

Market Analysis for Electric Vehicles in India

A Strategic Review for AtliQ Motors

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Introduction

AtliQ Motors, a leading North American EV manufacturer, is seeking to expand into the Indian market. This presentation analyzes the Indian EV sector to inform their entry strategy and identify growth opportunities.

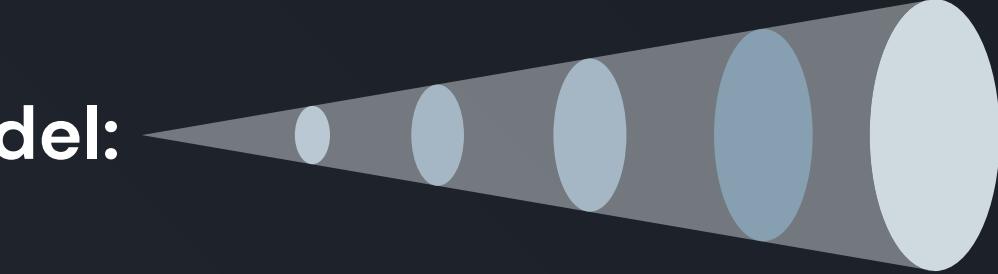


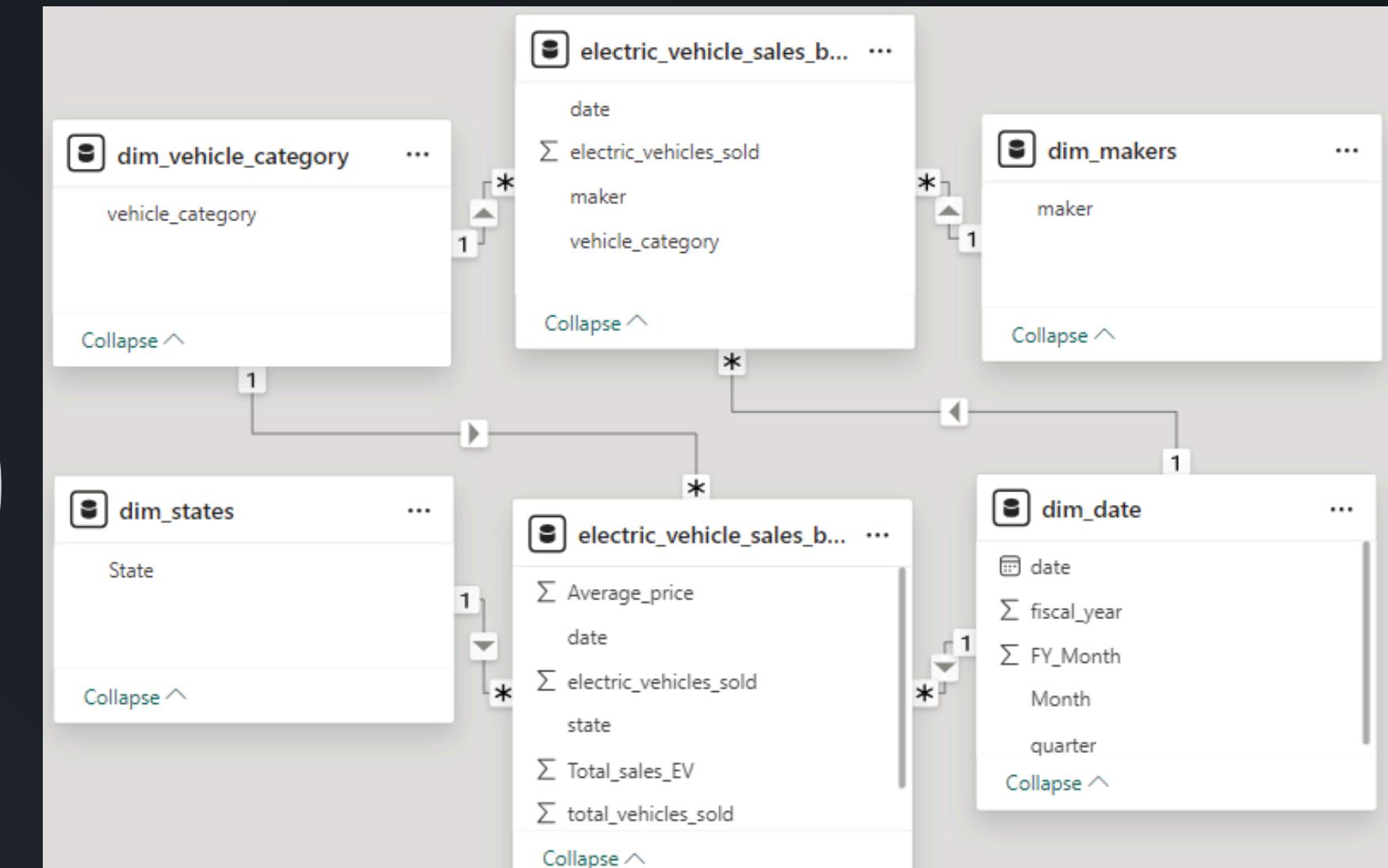
Problem Statement

- **Current Situation:** AtliQ Motors, successful in North America with a 25% market share in electric and hybrid vehicles, currently holds less than 2% market share in India.
- **Challenge:** To expand effectively into the Indian market, a thorough understanding of the local EV landscape is required. This includes assessing market trends, consumer preferences, and regional performance to make informed strategic decisions.



