Business Question and Visualization Report

Date	27 June 2025
Team ID	NA
Project Name	Global Energy Trends: a comprehensive analysis of key regions and generation modes using Power BI
Maximum Marks	5 Marks

Visualization development refers to the process of creating graphical representations of data to facilitate understanding, analysis, and decision-making. The goal is to transform complex datasets into visual formats that are easy to interpret, enabling users to gain insights and make informed decisions. Visualization development involves selecting appropriate visual elements, designing layouts, and using interactive features to enhance the user experience. This process is commonly associated with data visualization tools and platforms, and it plays a crucial role in business intelligence, analytics, and reporting

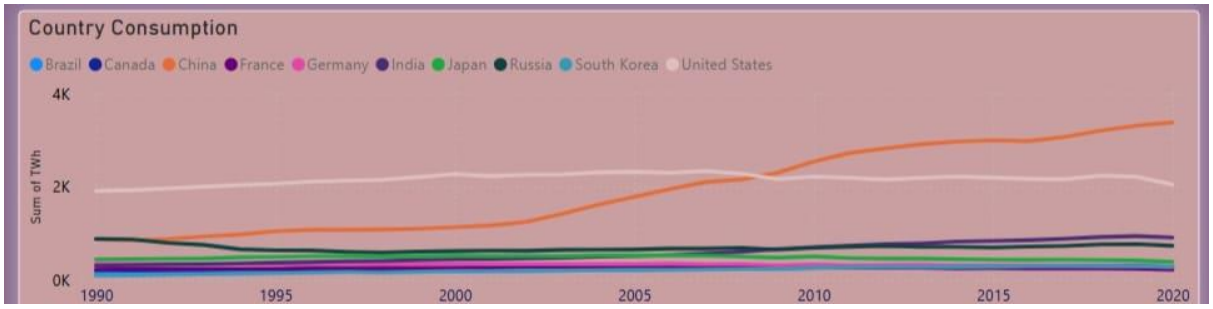
Business Questions and Visualisation

The process involves defining specific business questions to guide the creation of meaningful and actionable visualizations in Power BI. Well-framed questions help in identifying key metrics, selecting relevant data, and building visualisation that provide insights.

Sample

1. Which countries have had the highest electricity consumption from 1990 to 2020, and how do they compare?

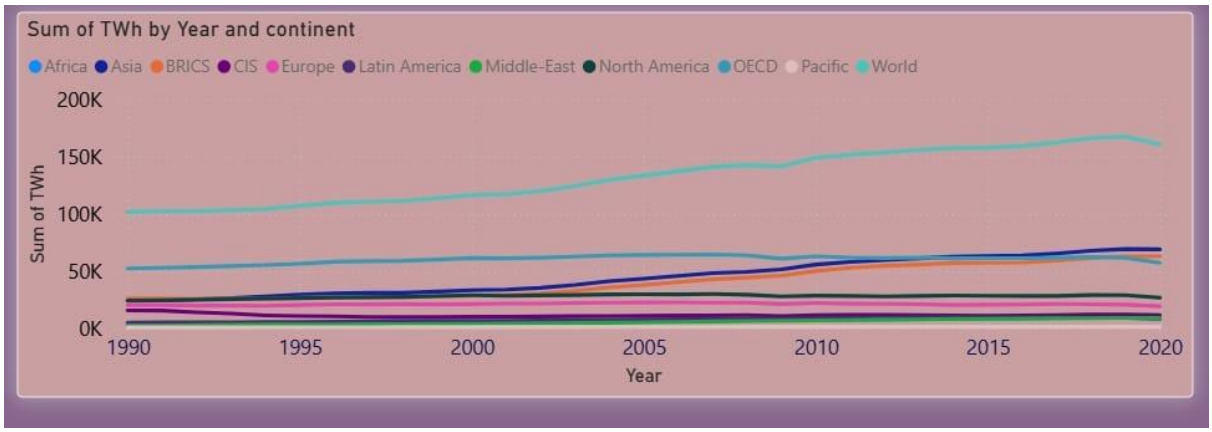
- *Visualization*: Line chart showing Country consumption.
- *Screenshot of visualisation*



