

Electric Vehicle Sales Analysis

Dashboard

Problem Statement

Despite growing environmental concerns and government incentives for electric vehicle adoption, the current electric vehicle landscape in [Location] shows limited diversity and potential barriers to widespread adoption. With only 22 total vehicles analyzed and an average electric range of 29.77 miles, there are questions about vehicle performance, market penetration, and the effectiveness of current EV policies in meeting sustainability goals.

Main Objectives

Primary Objectives:

- 1. Assess Market Penetration and Adoption Patterns**
 - Analyze the distribution of electric vehicles across different model years (2012-2022)
 - Evaluate the growth trajectory and identify periods of accelerated or declined adoption
 - Determine factors influencing the concentration of vehicles in specific years
- 2. Evaluate Vehicle Performance and Range Adequacy**
 - Investigate the average electric range of 29.77 miles and its implications for consumer usability
 - Compare range capabilities across different makes and models
 - Assess whether current EV technology meets typical daily driving requirements
- 3. Analyze Market Diversity and Consumer Choice**
 - Examine the distribution across manufacturers (Toyota leading with 9 vehicles, followed by Jeep with 6)
 - Evaluate model variety and market concentration
 - Identify gaps in vehicle types and price segments

Secondary Objectives:

- 4. Assess Policy Effectiveness**
 - Analyze the impact of Clean Alternative Fuel Vehicle (CAFV) eligibility on adoption
 - Evaluate the 45.45% clean alternative fuel eligibility rate
 - Determine if current incentive structures are effectively promoting EV adoption
- 5. Identify Market Trends and Future Opportunities**
 - Track the evolution from earlier years to the peak in 2021-2022
 - Analyze the relationship between BEV (31 vehicles, 141% of total) and PHEV (22 vehicles, 100%) adoption
 - Project future growth patterns based on current trends

6. Recommend Strategic Improvements

- Propose strategies to increase market diversity
- Suggest improvements to average electric range capabilities
- Recommend policy adjustments to enhance EV adoption rates

These objectives will help guide a comprehensive analysis of the electric vehicle landscape and inform decision-making for stakeholders including policymakers, manufacturers, and consumers.