

Agenda



Problem Statement

Primary Research Questions

Secondary Research Questions

Dashboard





Problem Statement :

AtliQ Motors is an automotive giant from the USA specializing in electric vehicles (EV).

In the last 5 years, their market share rose to 25% in electric and hybrid vehicles segment in North America. As a part of their expansion plans, they wanted to launch their bestselling models in India where their market share is less than 2%. Bruce Haryali, the chief of AtliQ Motors India wanted to do a detailed market study of existing EV/Hybrid market in India before proceeding further. Bruce gave this task to the data analytics team of AtliQ motors and Peter Pandey is the data analyst working in this team.



Primary Research Question





1. List the top 3 and bottom 3 makers for the fiscal years 2023 and 2024 in terms of the number of 2-wheelers sold.

Top 3 2-Wheelers Maker in 2023

maker	Sum of electric_vehicles_sold
OLA ELECTRIC	152583
OKINAWA	96945
HERO ELECTRIC	88993

Bottom 3 2-Wheelers Maker in 2023

maker	Sum of electric_vehicles_sold
JITENDRA	8563
BEING	11018
PURE EV	11556

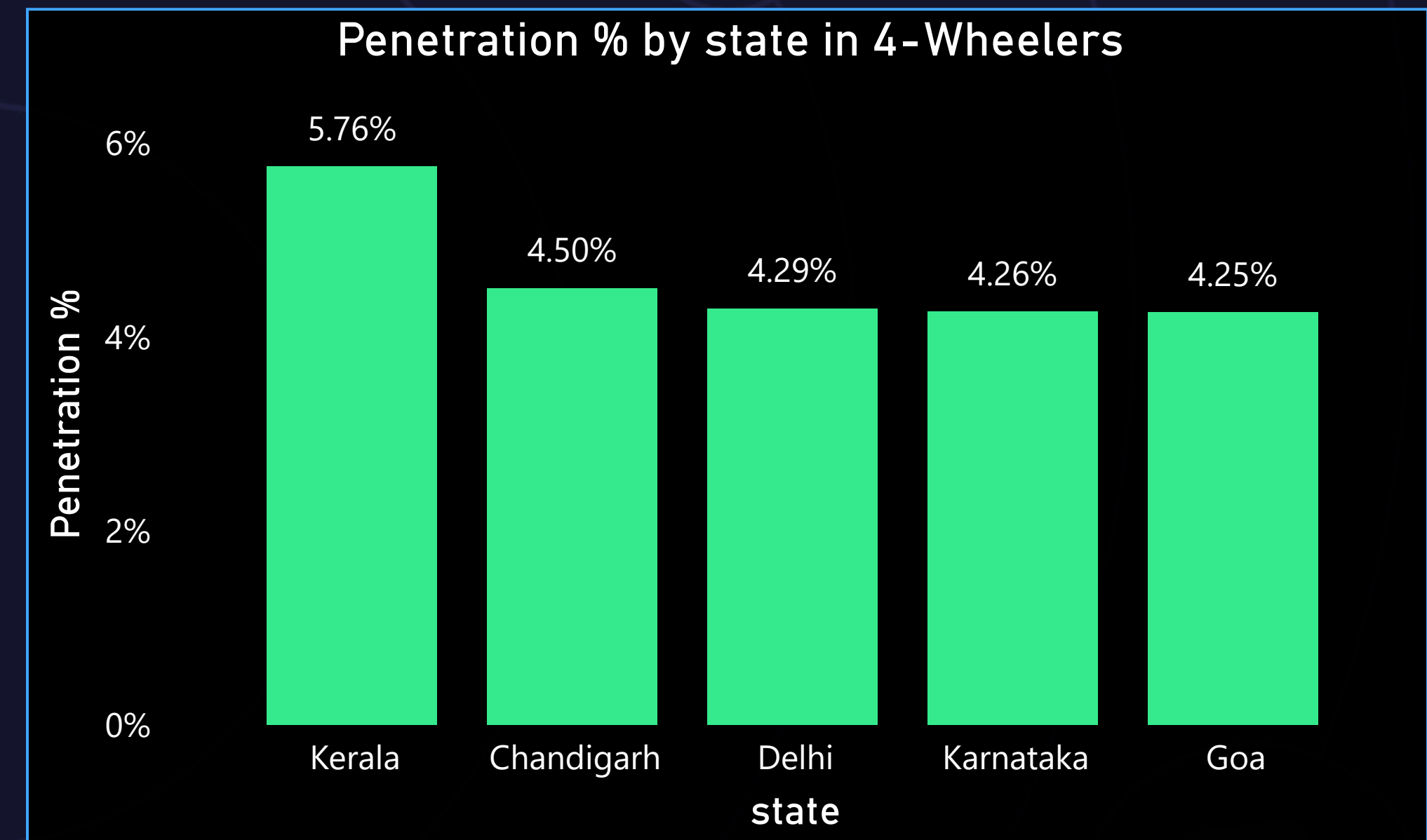
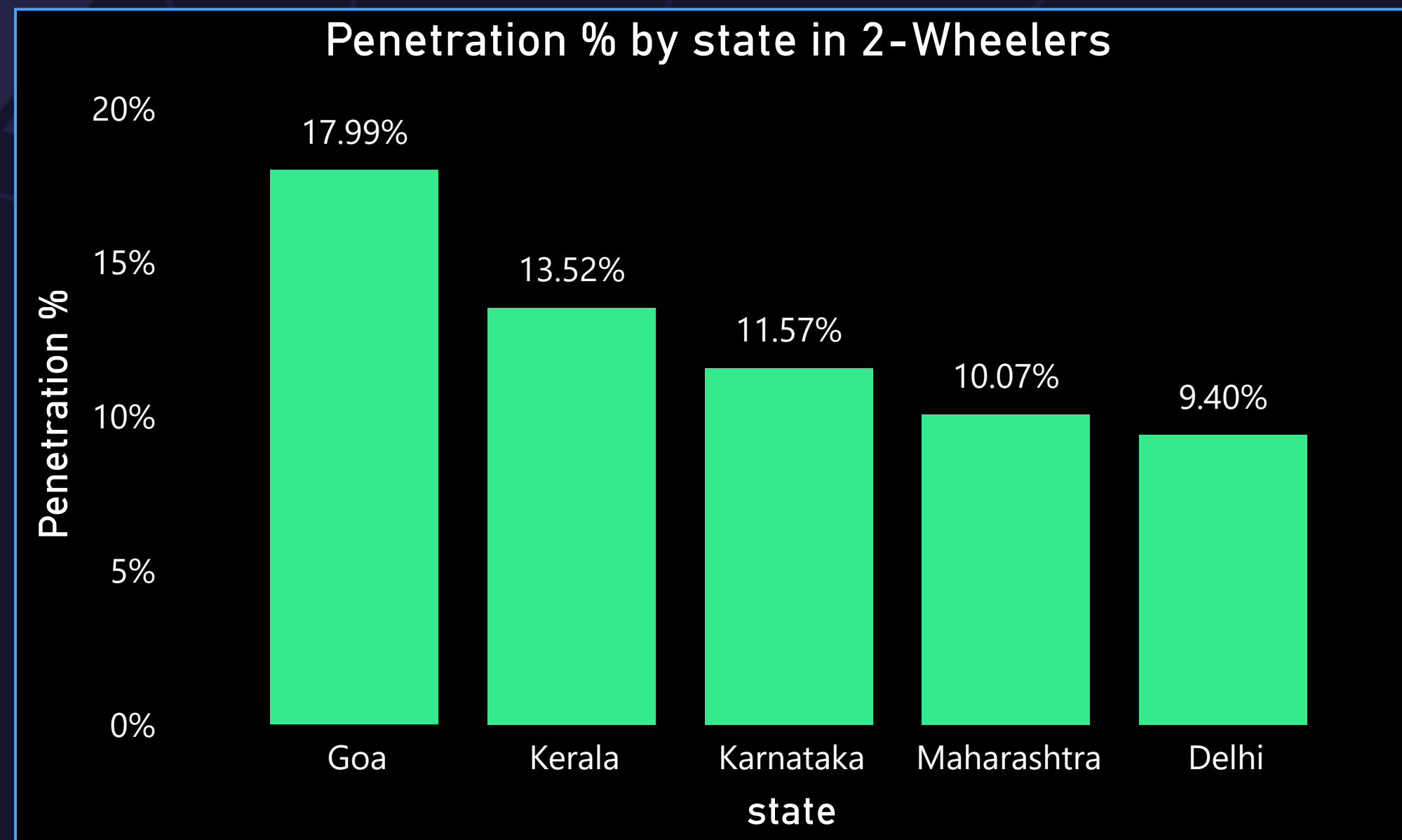
Top 3 2-Wheelers Maker in 2024

