EV Report Sept 2025

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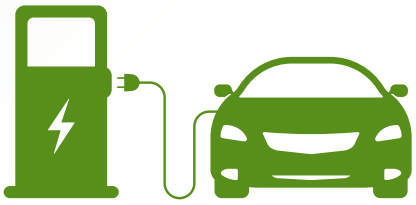
AIS 189 VEHICLE CYBERSECURITY REGULATION

INDIA EV SALES AUG 2025

TOP MONEY MOVEMENT IN MOBILITY WORLD

NEWS, JOINT VENTURES & PARTNERSHIPS



UPCOMING EV SHOW & EXPO

EV LAUNCH

GYANIKI REPORTS

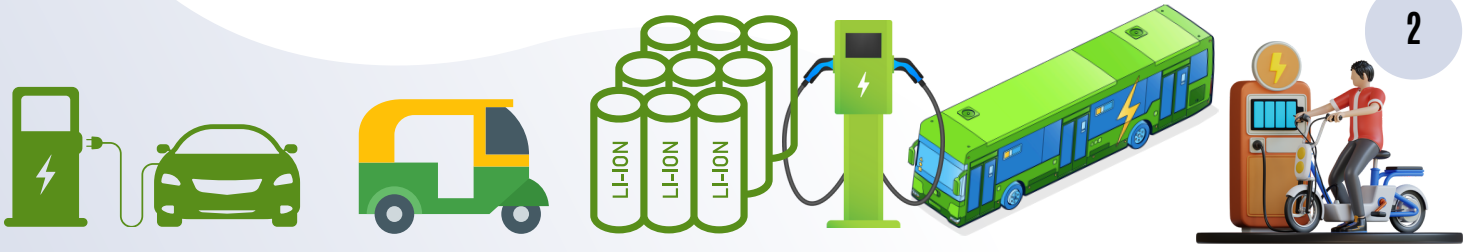
'gyaniki' undertakes specialized and customized research in the areas of Future Mobility.
'gyaniki' provides an online repository for understanding the mobility ecosystem.
'gyaniki' database covers manufacturers, suppliers, technologies and ecosystem players in mobility including Electric, Autonomous, ADAS, Connected and Shared vehicles.
'gyaniki' also provides training programs across mobility domains.

Gyaniki TECH TALKS - EV Startup Lessons

Team gyaniki hosted an insightful Tech Talk with **Rajeev Ranadive, CMD of Pixy Cars Pvt. Ltd.**, exploring the startup mindset in EV launches, the future of retrofitment EV cars, and innovative waterway mobility solutions.

Topics Covered in gyaniki TECH TALKS Discussion:

- Why every new vehicle launch is like a startup for OEMs
- How OEMs plan and execute model launches
- Identifying “Gaps” in the EV market
- “Differentiation” as the key to success
- Importance of adopting the right technology
- Case studies – Indian Army & Jungle Safari EV Cars: Successes & Lessons Learned
- Upcoming Pixy Cars products for land and waterways mobility
- Emerging Battery Trends & Q&A



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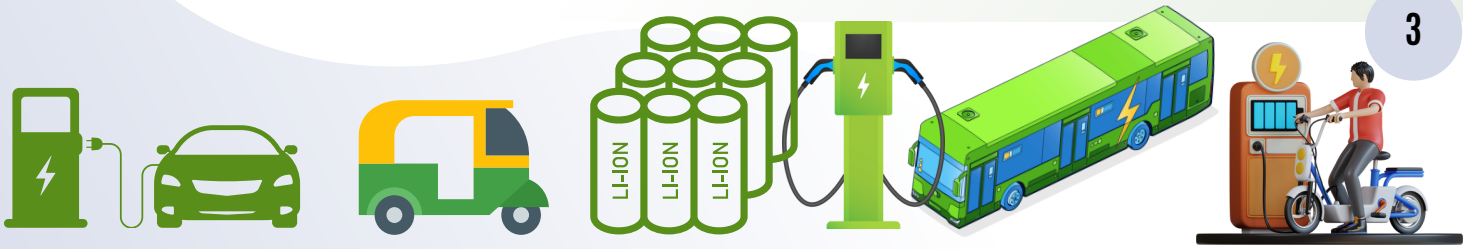

Whats' Inside

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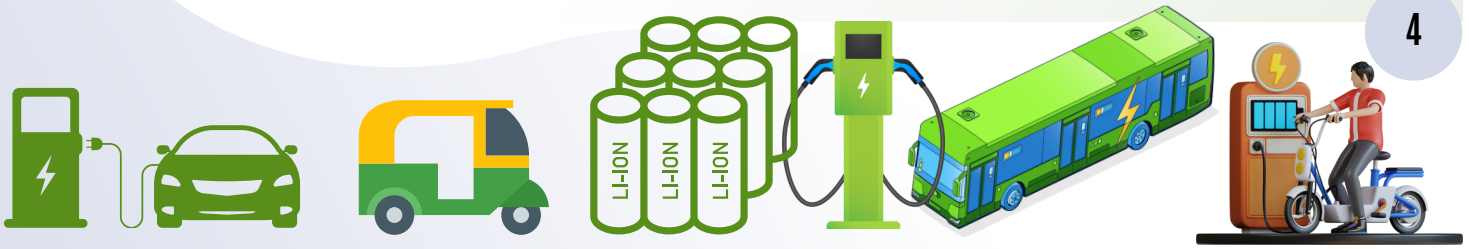

AIS 189 – India's Vehicle Cybersecurity Regulation and Its Alignment with Global Standards

As vehicle connectivity and digitalization continue to expand, India has introduced Automotive Industry Standard (AIS) 189, a regulation aimed at strengthening the nation's automotive cybersecurity landscape. AIS 189 ensures that cybersecurity is embedded across the entire vehicle lifecycle, aligning India with global regulations such as UNECE Regulation 155 (UNR155).

Currently in its draft stage and under approval, AIS 189 represents a significant step forward in ensuring that Indian automotive manufacturers prioritize robust cybersecurity practices to protect both vehicles and consumers in the evolving digital landscape.

What is AIS 189?

AIS 189 establishes cybersecurity requirements for vehicle manufacturers operating in India. Similar to UNR155, it mandates the implementation of a Cybersecurity Management System (CSMS) to safeguard vehicles against cyber risks and vulnerabilities. It applies to both passenger and commercial vehicles, ensuring cybersecurity remains a core design and operational principle.

The regulation applies to vehicles in Categories M (passenger vehicles) and N (commercial vehicles) with regard to cybersecurity. It also covers Category T (tractors) vehicles that are equipped with at least one electronic control unit (ECU).

Additionally, the Standard applies to Category L7 (quadricycles, which are lightweight four-wheeled vehicles) if they are equipped with automated driving functionalities at Level 3 or higher.

Key Provisions of AIS 189:

Cybersecurity Risk Assessment

• Manufacturers must perform structured risk assessments, identifying threats across communication interfaces such as CAN, Ethernet, Wi-Fi, and Bluetooth.

• Risks should be managed across the development, production, and post-production phases.

Secure by Design

• Applying secure coding, secure update mechanisms, and intrusion detection systems (IDS).

Monitoring and Cybersecurity Incident Response

• OEMs must set up processes for detecting, reporting, and responding to cybersecurity incidents.

• Post-production monitoring is mandatory to manage vulnerabilities in fielded vehicles.

Supply Chain Integration

• Cybersecurity obligations extend to suppliers and third-party vendors.

• Evidence of compliance must be shared to ensure end-to-end security.

ISO/SAE 21434 Compliance

Why AIS 189 Matters for Indian Manufacturers

The introduction of AIS 189 signifies India's commitment to global harmonization in automotive cybersecurity. For Indian OEMs and suppliers, this regulation is both a challenge and an opportunity:

- It ensures vehicles meet international cybersecurity benchmarks.
- It encourages suppliers to adopt "cybersecurity by design", enhancing resilience against attacks.
- It prepares the Indian market for the increasing integration of connected, electric, and autonomous vehicles.

Manufacturers are required to provide a Declaration of Compliance confirming that their vehicles meet the cybersecurity requirements specified in AIS 189. This declaration is a formal statement ensuring adherence to the prescribed Cybersecurity Management System (CSMS) and cybersecurity controls throughout the vehicle lifecycle.

Additionally, vehicle manufacturers must obtain a Certificate of Conformity (CoC) which certifies that the vehicle type complies with all applicable safety and cybersecurity standards under AIS 189.

Type approval is mandatory before introducing vehicles to the Indian market. The regulatory authorities will review and verify the manufacturer's compliance documentation, including the CSMS implementation and cybersecurity risk assessments, before granting type approval. Without this approval, vehicles cannot be marketed or sold in India.

Moving Forward

AIS 189 represents a critical milestone for India's automotive industry. With rising cyber threats targeting connected vehicles, aligning with global standards such as UNR155 essential. For manufacturers, early adoption of AIS 189 processes not only ensures compliance but also builds trust and keeps them strong in the market.

As regulations keep changing, organizations need to focus on continuous monitoring, working closely with suppliers, and managing cybersecurity even after production. These efforts will help secure the future of mobility in India and globally.

Automotive Cybersecurity Risk Management Solutions

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READY TO IMPLEMENT A CYBERSECURITY MANAGEMENT SYSTEM (CSMS), BUT NOT SURE WHERE TO START?

Our CSMS-ready templates and checklists are built specifically for automotive manufacturers.

- Pre-built templates for every CSMS requirement (aligned with ISO/SAE 21434 & UN R155)
- Confirmation review checklists for TARA, Concept, and Specification phases and other relevant workproducts
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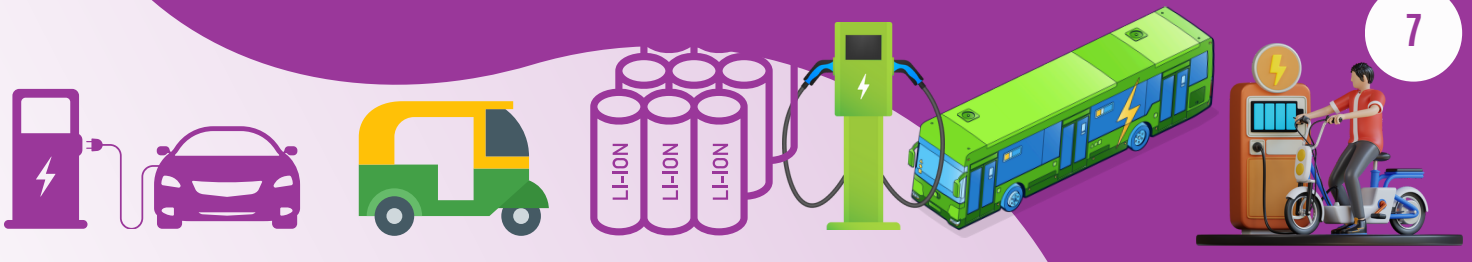
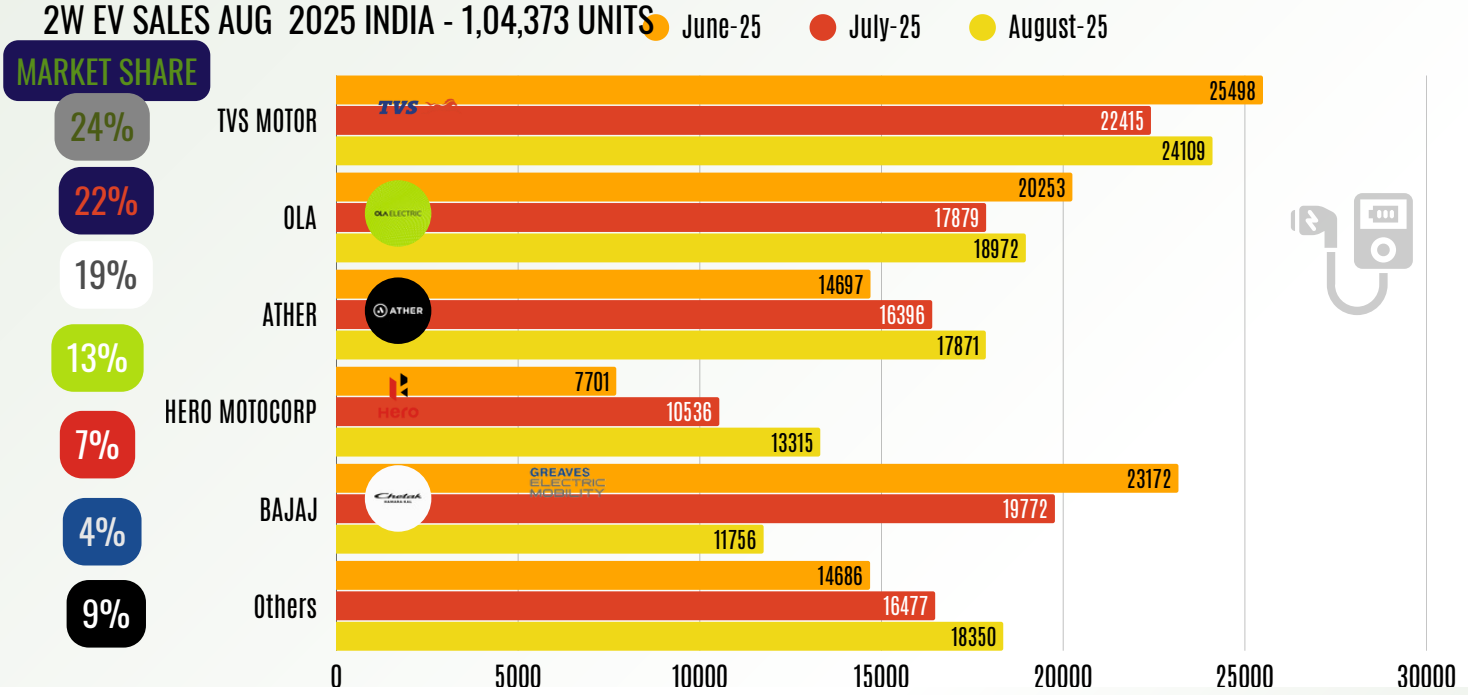


India EV 2W Sales Aug 2025

TOP EV-2W Sales by OEM



In August 2025, sales of high-speed electric two-wheelers (HS E2Ws) in India increased by ~1% m-o-m, totaling 1,04,373 units. The top 3 players dominated the market, accounting for approximately 58% of total E2W registrations during the month.