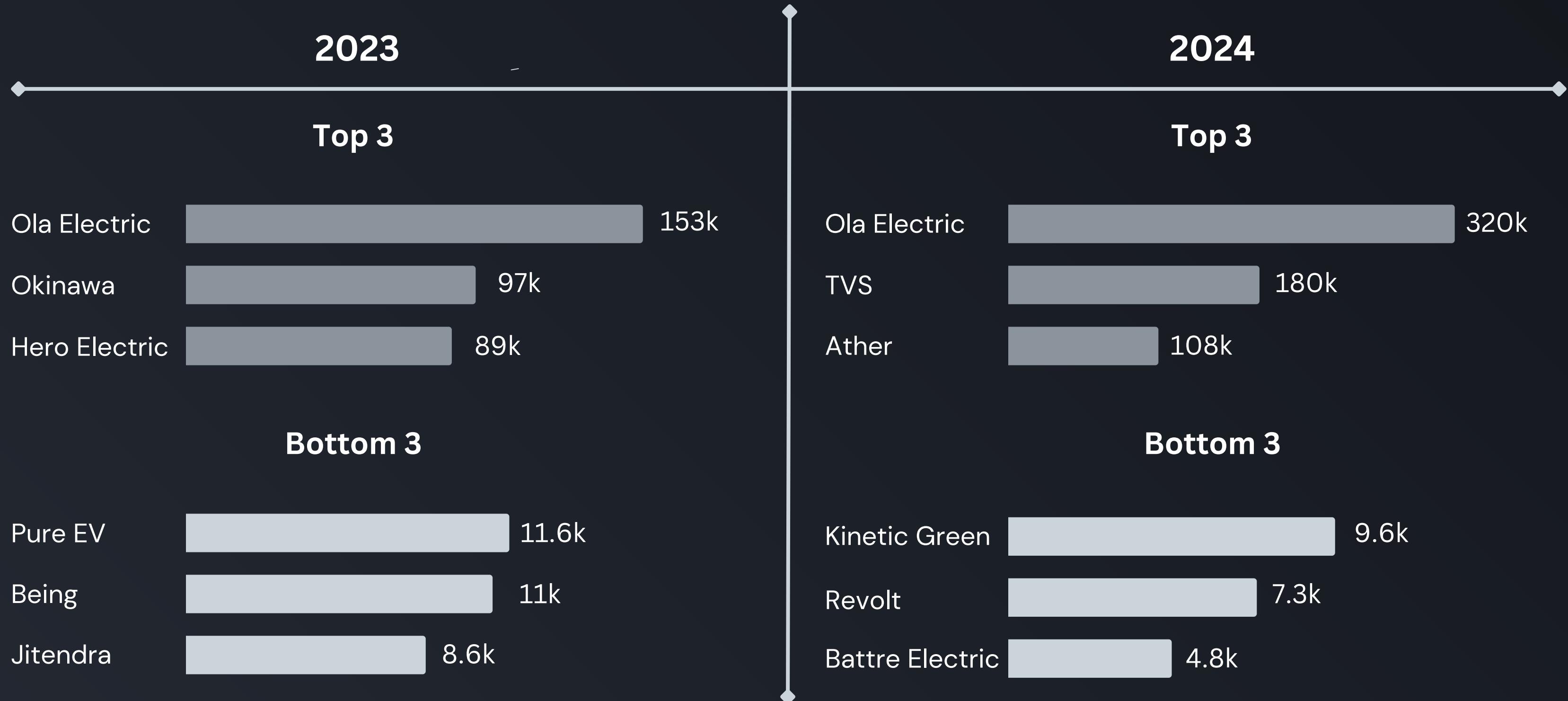
Dataset Overview

- **Source:** The dataset is taken from the Vahan Sewa.
- **Content:** It includes sales data by state, sales data by maker, and a date dimension table.
- **Data Model:** 
- **Purpose:** The dataset serves as the foundation for the analysis, enabling us to answer critical business questions and derive strategic insights.