maker	Sum of electric_vehicles_sold
OLA ELECTRIC	322489
TVS	180743
ATHER	107552

Bottom 3 2-Wheelers Maker in 2024

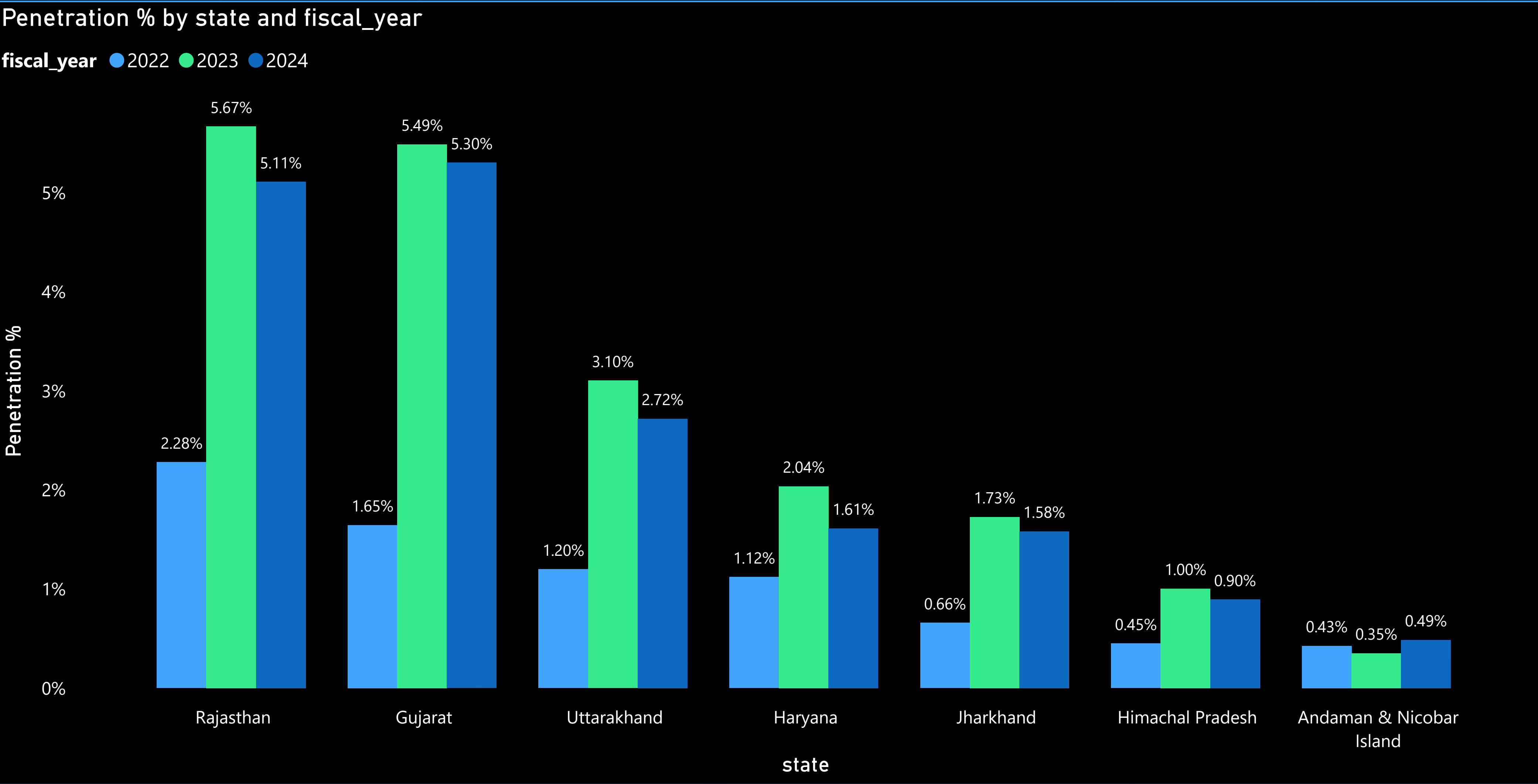
maker	Sum of electric_vehicles_sold
BATTRE ELECTRIC	4841
REVOLT	7254
KINETIC GREEN	9585

2. Identify the top 5 states with the highest penetration rate in 2-wheeler and 4-wheeler EV sales in FY 2024.



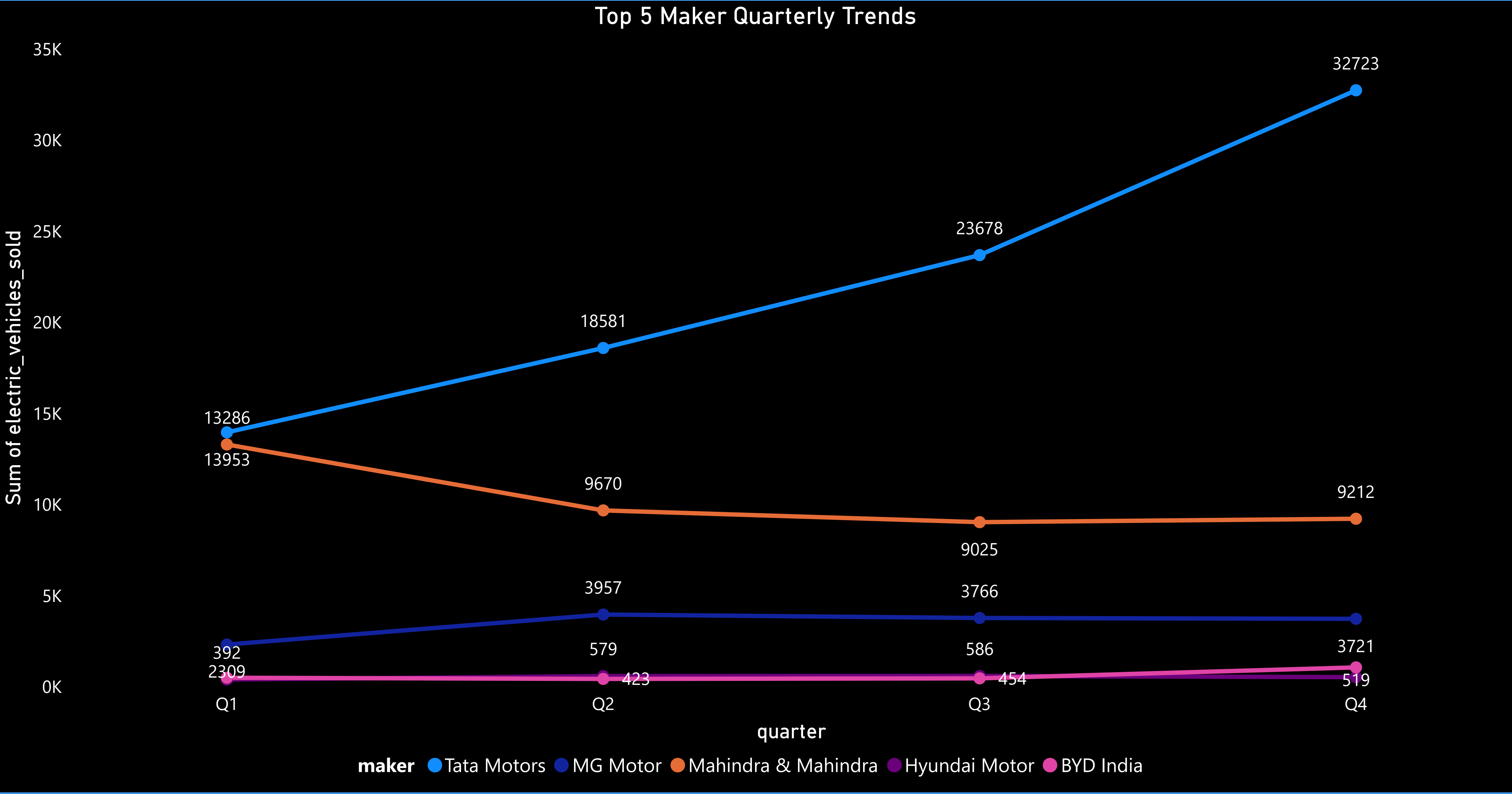


3. List the states with negative penetration (decline) in EV sales from 2022 to 2024?

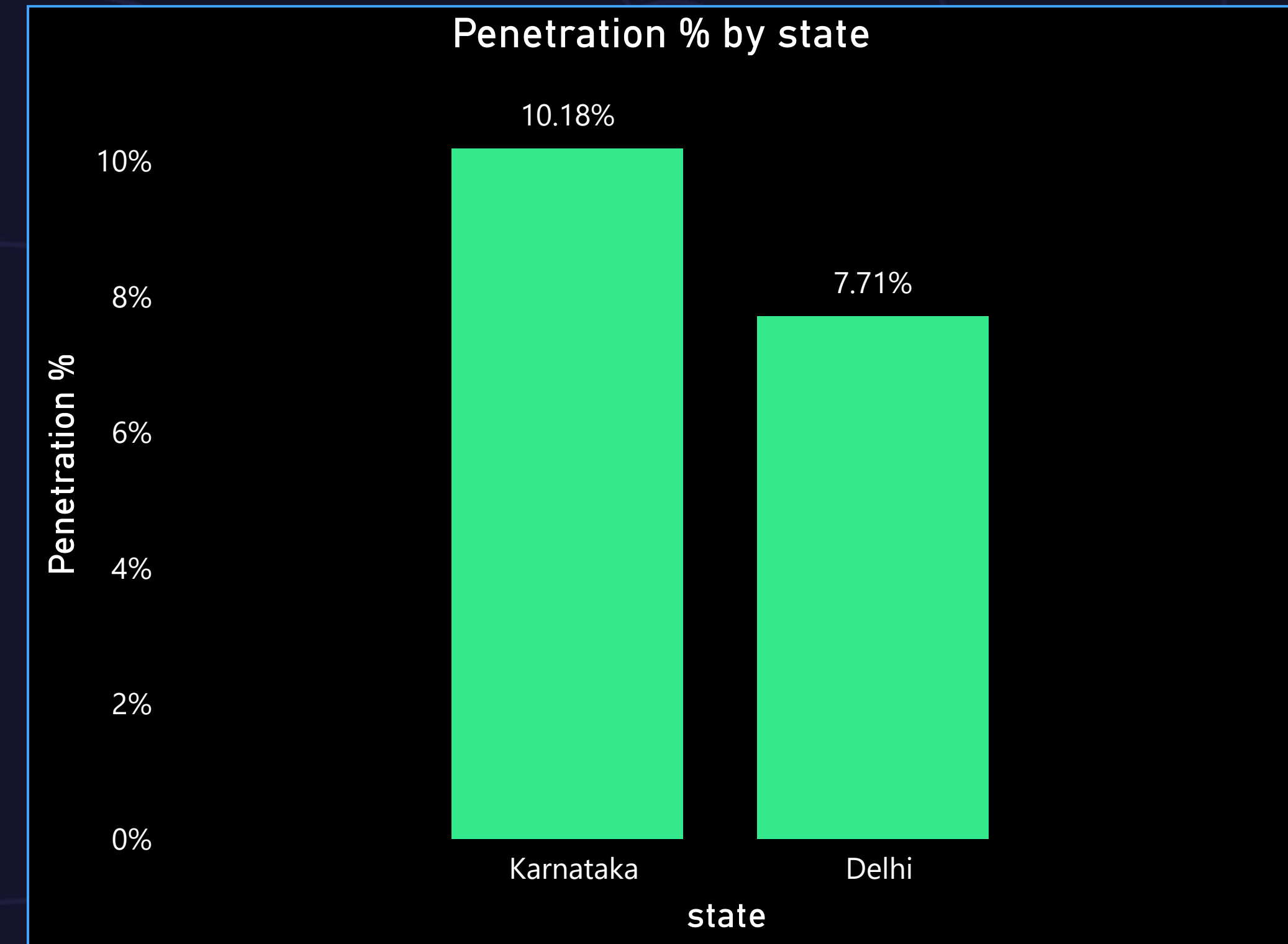
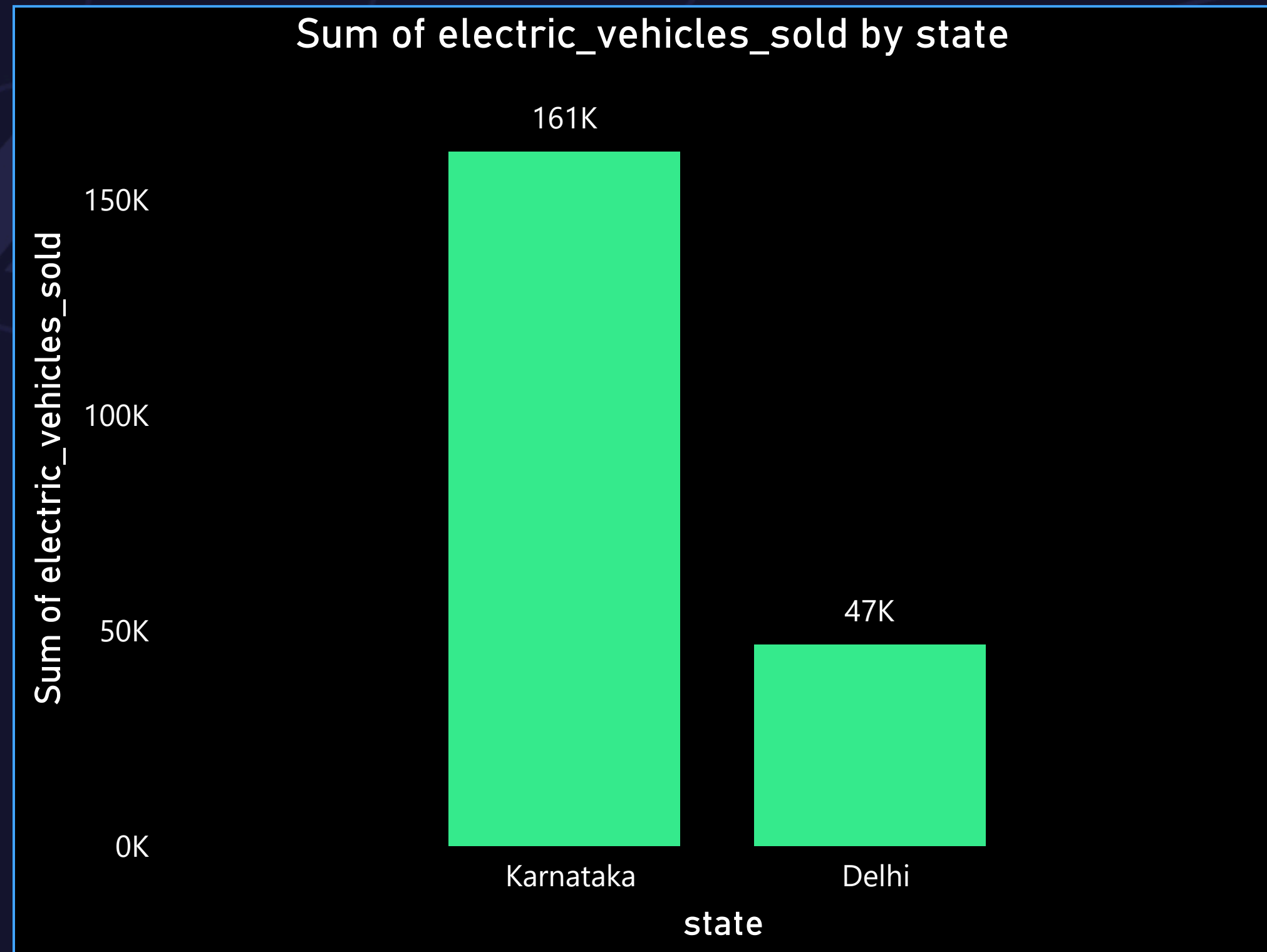