India's Two-Wheeler Market Accelerates

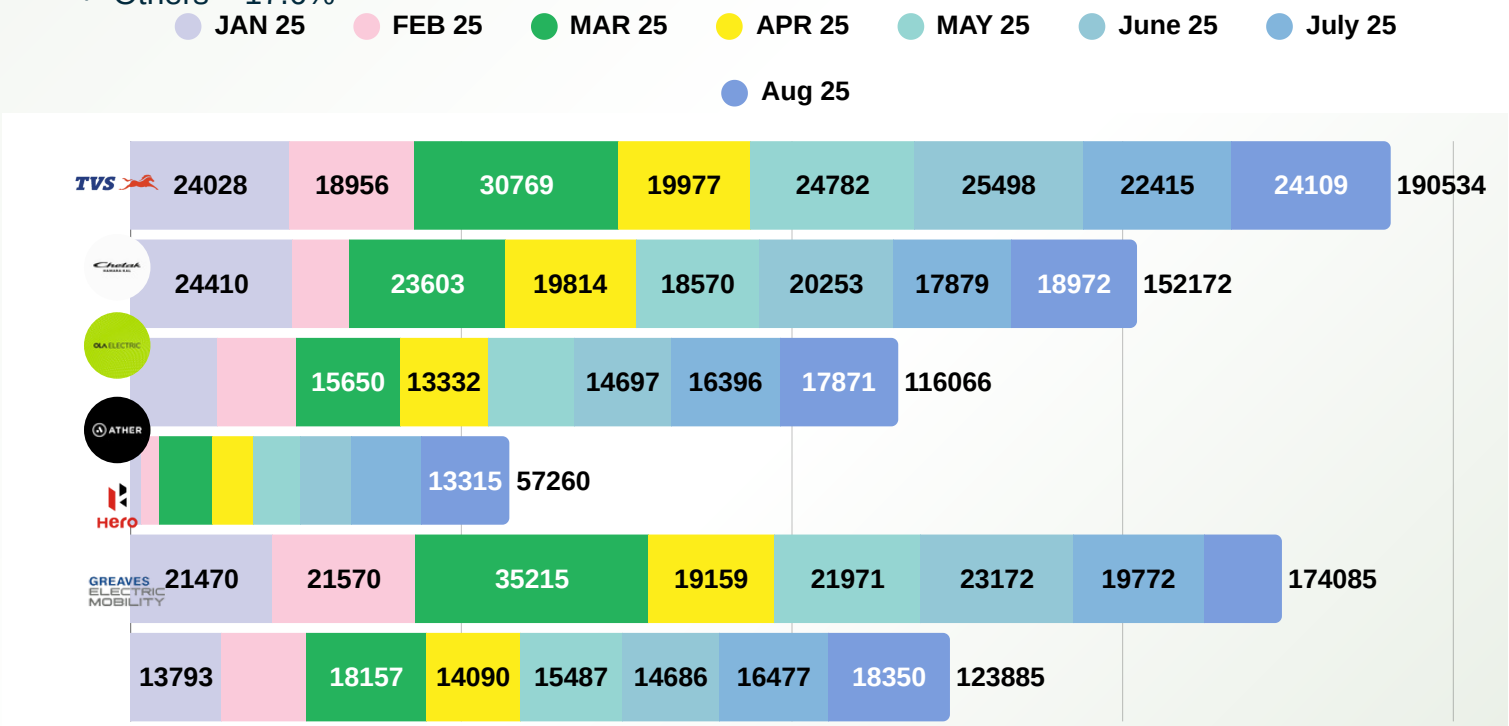
India's electric two-wheeler market in August 2025 closed with 104,373 units sold, marking a marginal +0.87% month-on-month growth compared to July (103,475 units). The sector continued its resilience despite fluctuations in individual OEM performance.

Top 5 Performers – August 2025

1. TVS Motor – 24,109 units (↑7.6% MoM)
2. Ola Electric – 18,972 units (↑6.1% MoM)
3. Ather Energy – 17,871 units (↑8.9% MoM)
4. Hero MotoCorp – 13,315 units (↑26.5% MoM)
5. Bajaj Auto – 11,756 units (↓40.6% MoM)

Market Share Snapshot – August 2025

- TVS Motor – 23.1%
- Ola Electric – 18.2%
- Ather Energy – 17.1%
- Hero MotoCorp – 12.7%
- Bajaj Auto – 11.2%
- Others – 17.6%



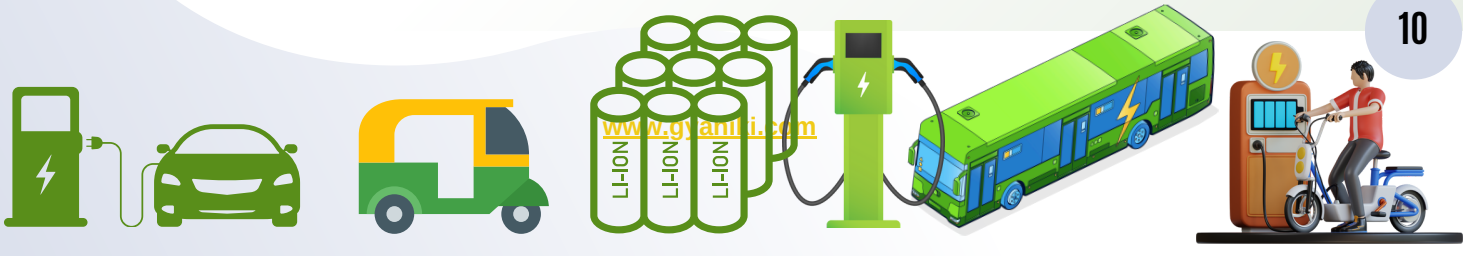
Month-on-Month Growth Trends

- Strong Gainers: Hero MotoCorp led the growth chart with +26.5%, followed by Ather (+8.9%) and TVS (+7.6%).
- Moderate Growth: Ola posted +6.1%, indicating a recovery from previous months.
- Sharp Decline: Bajaj witnessed a steep fall of -40.6%, pulling down its overall market position.

India's Electric Two-Wheeler Market

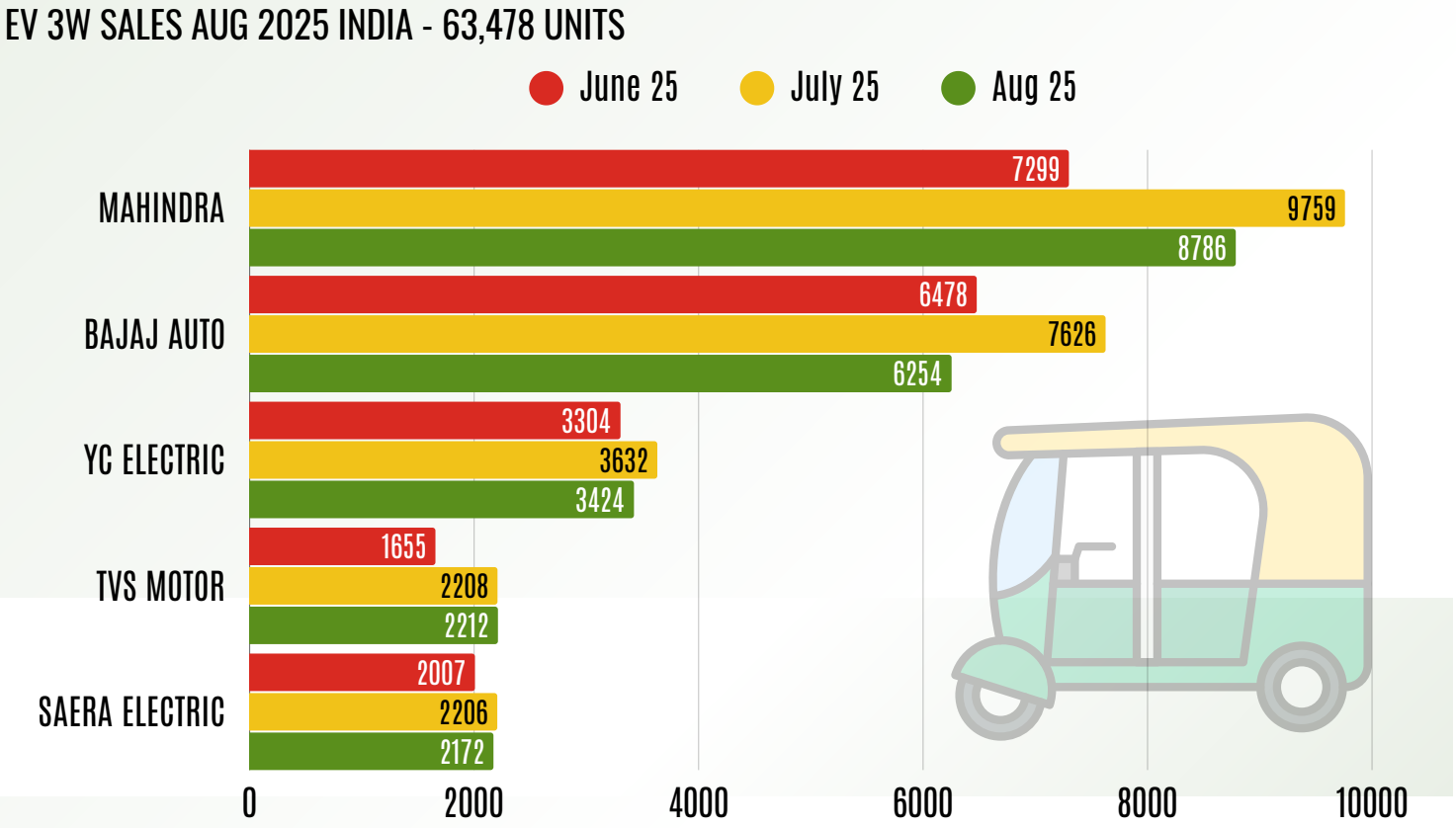
August 2025 Overview

- TVS Motor reinforced its leadership with consistent double-digit market share.
- Hero MotoCorp posted the highest MoM growth, signaling increasing acceptance of its EV lineup.
- Ather Energy maintained its upward trajectory, crossing 17,000+ units for the first time.
- Bajaj Auto faced its worst monthly drop in 2025, raising questions on supply chain or product strategy issues.
- Overall Market Stability – With sales maintaining above the 100,000 mark for the 3rd consecutive month, the EV 2-wheeler industry shows sustainable momentum heading into Q4.

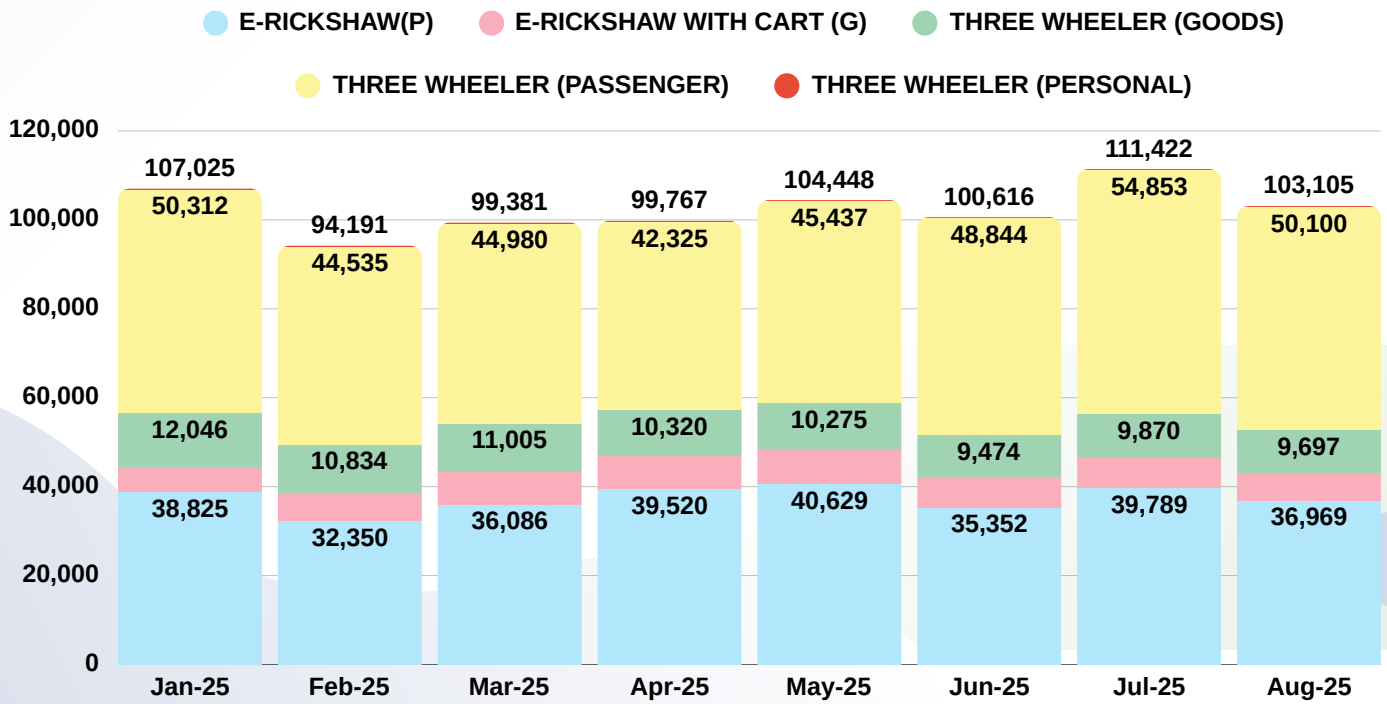


India EV 3W Sales Aug 2025

TOP EV 3W Sales Trend by OEM



August 2025 witnessed a moderate correction in the three-wheeler EV (3W EV) segment after July's strong performance. The market closed at **63,478 units**, marking a month-on-month (MoM) decline of 8.2% compared to July's 69,139 units. Despite the dip, the segment continues to maintain healthy year-on-year growth momentum, backed by sustained demand for electric mobility in last-mile connectivity.



India EV 3W Sales AUG 2025

Top 5 Performers – August 2025

1. Mahindra Electric
   - Sales: 8,786 units | MoM: -10% (from 9,759 units in July)
   - Mahindra retained its leadership in the 3W EV market, though volumes saw a correction after July's peak.
2. Bajaj Auto
   - Sales: 6,254 units | MoM: -18% (from 7,626 units in July)
   - Bajaj recorded the sharpest decline among top players, highlighting seasonal and supply adjustments.
3. YC Electric
   - Sales: 3,424 units | MoM: -5.7% (from 3,632 units in July)
   - Consistent mid-tier performance, though volumes remain range-bound in the 3,300–3,800 bracket.
4. TVS Motor
   - Sales: 2,212 units | MoM: +0.18% (flat growth from 2,208 units in July)
   - TVS has sustained steady month-on-month growth through 2025, reflecting growing traction in its electric 3W lineup.
5. Saera Electric
   - Sales: 2,172 units
   - MoM: -1.5% (from 2,206 units in July)
   - Saera maintained its stable performance, closely aligned with July numbers.

Market Share – August 2025

1. Mahindra Electric: 13.8%
2. Bajaj Auto: 9.8%
3. YC Electric: 5.4%
4. TVS Motor: 3.5%
5. Saera Electric: 3.4%
6. Others: 64.1%

The "Others" category continues to dominate with smaller regional and emerging players collectively holding a majority share of the 3W EV market.

Month-on-Month Growth Trends

- Total Market: -8.2%
- Strongest performer: TVS Motor (flat growth, sustained upward trajectory through 2025)
- Weakest performer: Bajaj Auto (-18% decline)
- Market concentration remains fragmented, with top two players (Mahindra & Bajaj) jointly commanding 23.6% share.

