Project Proposal – Global Energy Trends

- **Objective:**

  - The objective of this project is to build a Power BI-based dashboard that visualizes the historical and geographical energy trends globally from 1997 to 2017. The goal is to help users easily understand how countries produce energy, distinguish between renewable and non-renewable sources, and identify top contributors and trends over time.

- **Scope of the Project:**

  - Analyze data for more than 100 countries across 20 years.
  - Compare different energy sources: coal, gas, oil, nuclear, hydro, wind, solar, etc.
  - Categorize energy into renewable and non-renewable groups.
  - Calculate statistical metrics like total energy in TWh, average, median, standard deviation, and variance.
  - Build visualizations and slicers to filter by country, year, and energy type.
  - Develop a story-driven report and a video demo.

- **Tools Used:**

  - Power BI for visualization
  - MS Excel for data preprocessing
  - GitHub for version control and documentation
  - Google Docs for collaboration

- **Deliverables:**

  - .pbix file (dashboard)
  - 3+ energy trend charts
  - 1 final report (PDF)
  - 1 video demo
  - Full project documentation
  - Cleaned dataset in CSV format

- **Stakeholders:**

  - Environmental researchers
  - Students and academic institutions
  - Policy makers and energy departments
  - Renewable energy organizations