# Electric Vehicle Analysis Dashboard

This dashboard provides an in-depth analysis of the electric vehicle (EV) market, covering Battery Electric Vehicles (BEVs) and Plug-in Hybrid Electric Vehicles (PHEVs). The dataset includes details such as vehicle type, make, model, model year, state-wise distribution, and eligibility for Clean Alternative Fuel Vehicle (CAFV) incentives.

## Objectives

- Understand the overall landscape of electric vehicles, including BEVs and PHEVs.  
- Analyze the average electric range to evaluate technological advancements and efficiency.  
- Assess the adoption trends of EVs across states and over time.  
- Identify the top manufacturers and models dominating the market.  
- Evaluate CAFV eligibility to understand the impact of government incentives.

## Key Visuals

- KPIs: Total Vehicles, Average Electric Range, BEV & PHEV share.  
- Line Chart: Total Vehicles by Model Year (2010 onwards).  
- Map Chart: Total Vehicles by State.  
- Bar Chart: Top 10 Vehicle Manufacturers by total EVs.  
- Donut Chart: Vehicles by CAFV Eligibility.  
- Treemap: Top 10 Vehicle Models.

## Insights

- The EV market has grown significantly since 2015, with strong adoption trends visible in recent years.  
- Tesla leads the market, accounting for the majority share of EVs, particularly with Model Y and Model 3.  
- Average electric range suggests continuous improvements in battery efficiency.  
- Certain states show higher adoption rates, highlighting regional preferences and policy impacts.  
- CAFV eligibility analysis shows how government incentives influence adoption patterns.