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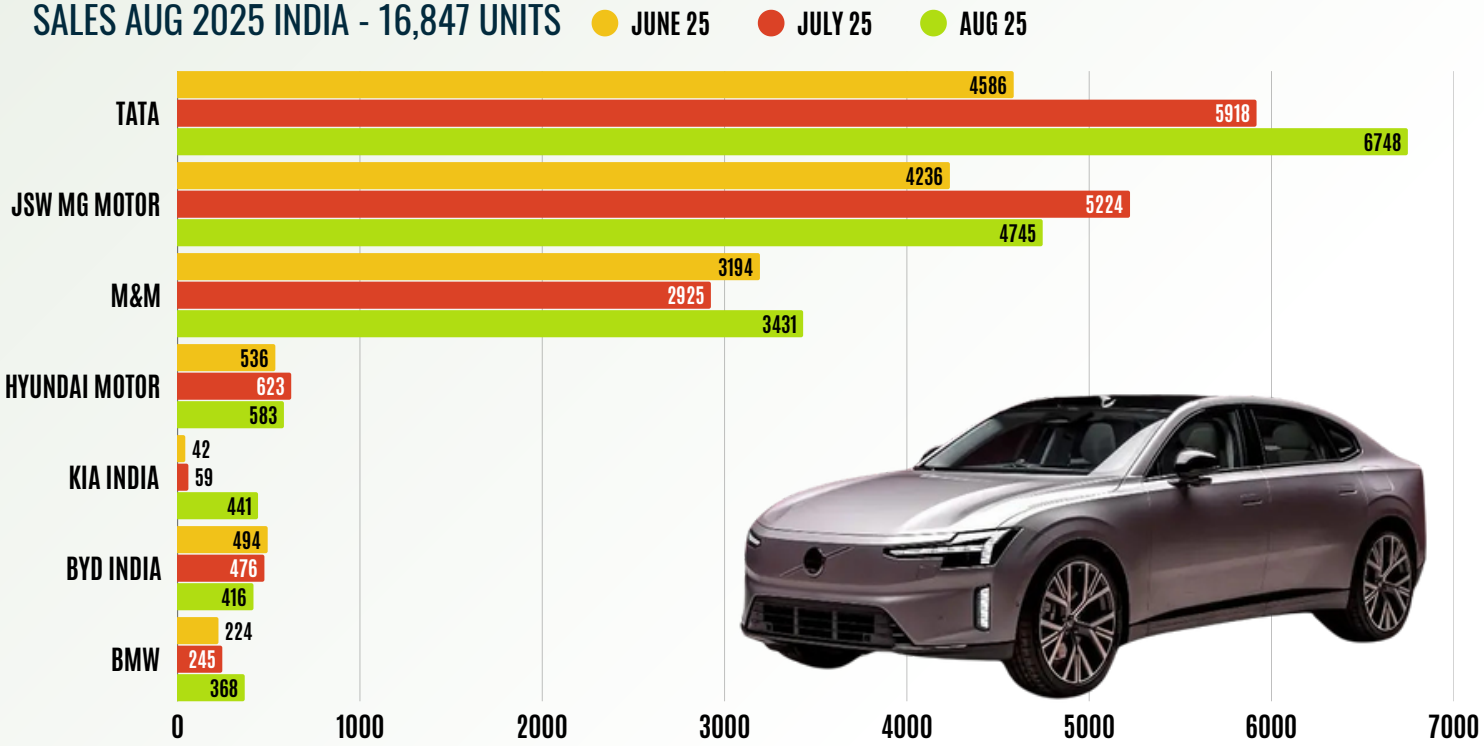
India EV Sales AUG 2025

EV 4W Passenger Sales Trend by OEM



Passenger EV sales cross 16,800 units with strong MoM growth and new market dynamics

The Indian four-wheeler EV market recorded 16,847 units sold in August 2025, marking a robust 7.9% month-on-month growth from July's 15,618 units. This upward trend underscores growing consumer adoption and increasing product availability across multiple OEMs.

- **Total 4W EV Sales (Aug 2025): 16,847 units**
- **MoM Growth (vs. Jul 2025): +7.9%**
- **Top 3 Contributors (TATA, JSW MG, Mahindra): ~87% of the market**

EV Sales Surge in August 2025 - TATA Leads

Top 5 Performers in August 2025

1. **TATA Passenger Electric Mobility Ltd – 6,748 units**
   - Continued dominance with ~40% market share.
   - Month-on-month growth of +14% (from 5,918 in July).
   - Strong demand for Nexon EV and Punch EV drove volumes.
2. **JSW MG Motor India Pvt Ltd – 4,745 units**
   - Second largest contributor with ~28% share.
   - Decline of -9% MoM compared to July (5,224).
   - Hector EV and ZS EV continue as mainstays despite dip.
3. **Mahindra & Mahindra – 3,431 units**
   - Holds ~20% share of the market.
   - Growth of +17% MoM vs July (2,925).
   - XUV400 and new electric SUV prototypes showing early traction.
4. **Hyundai Motor India Ltd – 583 units**
   - Market share ~3.5%.
   - Decline of -6% MoM (623 units in July).
   - Kona EV sales softened with limited fresh updates.
5. **Kia India Pvt Ltd – 441 units**
   - Breakthrough performer with +647% MoM growth (from just 59 units in July).
   - EV6 and new EV9 launch created strong demand pull.

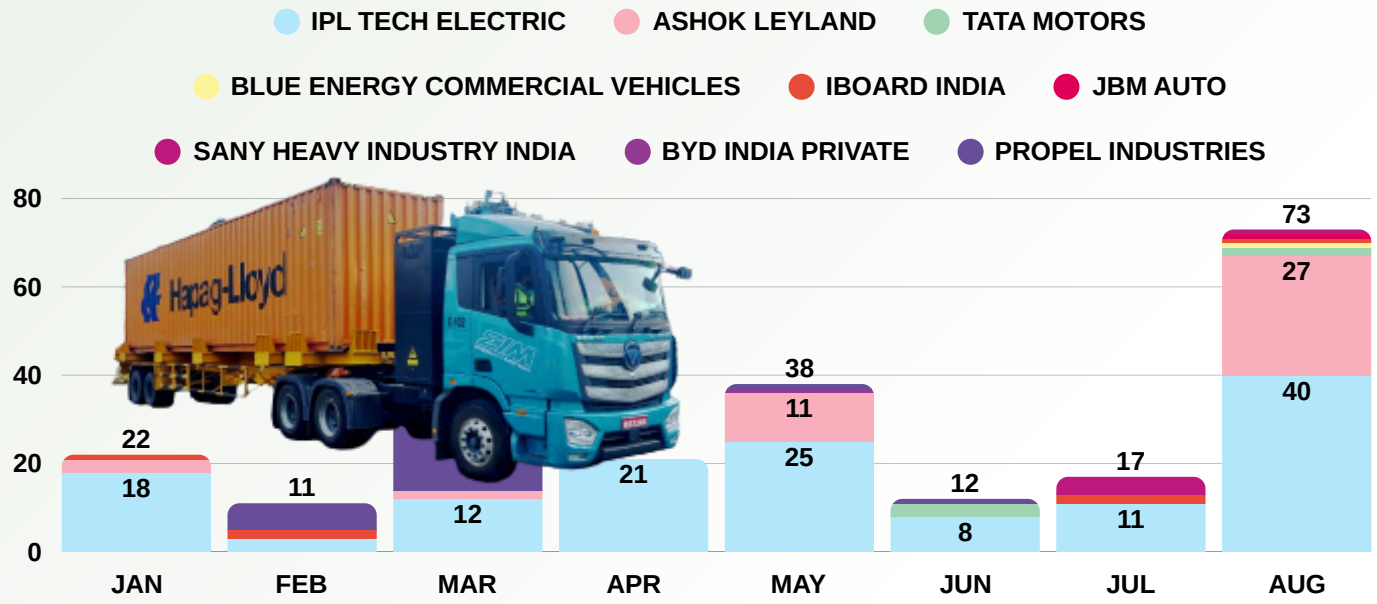
Market Share Snapshot – August 2025

- TATA: 40%
- JSW MG: 28%
- Mahindra: 20%
- Hyundai: 3.5%
- Kia: 2.6%
- Others (BYD, BMW, Mercedes, Volvo, etc.): 5% combined

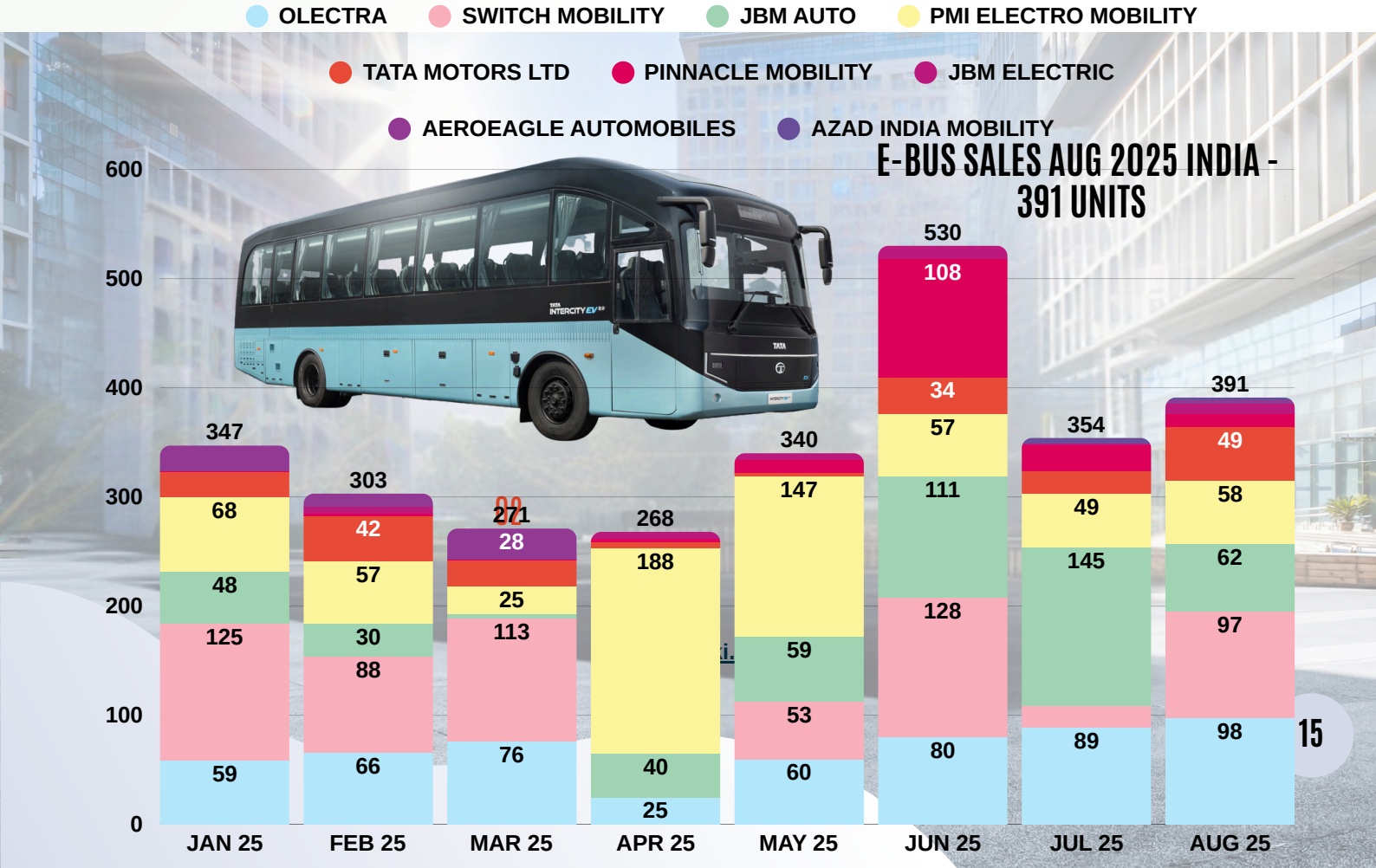
- TATA strengthens leadership, crossing the 6,700 mark for the first time.
- Mahindra climbs steadily, consolidating its 3rd spot with consistent growth.
- Kia emerges as a disruptor, recording its highest-ever monthly EV sales in India.
- Luxury EVs (BMW, Mercedes, Volvo) maintain niche presence; BMW shows notable growth at 368 units.
- Overall EV adoption remains bullish, supported by new launches and improved charging infra in Tier-1 and Tier-2 cities.

India EV Sales AUG 2025

EV Truck Sales Trend by OEM

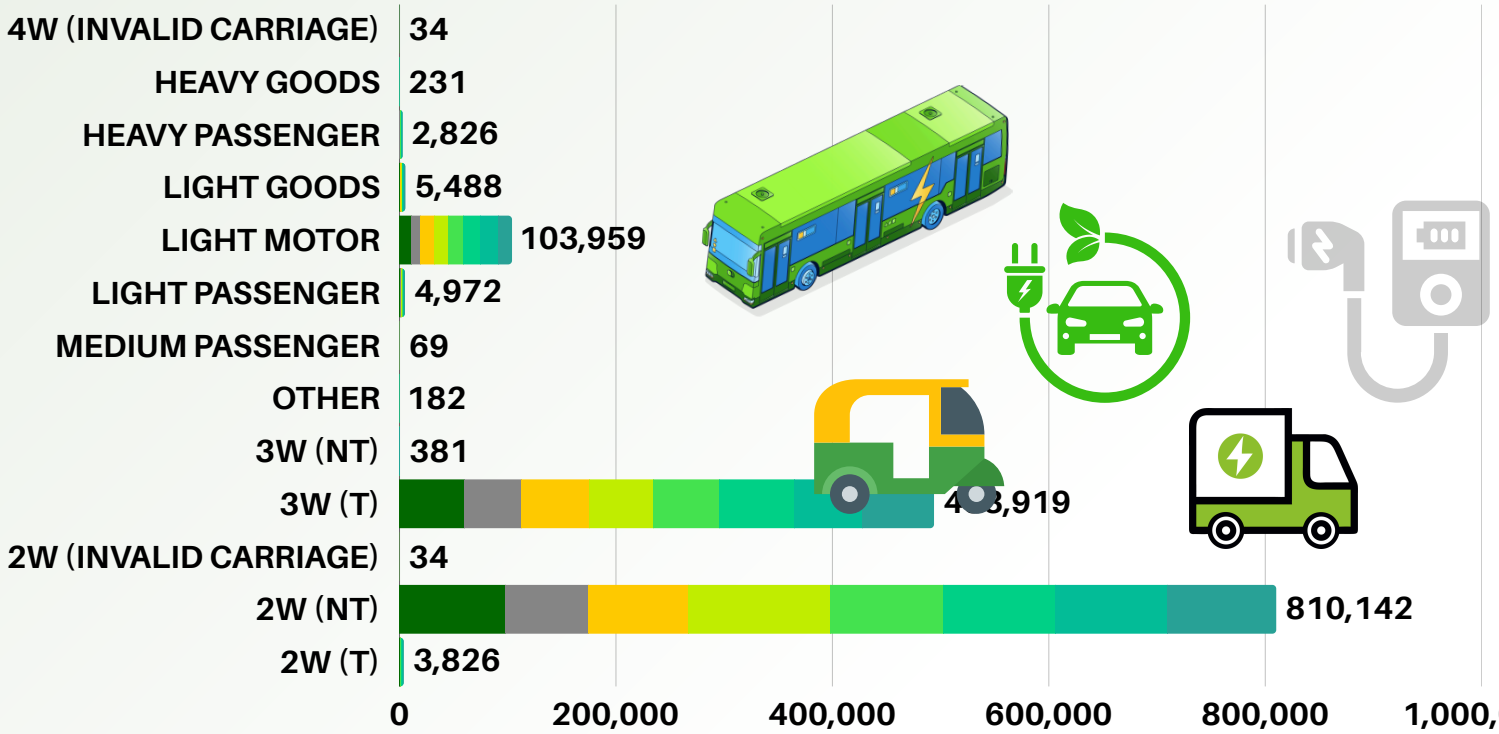


India's automotive industry is hurtling towards a future fueled by innovation, sustainability, and customer-centric growth. The sales figures for May to July 2025 spotlight strong competition between legacy brands and emerging EV-centric manufacturers.