Key Findings

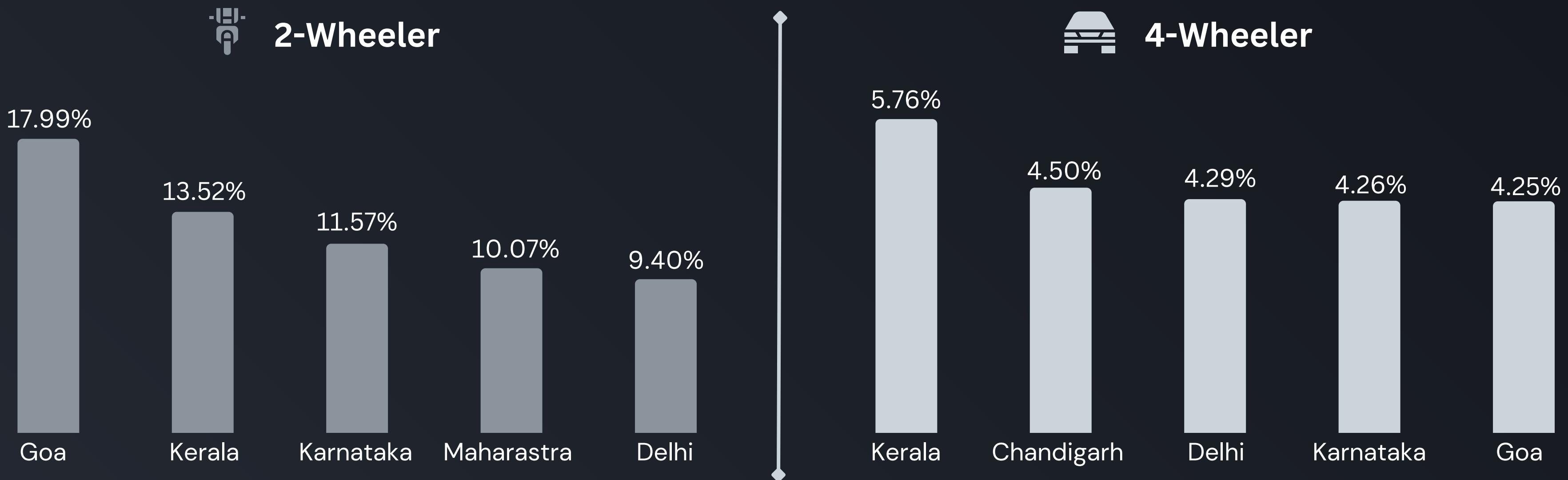
Top 3 and Bottom 3 2-Wheeler Makers (2023-2024)



Key Findings

Top 5 States with Highest EV Penetration (FY 2024)

$$\bullet \text{ Penetration Rate} = \frac{\text{Electric Vehicles Sold}}{\text{Total Vehicles Sold}}$$



Key Findings

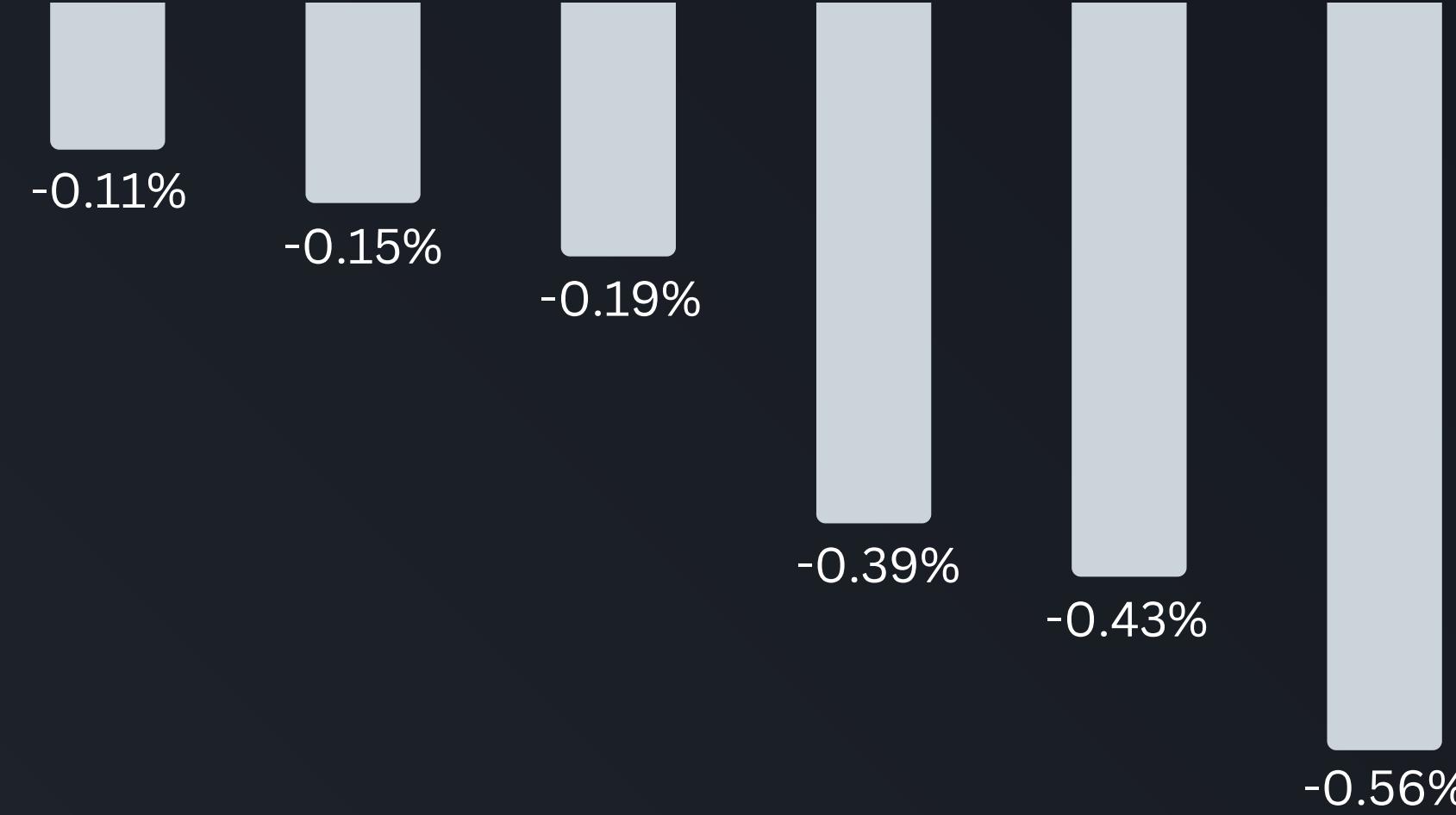
States with Negative Penetration (2022-2024)