4. What are the quarterly trends based on sales volume for the top 5 EV makers (4-wheelers) from 2022 to 2024?

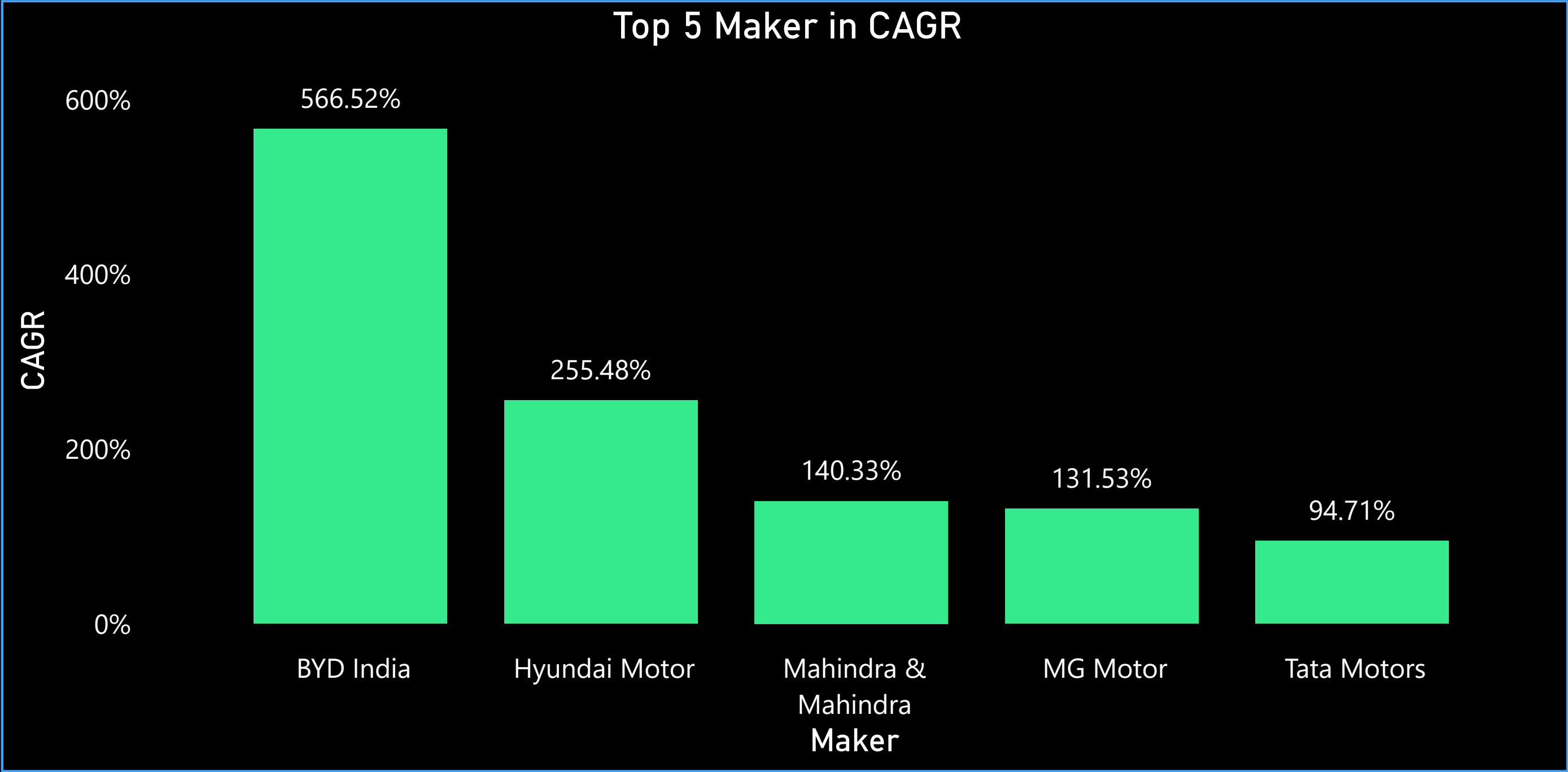


5. How do the EV sales and penetration rates in Delhi compare to Karnataka for 2024?

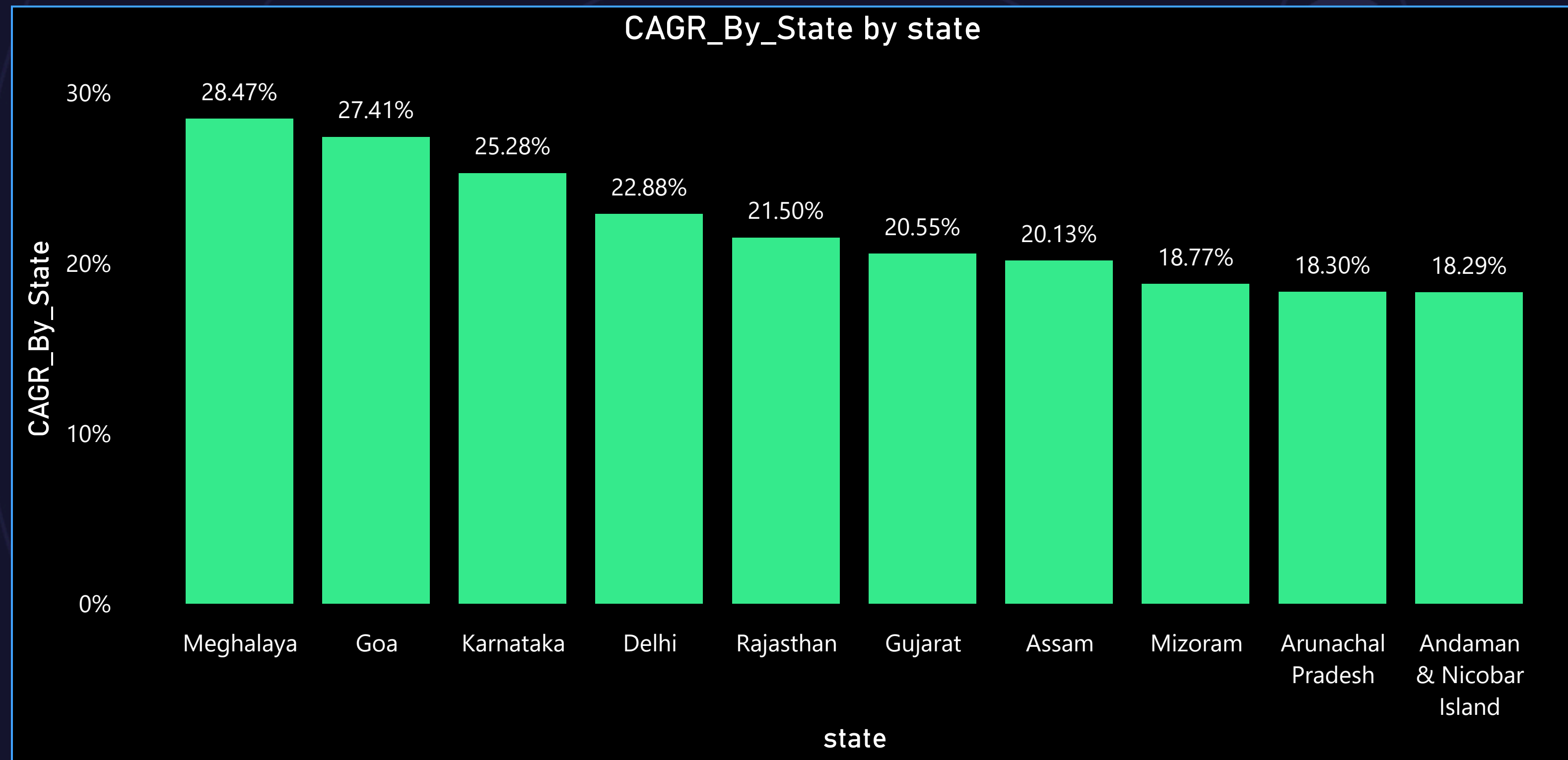




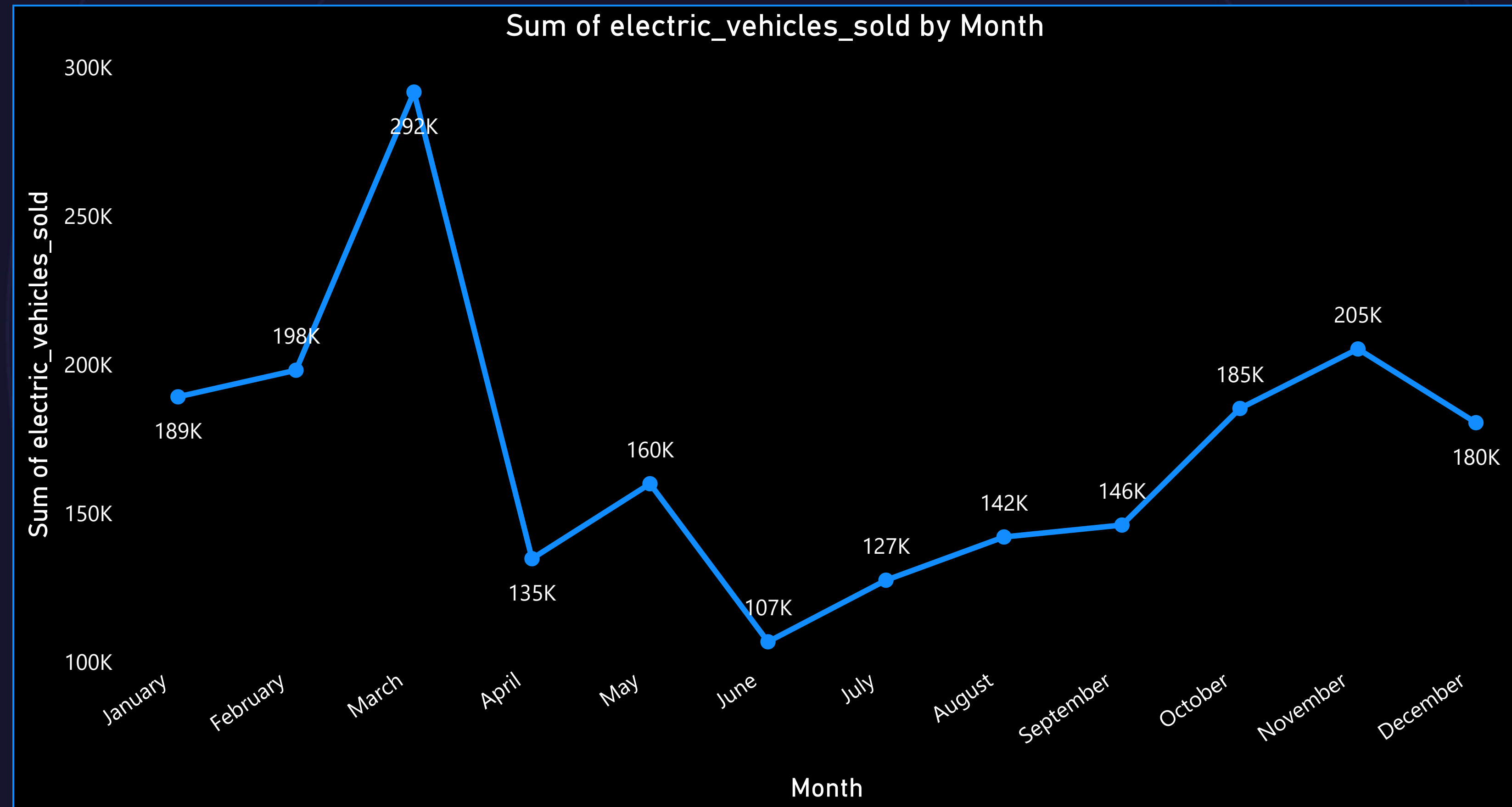
6. List down the compounded annual growth rate (CAGR) in 4-wheeler units for the top 5 makers from 2022 to 2024.



7. List down the top 10 states that had the highest compounded annual growth rate (CAGR) from 2022 to 2024 in total vehicles sold.

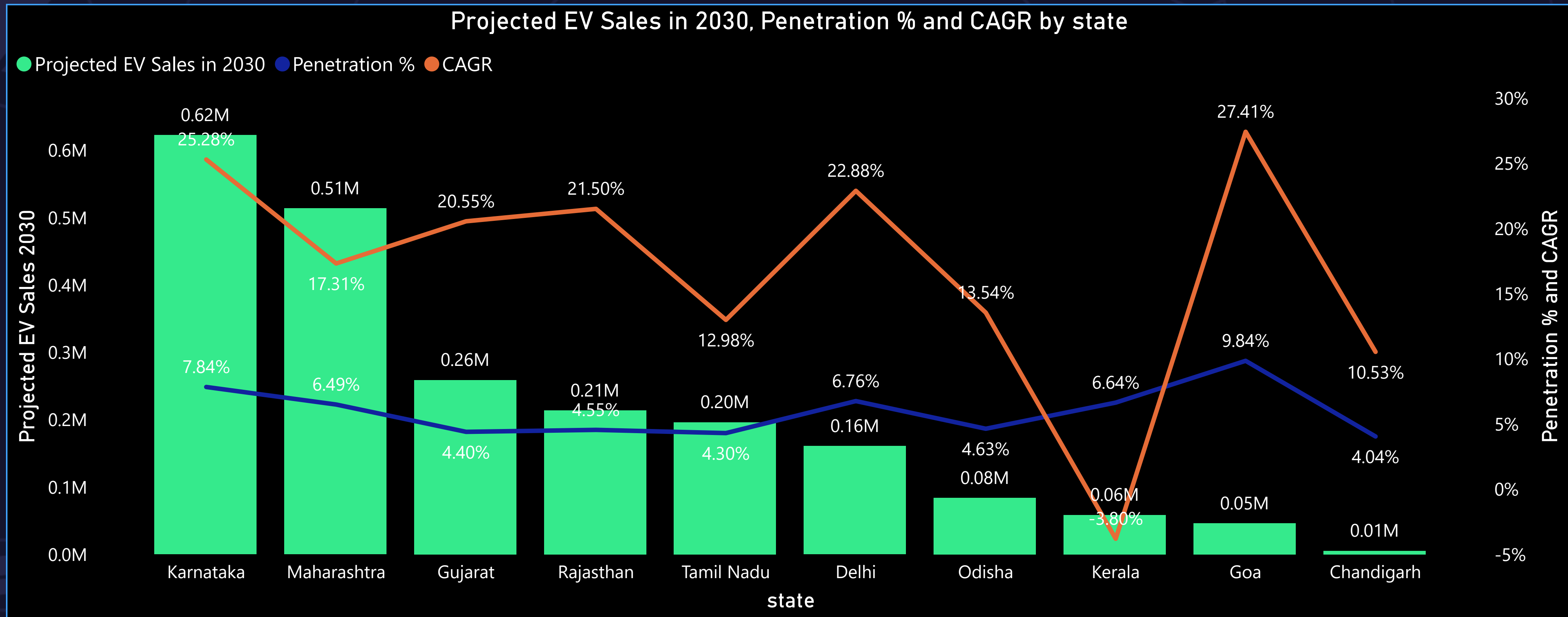


8. What are the peak and low season months for EV sales based on the data from 2022 to 2024?





9. What is the projected number of EV sales (including 2-wheelers and 4-wheelers) for the top 10 states by penetration rate in 2030, based on the compounded annual growth rate (CAGR) from previous years?



10. Estimate the revenue growth rate of 4-wheeler and 2-wheelers EVs in India for 2022 vs 2024 and 2023 vs 2024, assuming an average unit price.



2-Wheelers Revenue in 2022

21bn

2-Wheelers Revenue in 2023

62bn

2-Wheelers Revenue in 2024

79bn

2-Wheelers Revenue in 2024

79bn

2W Revenue Growth 2022 vs 2024

269.28%

2W Revenue Growth 2023 vs 2024

28.13%

10. Estimate the revenue growth rate of 4-wheeler and 2-wheelers EVs in India for 2022 vs 2024 and 2023 vs 2024, assuming an average unit price.



4-Wheelers Revenue in 2022

28bn

4-Wheelers Revenue in 2023

71bn

4-Wheelers Revenue in 2024

130bn

4-Wheelers Revenue in 2024

130bn

4W Revenue Growth 2022 vs 2024

367.79%

4W Revenue Growth 2023 vs 2024

83.08%



Secondary Research Question





1. What are the primary reasons for customers choosing 4-wheeler EVs in 2023 and 2024 (cost savings, environmental concerns, government incentives)?

