FUTURE OF ELECTRIC VEHICLE

Electric Vehicle Analysis using Tableau

Problem Statement:

1) Total Vehicles:

- Understand the overall landscape of electric vehicles, encompassing both the BEVs and PHEVs, to assess the market's size and growth.

2) Average Electric Range:

- Determine the average electric range of the electric vehicles in the dataset to gauge the technological advancements and efficiency of the EVs.

3) Total BEV Vehicles & % of total BEV Vehicles:

- Identify and analyse the total number of Battery Electric Vehicles (BEVs) in the dataset.
- Calculate the percentage of BEVs relative to the total number of electric vehicles, provides insights into the dominance of fully electric models.

4) Total PHEV Vehicles and % of Total PHEV Vehicles:

- Identify and analyse the total number of Plug-in Hybrid Electric Vehicles (PHEVs) in the dataset.

- Calculate the percentage of PHEVs relative to the total number of electric vehicles, offering insights into the market share of plug-in hybrid models.

Charts Requirement:

1) <u>Total Vehicles by Model Year (From 2010 onwards):</u>

- Visualisation: Line/Area Chart
- Description: This chart will illustrate the distribution of electric vehicles over the years, starting from 2010, providing insights into the growth pattern and adoption trends.

2) <u>Total Vehicles by State:</u>

- Visualisation: Map Chart
- Description: This chart will showcase the geographical distribution of electric vehicles across different states, allowing for the identification of regions with higher adoption rates.

3) <u>Top 10 total Vehicles by Make:</u>

- Visualisation: Bar Chart
- Description: Highlight the top 10 electric vehicle manufacturers based on the total number of vehicles, providing insights into the market dominance of specific brands.

4) <u>Total Vehicles of CAFV Eligibility:</u>

- Visualisation: Pie Chart or Donut Chart
- Description: Illustrate the proportion of electric vehicles that are eligible for Clean Alternative Fuel Vehicle (CAFV) incentives, aiding in understanding the impact of incentives on vehicle adoption.

5) <u>Total Vehicles:</u>

- Visualisation: Grid View
- Description: Highlight the top 10 electric vehicle models based on the total number of vehicles, offering insights into consumer preferences and popular models in the market.