India EV Sales Jan - Aug 2025 -Category-Wise

EV SALES AUG 2025 INDIA - 1,86,824 UNITS



The auto sector has shown varied momentum across categories in the first eight months of 2025. Below is a category-wise performance snapshot:

- Two Wheeler (NT):
  - Peaked in March (1,30,858 units), up +70.9% vs Feb, but corrected in April to 92,408.
  - Overall stable from May–Aug (~1,00,000+ units monthly).
- Three Wheeler (T):
  - Sales grew from 53,098 in Feb → 69,101 in Jul (+30.1%), followed by slight correction in August (63,418).
  - This segment remains strong in urban mobility demand.
- Light Motor Vehicles (LMV):
  - After a dip in Feb (8,786 units, -18.9% vs Jan), strong growth followed, reaching 16,847 in Aug (+91.8% vs Feb).
- Heavy Passenger Vehicles (HPV):
  - Showed consistent demand recovery, peaking at 531 units in Jun (+96.7% vs Feb).
- Light Goods Vehicles (LGV):
  - Steady upward growth, +94.4% from Feb (482) to Aug (1,083), reflecting rising logistics demand.
- Three Wheeler (NT) & Invalid Carriages:
- Small segments, but NT category peaked in Apr (92 units) before settling around ~50–60 units.

India EV Sales Jan - Aug 2025 -Category-Wise

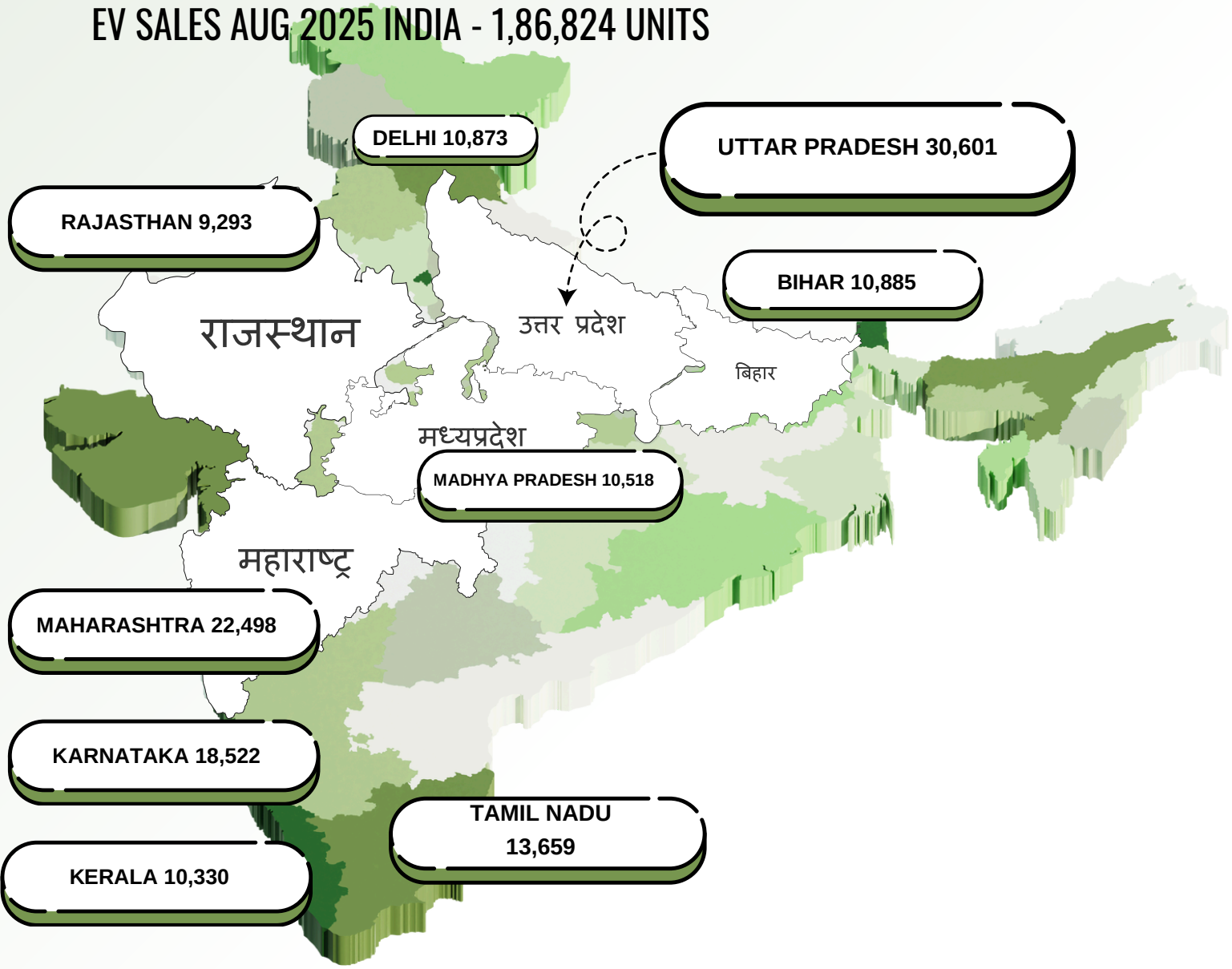
- February was the weakest month across categories, with sharp declines after January.
- March marked a major rebound led by Two Wheelers (NT) and Light Motor Vehicles.
- Growth momentum continued steadily till August, especially in LMV, LGV, and Three Wheeler (T) segments.

Key Market & Technology Trends Defining 2025

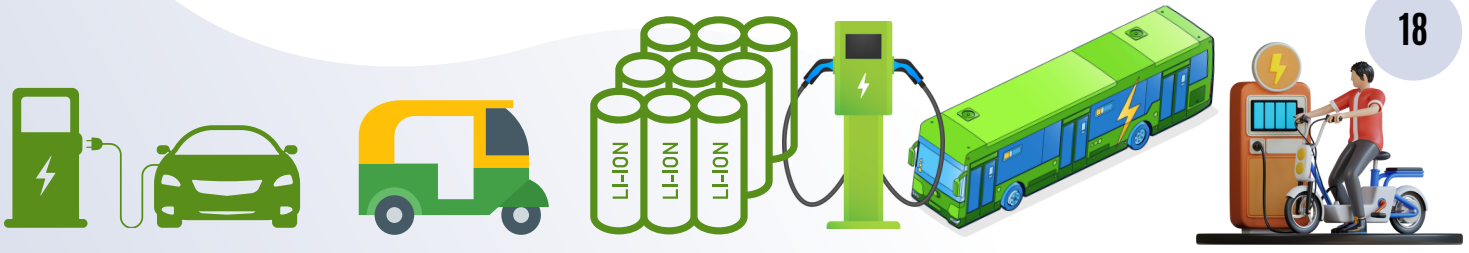
- **Electrification & Hybridization:** Electric and hybrid vehicles remain central, with increased focus on expanding infrastructure and more affordable models. Government initiatives push for 30% electric vehicle market share by 2030.
- **Sustainability & Local Adaptation:** New-energy vehicles, made for Indian conditions, are a key consumer focus amid accelerating climate concerns.
- **Connectivity & AI Integration:** The rollout of 5G-supported M2M connectivity and in-vehicle AI is set to redefine the in-car experience, improving efficiency, safety, and predictive maintenance.
- **Growth Drivers:** Surging rural demand, expanding shared mobility, and expanded reach of manufacturers are invigorating sales, especially in the two- and three-wheeler segments.

State Wise EV Sales in AUG- 2025

EV SALES AUG 2025 INDIA - 1,86,824 UNITS

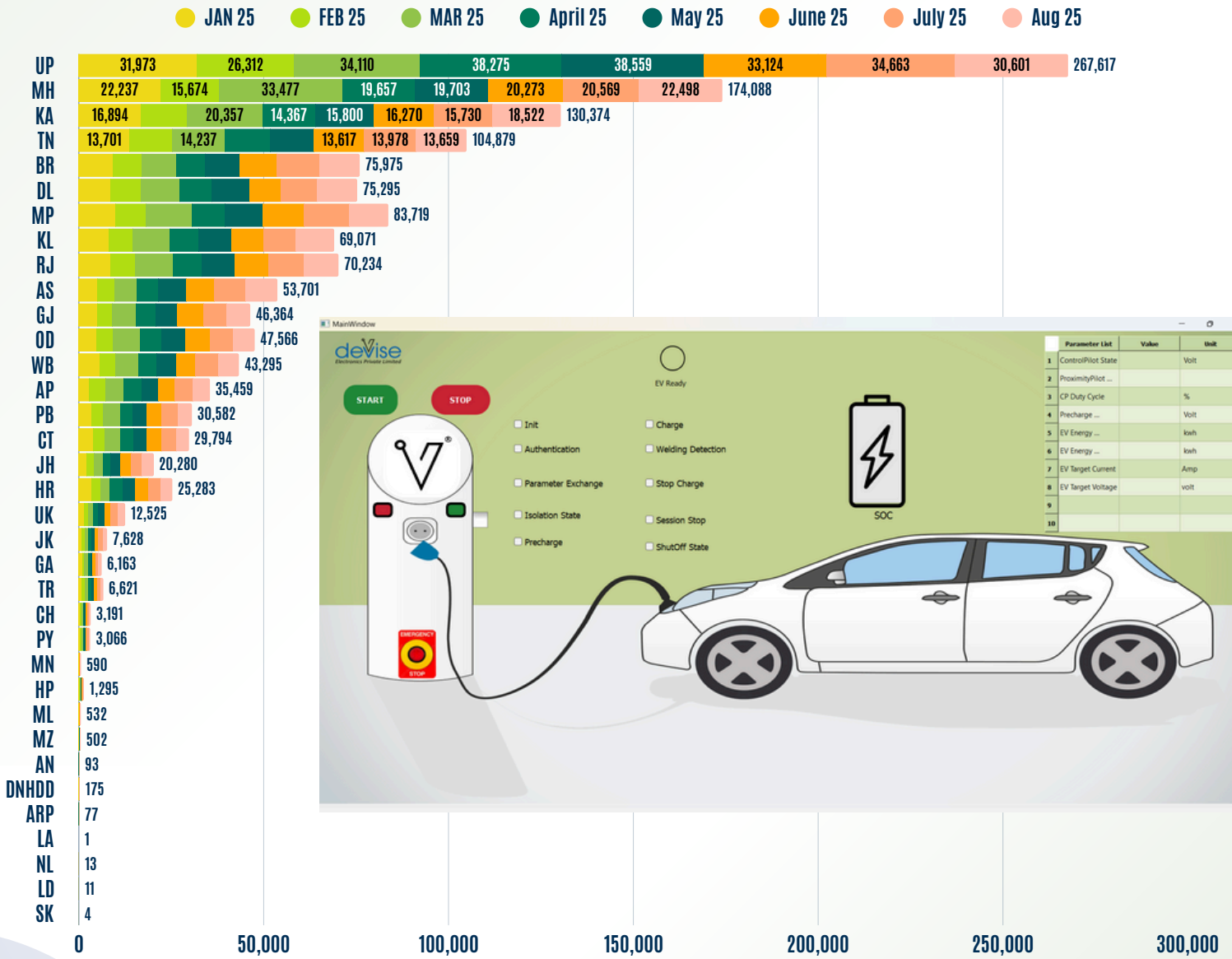


India's electric vehicle (EV) market showcased mixed trends across states in the first eight months of 2025. While Uttar Pradesh, Maharashtra, and Karnataka continue to dominate the EV adoption landscape, several smaller states and UTs also recorded notable growth. The data highlights fluctuations in demand, with March and May being strong months, followed by a dip in June–July and partial recovery in August.



State Wise EV Sales in AUG 2025

- Uttar Pradesh, Maharashtra, and Karnataka together account for over 40% of national EV sales.
- March and May 2025 were the strongest sales months, while June–July saw a dip across multiple states.
- Emerging demand in Tier-2 states (Bihar, Assam, Odisha, and Kerala) shows EV adoption expanding beyond metros.
- Smaller states and UTs like Goa, Tripura, and Meghalaya, though limited in volume, highlight widening EV penetration.



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Venue: Crescent Innovation & Incubation Council, Chennai

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Date: August 30, 2025 - 4.00 P.M to 7.00 P.M
Venue: IIM Bangalore Alumni Association (IIMBAA) Bangalore

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SITARC EV Foundation and Devise Electronics Forge Strategic Partnership

A New Era for Electric Vehicle Innovation and Skilling

The electric vehicle (EV) landscape in India is witnessing a transformative leap forward with the recent signing of a Memorandum of Understanding (MoU) between **SITARC EV Foundation and Devise Electronics**. This strategic partnership marks a significant milestone in the quest to **accelerate innovation, foster advanced skilling, and drive impactful solutions** within the rapidly evolving EV sector.

Key Pillars of the Collaboration

At the heart of this alliance lies a shared vision to empower the next generation of mobility through:

Benchmarking & Reverse Engineering of EV Components:

By leveraging cutting-edge methodologies, the partnership aims to analyze, deconstruct, and improve existing EV components, setting new benchmarks for quality and performance.

Design & Development Consultancy:

The collaboration will focus on creating high-efficiency motors and compact, cost-effective controllers specifically tailored for light electric vehicles—a segment poised for exponential growth in India's urban and rural landscapes.

Hands-on Training and Skilling Programs:

Recognizing the urgent need for skilled professionals in the EV ecosystem, SITARC EV Foundation and Devise Electronics will jointly roll out comprehensive training modules. These programs are designed to equip engineers, technicians, and students with practical knowledge and hands-on experience in EV technologies.

Resource Planning and Impactful Solutions:

Through joint resource planning, the partnership aims to deliver solutions that not on address current industry challenges but also anticipate future trends and requirements.

SITARC EV Foundation and Devise Electronics Forge Strategic Partnership

Leadership Driving the Initiative

This ambitious collaboration is steered by visionary leaders from SITARC EV Foundation:

- **Mr. Sureandhar Viswanathan**
- **Mr. R. Karthikeyan (Director)**
- **Mr. K. Mohan Senthil Kumar**
- **Mr. Arun Ranganathan (Director)**

Their collective expertise and Commitment is instrumental in shaping the roadmap for sustainable and innovative mobility solutions.

devise

Why This Partnership Matters Now

The Indian EV market is at a pivotal juncture, with government policies, consumer awareness, and technological advancements converging to create unprecedented opportunities.

1. Bridging the Skilling Gap

The EV industry's biggest bottleneck is the shortage of skilled talent. By prioritizing hands-on training, this partnership directly addresses the workforce gap, ensuring that India is not just a consumer but also a creator of world-class EV technology.

2. Fostering Homegrown Innovation

Reverse engineering and benchmarking will enable Indian companies to develop indigenous solutions, reducing reliance on imports and fostering self-reliance—a key goal under the "Make in India" initiative.

3. Supporting the Light EV Revolution

With two- and three-wheelers dominating India's EV adoption curve, the focus on efficient and affordable components for light EVs is both strategic and impactful.

4. Aligning with Global Trends

Globally, the EV sector is abuzz with advancements in battery technology, AI-driven vehicle management, and sustainable manufacturing. This partnership positions India to not only keep pace with these trends but also set new standards.

