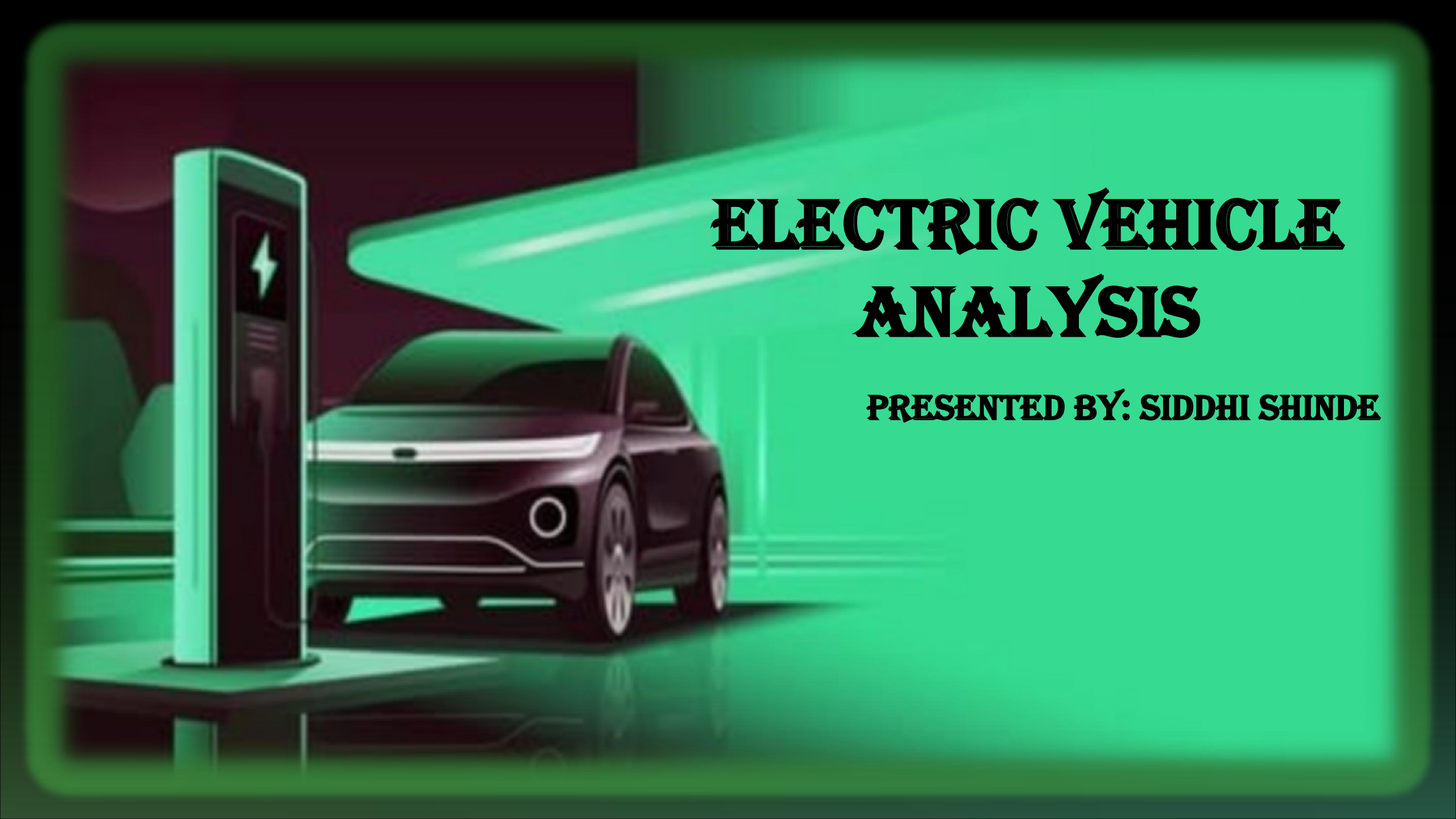


ELECTRIC VEHICLE ANALYSIS

PRESENTED BY: SIDDHI SHINDE

INTRODUCTION

The project analyzes Electric Vehicle (EV) trends using Power BI.

Objective: To understand growth, types, and market share of electric vehicles.

The dashboard helps identify top manufacturers, models, and regions leading in EV adoption.

DATASET INFORMATION

Dataset Name: Electric Vehicle Population Data

Source: Public dataset Kaggle

Key Columns: Model Year
Make (Brand)
Model
Electric Range
Vehicle Type (BEV/PHEV)
State
CAFV Eligibility

TOOLS & TECHNIQUES USED

Tool: Microsoft Power BI

Data Cleaning: Power Query Editor

Data Preparation: Removed duplicates, fixed data types

Visualization Techniques:
- KPIs
- Line Chart
- Map
- Bar Chart
- Donut Chart
- Tree Map

PROBLEM STATEMENT

KPI'S Requirement

1. Total Vehicles:

- To know the overall number of electric vehicles in the dataset.

2. Average Electric Range:

- To find the average distance an EV can travel after one full charge.

3. Total BEV Vehicles and % of Total BEV Vehicles:

- To identify the number and percentage of Battery Electric Vehicles.

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

- To identify the number and percentage of Plug-in Hybrid Vehicles.

PROBLEM STATEMENT

Charts Requirement

1.Total Vehicles by Model Year – Line Chart
→ To show EV growth over the years (from 2010 onwards)

2.Total Vehicles by State – Map Chart
→ To show which states have more electric vehicles

3.Top 10 Vehicle Makes – Bar Chart
→ To show the most popular EV brands.