2023



Andaman & Nicobar Island

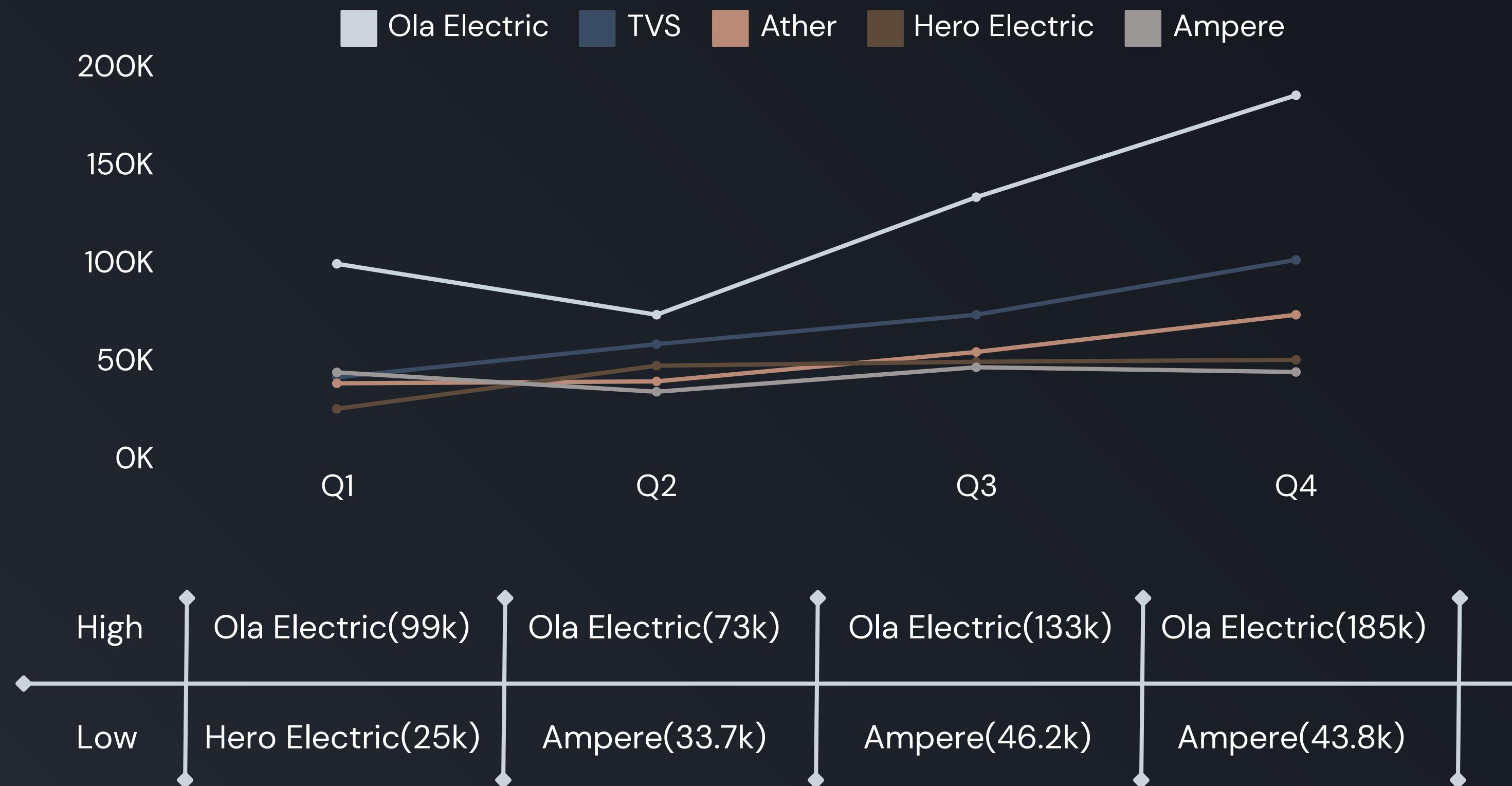
2024



Himachal Pradesh Jharkhand Gujarat Uttarakhand Haryana Rajasthan

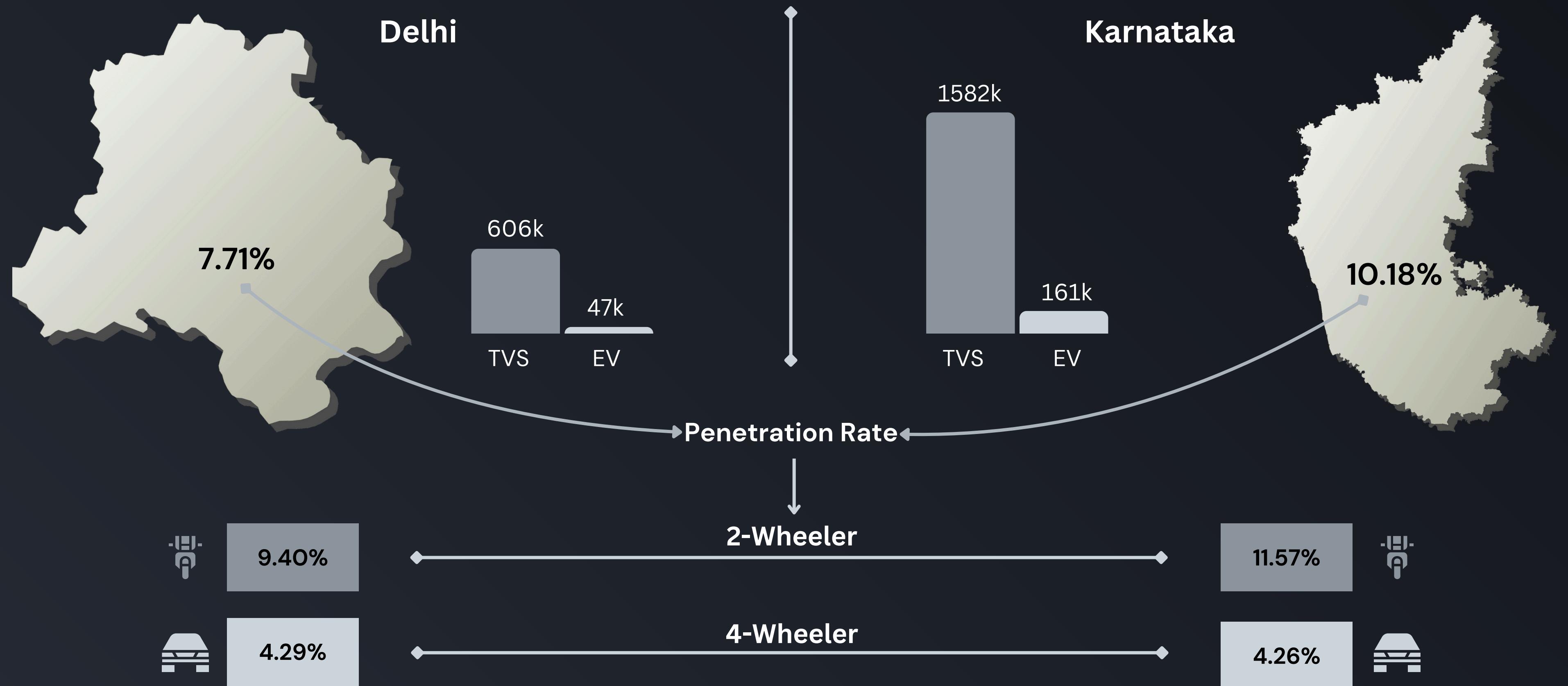