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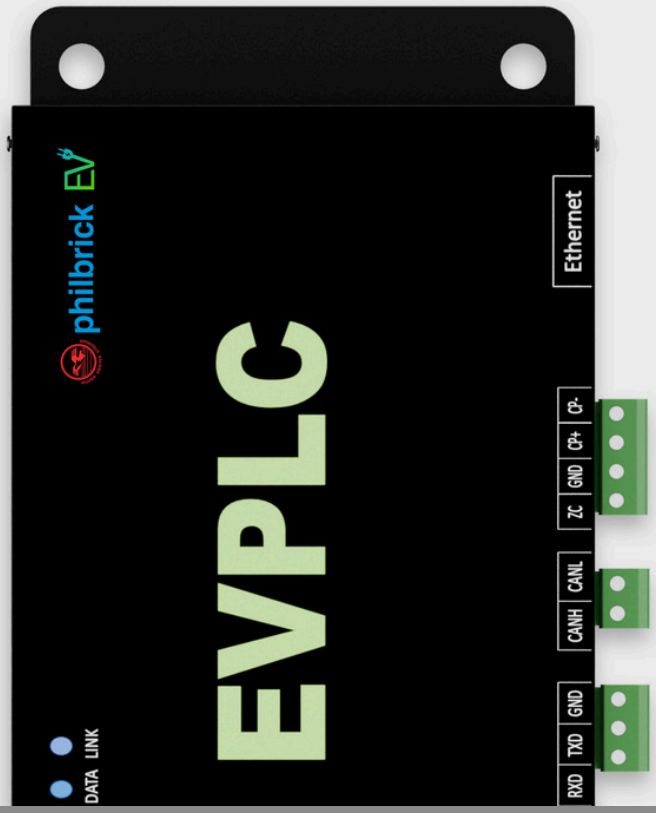

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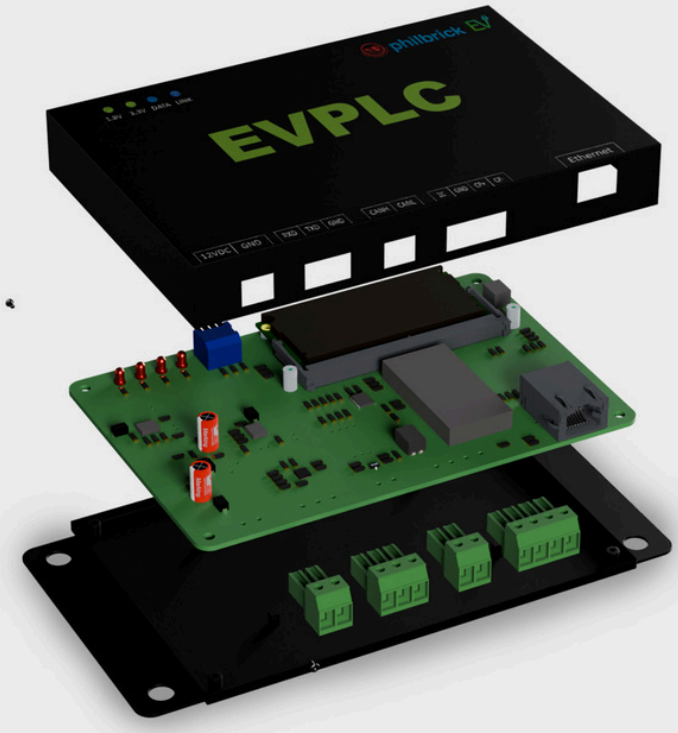

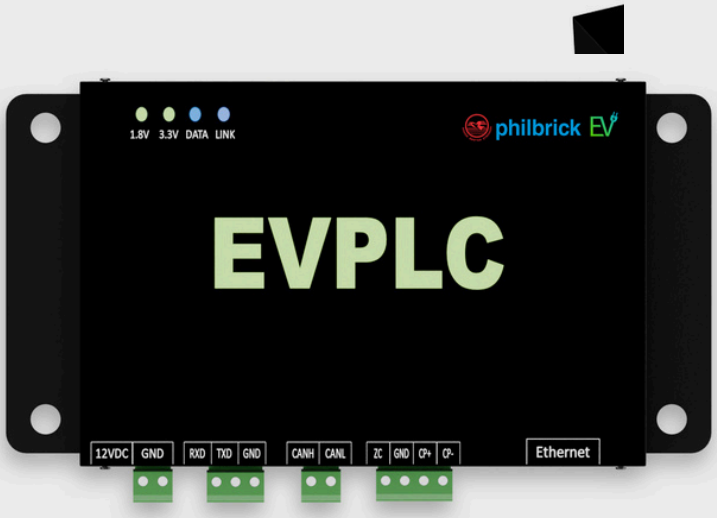

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POWERLINE COMMUNICATION FOR EVSE SUPPORTING DC EV CHARGING– FULLY COMPLIANT WITH ISO 15118 AND DIN SPEC 70121 STANDARDS

FUTURE MOBILITY PARTNERS

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Top Money Movement

Amara Raja Energy & Mobility Ltd

Amara Raja Energy & Mobility Ltd has announced an additional ₹1,200 crore investment for its upcoming 1 GWh lithium-ion cell manufacturing project in Telangana, taking the total investment to ₹2,400 crore.

🔋 The Gigafactory, being set up under Amara Raja Advanced Cell Technologies , is part of a larger ₹9,500 crore plan to scale up to 16 GWh capacity by 2030.

✅ Initial production will be based on NMC chemistry, focused on two-wheeler applications, with commercial rollout expected by FY27-end.

Transvolt Mobility

Transvolt Mobility has secured **$20 million** in equity investment from the – IFC - International Finance Corporation, marking IFC's first-ever global equity investment in an EV fleet platform.

Attero

Attero, an Indian company specializing in e-waste and lithium-ion battery recycling, has announced plans to expand its rare earth element (REE) recycling capacity from 300 tonnes to **30,000 tonnes annually** over the next 12 to 24 months. The expansion will be supported by an investment of **₹100 crore** and aligns with the National Critical Mineral Mission (NCMM), launched by the Government of India to reduce reliance on imports and strengthen domestic supply chains for critical minerals.

Top Money Movement

EV Funding

IFC's **$20 Million** Boost to India's EV Freight Revolution!
A major leap for India's electric mobility landscape! The **IFC - International Finance Corporation** , a member of the The World Bank Group, has made its first-ever global equity investment in an EV fleet platform
Transvolt Mobility is the recipient of a $20M infusion as part of its $50M funding round, fueling its goal to deploy 3,500 electric commercial vehicles in the next 5 years. With this, the company will also help create 8,200 green jobs.

UP Govt

The Uttar Pradesh government has announced a groundbreaking initiative to develop a massive **500-acre Electric Vehicle (EV) Park** near Bhimsen, Kanpur, under the Kanpur Metropolitan Development Vision 2030.

- Estimated Project Cost: **₹700 Crores**
- Objective: Transform Kanpur into a major EV manufacturing hub
- Model: Public-Private Partnership (PPP)

GRIDSERVE

GRIDSERVE , one of the country's most relied-upon EV charging networks, has secured a massive **£100 million** equity investment from institutional giants TPG, Infracapital, and Mitsubishi.

Omega Seiki Mobility

Omega Seiki Mobility (OSM) has announced a $25 million (AED 92 million) investment to set up an advanced EV assembly facility at Jafza, one of the world's leading free trade zones.

- Timeline: Operations to begin by end of 2025
- Scale: 42,000+ sq. ft. facility
- Focus: Assembly of OSM's electric 2-wheelers and electric 3-wheelers
- Additional Capability: Storage & distribution hub for auto components and spare parts

Top Money Movement

BillionE Mobility

BillionE Mobility has locked in 250+ long-term contracts to deploy medium- and heavy-duty electric trucks (12T to 55T GVW) across industries like:

📦 E-commerce | 💊 Pharma | 🧱 Cement | 🏗️ Steel | 🧴 FMCG | 🚗 Automotive | 🌐 Global Logistics

✅ Currently operating 60+ heavy-duty e-trucks

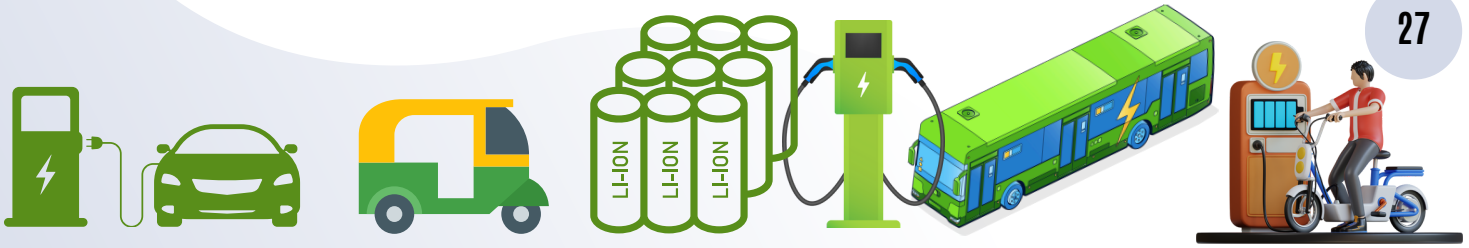
✅ Backed by **$10 million** in seed + debt funding, and now raising $15M Pre-Series A

✅ Integrated ecosystem powered by ChargeZone

✅ Tapping into the ₹500 Cr PM E-DRIVE subsidy program — up to ₹9.6L per e-truck 💰

Volt14 Solutions

Volt14 Solutions has successfully **raised $1.87M in a Pre-Series A round** led by Blume Ventures, with strong backing from Beyond NEXT VENTURES., Spectrum Impact, Supermorpheus, and Cocoon Capital – taking their total funding to **$4.02M**!



EV NEWS

CG Semiconductors

CG Semiconductors has officially inaugurated its first OSAT (Outsourced Semiconductor Assembly and Test) unit in Sanand, Gujarat – a landmark development for India's growing semiconductor ecosystem.

Investment: ₹7,600 crore
Jobs Created: 5,000
Capacity: 0.5 million chips/day
Future Expansion: 14.5 million chips/day after the second plant is operational

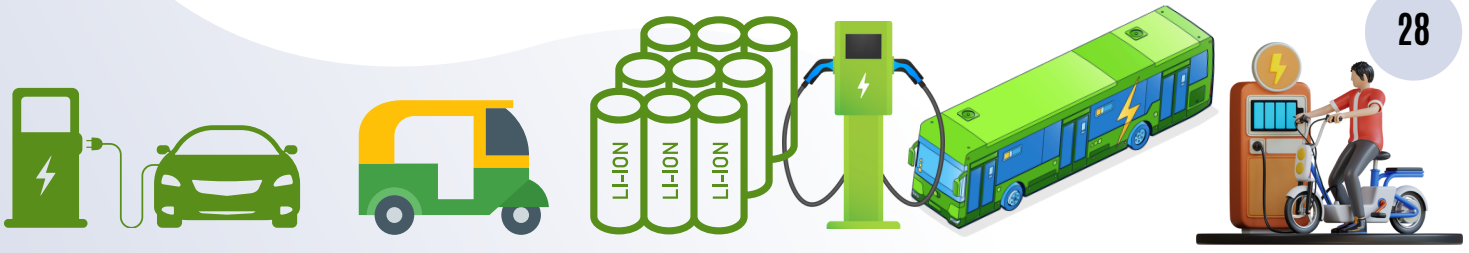
This milestone cements Gujarat as a rising semiconductor hub and significantly accelerates India's mission of self-reliance in electronics manufacturing.

zingbus

zingbus has officially launched its Plus Electric premium travel service, debuting on the Delhi–Dehradun corridor and soon expanding to Gurgaon–Dehradun and Gurgaon–Amritsar routes.

Exponent Energy

Exponent Energy has officially introduced its next-generation charging station, code-named P4, built on its 15-minute rapid charging technology. Designed for efficiency, reliability, and safety, P4 brings three major innovations to the EV ecosystem



EV NEWS

FedEx

Federal Express Corporation (FedEx), a global leader in express logistics, has expanded its electric vehicle fleet by adding six new Mercedes-Benz AG eVito panel vans for last-mile parcel delivery in Hong Kong.

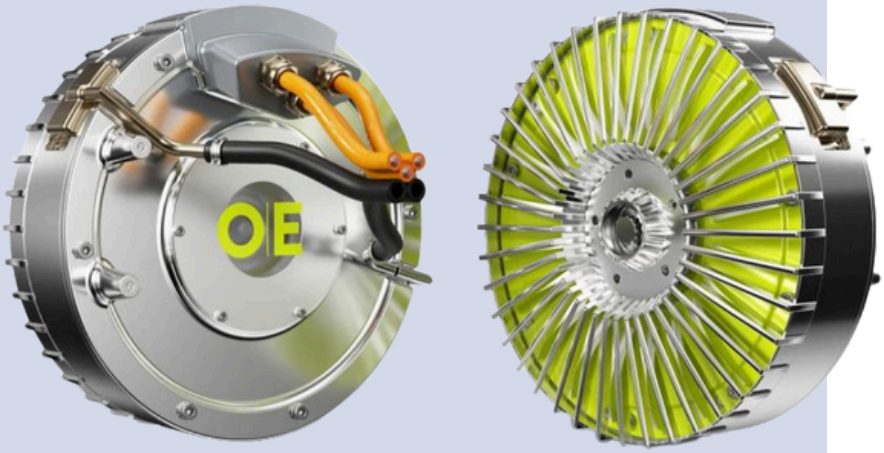
This strategic move highlights FedEx's strong commitment to achieving carbon-neutral operations by 2040 while meeting the growing demand for sustainable supply chain solutions.2040

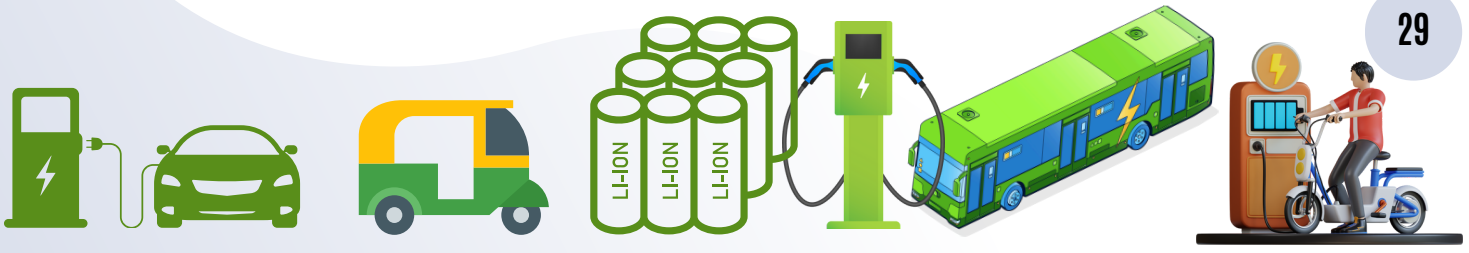
- ✅ Six Mercedes-Benz eVito vans now deployed for parcel pickup & delivery
- ✅ Each van offers up to 913 kg load capacity and 264 km range per charge
- ✅ Supports cleaner, low-emission logistics in high-traffic districts
- ✅ 73% of Hong Kong customers (Gen Z & Millennials leading) prefer sustainable solutions
- ✅ FedEx aiming for a 100% electric delivery fleet by 2040

ORBIS ELECTRIC

ORBIS ELECTRIC has unveiled its latest breakthrough – the HaloDrive, an advanced axial flux motor designed for electromobility applications, including heavy commercial vehicles.

- ✅ Modular, four-part architecture for high flexibility
- ✅ Torque density of 100 Nm/kg – equivalent to the power of a V8 engine
- ✅ 97% efficiency with superior thermal stability
- ✅ Up to 35% cost advantage compared to conventional radial flux motors

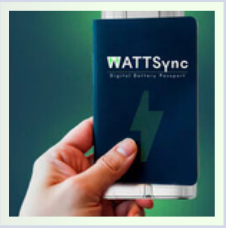




EV NEWS

Tata Technologies

Tata Technologies unveiled WATTSync, a next-generation digital battery passport solution designed to track and manage battery data from mining to recycling. Built for battery manufacturers, automotive OEMs, and recyclers, the platform ensures end-to-end traceability while addressing global regulatory requirements – including the EU Battery Passport mandate from 2027.



