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India's Automotive Industry & Trade Journal

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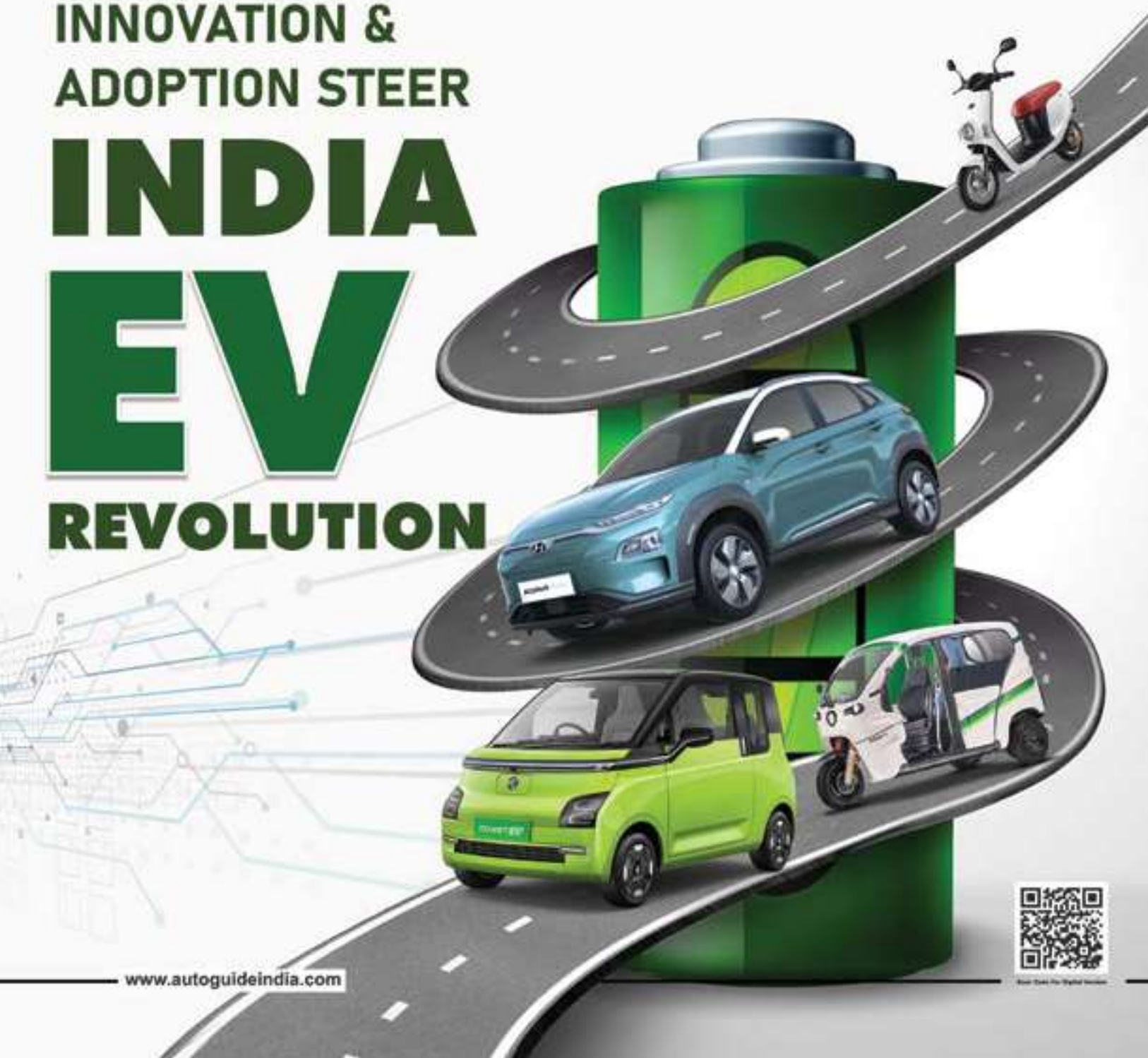
INDIA EV REVOLUTION



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EVolutionary Sparks: India's EV Revolution's Economic and Environmental Impact

Aggregation boosts energy efficiency, lowers costs, aids electric buses, and enhances auto safety with Bharat NCAP.

INDIA is leading the charge towards a sustainable future through its Electric Vehicle (EV) Revolution. Amidst global environmental concerns, India stands at the forefront of eco-friendly transportation, driven by pioneering innovations and unwavering commitment to curbing carbon emissions.

The country's burgeoning EV market owes its success to a combination of government incentives and increased investments. Notably, neighboring nations like Thailand and Indonesia are also exploring electric vehicles, providing valuable insights for other emerging markets eager to adopt this technology.

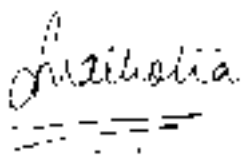
TotalEnergies Lubrifiants has entered the EV arena with specialized lubricants designed for hydrogen-powered combustion engines. This innovation tackles challenges specific to hydrogen engines, such as abnormal combustion incidents, aligning with industry needs for quick refueling and adaptability to existing infrastructure.

Aggregation simplifies energy efficiency projects, lowers costs, and improves delivery efficiency. It also streamlines access to energy-efficient products and services, particularly benefiting electric buses in the electric mobility sector. India's homegrown automobile crash testing program, Bharat NCAP, is set to raise vehicle safety standards and empower consumers with comparative assessments based on NCAP ratings. This initiative prioritizes consumer safety and boosts India's global standing in the automobile industry.

Switch Mobility, the EV subsidiary of Ashok Leyland, is committed to its intelligent electric vehicle (IeV) series, offering versatile electric Light Commercial Vehicles (LCVs) with clutch-less operation, electric power steering, and impressive battery range. Lectrix EV commemorates India's space achievements with the LXS Moonshine electric scooter, paying homage to the Chandrayaan 3 mission.

The Indian government is considering categorizing electric vehicles (EVs) in the priority sector lending category to improve funding access for EV initiatives. This move could boost investor confidence and expedite the transition to EVs by directing credit towards underfunded segments. Tata Power Charging Solutions plans to expand its EV public chargers from 4,000 to 25,000 in the next five years, in response to rising EV adoption. India's journey in the EV sector underscores its commitment to a sustainable future, driven by innovative technologies and supported by government policies. These initiatives are not mere trends but transformative shifts, reducing emissions and paving the way for a greener future for all.