Key Findings

Quarterly Trends for Top 5 EV Makers (2022-2024)



Key Findings

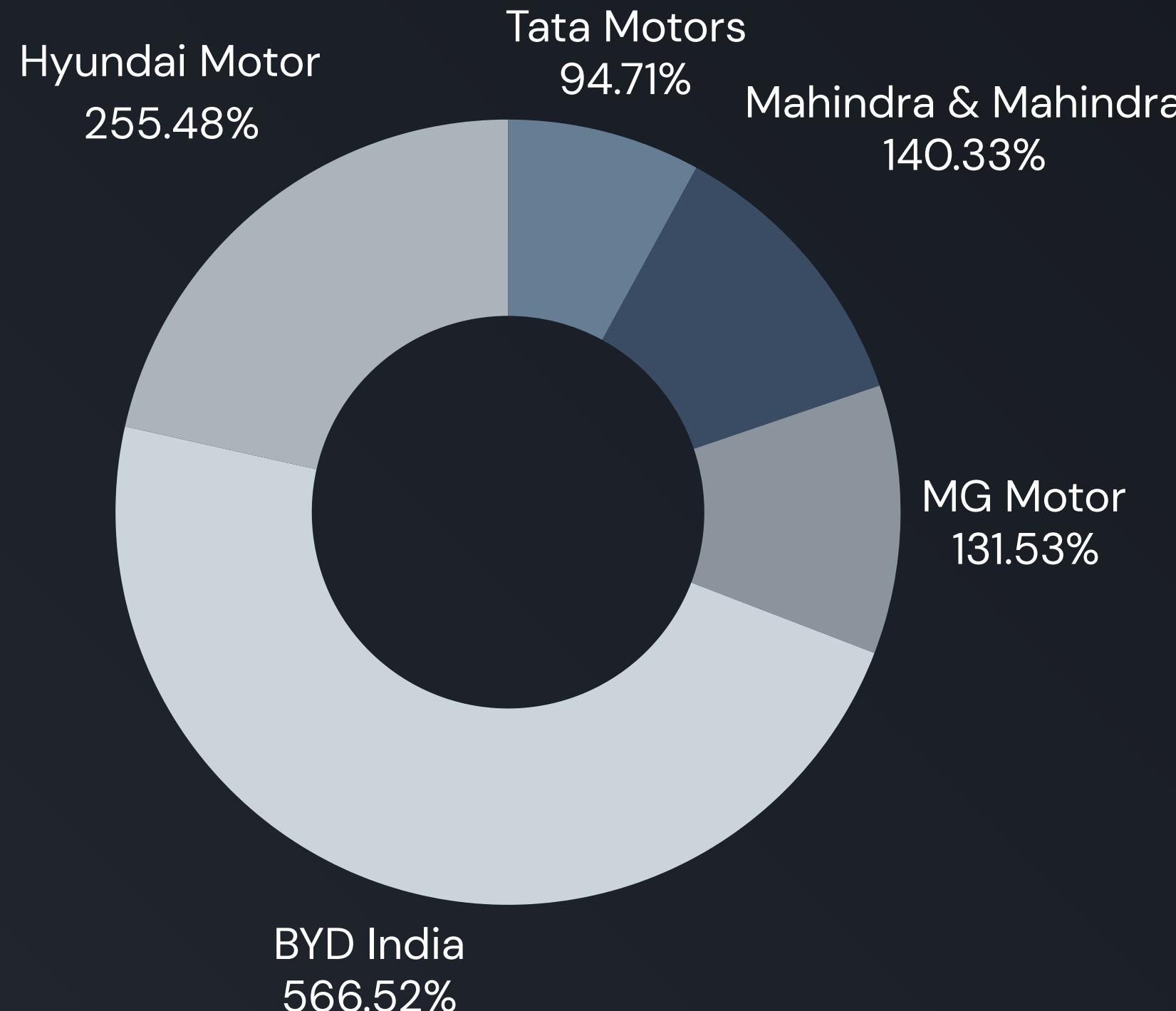
EV Sales Comparison: Delhi vs Karnataka (2024)