Cost Saving : Electricity is cheaper than petrol or diesel, resulting in lower fuel costs. Lower maintenance costs compared to traditional internal combustion engine.

Environmental Concerns : Electricity Vehicles doesn't produce tailpipe emissions and co2, which helps to reduce air pollution. EV's also doesn't produce any noise pollution.

Government Incentives : Government offers incentives to encourage EVs adoption by giving subsidies on purchasing electric vehicle, and also some state government provides discounts on road tax which makes EVs more affordable.

Charging Convenience : The growing number of charging stations also increases the sales of EV's.

Future Proof : Customers are choosing EV's to avoid any future ban and restrictions on older ICE vehicles

2. How do government incentives and subsidies impact the adoption rates of 2-wheelers and 4-wheelers? Which states in India provided most subsidies?



Government offers incentives and subsidies to increase the adoption rate of EV's. Government offers purchase subsidies, tax benefits and some state also offers registration and road tax exemption

States Providing Most Subsidies :

Maharashtra : Maharashtra provides maximum subsidy of 25 thousand rupees on 2-wheelers EV, and up to 2.5 Lakhs rupees on 4-wheeler EV and 100% discount on road tax

Gujarat : Gujarat provides maximum subsidy of 20 thousand rupees on 2-wheelers EV with no registration charges, and up to 1.5 Lakhs rupees on 4-wheeler EV and 50% discount on road tax

Meghalaya : Meghalaya provides maximum subsidy of 20 thousand rupees on 2-wheelers EV, and up to 60 thousand rupees on 4-wheeler EV and 100% discount on road tax



3. How does the availability of charging stations infrastructure correlate with the EV sales and penetration rates in the top 5 states?