2. How has electricity consumption evolved across different continents between 1990 and 2020?

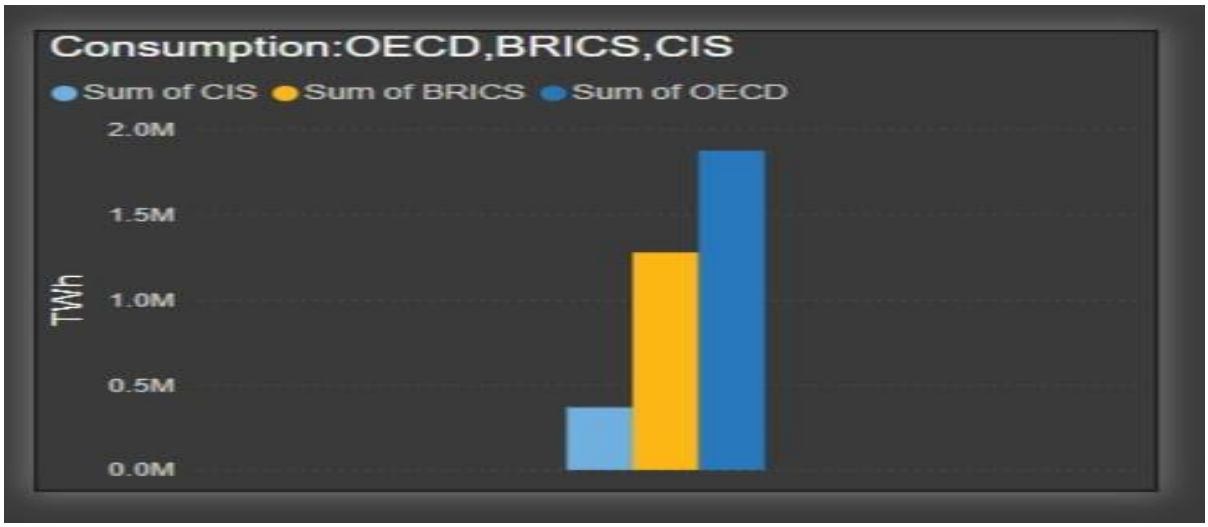
- *Visualization*: Line chart showing sum of TWh by year and continent.

- *Screenshot of visualisation*



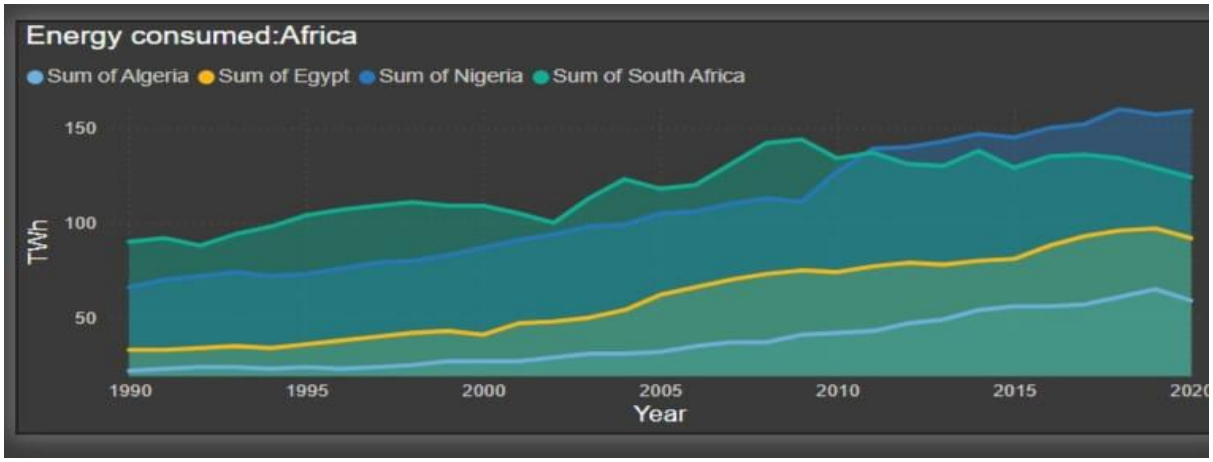
3. How do electricity consumption trends differ among OECD, BRICS, and CIS regions over time?

- *Visualization*: Clustered column chart showing consumption of OECD,BRICS and CIS.
- *Screenshot of visualisation*



4. Among Algeria, Egypt, Nigeria, and South Africa, which country has shown the most consistent growth in electricity consumption from 2000 to 2020?

