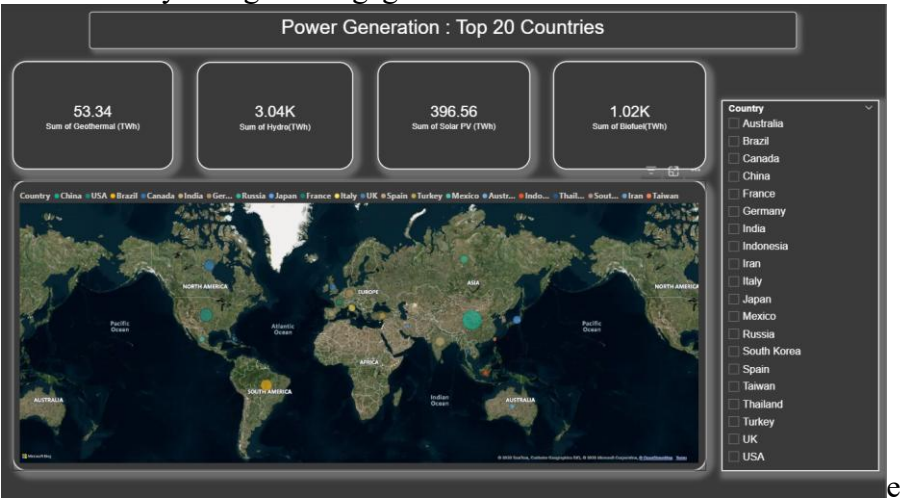
# Dashboard Design

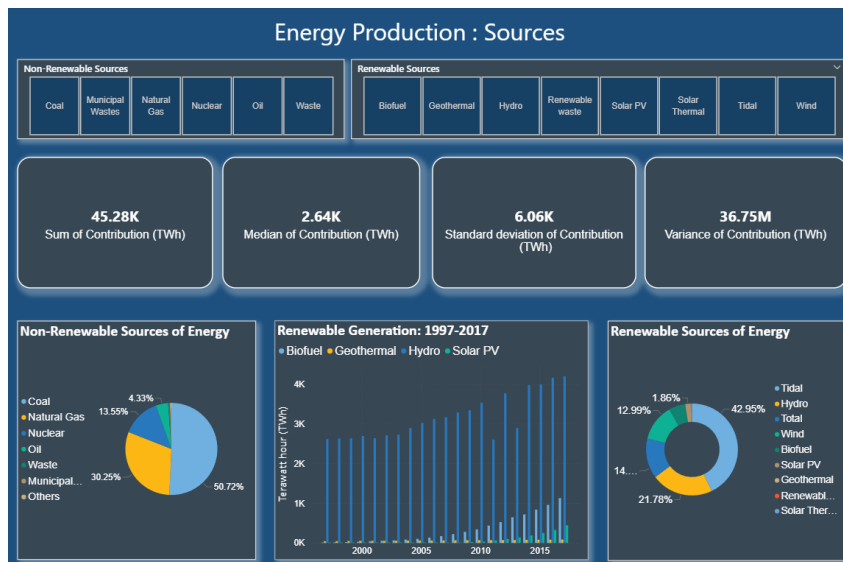
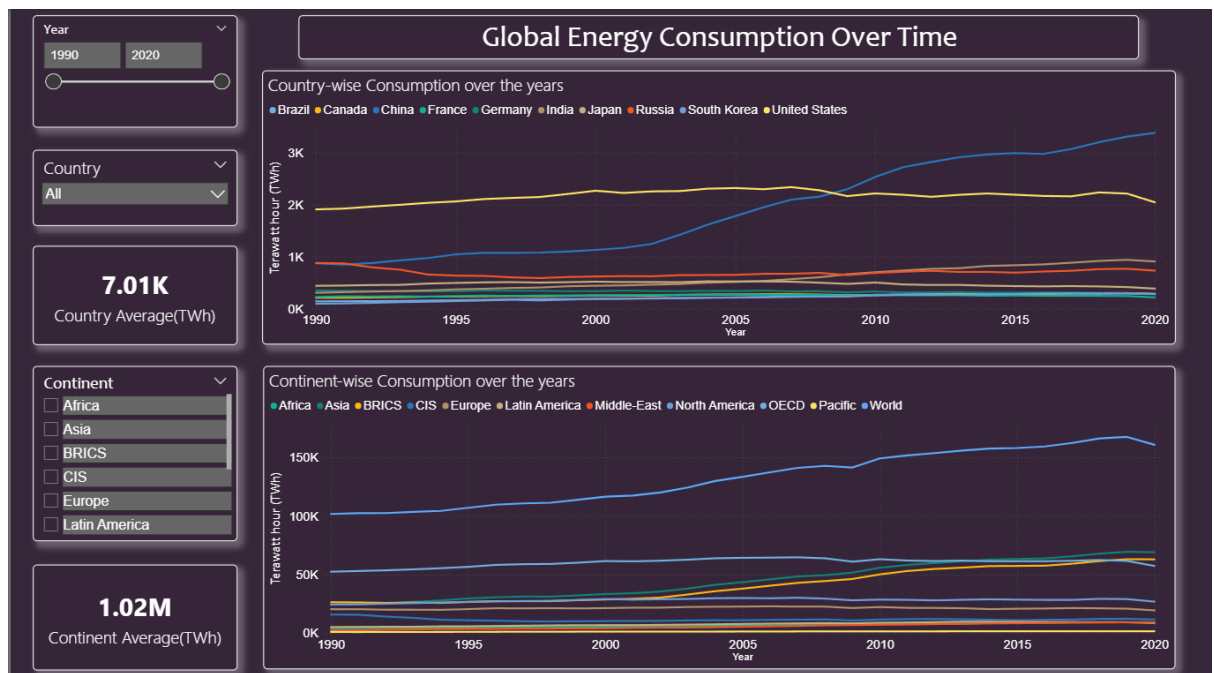
Date	17 Dec 2025
Team ID	PNT2022TMIDxxxxxx
Project Name	Global Energy Trends
Maximum Marks	5 Marks