Key Findings

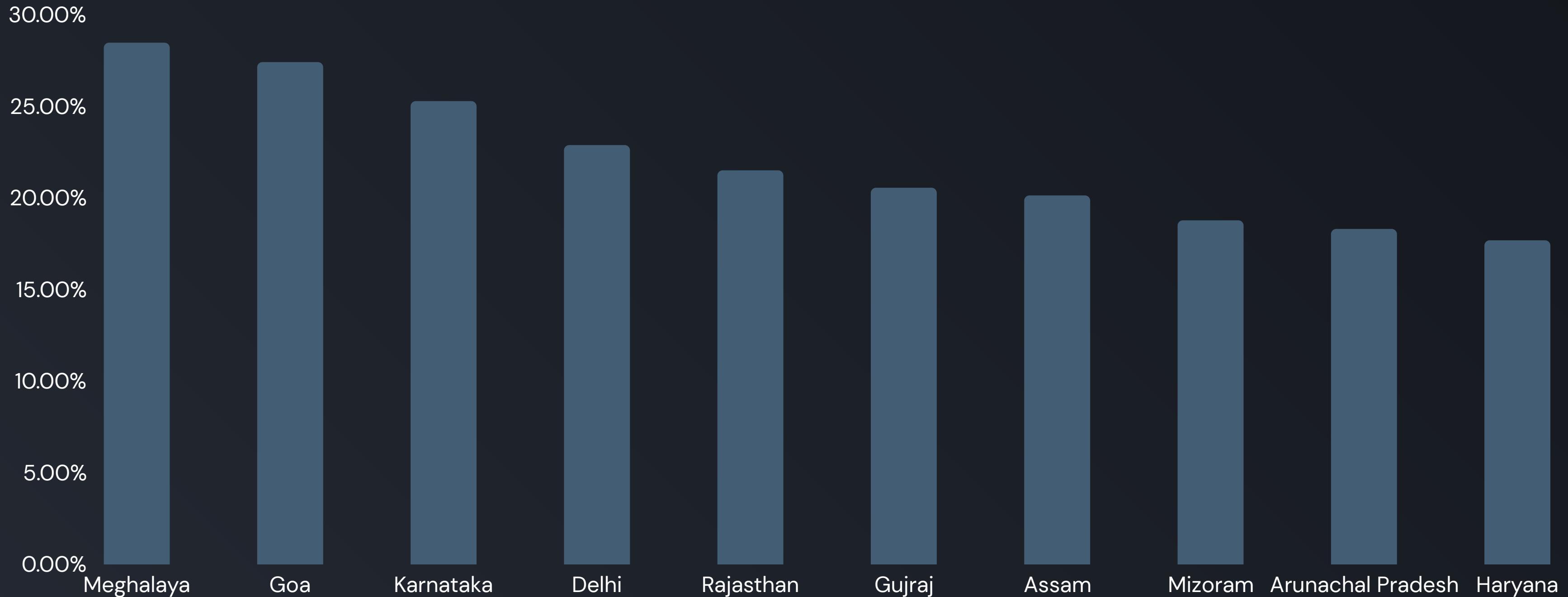
CAGR in 4-Wheeler Units for Top 5 Makers (2022-2024))

- Compound annual growth rate: $[(\text{Final Value}/\text{Initial Value})^{(1/\text{Number of Years})} - 1] \times 100$



Key Findings

Top 10 States by CAGR in Total Vehicle Sales (2022-2024)