- *Visualization*: Area chart showing energy consumed:Africa.
- *Screenshot of visualisation*

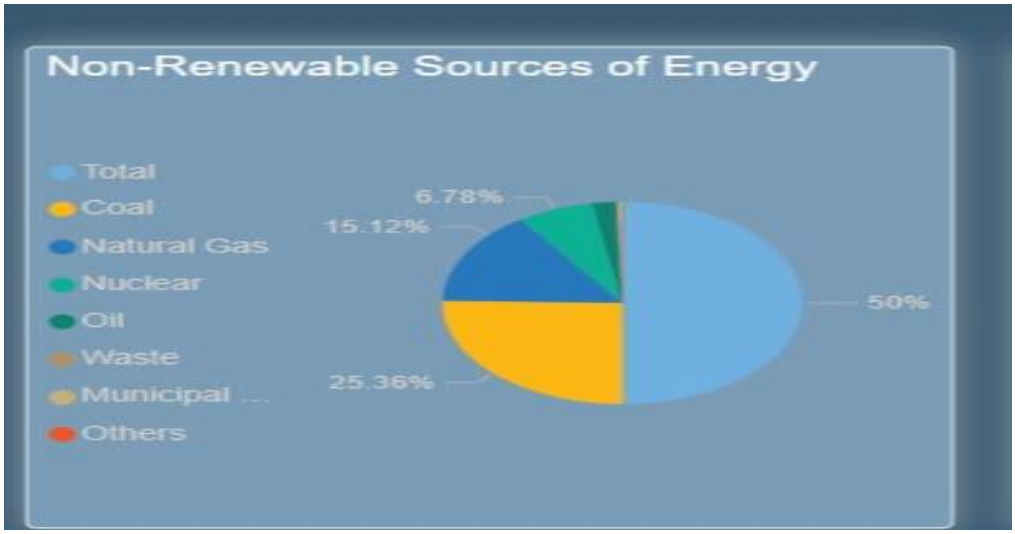


5. What is the total contribution of non-renewable energy sources to global power generation?

- *Visualization*: Card showing sum of contribution(TWh).
- *Screenshot of visualisation*

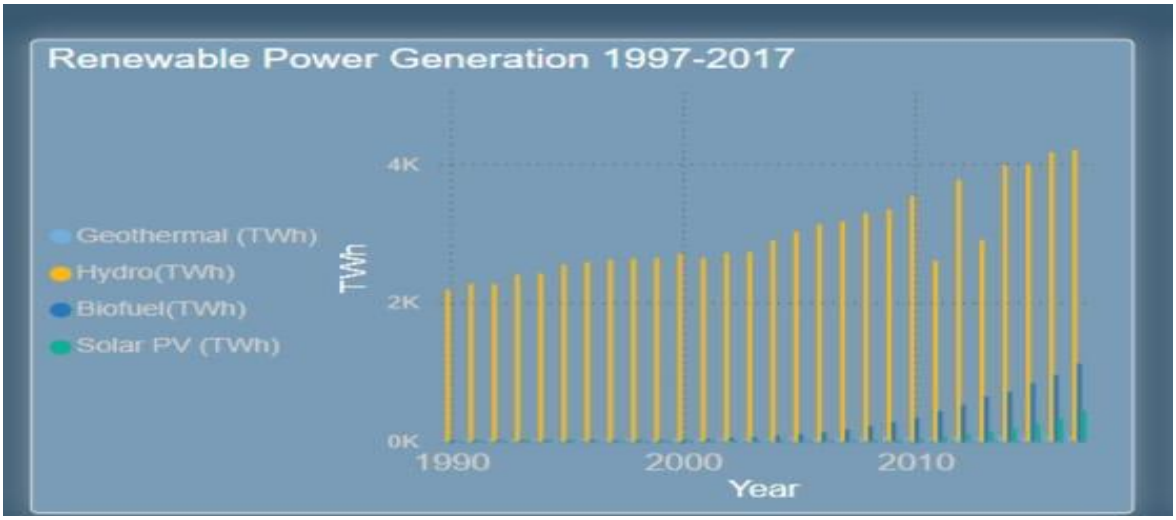
6. Which non-renewable source contributes the most to global electricity generation?

- *Visualization*: Pie chart showing Non Renewable sources of energy.
- *Screenshot of visualisation*



7. How has renewable power generation evolved globally between 1997 and 2017?

- *Visualization*: Clustered column chart showing renewable power Generation 1997 to 2017.
- *Screenshot of visualisation*



8. Which countries contribute the most to global biofuel-based power generation, and how significant is their share compared to others in the top 20 list?

- *Visualization*: Card showing some of biofuel(TWh).
- *Screenshot of visualisation*