Creating an effective dashboard involves thoughtful design to ensure that the presented information is clear, relevant, and easily understandable for the intended audience. Here are some key principles and best practices for dashboard design

## Activity 1: Interactive and visually appealing dashboards

- **Clear and Intuitive Layout:** KPIs, maps, and charts are logically arranged for quick understanding.
- **Appropriate Visualizations:** Line charts for trends, pie/donut charts for distribution, and maps for geographic insights improve clarity.
- **Colour and Theming:** Consistent dark themes with contrasting highlights improve readability.
- **Interactive Filters and Slicers:** Year, country, and continent slicers enable dynamic exploration of data.
- **Drill-Down Capabilities:** Users can analyze energy trends from global → continent → country level.
- **Responsive Design:** Visuals adapt well across different views without clutter.
- **Custom Visuals and Infographics:** KPI cards and geographic bubbles enhance storytelling and engagement.





**Note:** Highlight the major outcomes in form of bullet points

## Key Outcomes from the Energy Dashboard

- Global Power Generation Overview**  
The dashboard highlights power generation across the **top 20 countries**, with significant contributions from **Hydro (≈3.04K TWh)** and **Solar PV (≈396.56 TWh)**, indicating a strong global shift toward renewable energy sources.
- Renewable vs Non-Renewable Energy Contribution**  
Renewable sources such as **Hydro (42.95%)**, **Wind**, and **Solar** collectively form a major share of total energy production, while **coal alone contributes over 50%** among non-renewables, emphasizing the ongoing dependency on fossil fuels.
- Growth Trend in Renewable Energy (1997–2017)**  
The renewable generation trend shows consistent growth over two decades, especially in **Hydro and Solar PV**, reflecting increased investment, technological advancement, and policy support for clean energy.

4. **Country-Wise Energy Consumption Trends (1990–2020)**

Energy consumption has increased steadily in countries like **China and India**, while **developed nations such as the USA and Japan show relatively stable or slightly declining trends**, suggesting efficiency improvements and saturation.

5. **Continent-Wise Consumption Patterns**

**Asia and North America** dominate global energy consumption, with Asia showing the fastest growth. The global average consumption of **1.02M TWh** highlights rising worldwide energy demand driven by population growth and industrialization.

1. **Yearly Passenger Trends:** The bar chart indicates the passenger count for each year, highlighting that 2021 had the highest count (104 passengers), while 2022 shows a decrease to 47 passengers.
2. **Daily Passenger Distribution:** The pie chart reveals passenger distribution by day, helping to identify peak days for the service and inform operational adjustments.