Top 5 States by EVs Sold

State	Penetration %	Total EVs Sold	EV per Charging Station
Maharashtra	6.49%	396045	106
Karnataka	7.84%	312995	54
Tamil Nadu	4.30%	200062	142
Gujarat	4.40%	181389	183
Rajasthan	4.55%	150366	133

Top 5 States by Penetration

State	Penetration %	Total EVs Sold	EV_per_Charging_station
Goa	9.84%	19684	144
Karnataka	7.84%	312995	54
Delhi	6.76%	107312	55
Kerala	6.64%	137060	113
Maharashtra	6.49%	396045	106

Increased Charging Infrastructure - Higher EV Sales : As the number of charging stations increases it also increases EV sales

Higher EV Sales - Increased Penetration Rate : As the EV sales increases, the penetration rate also increases.

Increased Penetration Rate - Higher Demand for Charging Infrastructure : As more EVs are on road, there is a greater need for charging infrastructure

Summary : The availability of charging stations infrastructure has a positive correlation with EV sales and Penetration rates. As Charging infrastructure expands, it drives EV adoption, which in turn increases penetration rates and demands even more charging infrastructure

4. Who should be the brand ambassador if AtliQ Motors launches their EV/Hybrid vehicles in India and why?



MS Dhoni : Admired by Billions of people in India. His influence can drive adoption of Electric Vehicles. And he is also a bike enthusiast. MS Dhoni can build a relationship between AtliQ Motors and their customers.

Neeraj Chopra : India's Olympic Gold medalist and Paris Olympic Silver medalist. As a Brand Ambassador for AtliQ Motors, he can inspire young Indians to adopt eco-friendly transportation. His influence can promote EVs as a symbol of modernity and progress, like his own achievements.

Moto Vlogger : A moto vlogger can authentically showcase the performance and practicality of Electric Vehicles through their real-world experience. On Youtube, a popular moto vlogger gets an average million views on a single video.



5. Which state of India is ideal to start the manufacturing unit? (Based on subsidies provided, ease of doing business, stability in governance etc.).

Gujarat : Gujarat is the best state to start an electric vehicle (EV) manufacturing unit due to its business-friendly environment, industrial infrastructure, and skilled workforce. The state offers attractive government incentives, port connectivity, and an existing automotive ecosystem, making it an ideal location for EV manufacturing.

Karnataka : Karnataka is an ideal state to start an electric vehicle (EV) manufacturing unit due to its thriving automotive industry, skilled workforce, and favorable business environment. The state is home to several major automotive manufacturers, research institutions, and a well-developed industrial infrastructure. Karnataka's EV policy offers attractive incentives, subsidies, and exemptions, making it an attractive destination for EV manufacturers. Bengaluru, the state capital, is also a hub for technology and innovation.

Maharashtra : Maharashtra is an ideal state to start an electric vehicle (EV) manufacturing unit due to its strategic location with proximity to major markets and ports. Well-established automotive industry and supplier ecosystem. Skilled workforce and presence of top automotive R&D centers. Supportive government policies and incentives under its EV policy

6. Your top 3 recommendations for AtliQ Motors.



Focus on customer experience and engagement : Develop user-centric features, provide exceptional after-sales support, and foster a community of loyal EV enthusiasts.

Create a comprehensive and convenient charging ecosystem : Develop a widespread and user-friendly charging network, including fast-charging corridors and home charging solutions.

Lead in innovation and technology : Invest in cutting-edge technologies like solid-state batteries and autonomous driving.