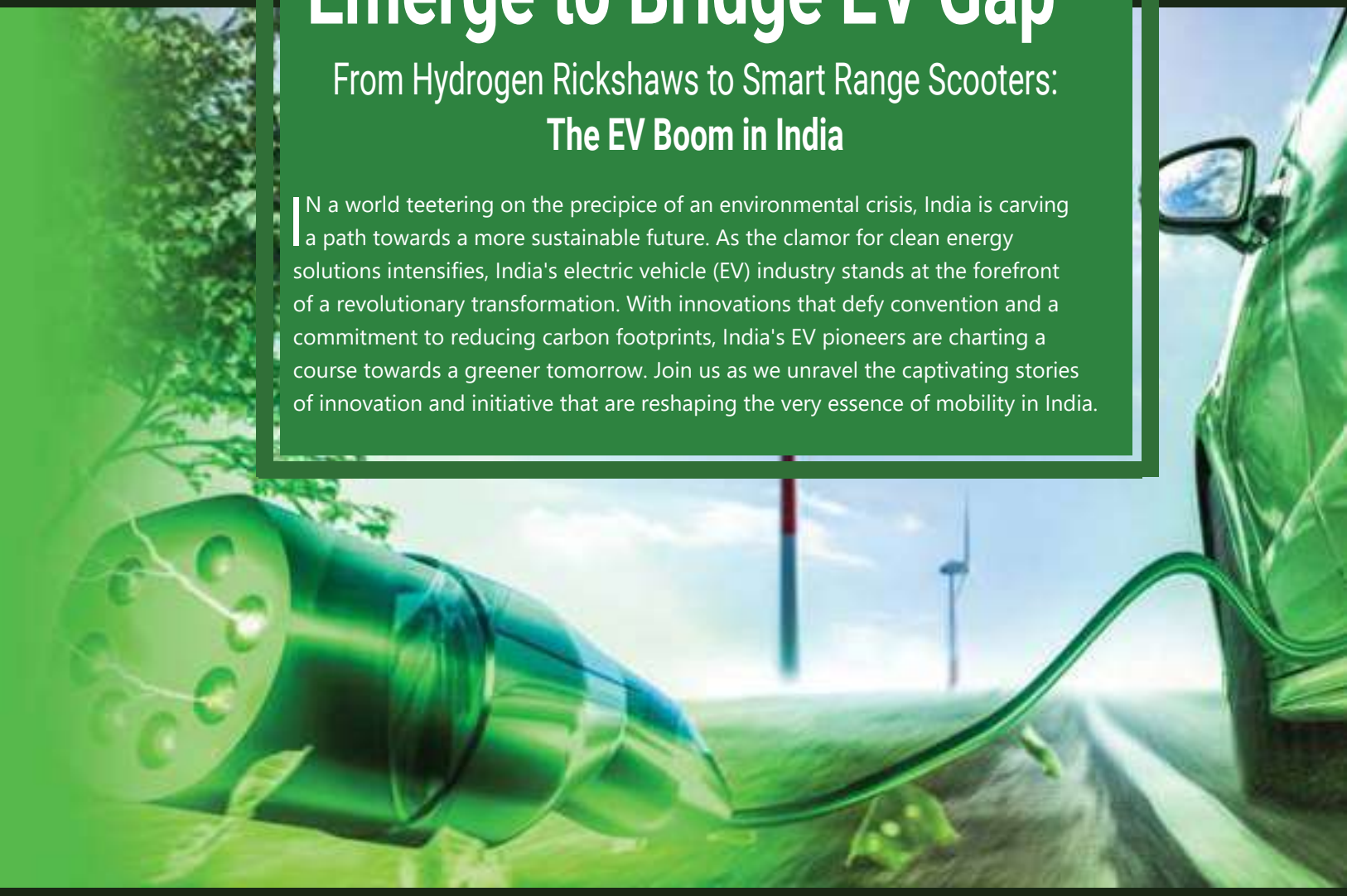
Enjoy reading



Exciting Technologies Emerge to Bridge EV Gap

From Hydrogen Rickshaws to Smart Range Scooters: The EV Boom in India

IN a world teetering on the precipice of an environmental crisis, India is carving a path towards a more sustainable future. As the clamor for clean energy solutions intensifies, India's electric vehicle (EV) industry stands at the forefront of a revolutionary transformation. With innovations that defy convention and a commitment to reducing carbon footprints, India's EV pioneers are charting a course towards a greener tomorrow. Join us as we unravel the captivating stories of innovation and initiative that are reshaping the very essence of mobility in India.



Electric Car Sales Break New Records

India's EV revolution is gaining momentum, thanks in part to government incentives and support. The country is rapidly ramping up EV and component manufacturing, attracting significant investments. Similar efforts are underway in Thailand and Indonesia, offering valuable lessons for other emerging markets seeking to embrace EV adoption.

Hydrogen Engine Combustion Control

TotalEnergies Lubrifiants has stepped into the EV arena with a range of specialized lubricants designed for hydrogen-powered combustion engines. As the industry shifts towards electric drivetrains, the need for high-power applications remains, and green hydrogen is emerging as a viable solution. Unlike traditional electric vehicles that rely on batteries, hydrogen engines offer quick refueling and adaptability to existing infrastructure. TotalEnergies' lubricants are engineered to ensure optimal performance and safety in hydrogen combustion engines, addressing unique challenges like abnormal combustion incidents and water management. This innovation promises to make hydrogen engines cleaner and more reliable, further expanding their potential in the transportation sector.

MY EV Store Launches IME Rapid

MY EV Store has unveiled the IME Rapid, an electric scooter that shatters the range anxiety barrier. With an exceptional 300-kilometer range and a top speed of 80 km/hr, this scooter sets a new standard for electric two-wheelers in India. What sets the IME Rapid apart is its Smart Range Technology (SRT), which provides accurate range predictions by analyzing real-time data, making EVs more practical and appealing to consumers.

Founder and Managing Director of MY EV Store, Mr. Puneeth Gowda, emphasizes the urgent need to combat air pollution in India. Electric vehicles offer a sustainable solution, but range limitations have hindered adoption. The IME Rapid's impressive range and innovative technology are poised to reshape the electric scooter market, offering a greener alternative for urban mobility.

ZF's Compact & Competitive Magnet-Free Electric Motor

ZF, a global leader in mobility technology, has introduced the I2SM (In-Rotor Inductive-Excited Synchronous Motor), a magnet-free electric motor with remarkable efficiency gains. Unlike traditional motors that rely on rare earth materials for magnets, the I2SM uses inductive excitation, reducing production-related CO2 emissions by up to 50 percent.