Aptiv

Aptiv has inaugurated its new Technical Centre in hashtag#Chennai, dedicated exclusively to software-defined vehicle (SDV) research — marking its fourth technical facility in India.

🔹 The centre will drive advancements in:

• ADAS perception tools
• In-cabin sensing technologies
• Software-defined infotainment platforms

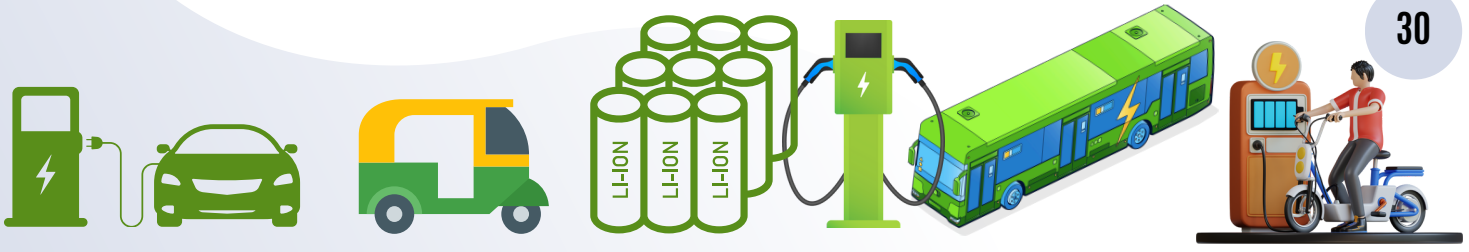
🔹 Key highlights:

✔ Facility spans 34,000+ sq. ft.
✔ Designed to host 500 engineers by 2026
✔ Focus areas: AI, ML & safety-critical systems

With 13,000+ employees across India, Aptiv now operates 8 manufacturing plants, 4 technical centres, and a tooling hub, strengthening its position as a global technology leader in the mobility ecosystem.

Rechargion Energy

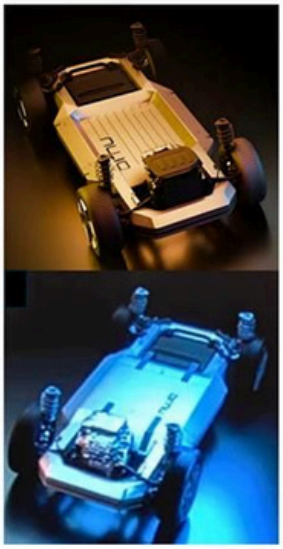
Pune-based Rechargion Energy, a spin-off from CSIR–National Chemical Laboratory, has successfully achieved IEC62660/IS16893 safety test validation for its sodium-ion battery at the Automotive Research Association of India (ARAI).



Mahindra

Mahindra Unveils NU_IQ Platform

Mahindra has taken a bold step into the future of mobility by introducing its all-new NU_IQ modular platform, set to underpin its next generation of SUVs from 2027–2029.



MAHINDRA NU_IQ PLATFORM	
Platform	Modular, Monocoque
Powertrain (supported)	EV, Hybrid, ICE
Vehicle Length	3990 mm to 4320 mm
Wheelbase	2665 mm
Turning Radius	10.3 m
Ground Clearance	227 mm
Drive Configuration	FWD,AWD
Steering Configuration	LHD, RHD

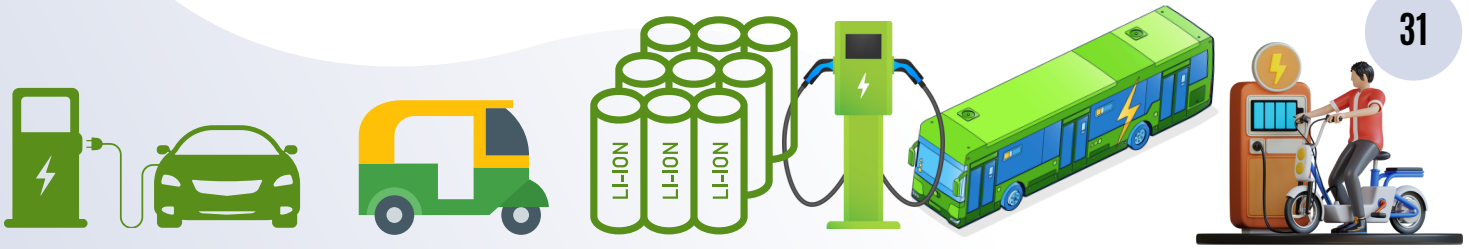
DIMENSIONS	NU_IQ
Command Seating Position	1563 mm
Driver H Point	350 mm
Ground Clearance	227 mm

DIMENSIONS	NU_IQ
Couple Distance	830 mm
2nd Row Leg Room	937 mm
2nd Row Shoulder Room	1404 mm

DIMENSIONS	NU_IQ
Approach Angle	28°
Departure Angle	34.9°
Breakover Angle	28.2°

Next-gen engineering – flat floor architecture, best-in-class ground clearance, and a penta-link rear suspension.
Collaboration across continents – Designed by Mahindra India Design Studio (MIDS) & Mahindra Advanced Design Europe (MADE), with engineering at Mahindra Research Valley in Tamil Nadu.
The NU_IQ will carry forward INGLO platform learnings, including LFP Blade Battery packs and selected Volkswagen MEB components.

Four new concept vehicles – Vision S, Vision X, Vision T, and Vision SXT.
Multi-modular & multi-energy design – supports ICE, EV & Hybrid drivetrains, FWD/AWD, and both RHD/LHD configurations.
Global safety standards – engineered to achieve 5-star GNCAP, ENCAP & ANCAP ratings.



EV NEWS

EVERTA

EVERTA Begins DC Charger Manufacturing in hashtag#Bengaluru.

EVERTA officially announced the launch of its DC charger manufacturing operations in India, setting up a state-of-the-art facility in Bengaluru

The facility will manufacture 3,000 DC chargers annually by 2027, ranging from 60kW to 320kW+, targeting all segments — from 3-wheelers to commercial trucks.

This aligns strongly with Make in India and Atmanirbhar Bharat — aiming for 50%+ domestic value addition at launch and full localization in the future.

Over 400 direct & indirect jobs will be created in manufacturing, deployment, and servicing.

BYD

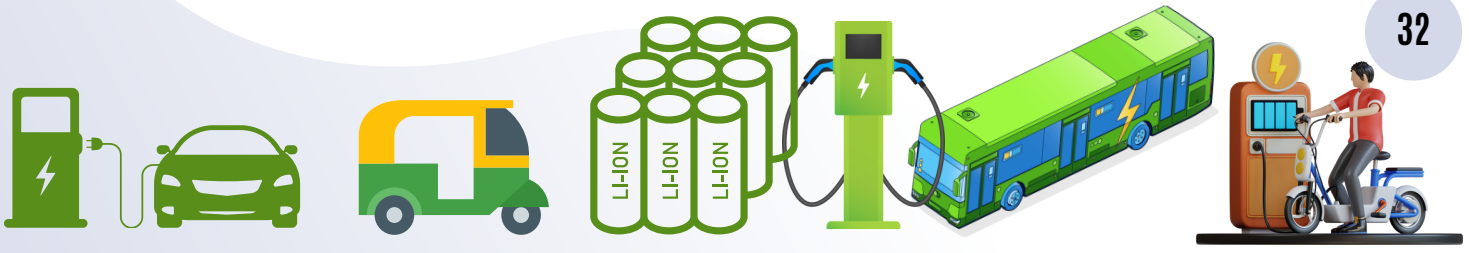
Chinese EV giant BYD has unveiled its all-new B13.b electric intercity bus, a serious leap forward in clean mobility.

560 kWh Blade Battery delivering up to 700 km range (SORT cycle) on a single charge

Built on cell-to-chassis (CTC) platform for superior safety, efficiency & comfort

Capacity: 49 seated + 29 standing passengers

- Ultra-fast charging: dual 192 kW DC ports or 500 kW pantograph



Ather Energy

Ather Energy has announced a major shift in the way EVs are priced and owned. With the new Battery-as-a-Service (BaaS) model.

- The flagship Rizta now starts at just ₹75,999 (ex-showroom) – a 30% reduction in upfront cost.
- The 450 Series begins at ₹84,341 (ex-showroom).
- Battery cost is recovered over 3–4 years, with flexible monthly plans starting as low as Re. 1/km.

Indian EV maker Ultraviolette raises $21 million in funding from Japan's TDK Ventures, others

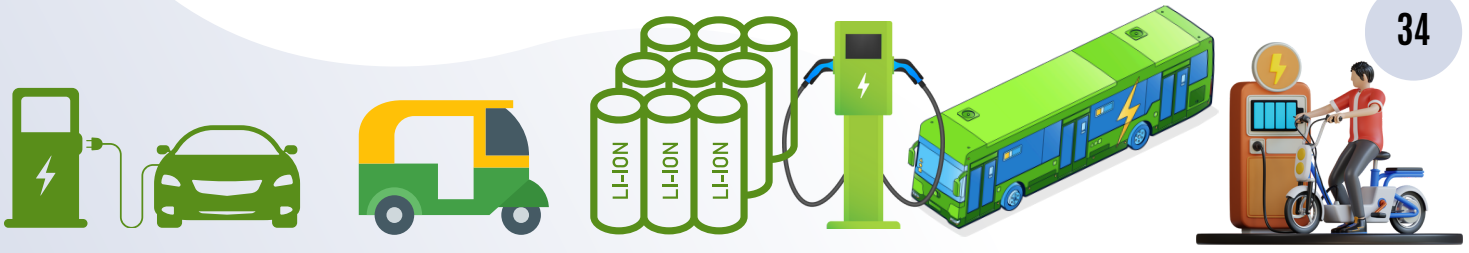
KPIT Technologies

KPIT Technologies has taken bold steps to strengthen its future mobility portfolio with two major updates:

- US$ 10 Million Investment in Helm.ai – A strategic bet on cutting-edge AI software for self-driving cars. The investment, via a SAFE Instrument, will be made in tranches based on synergy milestones. Importantly, Helm.ai will remain an independent entity, with no participative rights for KPIT.
- Acquisition of Caresoft Inc. Finalized – Valued at up to US$ 157 Million, including performance-linked variable pay, this acquisition brings enhanced vehicle engineering, benchmarking, and downstream design capabilities. The integration is expected to fast-track OEM product launches while optimizing costs.

ZF's CeTrax electric drive

ZF's CeTrax achieved a production milestone in May as the ten thousandth unit of the electric central drive rolled off the assembly line. ZF's compact e-drive is particularly suitable for electrifying conventional bus model platforms. In addition to bus manufacturers, the drive has also attracted other customer segments such as terminal tractors for yard applications. Designed with an open technology approach, CeTrax can be powered by both battery-electric and fuel cell systems.



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Society of Automotive Engineers INDIA

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TECH HIVE

18 - 20 September 2025, Westin Hotel, Pune

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WHY SHOULD YOU JOIN?

What are the advantages of joining me, you might wonder..

- Ideal opportunity to present an innovation or technology
- Display your product(s), give a demo to the investors & delegates, and put on a show!
- An exclusively dedicated space for you to chat, network, and break a deal!
- Increase your brand image and awareness
- New Customer Generation
- Higher Contact Quality
- Differentiate yourself from the rest
- Bring your key team members
- Hand out your product/services flyers & brochures to the attendees

Technology Presentation:

Provide a genuine platform/stage in the form of 6th ITEC INDIA 2025 for the upcoming and present start-ups in the mobility ecosystem to present and showcase their technology and services to potential investors and the key stakeholders in the Industry and its leaders for achieving a smart and sustainable world.

Marketplace Expo:

Build an opportunity to network with the major organizations and stake holders for brand visibility and better engagement with Industry pioneers and stalwarts to get up and running in the mobility domain!

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Registration fee

Start-up - 2m X 2m - INR 24,000 *

(*Extra GST 18%)

Fee includes:

- 2 delegate passes for all the 3 conference days (Pass includes Delegate kit, Lunch for 3 days, Access pass for Gala Dinner)
- Dedicated Roundtable for product display and B2B discussion

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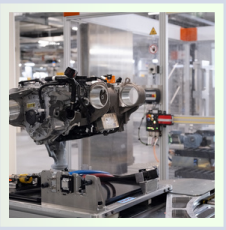
Contact: Mr. Ilango | +91 8870471511 | ilangois@saeindia.org | www.saeindia.org

GLOBAL EV NEWS

BMW Steyr



The BMW Group Plant Steyr has officially started series production of the sixth-generation (Gen6) electric engine for the Neue Klasse, marking a significant milestone in BMW's electrification strategy. This development positions Steyr as a cornerstone of BMW's global production network and underscores the company's commitment to sustainable mobility. Milan Nedeljković, BMW AG's Board Member for Production, emphasized, "Plant Steyr is central to the Neue Klasse," highlighting its role in shaping BMW's electric future.

Faraday Future

Faraday Future, a California-based leader in intelligent electric mobility, has launched the trial production phase for its innovative FX Super One EAI-MPV at its Hanford, CA facility. This milestone marks a significant step toward redefining luxury mobility with advanced AI-driven technology.

Key Highlights

- Trial production started at FF ieFactory California in Hanford.
- Focus on verifying production processes, workflows, and quality standards.
- Engineers and staff undergo specialized training for production readiness.
- Comprehensive vehicle engineering, including safety testing, to follow.
- FX Super One unveiled on July 17, featuring Super EAI F.A.C.E. and 6×4 AI architecture.
- Hanford facility, with $300 million invested, could produce over 30,000 vehicles annually.
- $105 million financing secured to support FX Super One launch.

GLOBAL EV NEWS

Dongguan Mentech Optical & Magnetic Co., Ltd. - ABB E-mobility

Dongguan Mentech Optical & Magnetic Co., Ltd. has entered into a definitive agreement to acquire a 60 percent majority stake in ABB E-mobility's ChargeDot, a leading AC home-and-workplace charging business. This strategic move enhances Mentech's position in the AC charging market while allowing ABB E-mobility to focus on high-power DC charging solutions. The transaction, pending regulatory approvals, is expected to close in the fourth quarter of 2025, with ABB E-mobility retaining a 40 percent minority stake to support ChargeDot's ongoing growth.

Key Highlights

- Strategic Focus: Mentech strengthens its AC charging portfolio, while ABB E-mobility concentrates on DC high-power charging for depots, fleets, and public applications.
- Continued Collaboration: ABB E-mobility's retained stake ensures ongoing support, leveraging its distribution channels in Europe and North America.
- Market Expansion: Mentech's manufacturing expertise and local market knowledge position ChargeDot to meet rising demand in China's EV market and globally.
- Expert Guidance: China International Capital Corporation (CICC) serves as ABB E-mobility's exclusive financial advisor for the transaction.

Stellantis 1.6L Hybrid Powertrain

Stellantis has introduced a new 1.6-liter turbocharged 4-cylinder hybrid powertrain that combines performance, efficiency, and capability without the need for plugging in. This innovative system integrates a turbocharged engine with a two-motor hybrid transmission, delivering an estimated 37 mpg combined city/highway while providing seamless electric power for optimal results. It debuts in the 2026 Jeep Cherokee, offering 210 horsepower and 230 lb.-ft. of torque, setting a benchmark in the midsize SUV segment.