Dashboard





Total Maker

26

Total 2-Wheeler Maker

16

Total 4-Wheeler Maker

10

2022

2023

2024

2-Wheelers

4-Wheelers



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Maker



State

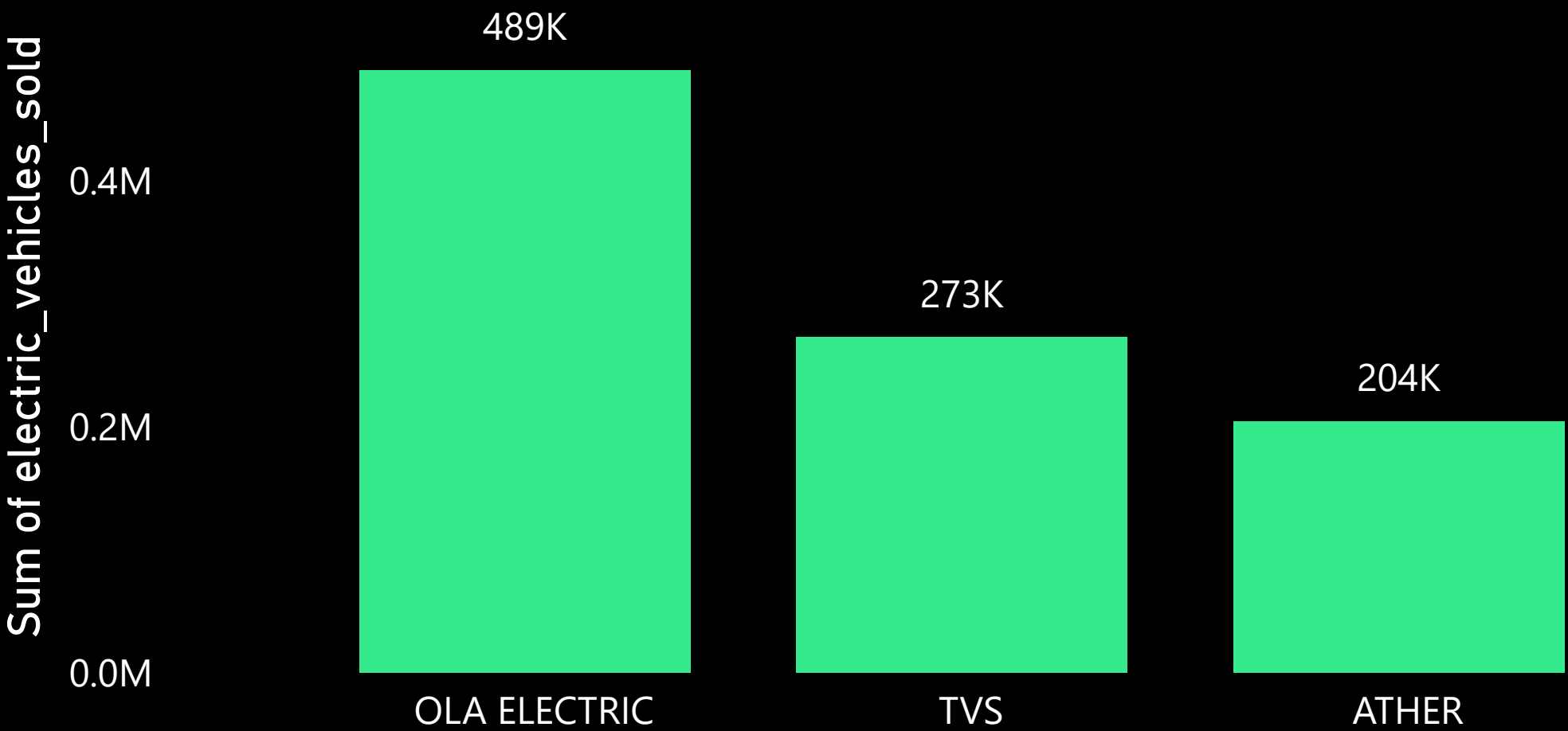


State 2



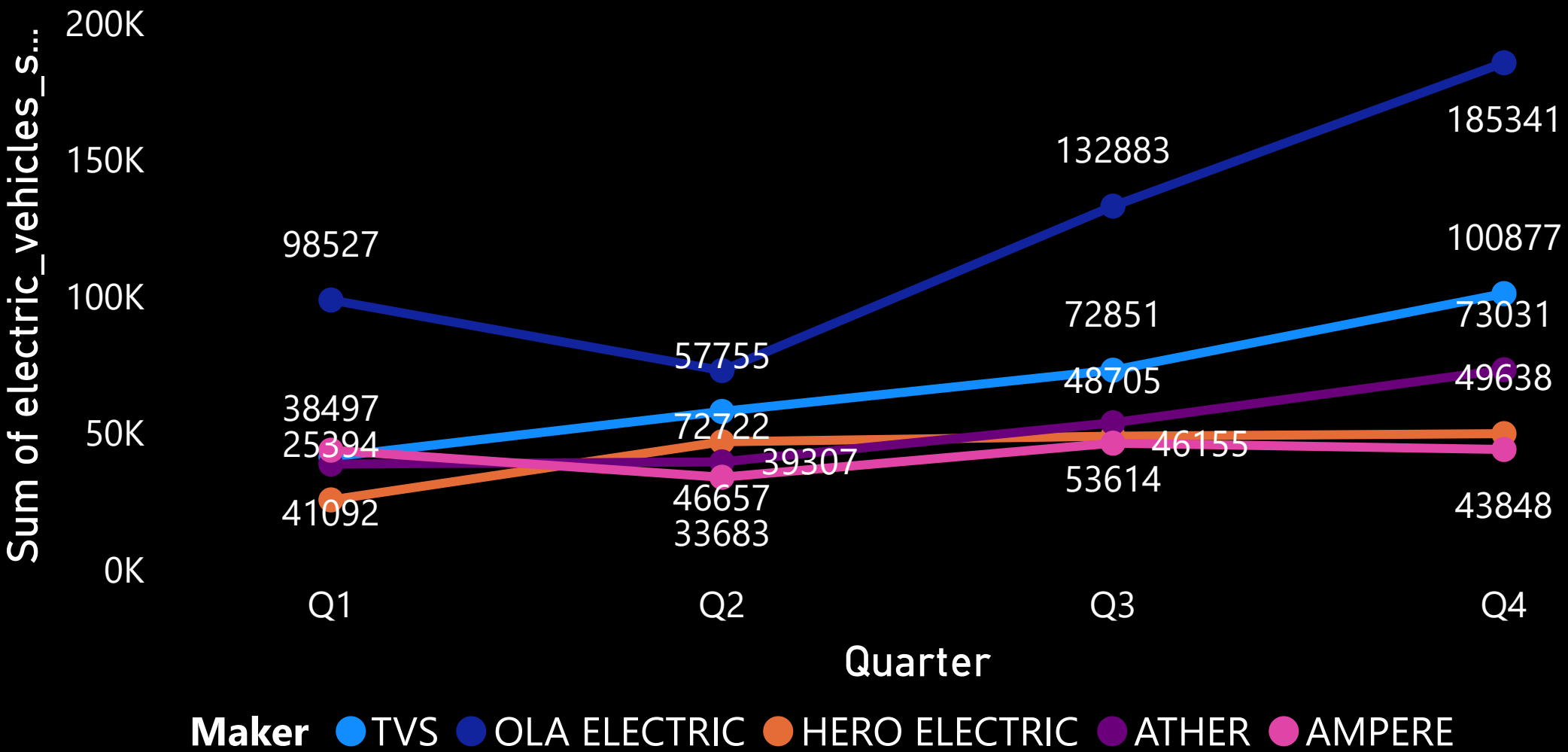
Growth

Top 3 Maker



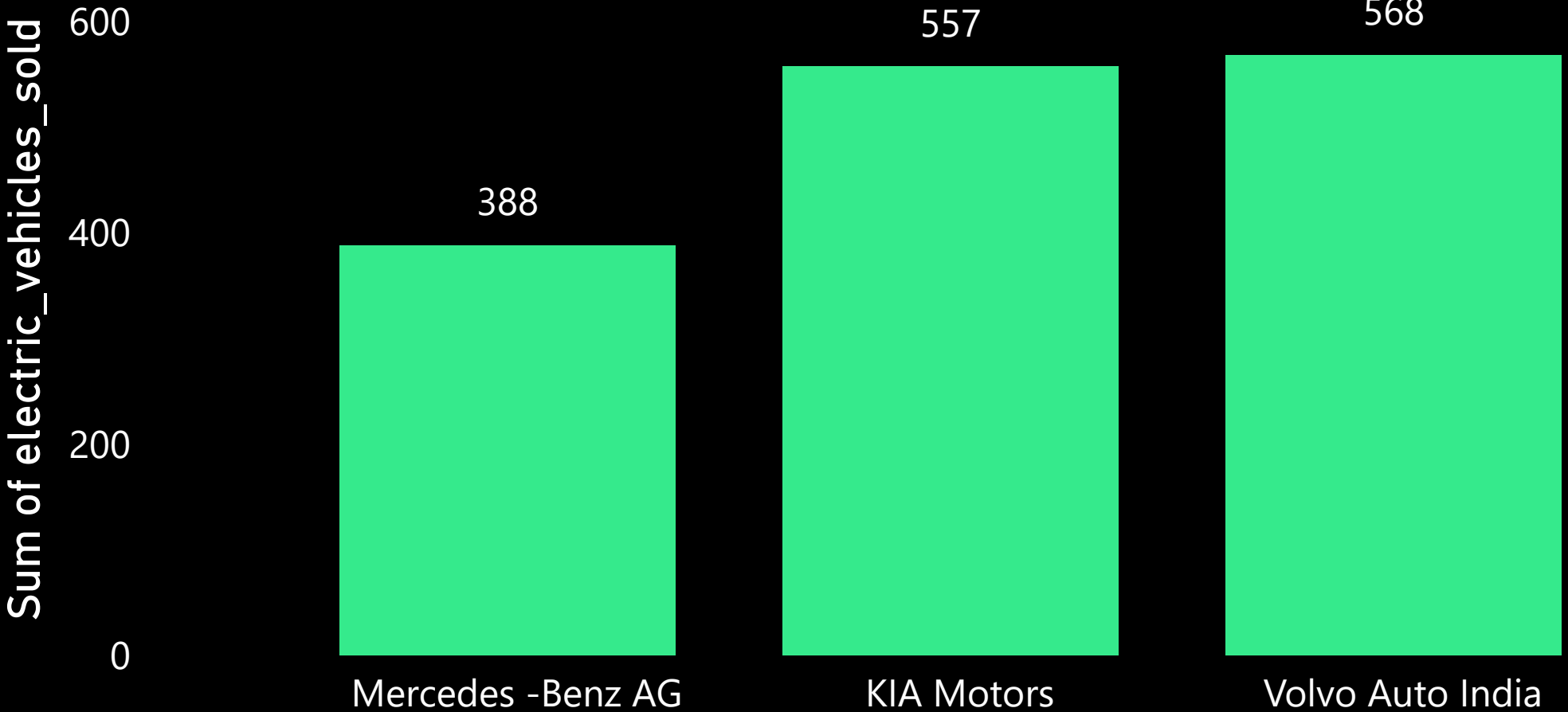
Maker

Top 5 Maker Quarterly Trends



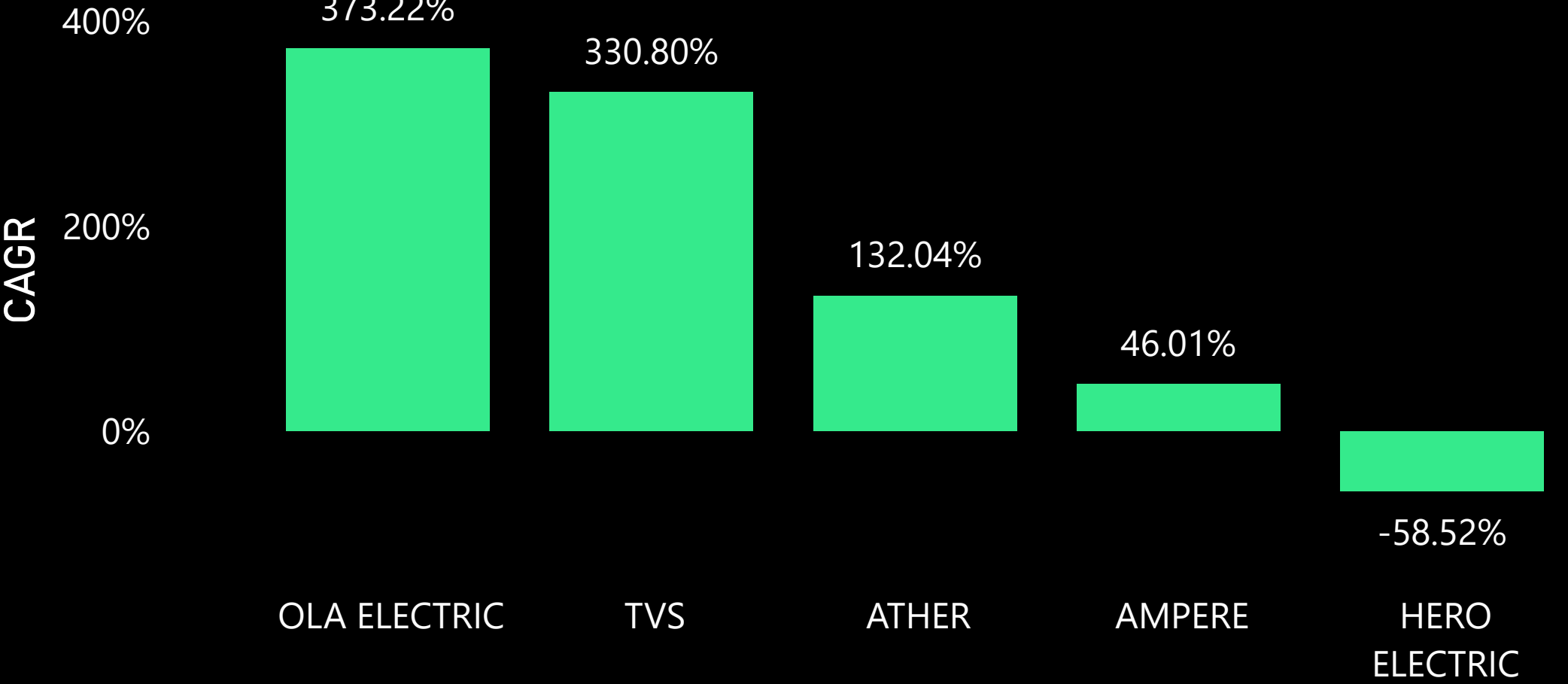
Maker ● TVS ● OLA ELECTRIC ● HERO ELECTRIC ● ATHER ● AMPERE