The I2SM's innovative design not only eliminates the need for rare earth materials but also reduces energy transmission losses and drag losses. This motor's compact size and improved torque density make it a versatile option for various applications, from passenger vehicles to commercial fleets.

EV Supply Chains and Batteries Gain Prominence in Policy-Making

Government initiatives play a crucial role in shaping the EV landscape. India, for instance, is actively promoting domestic manufacturing of electric vehicles and batteries through Production Linked Incentive (PLI) schemes. The United States is also strengthening its supply chains for EVs, batteries, and battery minerals, encouraging investment and innovation in these critical areas.

Major EV and battery manufacturers have announced substantial investments in North American EV supply chains, demonstrating the growing importance of these components in the industry's future.

India's First Hydrogen-Based Rickshaw with 400km Range by OSM

Omega Saiki Mobility (OSM) is making waves with its ambitious plan to introduce India's first hydrogen-based rickshaw. This groundbreaking L-5 category vehicle is set to revolutionize the rickshaw market with its impressive 350-400 km range on a single charge. While details are yet to be disclosed, the potential impact of this innovation is undeniable.

The move toward hydrogen-based vehicles aligns perfectly with India's commitment to green hydrogen production, backed by a substantial government budget allocation. Green hydrogen, generated using renewable energy sources, is poised to transform the transportation sector by offering a sustainable alternative to traditional fossil fuels.

OSM's hydrogen rickshaw is currently undergoing rigorous testing, including trials in diverse terrains like European roads, Jaisalmer deserts, and Leh's challenging landscapes. These tests aim to ensure the vehicle's adaptability and reliability, addressing concerns about charging infrastructure in remote areas.

Greaves Aero Vision: India's Futuristic Electric Auto Rickshaw

Greaves Aero Vision is another pioneering development in India's commercial EV sector. This electric rickshaw offers passengers a new level of comfort and privacy, featuring amenities such as air conditioning and sealed doors. Its distinctive design, proudly labeled "Designed in India | Made in India," showcases the country's capabilities in designing and manufacturing cutting-edge electric vehicles.

Greaves takes innovation a step further by adopting a modular approach, allowing users to customize and modify different vehicle components for various applications, from goods transport to passenger travel. This flexibility sets the stage for a wide range of possibilities in the Indian EV market.

In the end, India's EV boom is not merely a trend but a transformative shift towards a cleaner and more sustainable transportation ecosystem. India is on the cusp of an electric vehicle revolution. These initiatives, coupled with supportive government policies, will drive the EV industry forward, reducing emissions and creating a brighter, greener future for all.

Auto Mosaic of Growth, Challenges, and Festive Hopes

IN the fast-paced world of the Indian automobile industry, the tides of change are ever-constant. As August 2023 rolled in, it brought with it intriguing developments in the retail sales of various automobile segments. While some soared to new heights, others faced challenging descents. Against the backdrop of an ongoing pandemic, supply chain complexities, and the imminent arrival of the festive season, we delve into the intricate tapestry of the industry's performance. This article unveils the multifaceted landscape of India's auto sector, charting the course of sales figures and exploring the promising signs and persistent hurdles that paint a vivid picture of the market's status in August 2023.

There has been a 3% Month-on-Month (MoM) growth in the retail sales of all segments of the automobile industry, except tractors, which declined by 19%, in August 2023. Compared to pre-COVID levels, there was a modest 0.8% improvement, led by two-wheelers in the month, Manish Raj Singhania, President, Federation of Automobile Dealers Association (FADA), said.

Singhania mentioned a 9% YoY growth, with a 3% MoM uptick, indicating a shift in short-term trends. Across segments, YoY growth was observed: 2W at 6%, 3W at 66%, PV at 6.5%, Trac at 14%, and CV at 3%. Three-wheeler sales reached a historic high, with 99,907 units sold in August, up 66% YoY and 6% MoM. The 2W segment displayed mixed results, with consumer sentiment impacting conversion rates and competition among key players.

The CV sector faced challenges but saw strong demand in sectors like cement, iron ore, and coal. The festive season is expected to lift the market, with aggressive promotions and improved customer sentiment, FADA said.

In the PV segment, positive market dynamics were maintained, but supply chain bottlenecks persisted, particularly in timely deliveries. The market has responded favourably to the introduction of new hybrid and CNG models; however, a constrained product range in popular segments, such as mid-size SUVs, continues to limit overall potential. As September begins, the Indian automobile industry is cautiously optimistic, driven by factors varying across vehicle segments. The festive season has improved market sentiments and supply chain conditions.

In the 2W market, while a broader range of models is now available, subdued rural demand due to insufficient rainfall could temper sales growth. For CVs, although bulk deals and the favourable timing of the construction season in September add to the optimism, the real sales momentum is anticipated to pick up during the Navratri and Deepawali festival following the Shraadh period. The PV market sees positive signs but faces customer discount expectations and the Shraadh period's impact.

Rural demand is recovering but depends on the monsoon's final phase. A lack of rainfall could impact crops and consumer purchasing power during the festive season. Key findings from an online survey of members include average inventory levels for passenger vehicles and two-wheelers, as well as varying liquidity levels among respondents, FADA said.

CATEGORY	AUG'23	AUG'22	YoY %	JULY'23	MoM %
2W	12,54,444	11,80,230	6.29%	12,28,139	2.14%
3W	99,907	60,132	66.15%	94,148	6.12%
E-RICKSHAW(P)	46,174	29,274	57.73%	43,529	6.08%
E-RICKSHAW	(G)3,095	1,446	114.04%	2,773	11.61%
THREE-WHEELER (GOODS)	9,060	6,450	40.47%	9,010	0.55%
THREE-WHEELER (PASSENGER)	41,482	22,907	81.09%	38,761	7.02%
THREE-WHEELER (PERSONAL)	96	55	74.55%	75	28.00%
PV	3,15,153	2,95,842	6.53%	2,84,064	10.94%
TRAC	73,849	65,018	13.58%	90,765	-18.64%
CV	75,294	72,940	3.23%	73,065	3.05%
LCV	43,929	45,403	-3.25%	43,236	1.60%
MCV	5,895	5,119	15.16%	6,182	-4.64%
HCV	22,137	20,713	6.87%	20,581	7.56%
Others	3,333	1,705	95.48%	3,066	8.71%
Total	18,18,647	16,74,162	8.63%	17,70,181	2.74%

Revolt Motors Unveils Exclusive Stealth Black RV400 E-Motorcycle

REVOLT MOTORS, India's leading electric motorcycle company, celebrates its 6th anniversary with the launch of the Limited Edition Stealth RV400 Electric Motorcycle. This exceptional release redefines aesthetics and intensifies the thrill of electric riding.