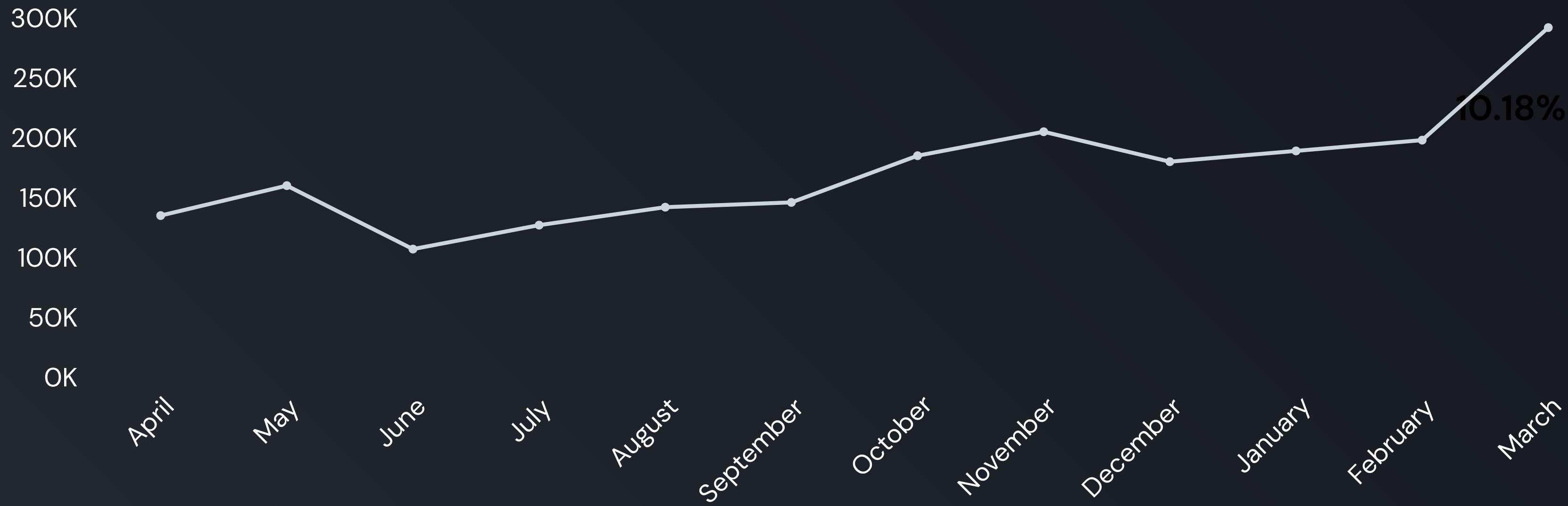


Key Findings

Peak and Low Season Months for EV Sales (2022-2024)

- Peak Seasons: March, November

- Low Seasons: June



Key Findings

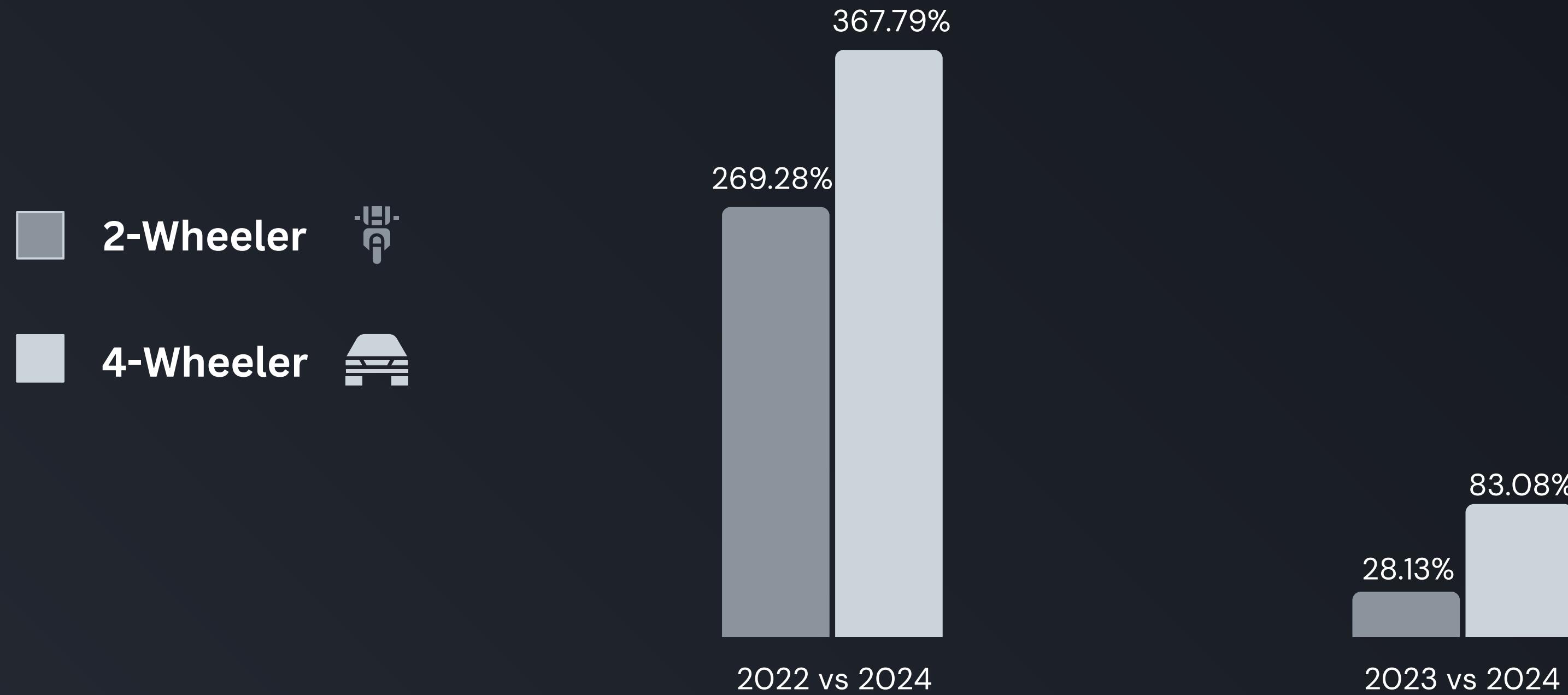
Projected EV Sales in 2030 for Top 10 States by Penetration Rate