Key Highlights

- Hybrid Efficiency: Achieves an estimated 37 mpg combined through a proprietary Hybrid Drive Control Unit that optimizes power distribution between the engine, motor-generators, and battery.
- No-Plug Design: The system integrates electric power without requiring a plug, enabling short-distance EV mode up to 62 mph using a 1.03-kWh lithium-ion battery.
- Engine Specs: The 1.6-liter turbocharged 4-cylinder produces 177 horsepower at 5,500 rpm and 221 lb.-ft. of torque between 2,000-3,500 rpm, assembled at the Dundee Engine Plant in Michigan.
- Transmission Features: Includes two motor-generators and a planetary gearset for dual power flows—electrical and mechanical—supporting modes like EV, hybrid, and regenerative braking.
- 4×4 Capability: Standard Jeep Active Drive I system with Selec-Terrain modes (Auto, Sport, Snow, Sand/Mud) for automatic torque distribution between axles.
- Emissions Compliance: Meets SULEV 30 standards with a close-coupled catalytic converter and is adaptable to future regulations.

Joint Ventures & Partnerships

Eaton, a global leader in intelligent power management, and ChargePoint, one of the most trusted names in EV charging, have unveiled a next-generation ultrafast DC charging architecture.

The ChargePoint Express Grid – powered by Eaton – was showcased at the RE+ trade show on September 9, setting new benchmarks for scalability, efficiency, and grid integration.

✅ High Power Delivery – Up to 600kW for passenger EVs and megawatt charging for heavy-duty commercial fleets.

✅ Cost & Space Efficiency – Reduces CAPEX and footprint by 30%, with up to 30% lower operational costs.

✅ V2X Capabilities – EVs can now act as power sources for homes, buildings, and the grid.

✅ Seamless Grid Integration – Synchronizes renewables, storage, and vehicle batteries to cut fueling costs and improve grid balance.

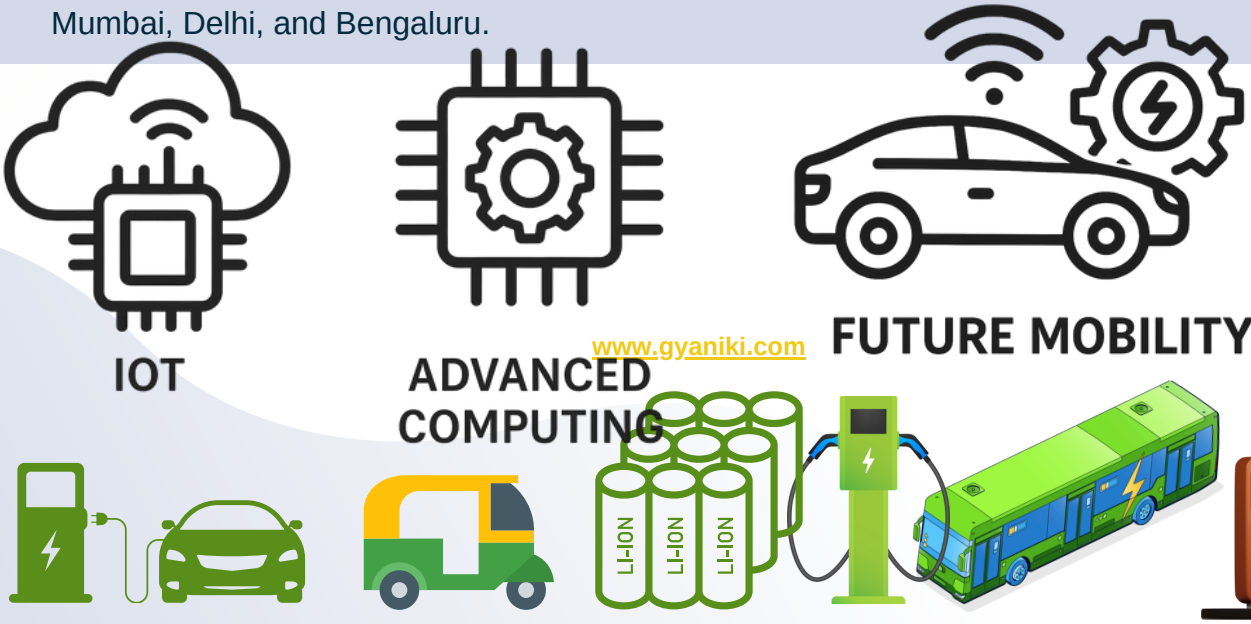
✅ Market Rollout – Orders open in Q1 2026, with deliveries starting H2 2026.

This innovation directly addresses the growing global demand for scalable, reliable, and future-ready EV infrastructure, especially in North America and Europe.

Wardwizard Innovations - Battery Smart

Wardwizard Innovations & Mobility Ltd & Mobility Limited, the company behind Joy E-Bike and Joy e-rik, has announced a strategic collaboration with Battery Smart, India's leading battery-swapping network operator.

- Battery-as-a-Service Model → Joy e-bike customers can now buy vehicles without batteries, reducing upfront cost by 20%–30%.
- Flexible Battery Access → Customers can rent swappable batteries from Battery Smart on a usage-based model.
- Dealer Advantage → Joy e-bike dealers can host swapping stations, unlocking new revenue opportunities.
- Initial Rollout → Select Joy e-bike models (Globe & Gen Next) to integrate first.
- Nationwide Expansion → Phased rollout begins January 2026, with networks already active in Mumbai, Delhi, and Bengaluru.



Joint Ventures & Partnerships

EKA Mobility - Shriram Green Finance Ltd

EKA Mobility, a pioneer in electric vehicles and technology, has signed a Memorandum of Understanding (MoU) with Shriram Green Finance Ltd. (a 100% subsidiary of Shriram Finance Limited.).

Horizon Fuel Cell - Shanghai Wuliu Automotive Technology

Horizon Fuel Cell Group has joined forces with Shanghai Wuliu Automotive Technology to deploy 100 hydrogen fuel cell systems for Z Truck's 42-ton zero-emission trucks.

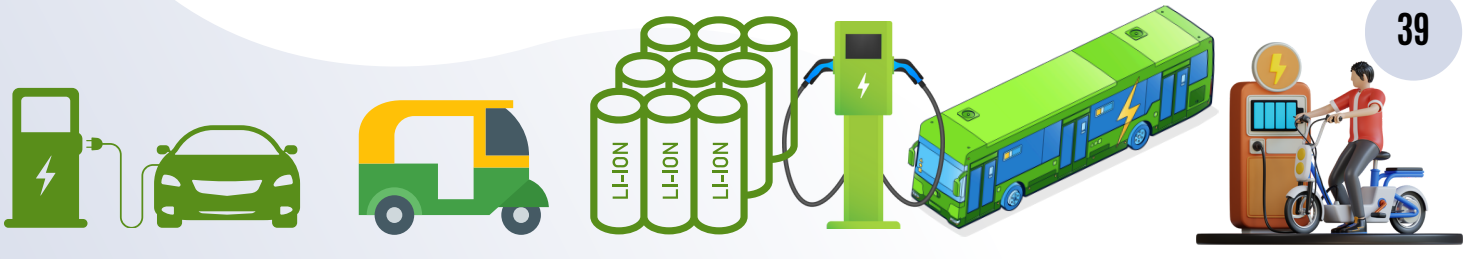
- 1,500+ km Range on a Single Hydrogen Fill
- VL-III Fuel Cell Systems + Local Hydrogen Storage
- Global Validation Since 2022
- Next-Gen 400kW VLS-IV Stacks Coming Soon
- 20% Less Hydrogen Consumption Expected

BlueOval SK - Ford Motor Company - SK On

BlueOval SK, LLC – the joint venture between Ford Motor Company and SK On – has officially started commercial battery production at its first plant in Glendale, Kentucky.

First customer-ready battery rolled out at the Kentucky 1 facility to power the Ford F-150 Lightning.

Over 1,450 team members gathered to celebrate this milestone at the BlueOval SK Battery Park campus.



Joint Ventures & Partnerships

Nissan Motor - LICAP Technologies

Nissan Motor Corporation Co., Ltd. has joined hands with LICAP Technologies, Inc. to transform the way all-solid-state batteries (ASSBs) are manufactured. The collaboration focuses on a dry electrode production process for cathode electrodes — a breakthrough aimed at cutting costs, reducing emissions, and enabling sustainable large-scale EV battery production.

Montra Electric - Green Drive Mobility

Montra Electric, the clean mobility arm of the Murugappa Group, has joined forces with Green Drive Mobility to deploy 50 advanced EVIATOR electric small commercial vehicles (e-SCVs) across India over the next 3 months.
This phased rollout will support India's rapidly growing E

Chartered Speed - EKA

Chartered Speed and EKA Mobility have joined hands to deploy 1,135 electric buses under the Pradhan Mantri e-Bus Sewa Scheme.

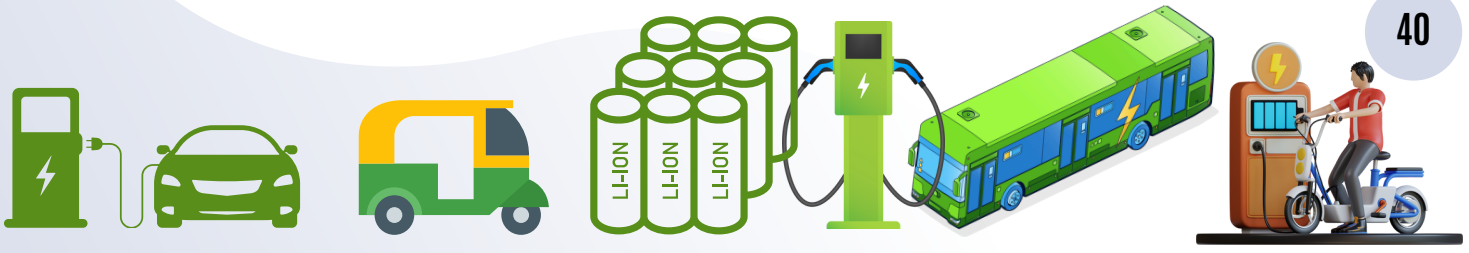
- A Letter of Confirmation of Quantity (LOCQ) has been received for 235 new buses, in addition to the earlier allocation of 900 buses.
- This electric bus fleet will serve 3.6 lakh passengers daily and is expected to create 2,500+ jobs across regions.
- Latest state-wise allocation:

• 110 buses – Madhya Pradesh
• 60 buses – Odisha
• 35 buses – Chhattisgarh
• 30 buses – Meghalaya

This collaboration highlights India's strong push towards sustainable public mobility, reduced emissions, and green job creation.

iGo - SUN Electro Devices

iGo has partnered with Pune-based SUN Electro Devices to scale up production of its innovative electric 2.5-wheeler platform.

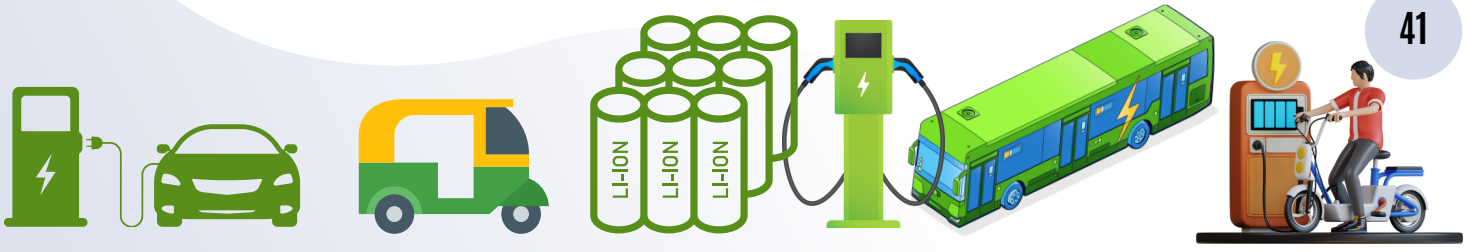


Joint Ventures & Partnerships

Minda Corporation - Toyodenso Co., Ltd. (Japan)

Minda Corporation has announced a Joint Venture with Toyodenso Co., Ltd. (Japan) to deliver Advanced Automotive Switch Solutions across two-wheelers, passenger vehicles, and more.

This JV is not just about manufacturing—it spans the entire value chain, from design and development to marketing and production, right here in India. It's a leap forward in local innovation with global tech integration—fueling Make in India and the future of connected mobility.



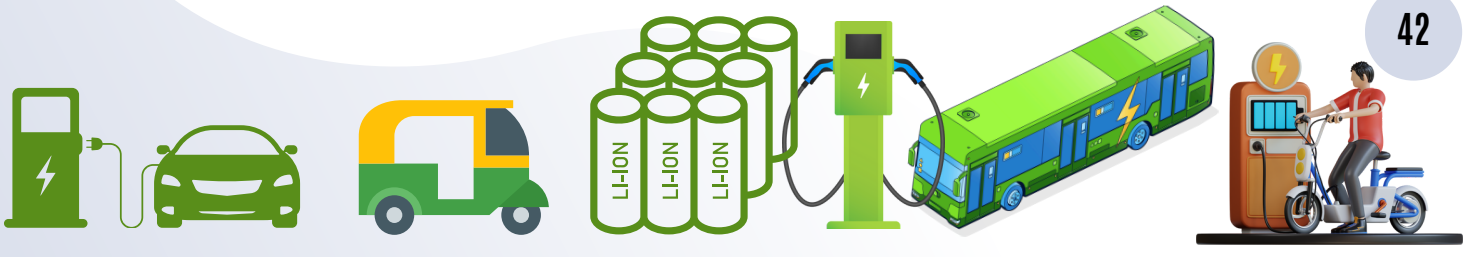
UPCOMING FUTURE MOBILITY EVENTS

Elets National Mobility Summit

4th September 2025
at GIFT City, Gujarat

Auto Components Show 2025
11-13 Sept 2025 at Chennai Trade Centre, Nandambakkam, Chennai, Tamil Nadu.

CO- LOCATED WITH



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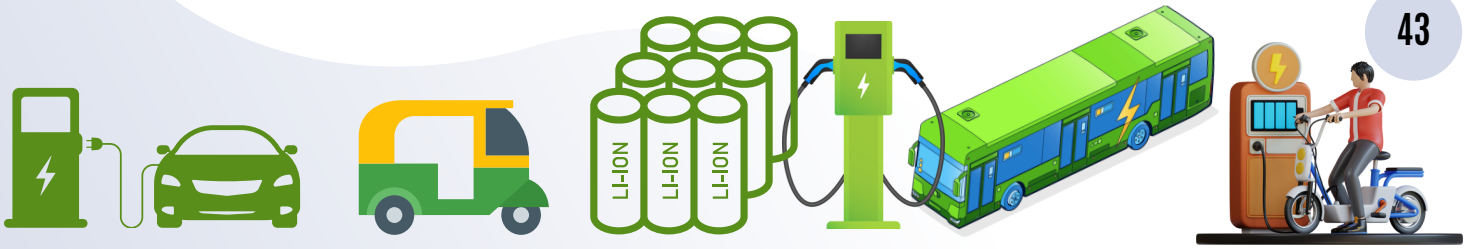


New Launch

Oben Electric - Rorr EZ Sigma - ₹1.27 lakh

🟢 3.4 kWh at ₹1.27 lakh
🔵 4.4 kWh at ₹1.37 lakh
(Prices valid for launch period only)
🔥 Key Features Include:
✅ Reverse Mode & 3 Ride Modes
✅ 5-inch TFT Colour Display with Navigation
✅ LFP Battery with 2x Lifespan
✅ 95 km/h Top Speed | 175 km Range (IDC)
✅ 0-80% Charge in 1.5 Hrs
✅ Unified Brake Assist, GPS, Geo-Fencing & More
✅ Battery Protect 8/80 Plan – 8 years/80,000 km!
📱 Connected via Oben Electric App – includes GPS tracking, diagnostics & access to 68,000+ charging stations.