The captivating Stealth Black edition of the RV400 introduces a perfect blend of technology and timeless elegance. Crafted with meticulous attention, the motorcycle's black finish radiates sophistication, showcasing Revolt Motors' commitment to style.

The Limited Edition RV400 inherits advanced features while sporting eye-catching golden upside-down front forks and a sporty yellow monoshock. Matched with all-black alloy wheels, swing arm, handlebars, and rear grip, these distinct elements enhance the motorcycle's visual allure.

This release echoes Revolt Motors' pledge to sustainable mobility without compromising style or performance. The Limited Edition RV400 stands as a testament to the brand's vision of merging environmental responsibility with cutting-edge aesthetics.

Designed for enthusiasts seeking more than just transportation, the Limited Edition RV400 is a collector's dream. Its exclusivity signifies membership among trendsetters shaping the riding landscape.

Enthusiasts can secure their Limited Edition RV400 in Stealth Black through the official Revolt Motors website or authorized dealerships. Given the high demand for this variant, prospective buyers are encouraged to secure their reservation promptly.

Revolt Motors' relentless dedication to innovation, style, and sustainability continues to shape India's electric mobility. The Limited Edition RV400 in captivating Stealth Black marks a significant stride, inviting riders to experience elevated elegance and performance.

Greaves Futuristic Electric Auto Rickshaw

GREAVES Aero Vision, showcased at Auto Expo 2023 in Delhi, is a game-changer in the commercial vehicle market, promising an elevated transport experience.

This electric rickshaw redefines comfort, offering passengers privacy, air-conditioned journeys, and more. It stands out with its eye-catching design, featuring impressive headlights, DRLs, and a sturdy fiberglass windshield.

Marked with tri-color insignia, this vehicle proudly boasts its "Designed in India | Made in India" origin. Its sealed doors ensure privacy and security, making it suitable for both goods transport and potentially passenger transport.

While the final wheels and tire specifications are yet to be revealed, the demo version showcases their unique design and quality.

Greaves plans to construct the vehicle using a LEGO-like approach, allowing users to easily customize and modify different parts for various applications, including goods and passenger transport.

The Greaves Aero Vision impresses with its futuristic appearance, wide tires, and high-powered headlamps with DRLs. The enclosed design guarantees safe transportation.

Despite being a demo model, Greaves assures that the final product will retain its innovative features and security. This vehicle offers a comfortable and secure transportation solution with potential applications in various sectors. Stay connected for updates on its launch and availability.

Kia EV9 Grabs Top Luxury Award

KIA'S impressive debut in the five-meter class has caught the attention of the 'German Car of the Year 2024' (GCOTY) jury, comprising 27 members. The three-row Kia EV9 electric SUV has clinched the top spot in the "Luxury" category, which includes models with a base price exceeding 70,000 Euro. The EV9 outshone eight other contenders to secure this prestigious award.

A Rigorous Competition

The GCOTY competition, now in its sixth edition, featured 48 new models evaluated by a panel of 27 trade journalists. These models were categorized into five distinct groups: 'Compact,' 'Premium,' 'Luxury,' 'New Energy,' and 'Performance.' The overall winner will be selected from the top performers in each category, with the announcement scheduled for early October.

Long-Range, High-Tech SUV with Flexible Seating

The EV9 marks Kia's largest offering in Europe to date. Built on the Electric-Global Modular Platform (E-GMP), it boasts 800-volt ultra-fast charging technology, offering one of the best charging performances in its class. With optimal conditions, the 99.8 kWh battery can provide up to 239km of driving range in just 15 minutes of charging.

The EV9 offers a rear-wheel-drive option with a 150kW motor, providing an impressive all-electric range of up to 541km (WLTP). Alternatively, an all-wheel-drive variant with twin 141kW electric motors offers an all-electric range of 497km (WLTP). The AWD version is also available as the sporty GT-line model, capable of accelerating from 0 to 100 km/h in just 5.3 seconds and reaching a top speed of 200 km/h.

Comfort and Customization

The Kia EV9 emphasizes passenger comfort with adjustable 'relax' seats in the front row and versatile seating choices, including seven or six seats with unique configurations. The base model, available in rear-wheel drive, comes with a comprehensive set of features like climate control, electrically adjustable backrests, V2L battery function, and advanced driver assistance systems. The GT-line model offers extra features, including adaptive headlights, a Blind View Monitor, and optional Remote Smart Parking Assist.

Lord's Automative Launches 8 New EVs

LORD'S Automative Pvt. Ltd., a subsidiary of Lord's Mark Industries, has unveiled a range of eight electric vehicles (EVs) to strengthen its presence in India's growing EV market. The lineup includes six three-wheeler (3W) models and two high-speed two-wheeler (2W) EV scooters.

Lord's Automative introduces six 3W EV models, designed for various purposes, and two high-speed 2W EV scooters. These EVs, priced between Rs. 49,999 and Rs. 175,000, target dealers, distributors, and end-users across India, with initial focus on tier 2 and tier 3 towns in multiple states.

The launch aligns with Lord's Automative's vision to contribute to India's green mobility revolution. These EVs, manufactured in state-of-the-art plants, offer advanced features, robust battery capacity, and safety for both passenger and cargo transportation.

Mr. Sachidanand Upadhyay, MD & CEO, Lord's Mark Industries Pvt Ltd, expressed the importance of large-scale EV adoption in passenger and goods transportation for environmental benefits and India's EV evolution.

Dr. Veer Singh, CEO, Lord's Automative Pvt. Ltd., highlighted their commitment to affordable and reliable EV solutions, backed by excellent customer support.

Lord's Automative has partnered with various financial institutions to offer easy finance options for its EVs. These vehicles come with standard warranties and comply with safety parameters.

The company provides 24/7 roadside assistance, spare parts availability, and DIY videos. Lord's Automative has sold over 16,000 EVs in 22 states and plans to expand its manufacturing facilities. Lord's Automative is seeking expressions of interest from entrepreneurs with an investment capacity of Rs. 5-20 lakh to further expand its dealer network, offering training and support.