- **Penetration Rate(PR) =**
$$\frac{\text{Electric Vehicles Sold}}{\text{Total Vehicles Sold}}$$

State	Maharashtra	Kerala	Gujarat	Karnataka	Odisha	Goa	Rajasthan	Tamil Nadu	Delhi	Chandigarh
PR %	6.49%	6.64%	4.40%	7.84%	4.63%	9.84%	4.55%	4.30%	6.76%	4.04%
EV Sales 2030	13.4M	11.8M	8.6M	8.4M	2.7M	2.4M	2.4M	1.6M	1.1M	1.0M

Key Findings

Estimated Revenue Growth Rate of 4-Wheeler and 2-Wheeler EVs in India (2022 vs 2024 and 2023 vs 2024)



Key Insights

Primary Reasons for Choosing 4-Wheeler EVs (2023-2024)

Cost Savings



Significant reduction in fuel costs and maintenance expenses are major drivers. EVs offer long-term savings despite higher upfront costs.

Environmental Concerns



Growing awareness of climate change and pollution has led customers to opt for EVs as a cleaner alternative.

Government Incentives



Subsidies, tax benefits, and incentives like Faster Adoption and Manufacturing of Electric Vehicles (FAME) have made EVs more affordable and attractive.



Technological Advancements

Improved battery technology and extended range capabilities have alleviated range anxiety, making EVs a more practical choice for consumers.

Key Insights

Impact of Government Incentives and Subsidies on EV Adoption

Increased Adoption



Government incentives have significantly boosted the adoption rates of both 2-wheelers and 4-wheelers. The FAME scheme has been pivotal in driving sales.

State-Level Impact



States like **Maharashtra, Assam, West Bengal, Gujarat, and Bihar** have been leading in providing subsidies, which directly correlate with higher adoption rates.

State	Maharashtra	Assam	West Bengal	Gujarat	Bihar
2-Wheelers	₹25,000	₹20,000	₹20,000	₹20,000	₹20,000
4-Wheelers	₹2,50,000	₹1,50,000	₹1,50,000	₹1,50,000	₹1,50,000
Discount on road tax	100%	100%	100%	50%	100%

Key Insights

Correlation Between Charging Infrastructure and EV Sales(Top 5 States)

Strong Correlation



In states like Maharashtra, Karnataka, Tamil Nadu, Gujarat, and Rajasthan, the availability of extensive charging infrastructure has been a key driver for higher EV penetration rates. More charging stations have led to increased consumer confidence and higher adoption.

Growth Potential



These states also show the potential for further growth as continued expansion of charging networks is expected to sustain and accelerate EV adoption.

State	Maharashtra	Karnataka	Tamil Nadu	Gujarat	Rajasthan
EV Sold	396K	313K	200K	181K	150K
PR %	6.49%	7.84%	4.30%	4.40%	4.55%
Charging Stations	3079	1041	643	476	500

Correlation Efficient between EV Sales & Charging Station is ~0.90 and PR% & Charging Station is ~0.52

Key Insights

Brand Ambassador Recommendation for AtliQ Motors' EV Launch in India

Recommended Ambassador: Virat Kohli



Why Virat Kohli?

- **Wide Appeal:** As a highly respected and popular figure in India, Virat Kohli resonates with a diverse audience, from urban millennials to rural consumers.
- **Alignment with Brand Values:** His commitment to fitness, sustainability, and performance mirrors the core values of AtliQ Motors' EV/Hybrid vehicles.
- **Influence on Purchase Decisions:** Kohli's strong social media presence and influence make him an ideal ambassador to drive consumer interest and trust in AtliQ Motors' products.

Key Insights

Ideal State for AtliQ Motors' Manufacturing Unit in India



Recommended State: Maharashtra

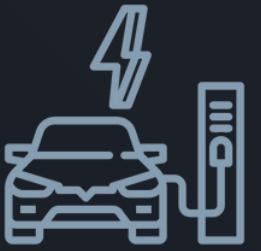
- **Strong Subsidies and Tax Benefits:** Maharashtra provides attractive subsidies for EV manufacturers, including capital subsidies, SGST reimbursement, and road tax exemptions for EV buyers, making it financially advantageous for setting up manufacturing.
- **Supportive Infrastructure:** The state has a well-established automotive industry, with robust infrastructure and a growing network of charging stations, further supporting the EV ecosystem.
- **Ease of Doing Business:** Maharashtra ranks high in ease of doing business, with policies that encourage industrial growth and investment, making it an ideal location for AtliQ Motors.

Recommendations



Focus on High-Penetration States

Prioritize marketing and infrastructure development in states like Maharashtra, Karnataka, and Tamil Nadu where EV adoption is highest.



Expand Charging Infrastructure

Invest in expanding charging stations in key urban areas to support growing EV demand and ease customer concerns.



Leverage Brand Ambassadors

Utilize a well-known, environmentally-conscious celebrity like Virat Kohli to enhance brand visibility and connect with a diverse audience.

Thanks!

Do you have any questions?