4.Total Vehicles by CAFV Eligibility – Pie Chart / Donut Chart
→ To show how many EVs are eligible for government incentives.

5.Top 10 Vehicle Models – Tree Map
→ To show the most popular EV models among users.

DASHBOARD

ELECTRIC VEHICLE ANALYSIS

Total Vehicles
150.42K

Avg Electric Range
67.83Km

BEV Vehicles
117K
% of Total
78%

PHEV Vehicles
34K
% of Total
22%

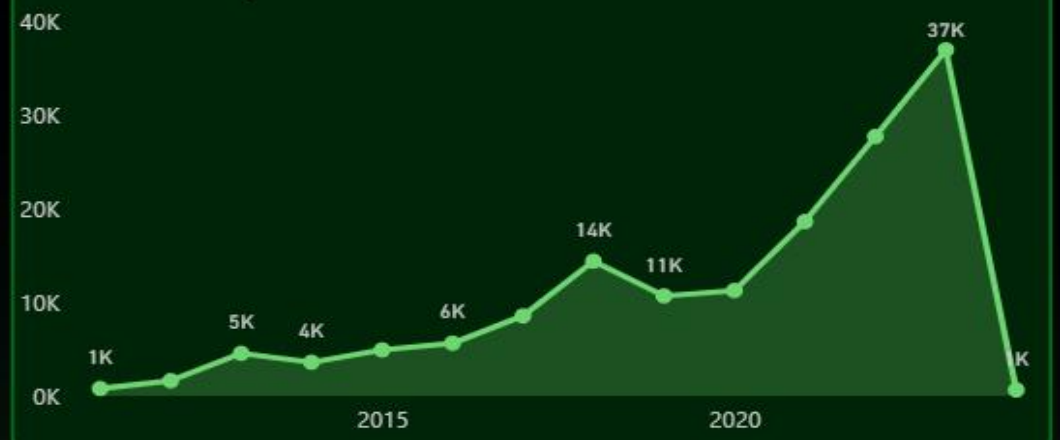
FILTER PANEL

City: All

Electric Utility: All

Electric Vehicle Type: All

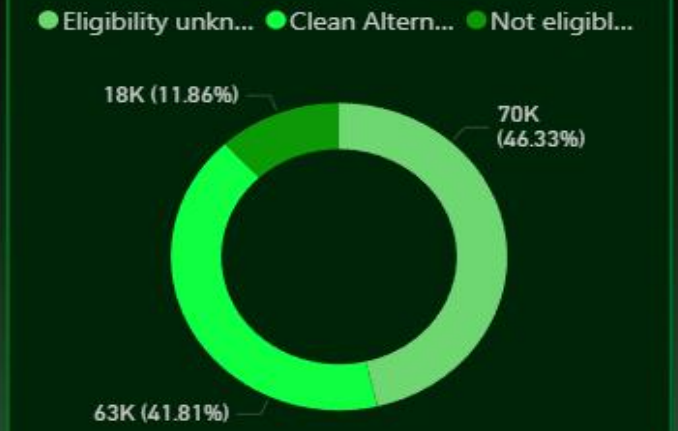
Total Vehicles by Model Year



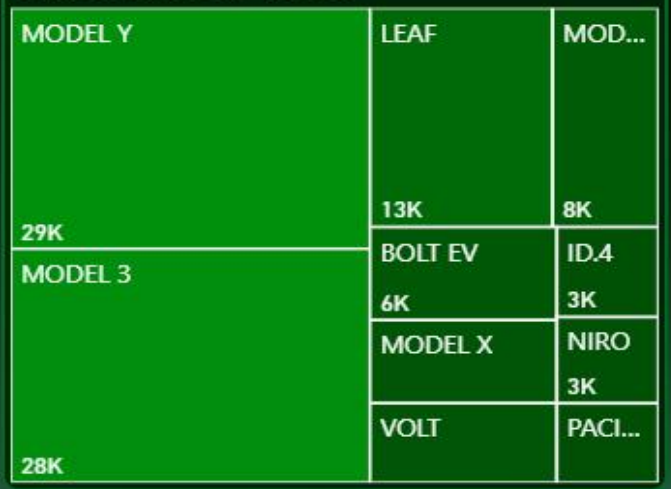
Total Vehicles by State

Total Vehicles by Make

Total Vehicles by (CAFV) Eligibility



Total Vehicles by Model



VISUAL INSIGHTS

- ↳ EVs are growing rapidly, especially after 2018.
- ↳ Highest EV adoption in North America & Europe.
- ↳ Tesla leads the EV market followed by Nissan.
- ↳ Majority of EVs are eligible for clean fuel programs.
- ↳ Tesla Model Y and Model 3 are the most popular EV models

❖ Filters included for City, Electric Utility, and Vehicle Type.
Help in analyzing specific data segments easily.

KEY FINDINGS

- Electric vehicles are increasing year by year.
- Tesla dominates the EV market.
- Most EVs qualify for clean fuel programs.
- Growing awareness and government support are boosting EV adoption.

CONCLUSION

The dashboard helps visualize EV growth trends clearly.

It supports data-driven decisions for future electric mobility.

It provides clear insights into electric vehicle growth trends and can help policymakers and companies plan for the future of sustainable transport

This project improved my Power BI and data analysis skills.

-- THANK YOU