Ola S1 Air Delivery Begins

OLA ELECTRIC has started deliveries of the all-new S1 Air. Introduced last month, the S1 Air has become one of the most popular EV scooters in the country with over 50,000 bookings so far. Ola S1 Air Delivery has started in more than 100 cities with other markets to follow soon.

Ola S1 Air is the perfect urban city ride companion aimed at driving mass adoption of EVs. With low running and maintenance costs, it offers the cutting-edge technology and design elements inherited from its predecessors, the S1 and S1 Pro, while offering an incredibly affordable price point.

S1 Air Specifications

The S1 Air boasts a robust 3 kWh battery capacity, peak motor power of 6kW, a certified range of 151 km, and a remarkable top speed of 90 km/hr. Moreover, the versatile S1 Air is available in six stunning colors (Stellar Blue, Neon, Porcelain White, Coral Glam, Liquid Silver, and Midnight Blue) and comes with a twin front fork, flat footboard, massive 34-liter boot space, and an eye-pleasing dual-tone body.

Interested customers can obtain more information about the S1 Air, and easy financing options at any one of the company's network of over 1,000 Experience Centres across the country and complete their purchase journey through the Ola App.

Lectrix EV Launches LXS Moonshine

LECTRIX EV has introduced a special limited edition of its LXS electric scooter, known as the LXS Moonshine, to pay tribute to India's significant achievements in space exploration, particularly the recent Chandrayaan 3 mission successfully conducted by the Indian Space Research Organisation (ISRO). This unique launch coincided with the historic moment when the Vikram lander safely touched down near the Moon's south pole.

The LXS Moonshine features a striking golden emblem that embodies India's burgeoning space era. This emblem is, in fact, a modification of Lectrix's brand logo, serving as a symbolic nod to the country's remarkable space ambitions.

What makes the LXS Moonshine particularly special is the timing of its launch, synchronized with the Chandrayaan 3 mission. As the Vikram lander made its historic lunar landing, the LXS Moonshine was unveiled, creating a powerful connection between the achievements in space exploration and the world of electric mobility.

Lectrix EV's innovative campaign invited people to share their aspirations on Instagram, posing the question, "What's Your Moon?". Participants were encouraged to articulate their goals and ambitions, and their responses took a virtual journey to the moon, landing on the company's website.

Mr. K. Vijaya Kumar, the Managing Director and CEO of Lectrix EV, expressed his thoughts on this special edition launch, stating, "For today's Indian Gen Z, the sky is not the limit—it's just the beginning. Their ambitions reach for the moon and beyond. India's moon mission exemplifies how far we can go with ambition and the right technology. At Lectrix, we aim to inspire our customers to set and achieve their own personal goals."

Mr. K. Vijaya Kumar
Managing Director and CEO
Lectrix EV

River Indie E-Scooter Hits the Road

BANGALORE-BASED startup River Electric officially launched its highly anticipated electric River Indie in February 2023. After initiating pre-bookings with a booking amount of Rs 1,250, the company has now started deliveries in August 2023.

The River Indie is available at an introductory price of Rs 1.25 lakh* (ex-showroom, Bengaluru) and comes in three color options: Monsoon Blue, Summer Red, and Spring Yellow.

Powered by a mid-mounted motor connected to a belt drive, the scooter generates a peak power of 6.7 kW and a maximum torque of 26 Nm. It features a 4 kWh lithium-ion battery.

With a claimed top speed of 90 km/h and the ability to accelerate from 0 to 40 km/h in 3.9 seconds, the Indie offers three riding modes: Eco, Ride, and Rush. It boasts a real-world range of 120 km and takes five hours to charge from 0 to 80% using a standard charger.

The River Indie comes with twin LED headlights, LED taillights, and LED indicators. It includes an LCD instrument cluster, a spacious 43-liter underseat storage, a 12-liter lockable glove box with a USB charging port, and an additional USB port on the handlebar. Other features comprise rider footpegs, integrated crash bars, saddle stays, raised clip-on handlebars, hazard lights, and a side stand motor cut-off function.

The River Indie electric scooter stands out with its impressive range, ample storage space, and unique features, making it a versatile choice for riders looking to reimagine their two-wheeled journeys.

Ultraviolette Launches F77 Space Edition

ULTRAVIOLETTE Automotive is making waves in the Indian motorcycle industry with the much-anticipated launch of the Ultraviolette F77 Space Edition. This motorcycle isn't just a new addition to their lineup; it's a heartfelt tribute to India's incredible accomplishments in the realm of space technology and research, particularly as the Chandrayaan 3 mission edges closer to realization.

With teasers already creating a buzz on multiple social media platforms, the F77 Space Edition is set to be the most advanced electric motorcycle in Ultraviolette's portfolio. However, what makes it even more special is that it's an exclusive release, limited to just 10 units.

Starting from August 22nd at 6 pm, you can secure your spot to own a piece of this remarkable creation by booking it on Ultraviolette's official website. The starting price for this exclusive motorcycle is set at Rs 5.60 Lakh.

Cutting-Edge Technology and Aerospace Grade Materials

The F77 Space Edition boasts Aerospace Grade Aluminium and advanced aircraft electronics technology. It features a unique aerospace-grade paint scheme with corrosion protection, UV and fade resistance, chemical resistance, and thermal stability. Additionally, it comes with a special Aerospace Grade Aluminium 7075 Lightweight Key.

Impressive Performance Metrics

This motorcycle offers outstanding performance, accelerating from 0 to 60 km per hour in just 2.9 seconds and reaching a top speed of 152 km per hour. Its motor delivers a peak power of 40.5 hp and a peak torque of 100 Nm, with an impressive range of 307 kilometers. It utilizes advanced aircraft electronics technology with a 9-axis IMU for precise measurement of Roll, Pitch, and Yaw.

ZF's Compact & Competetive Magnet-Free E-Motor

ZF introduces a breakthrough electric motor, the I2SM (In-Rotor Inductive-Excited Synchronous Motor), which eliminates the need for magnets, making it compact and highly efficient. Unlike traditional permanent-magnet synchronous motors (PSM) that rely on rare earth materials, the I2SM uses an inductive exciter within the rotor shaft to create the magnetic field, reducing losses and production-related CO2 emissions by up to 50 percent.

"This magnet-free e-motor without rare earth materials is another innovation in our pursuit of sustainable and efficient mobility," said Dr. Holger Klein, ZF's CEO. Compared to common separately excited synchronous motors (SESM), the inductive exciter reduces energy transmission losses by 15 percent.

The I2SM also eliminates drag losses seen in traditional PSM e-motors, improving efficiency during long highway trips at high speeds.