Bottom 3 Maker



Maker

Top 5 Maker in CAGR



Maker



State

34

CAGR

13.6%

Penetration %

3.6%

Filter by State

All



2022

2023

2024

2-Wheelers

4-Wheelers



Home Page



Maker



State

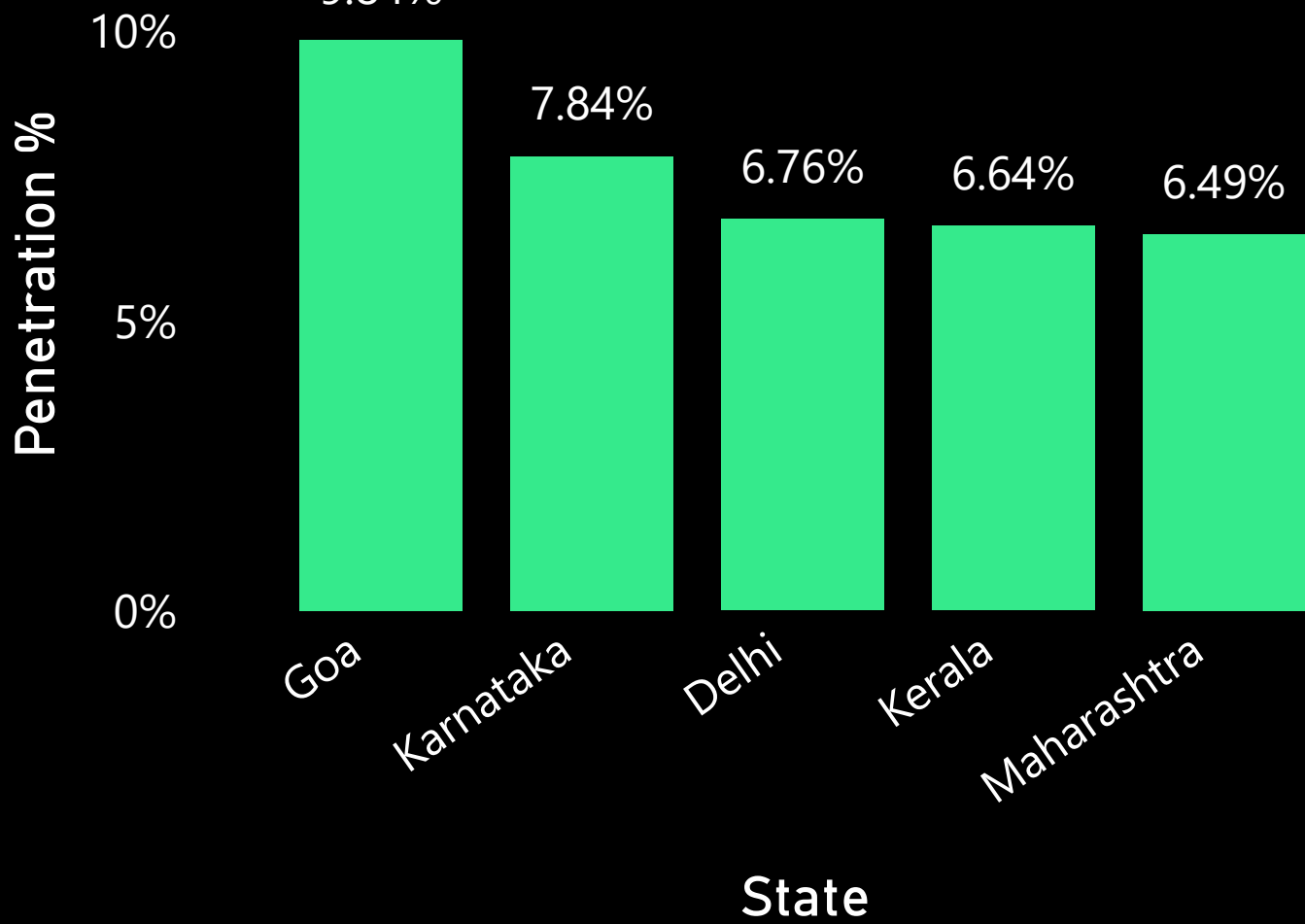


State 2

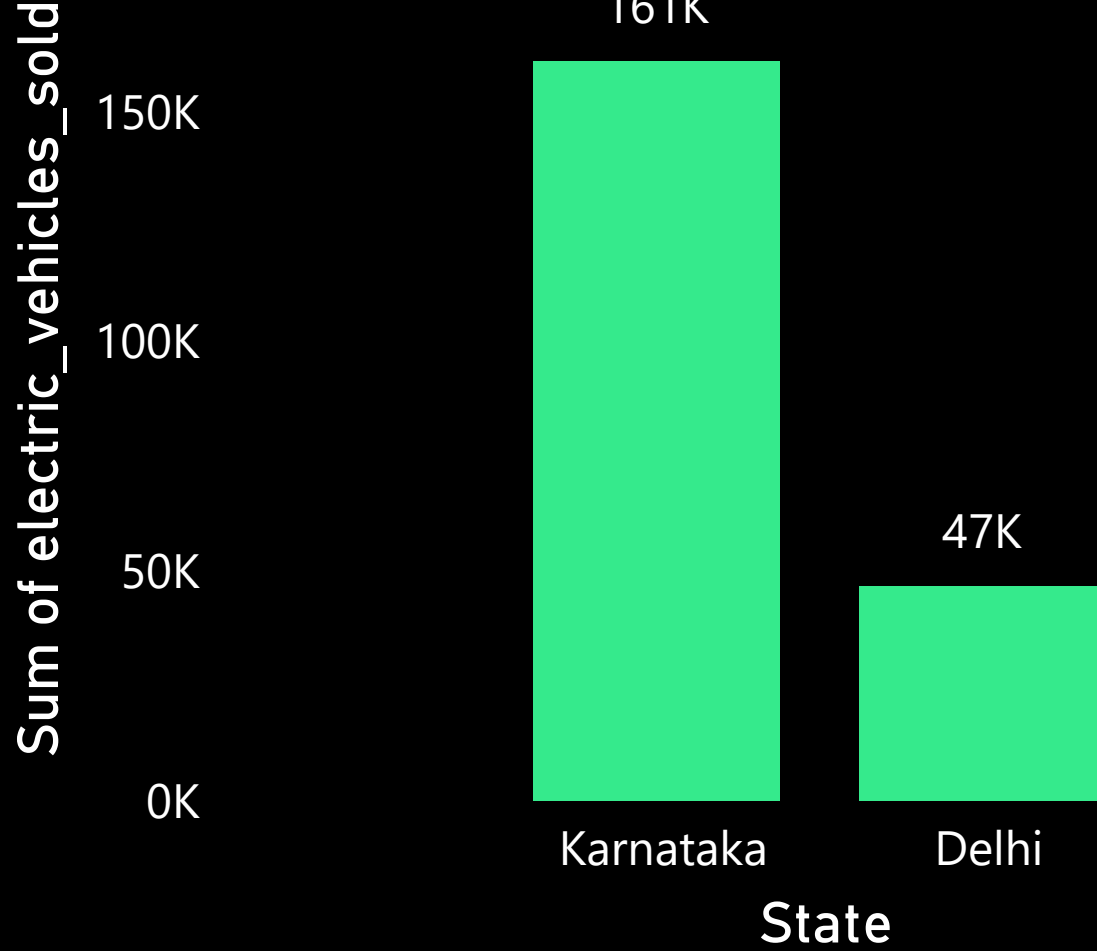


Growth

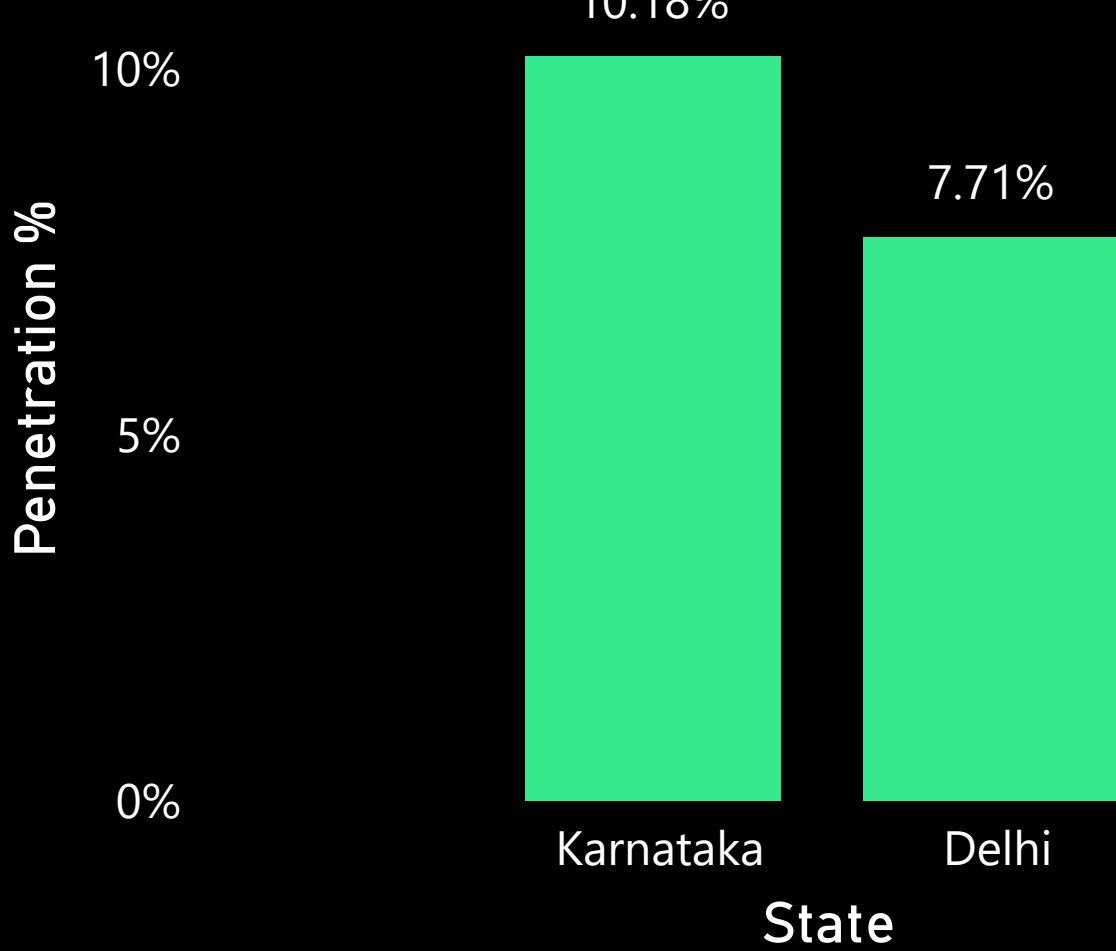
Penetration % by state



Sum of electric_vehicles_sold by state

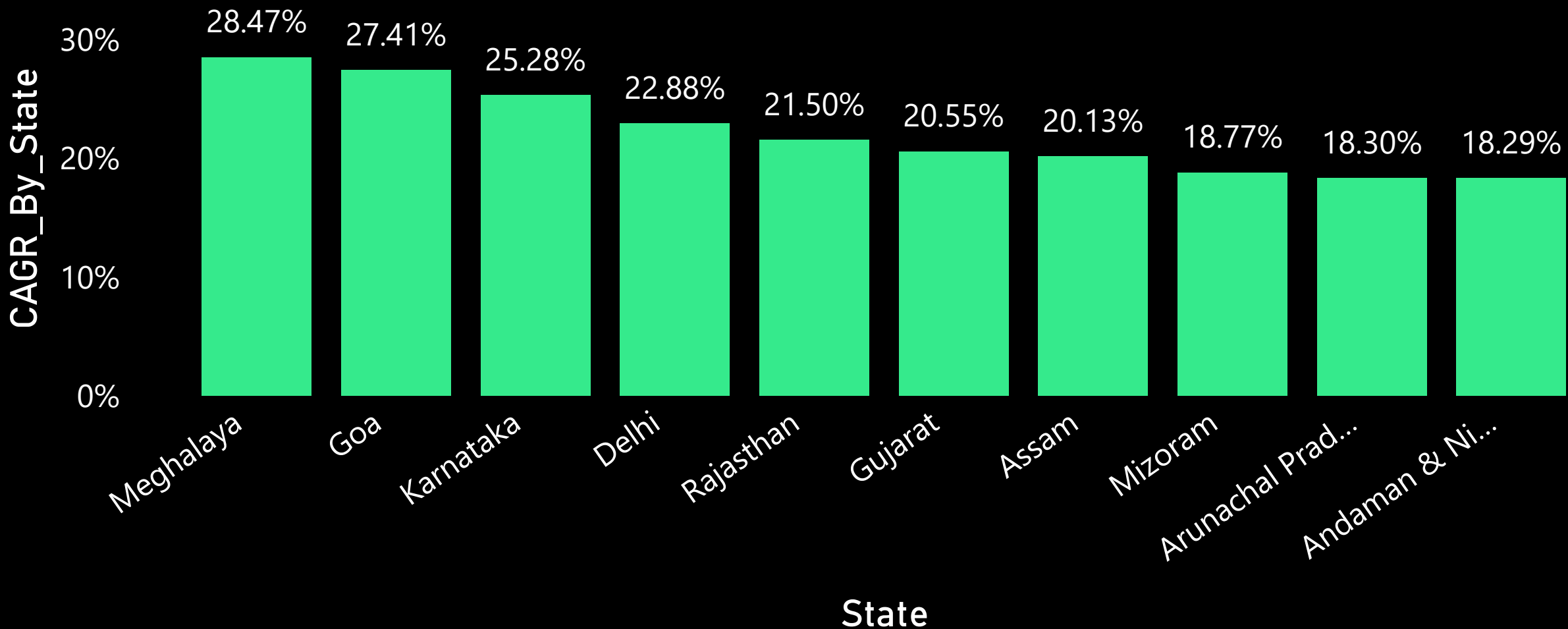


Penetration % by state



state	fiscal_year	Penetration %	Penetration % YoY
Andaman & Nicobar Island	2022	0.43%	
Andaman & Nicobar Island	2023	0.35%	-17.63%
Andaman & Nicobar Island	2024	0.49%	38.04%
Andhra Pradesh	2022	1.80%	
Andhra Pradesh	2023	4.16%	130.92%
Andhra Pradesh	2024	4.24%	1.84%
Arunachal Pradesh	2022	0.00%	
Arunachal Pradesh	2023	0.01%	0.00%
Arunachal Pradesh	2024	0.11%	1218.49%
Assam	2022	0.19%	
Assam	2023	0.46%	139.16%
Assam	2024	0.64%	38.79%