ZELO Electric - Knight+ ₹59,990!

🔋 100 km real-world range with a 1.8kWh LFP portable battery
⚡ Fast charging & removable home-charging convenience
🛡️ Hill hold control, 📱 USB port, 🚙 Cruise control, and
Powered by a 1.5kW motor and peaking at 55 km/h

Lohia Auto - Youdha EPOD
Electric L5 passenger three-wheeler
₹2.79 lakh (ex-showroom).
🔋 **Range: 227 km**
🔋 **Battery: 11.8 kWh LFP**
⚙️ **Motor: 6 kW**
🔧 **Torque: 50+ Nm**

New Launch

TVS King Kargo HD EV

a purpose-built L5 electric cargo vehicle designed for urban and semi-urban logistics.

🚚 Key Highlights:

✓ LFP 8.86 kWh battery delivering a range of 143 km

✓ Top speed 60 km/h with quick acceleration (0–30 km/h in 5.9 sec)

✓ 6.6 ft load deck with leaf spring suspension for heavy-duty cargo

✓ Water-wading capacity: 500 mm

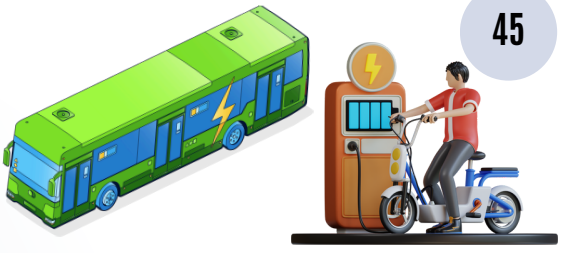
✓ TVS Connect Fleet – 31 advanced digital features including real-time tracking, APIs, alerts & dashboards

✓ India's 1st Bluetooth-enabled cargo 3-wheeler via SmartXonnect™

✓ Fast charging: 3 hrs 10 min with 3 kW off-board charger

✓ Warranty: 6 years / 1.5 lakh km

💰 Price: ₹3.85 Lakh (ex-showroom Delhi)



New Launch

Piaggio Vehicles Pvt. Ltd.
Apé E City Ultra

🔷 Apé E-City Ultra
🔋 Range: 236 km
⚡ Power: 9.55 kW | Torque: 45 Nm
🔋 Battery: 10.2 kWh LFP with Prismatic Cells
💰 Price: ₹3,88,000 (ex-showroom)

Piaggio Vehicles Pvt. Ltd.
Apé E-City FX Maxx

🔷 Apé E-City FX Maxx
🔋 Range: 174 km
⚡ Power: 7.4 kW | Torque: 30 Nm
🔋 Battery: 8 kWh with Prismatic Cells
💰 Price: ₹3,30,000 (ex-showroom)

New Launch

VIDA VX2

Range Upto : 142 km
Acceleration : 0-40 in 3.1 sec
Top Speed Upto : 80 kmph
Removable Batteries : upto 2units

TVS iqube 3.1

₹1.03 Lakh || Range of 123 km ||

Ather Rizta S 3.7kWh launched at Rs 1.38 lakh

The Rizta S 3.7kWh gets a larger battery pack, fewer features and a lower price tag.

- 159km IDC range
- 7-inch LCD screen, auto hold
- turn-by-turn navigation

Report - Guide to EV Charging Infrastructure and Grid Integration

Rising oil prices and rising energy demand have led to the high cost and capital consumption, as the transportation ecosystem's reliance on non-renewable energy sources has played an adverse role in recent years. The Government of India has developed a number of policies to encourage and facilitate the development of EV charging infrastructure in India.

The Indian government does not plan to mandate standardized charging ports for electric scooters, allowing manufacturers to use their own standards. This flexibility has resulted in a diverse charging infrastructure, posing challenges for EV owners in ensuring compatibility with public charging stations. Resulting in a varied landscape for EV charging infrastructure.

EV infrastructure encompasses **Level 1, Level 2, and DC fast chargers**, meeting diverse user needs, from home charging to rapid refuelling at public stations. AC charging is ideal for overnight charging at homes or workplaces with Level 1 & Level 2 standard chargers.

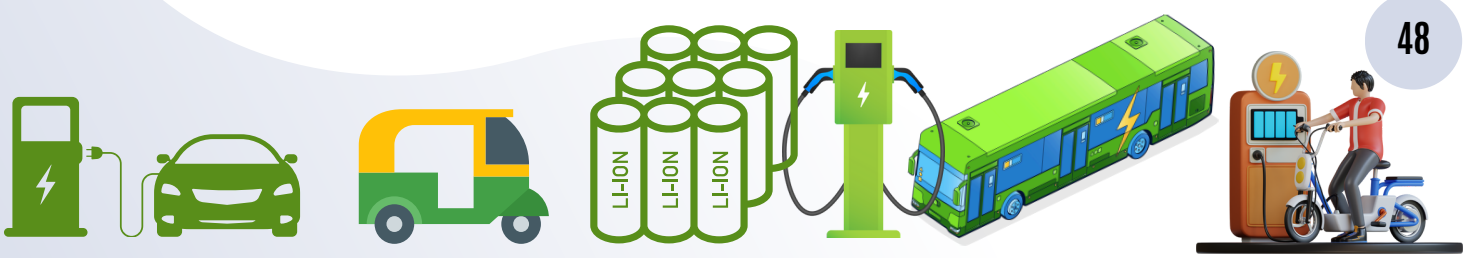
On November 7, 2023, the Ministry of Heavy Industries (MHI) introduced a new phased manufacturing program (PMP) for electric vehicle (EV) charger components under the **FAME India Scheme Phase-II** to boost domestic production. Outlined a comprehensive list of charger components and their timelines for the transition to domestically manufactured parts.

DC charging, including Level 3 fast chargers, is suitable for rapid charging in commercial areas, highways, and high-traffic locations. **Battery swapping** innovations offer quick alternatives, reducing downtime and addressing range anxiety. EVs can now be charged wirelessly via inductive or resonant systems, thanks to emerging technologies.

Smart grid integration optimizes charging times based on grid demand and renewable energy availability for efficient load management. Charging stations require reliable power, proper infrastructure, spacing, signage, safety features, and compliance with regulations and environmental guidelines. Balancing charging stations in urban and rural areas ensures widespread accessibility. Collaborations among governments, private corporations, and utility suppliers expedite infrastructure expansion by leveraging their assets. **Adhering to international charging standards** like CCS and CHAdeMO ensures interoperability among EVs and various charging stations through open communication protocols.

Obtaining **Environmental certifications** for charging stations and integrating solar and wind energy into infrastructure enhances sustainability and reduces EVs' carbon footprint.

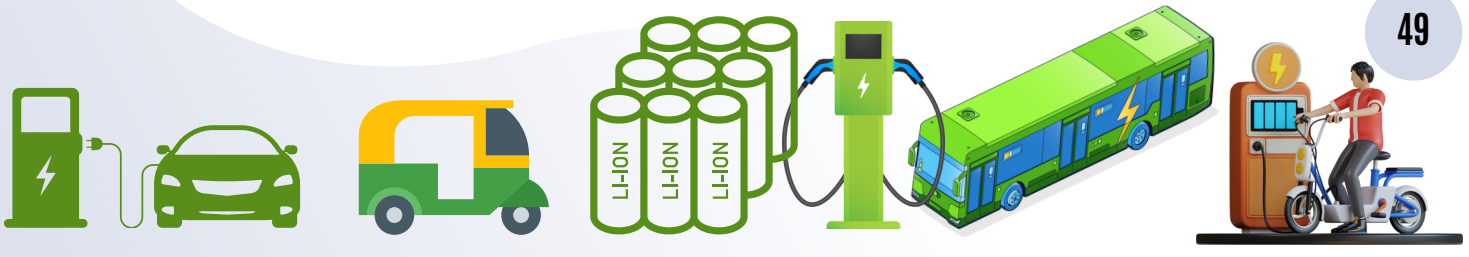
In this article you will get the Idea of EV infrastructure promises a cleaner, more accessible world. Embrace the journey, where every charge fuels not just vehicles, but a greener tomorrow. The road ahead is electrifying, and the future is now.



Report - Guide to EV Charging Infrastructure and Grid Integration

Annexures

1. EV Charging Infrastructure Strategy in India
a) Working Principle
b) Types of Charging
c) Charging levels
d) Speed of Charger
e) Fast Charging
f) Types of Connector
g) Battery Swapping
2. Grid Integration
a) Distribution from HV bus to charging station unit
b) Arranging supply
c) Planning & Requirements for Charging Station
d) Utilization of different segments
e) Benefits and Guidelines
3. Implementation of Charging Station
a) Planning and Allocation
b) Mode of Implementation
c) Indian Regulation and Standards
d) Costing and setting up EV public charging station (PCS)
e) Roles and Responsibilities
4. Communication Protocol
5. Smart-connected EV Charging
6. Government Initiatives and Schemes under Fame II



Report - Guide to Basics of Semiconductor

The transition of from traditional internal combustion engines (ICE) to electric vehicles (EVs) marks a significant shift in the automotive industry, presenting both challenges and opportunities for individuals and businesses alike.

As the **Indian Automobile ecosystem adapts to this transformative trend from the conventional mechanical to electrification path,** it becomes **imperative for newcomers from mechanical backgrounds to familiarize themselves with the basics of semiconductors and its manufacturing process, a vital component in electrification roadmap.**

With **OEM's and Tier-1 suppliers gearing up to build their teams and capacities** in response to the growing demand for next generation mobility, **understanding the fundamental principles of semiconductors becomes crucial for effectively contributing to this dynamic industry.**

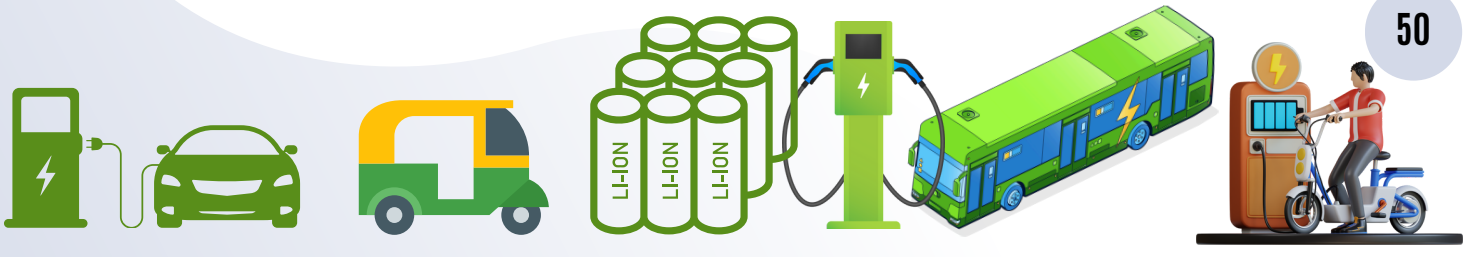
This **compiled report serves as an essential guide** commences with an introduction to **key PCB components, semiconductors**, explaining their role as materials that lie between conductors and insulators. It gets into the atomic structure of semiconductors and the concept of doping, which enhances their electrical properties. An exploration of semiconductor devices, such as **microcontrollers, microprocessors, transistors, IC's, diodes, showcases their significance in electronic circuits and their impact on the efficient functioning of automobiles.**

Next, the report briefs the **semiconductor manufacturing process**, Moore's Law and steps involved in producing integrated circuits in **fabrication facilities (fabs)**. It discusses the **distinction between fabs, foundries and IMD**, emphasizing their relevance in the current Indian semiconductor ecosystem, where suppliers are positioning themselves to cater to the surging demand for semiconductor chips in the EV market.

Semiconductors play an indispensable role in the efficient functioning of electric drivetrains, battery management systems and charging infrastructure.

As Indian Tier-1 suppliers slowly build their teams and capacity to meet the demands of the fast-growing Indian EV sector, there are **challenges and stiff competition** that are ahead and Government of India is supporting through with necessary research infrastructure and launching incentive schemes through "India Semiconductor Mission".

Overall, this **report guides new entrants transitioning from mechanical to electrification stream and focusing on the semiconductor domain** to navigate their transition successfully and empowering them to contribute effectively to the **growing Electrification in Indian Automobile ecosystem.**



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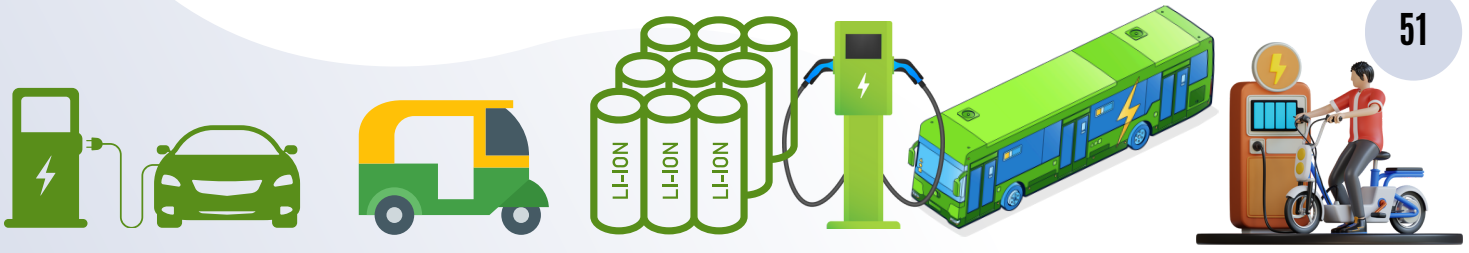

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'gyaniki' is a technology platform that provides complete coverage of the current & evolving "ACCESS" [Autonomous, Connected, Customized, Electrified, Safe, Shared] to "Future Mobility".

'gyaniki' has evolved as a technology based digital portal platform created for researchers, product developers, industry professionals and academia members with a vision of incremental expansion in bridging the future mobility ecosystem through our services.

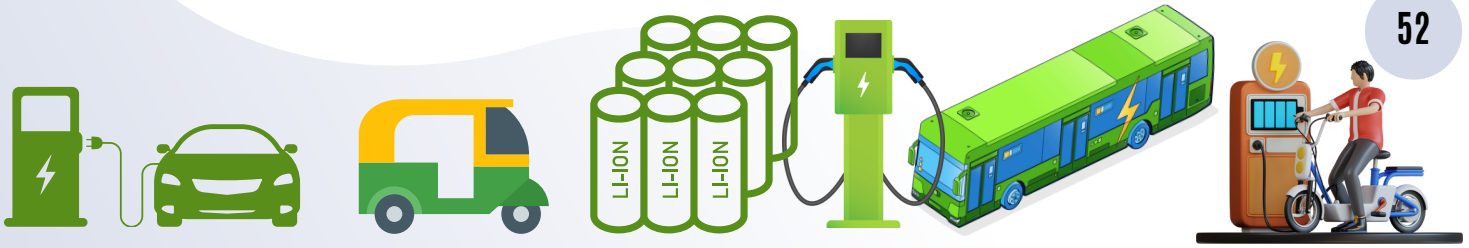
'gyaniki' undertakes specialized and customized research in Future Mobility

Our techno-commercial research covers on the core areas of:

- Benchmarking
- Key Components and Process
- Technologies
- Manufacturers and Suppliers
- Latest & upcoming industry trends (LiDAR, Neural Networks, Sensor fusion)
- Product Development Processes and Documentation (DFMEA, PFMEA, RCA)
- Tools of the trade. In design, simulation & validation (e.g.: GT suite, Simulink)
- Standards, Testing & Regulatory information.

EV Report Sept 2025

Vroomble Services Private Limited



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