ZF's innovative rotor design enhances torque density, making the motor compact without axial space disadvantages. Unlike conventional SESM designs, the I2SM integrates the exciter into the rotor, eliminating the need for additional seals and dry installation space. This innovation significantly improves power density and performance.

Key to this technology is inductive excitation, transferring energy without mechanical contact, allowing for efficient oil cooling within the rotor. Compared to common SESM, the I2SM requires up to 90 millimeters less axial installation space while operating at PSM-level power and torque density.

ZF plans to further develop the I2SM for production and offer it within its e-drive platform, providing customers from various segments with versatile 400-volt or 800-volt architecture options, including advanced silicon carbide technology in the power electronics.

HP Plans EV Charging Stations with 50% Subsidy

HIMACHAL PRADESH'S Chief Minister, Thakur Sukhvinder Singh Sukhu, announced the state's intention to establish electric vehicle (EV) charging stations. A policy is in the works to attract private operators by offering a 50% subsidy. This initiative aims to improve accessibility, convenience, and create job opportunities.

The state is actively promoting EVs in collaboration with both public and private sectors to combat carbon emissions. Himachal Pradesh is striving to become a model state for electric vehicles.

Furthermore, the government is developing six green corridors, covering a total length of 2,137 km, including national and state highways.

The Himachal Road Transport Corporation is progressively adding electric buses to its fleet, with plans to identify routes for their operation.

Shifting from fossil fuels to electric transport is a key strategy to reduce dependency on conventional fuels.

Regarding land use for construction and infrastructure development, the chief minister emphasized the importance of conducting scientific land studies before commencing construction projects.

Additionally, the review of solar power projects' progress highlighted the need to expedite land transfer for these initiatives.

Furthermore, exploring the establishment of Green Ammonia and Bio Gas plants to promote green energy is on the agenda, with a detailed project report due by October 31 for a pilot plant setup.

MSRTC Electrifies 70% of Mumbai-Pune Bus Fleet

Aims for 100% by Diwali

THE Maharashtra State Road Transport Corporation (MSRTC) has electrified 70% of its Shivneri AC bus fleet, which serves commuters traveling between Mumbai and Pune. Out of the planned 100 electric buses on this route, only 30 diesel buses remain to be replaced.

MSRTC's Managing Director, Shekhar Channe, aims to completely phase out diesel buses on this route soon, providing passengers with a comfortable, noiseless AC electric commute via the Pune Expressway. The electric buses have already generated profits for the corporation, with earnings surpassing lease costs.

The fleet may achieve 100% electrification (100 e-buses) before Diwali, a significant festival in India. Olectra Greentech Ltd manufactures these e-buses, which offer enhanced passenger comfort, WiFi, mobile charging points, seat lights, and CCTV cameras. They are procured under the Central government's Fame-2 subsidy scheme.

MSRTC plans to install maximum e-charging points in Mumbai and Pune for uninterrupted journeys, with fast chargers capable of charging a bus in two hours. The buses have a 300km range on a single charge, making round trips to Pune easily achievable.

Channe has issued work orders for 2,800 new electric 12-meter buses and 2,350 electric 9-meter buses, with the latter serving shorter routes in the Mumbai Metropolitan Region. This electrification effort aims to reduce the state's diesel expenses significantly, ultimately leading to cost savings.

MSRTC has witnessed an increase in ridership, with over 54 lakh daily riders across Maharashtra. The growth can be attributed to senior citizens and women who enjoy free and discounted bus travel. The transport corporation's extensive bus network covers almost all parts of Maharashtra, benefiting around eight lakh students with free bus travel.

Hero Motocorp Launches 'New Glamour'

HERO MOTOCORP, the global leader in motorcycles and scooters, introduces the New Glamour, building on the iconic Glamour brand's strong legacy. This refreshed version adds to the company's technologically-advanced offerings in the 125cc segment.

The New Glamour perfectly balances aesthetics, practicality, and efficiency, retaining the stylish design that has made it a household name transcending generations.

Marrying technology and style, the new Glamour features Hero MotoCorp's revolutionary i3S technology (Idle Stop-Start System). The addition of a Fully Digital console, real-time mileage indicator, and mobile charging port enhances its tech profile.

The new Glamour showcases a robust design that exudes power and expression. Classic chequered stripes add to its stylish aspirations. Its superior ergonomics promise comfort, accessibility, and suitability for long-distance commutes.

Mr. Ranjivjit Singh,
Chief Business Officer, India BU,
Hero MotoCorp

Available in Drum and Disc variants, the new Glamour is priced at Rs. 82,348/- (Drum Variant)* and Rs. 86,348/- (Disc Variant)* in Hero MotoCorp showrooms across India.

*(Ex-Showroom, Delhi).

Mr. Ranjivjit Singh, Chief Business Officer, India BU, Hero MotoCorp, underlines the significance of the Glamour brand among the youth. He expresses Hero MotoCorp's commitment to offering distinctive features and advanced products, emphasizing the New Glamour's role in fortifying the brand's presence in the competitive 125cc segment. The revamped Glamour is poised to enhance the appeal of Hero MotoCorp's two-wheeler portfolio.

OSM and PNB Collaborate to Promote EV Financing

OMEGA SEIKI MOBILITY (OSM) has announced a significant partnership with Punjab National Bank (PNB) through a Memorandum of Understanding (MoU), marking a significant move to expand electric vehicle financing options. This collaboration aims to streamline vehicle inventory funding for dealers and provide comprehensive retail financing solutions to customers.

Having financed 8000 electric vehicles worth INR 350 crores, Omega Seiki Mobility underscores its commitment to advancing sustainable mobility. Over the next three years, the company aims to finance an additional 7500 electric vehicles worth INR 300 crores.

This partnership focuses on offering innovative and low-cost financing options to both rural and urban customers, addressing the need for affordable transportation while promoting sustainable mobility. By prioritizing electric three-wheelers, this collaboration empowers rural communities with cleaner transportation options and income generation opportunities.

Mr. Uday Narang, Founder and Chairman of Omega Seiki Mobility, emphasized that this partnership goes beyond transactions, aiming to empower individuals and communities by providing access to green transportation.

Mr. Rakesh Ranjan, Head of Retail Finance at Omega Seiki Mobility, highlighted the transformative era this partnership ushers in, fostering an ecosystem for electric mobility adoption that contributes to positive social change.