CAGR_By_State by state





State

34

CAGR

13.6%

Penetration %

3.61%

Filter by State

All



2022

2023

2024

2-Wheelers

4-Wheelers



Home Page



Maker



State



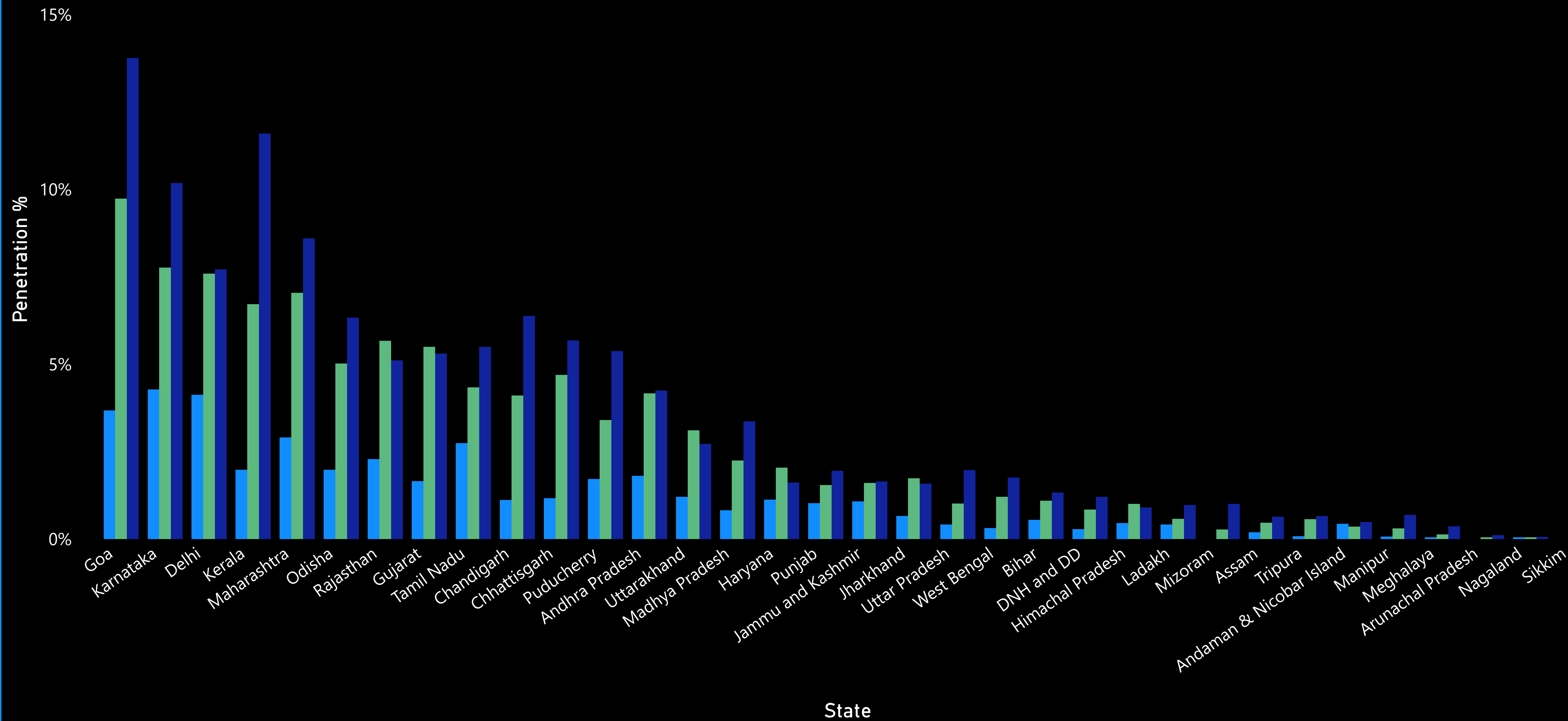
State 2



Growth

Penetration % by state and fiscal_year

fiscal_year ● 2022 ● 2023 ● 2024





2W Revenue
163bn

4W Revenue
229bn

Total Revenue
392bn

Filter by State
All

2022 2023 2024

2-Wheelers 4-Wheelers

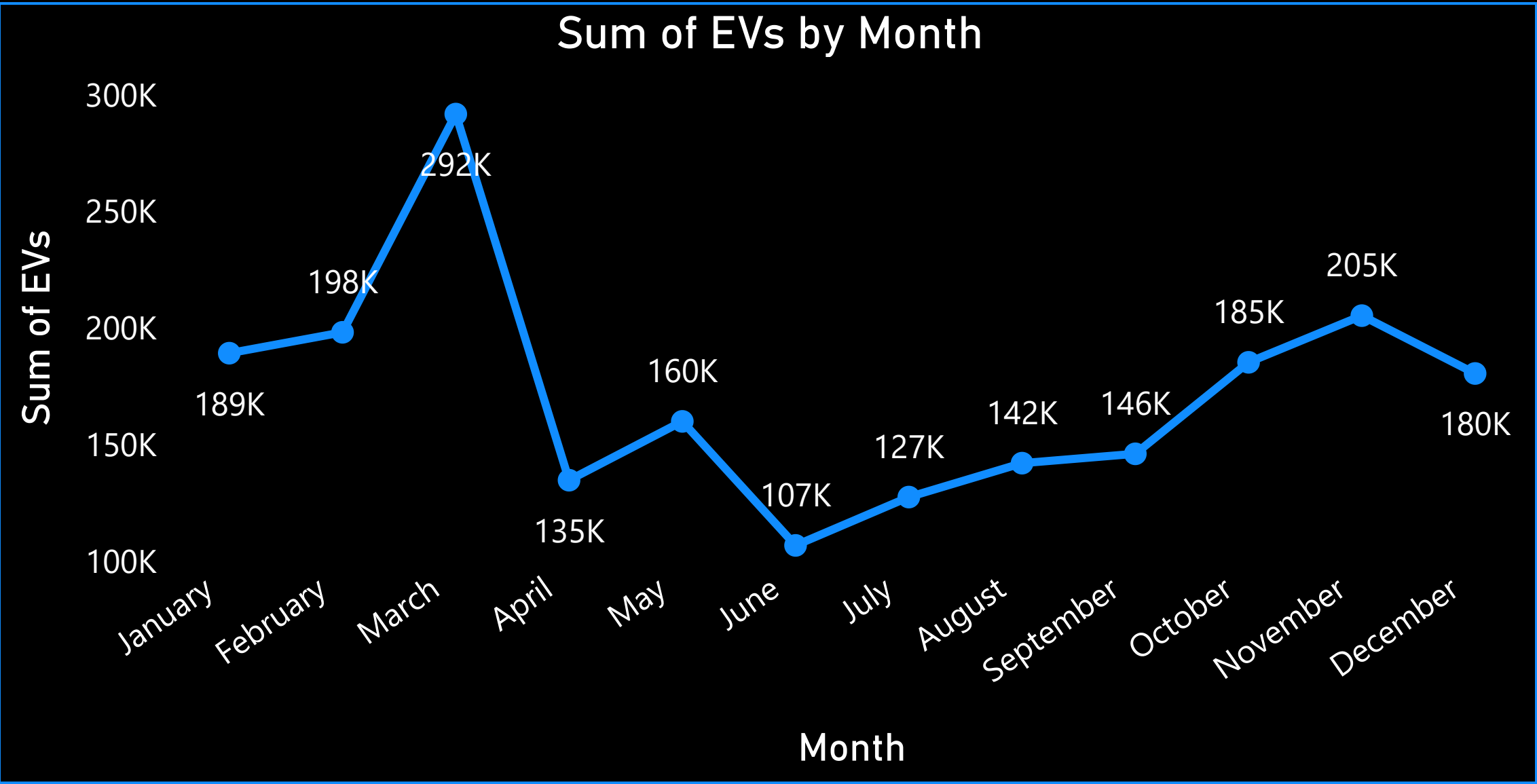
Home Page

Maker

State

State 2

Growth

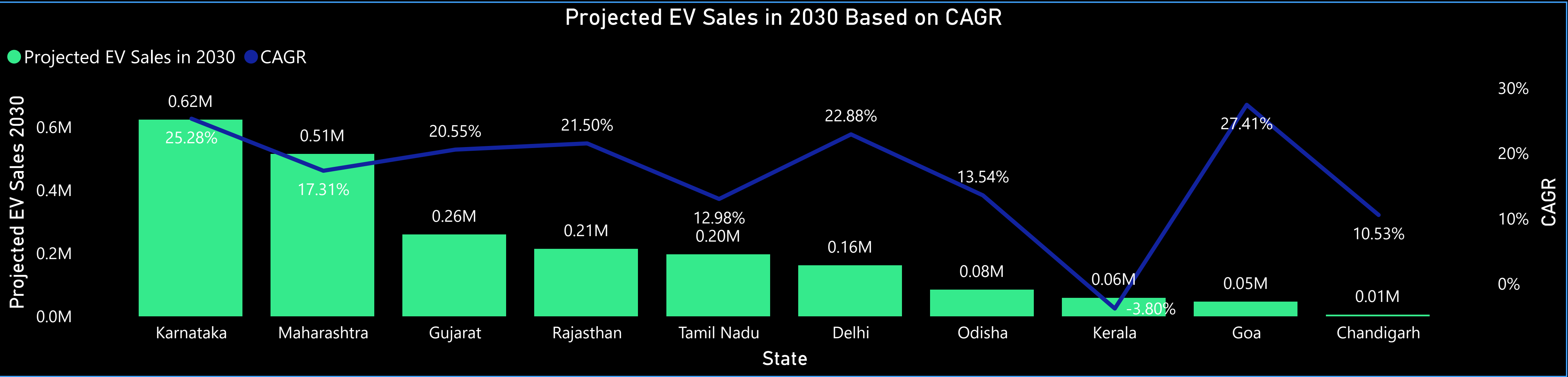


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**Thank
You**