Greaves Retail & Usha Financial Services Partner to Transform E3W Financing

GREAVES RETAIL, a prominent name in India's fuel-agnostic mobility solutions, has teamed up with Usha Financial Services Ltd. to revolutionize customer financing in the electric three-wheeler sector. Through this collaboration, Greaves Retail aims to enhance accessibility and convenience for end-customer financing nationwide.

By leveraging Usha Financial's dealer delivery model, this partnership will enable dealers to identify suitable customers, aid in collections, and address loan repayment challenges. Having successfully piloted this model in Bihar, it has now been deployed across multiple dealerships in India, serving Greaves Retail's unique electric three-wheeler customer base.

Narasimha Jayakumar, CEO of Greaves Retail, stated, "The Usha Financial partnership empowers us to offer financing for e-rickshaw customers in key markets. Their expertise in lending to 'livelihood earners' aligns with our nationwide retail outlets, facilitating sales and service."

Tata Power charging targets six-fold jump

TATA POWER Charging Solutions, the largest provider of EV charging in the country, is looking at an over 6-fold jump in the number of semi-public and public chargers it offers for electric vehicles (EVs) to 25,000 from the current 4,000 over the next 5 years. The service provider is encouraged by the sharp month-on-month jump in the number of registered users on its mobile application amid a fast adoption to EVs, said a company executive.

With EVs growing at a fast pace, we are constantly expanding at suitable locations every month. We are also encouraged by the number of registered users on our app. It has gone up to 168,000 year-to-date (fiscal) as compared to 135,000 in the whole of last fiscal," Virendra Goyal, the head of business development (EV Charging) at Tata Power.

The Tata Power Renewables' subsidiary has a presence in all the four categories which comprises home, public (including semi-public), bus and fleet charging segments. Since 2018, ahead of the launch of Tata Motors e-Nexon in 2020 - the first EV offering from Tata Motors - it has deployed 50,000 home chargers. It plans to end FY24 with 7,000 public EV charging points.

The all-electric, digital and distinctive MINI family

As part of the transformation towards an all-electric future, MINI is unveiling two new electric models at the IAA (International Motor Show) in Munich (5 - 10 September 2023).

MINI Cooper: This iconic 3-door model, now in its fifth generation, maintains the traditional MINI design while offering electric driving pleasure for urban environments.

MINI Countryman: With increased size, this model offers more space, comfort, and all-wheel drive capability, making it suitable for adventures beyond city limits.

MINI Aceman: This crossover in the premium small car segment will premiere in April 2024.

MINI's commitment to an all-electric future is evident with these models, offering emission-free mobility and an exceptional user experience. The interior of the new MINI models features a clean and modern design, with a focus on essential elements. The central OLED display, MINI Interaction Unit, supports touch and voice control, enhancing the overall driving experience.

MINI's design philosophy, "Charismatic Simplicity," combines traditional MINI values with modern innovations, resulting in a contemporary and recognizable aesthetic. The MINI Cooper, now all-electric, retains its iconic design elements, with two versions offering varying performance and range.

The new MINI Countryman offers more space and comfort, with a rugged crossover design. Inside the MINI Countryman, adaptability is key, with woven textile surfaces and multiple MINI Experience Modes for personalization.

MINI's electric models represent a harmonious blend of innovation, heritage, and driving excitement, paving the way for a sustainable urban future.

Tata Teases Nexon EV Facelift

TATA MOTORS has released a teaser video for the upcoming Nexon EV facelift, set to debut on September 7 and launch in India on September 14. The facelift will feature Tata's new '.ev' branding, emphasizing its commitment to clean energy mobility solutions. Tata has sold over 1 lakh electric vehicles in India in just 5 years, with significant growth attributed to models like the Tiago EV, Tigor EV, and Nexon EV.

The Nexon EV facelift will take design cues from the Curvv concept, featuring a full-width LED light bar at the front and V-shaped LED taillights at the rear. Expect updates like sleek black fog lamp housings, a black center panel, and new alloy wheel designs. The electric variant will also offer dual-tone exterior colors.

Inside, anticipate an updated dashboard, a two-spoke steering wheel, a 10.25-inch touchscreen infotainment system, digital instrument cluster, touch-based HVAC controls, electric sunroof, and slimmer AC vents.

Mechanically, it will retain two battery options: a 30.2 kWh for Nexon EV MR (Medium Range) and a 40.5 kWh for Nexon EV LR (Long Range), producing 127bhp/245Nm and 141bhp/250Nm, respectively. The facelift may introduce new suffixes, replacing Prime and Max with Medium Range and Long Range. These models are estimated to offer a range of 312km (ARAI) and 453km (MIDC) on a single charge.

While prices may increase due to improvements, the Nexon EV facelift will compete with rivals like the Mahindra XUV400 and MG ZS EV. Tata plans to introduce three more electric SUVs by early 2024: Punch EV, Harrier EV, and Curvv EV. The refreshed Nexon EV will hit the market on September 14, 2023.

Volvo India Introduces C40 Recharge EV

VOLVO CAR India has introduced the C40 Recharge at a starting price of INR 61.25 lakh, excluding taxes. This electric vehicle (EV) is the second model from Volvo to be assembled in India, coming with an 11 kW charger.

The C40 Recharge launch aligns with Volvo's commitment to introduce a new EV model annually in India. It stands out with leather-free interiors and distinctive features, emphasizing sustainability and safety, boasting a Euro NCAP five-star safety rating. JyYoti Malhotra, Managing Director of Volvo Car India, said, "The C40 Recharge is a reflection of our commitment to the Indian market."

The ownership package offers comprehensive car warranty, Volvo service, roadside assistance, battery warranty, 5-year digital services subscription, and an 11 kW wall box charger through a third party.

Bookings begin on the Volvo Car India website with a refundable deposit of INR 1,00,000. Volvo's retail partners across India will provide support for sales delivery, maintaining customer service and after-sales operations.

Additionally, the "Tre Kronor Experience" program, initially for XC40 Recharge customers, will extend to C40 Recharge customers, offering exclusive luxury and personalized experiences.

Jyoti Malhotra,
Managing Director
Volvo Car India

RecycleKaro Invests 100 Crores in Nickel Metal Plant

RECYCLEKARO, a leader in lithium-ion battery recycling, is investing 100 crores to establish a Nickel Metal Plant in Maharashtra. This initiative aligns with their commitment to complete the circular economy's value chain and meet the growing demand for lithium-ion batteries in India's electric vehicle (EV) market. It also aims to reduce India's reliance on global nickel supplies and lessen dependence on China in this sector.

Nickel's Rising Role in Lithium-ion Batteries

The lithium-ion battery industry, while not a significant nickel consumer today, is expected to experience a tenfold increase in nickel demand for batteries by 2030. The surge in EV adoption will drive a substantial uptick in nickel demand, projected to rise by over 60% by 2040. RecycleKaro's nickel production plant aims to bolster India's position in the global lithium-ion value chain.

Plant Capacity and Innovative Technology

Spanning 17 acres, the factory will house a plant capable of producing Nickel Metal from Scrap lithium-ion Batteries and Nickel Hydroxide. This innovative technology extracts metals from scrap batteries and nickel hydroxide using a temperature-controlled, chemical leaching process, resulting in higher-purity nickel metal compounds. The plant will produce 1200 tonnes of nickel metal annually, with 30 percent dedicated to use in FY 2023-24. Production is set to commence by the end of the year, with a target annual output of up to 1200 tonnes.

Impact and Vision

RecycleKaro's Founder and Director, Mr. Rajesh Gupta, highlighted the significance of this Nickel Metal Plant for the EV industry, emphasizing its role in meeting the surging demand for nickel in lithium-ion batteries. Additionally, this initiative aligns with India's "Make in India" initiative, creating employment opportunities and contributing to a thriving EV ecosystem.

'PM-eBus Sewa' Scheme to Transform Public Transport

THE 'PM-eBus Sewa' scheme is set to revolutionize public transport in India with 10,000 electric buses to be deployed in 169 cities through a public-private partnership (PPP). The Union housing and urban affairs ministry has announced that the scheme will roll out in the next five to six months, with the central government soon procuring air-conditioned e-buses.

Union Urban Affairs Minister Hardeep Singh Puri revealed the government's plans during a press conference. The initiative aims to provide a metro-like commuting experience on these electric buses, offering an automatic fare system for convenience. Operators will receive INR 20-40 per kilometer for their services.

Secretary of Housing and Urban Affairs, Manoj Joshi, emphasized that the scheme will be implemented across 169 cities, with states required to submit their proposals by September 30. The guidelines for the program were recently issued to facilitate its smooth operation.

The 'PM-eBus Sewa' scheme represents a collaborative effort involving the Central and state governments, along with service providers. Minister Puri expressed confidence in its success.

The scheme, aimed at promoting green mobility, carries an estimated cost of INR 57,613 crore, with the central government contributing INR 20,000 crore, while the states cover the remaining expenses. Priority will be given to cities lacking organized bus services, and the program will extend until 2037.

The program has two components: improving city bus services in 169 cities and promoting green urban mobility in 181 cities, targeting populations from three lakh to 40 lakh. It will support bus operations for ten years, with city selection through a competitive challenge. Non-motorized transport options will also be provided to enhance public transportation.

The government has allocated INR 20,000 crore, with INR 15,930 crore for buses, INR 2,264 crore for infrastructure, and INR 1,506 crore for green urban mobility. Under the 'PM-eBus Sewa' scheme, cities will manage bus services and payments to operators, encouraging the use of electric buses and sustainable urban mobility.

Hardeep Singh Puri
Minister of Petroleum and Natural Gas & Housing and Urban Affairs, Government of India

Gogoro and Swiggy Announce EV Partnership in India

GOGORO INC. (Nasdaq: GGR) has unveiled a groundbreaking partnership with Swiggy, India's prominent on-demand convenience delivery platform, aimed at advancing sustainable mobility. Gogoro specializes in battery-swapping ecosystems that promote eco-friendly urban transportation. The collaboration intends to hasten India's transition towards electric vehicles (EVs) by granting access to Gogoro Smartscooters and their innovative battery swapping technology. Horace Luke, Gogoro's CEO, stressed the importance of this partnership in transforming India's urban fleets into electric, aligning with both national and city governments' goals.

Horace Luke stated, "Our priority is to expedite India's hyperlocal fleet's shift to electric vehicles, and partnering with industry leader Swiggy is instrumental in achieving this goal. Through this collaboration, riders will have a seamless pathway to embrace sustainable electric transportation, enhancing their business efficiency."

Mihir Shah, Head of Operations at Swiggy, echoed this sentiment, highlighting the collaboration's role in providing greener and cost-effective solutions for their delivery fleet. Shah emphasized the need to offer delivery partners access to cutting-edge innovations in sustainable transportation, enhancing rider experiences and delivery efficiency.

Swiggy, having already committed to covering 8 lakh kilometers daily through EV deliveries in 2021, has been actively pursuing sustainable transportation solutions. The company has formed strategic partnerships with industry giants such as Reliance BP Mobility Limited and Hero Lectro to integrate electric vehicles into their last-mile delivery operations. These efforts have significantly reduced vehicle running costs for delivery partners, boosting their earnings.

The unique challenge of last-mile delivery demands a sustainable solution tailored to the industry's specific needs. Gogoro's sophisticated battery swapping system, designed for two-wheel vehicles, offers an ideal solution. This system empowers delivery operators to manage their fleets and deliveries more efficiently, aligning with the distinctive demands of the delivery sector.

E-commerce and FMCG Sectors Push EV Demand

THE demand for electric vehicles (EVs) is rapidly increasing among ecommerce companies and consumer goods manufacturers, doubling from last year. This surge is driven by the desire to reduce costs significantly and achieve carbon emission reduction targets. Major players like Amazon, Hindustan Unilever, Swiggy, Coca-Cola, Zomato, Amul, Flipkart, BigBasket, and Bisleri are adopting EVs for their operations, targeting both consumers and retailers.

Leading the way in the adoption of EVs are electric three-wheelers, especially in the ecommerce sector. Amitabh Saran, co-founder of electric three-wheeler company Altigreen, highlighted the substantial cost savings of operating EVs compared to diesel or CNG vehicles. Companies like Altigreen have provided EVs to Amazon, Flipkart, BigBasket, HUL, Bisleri, and Coca-Cola. The potential for electric three-wheelers remains untapped, presenting a significant market opportunity.

EV adoption is gaining momentum across various vehicle types. In the current fiscal year, it is projected that over 100,000 electric cars and around a million electric two-wheelers will be sold, a significant increase from the previous fiscal year. To support the seamless operation of EVs, companies are investing in charging stations, which are crucial for wider adoption.

Amazon India, for instance, is partnering with Eicher Motors and Buses to introduce 1,000 electric trucks for middle-mile and last-mile deliveries over the next five years. TVS Motor Co. has also entered into a strategic partnership with Zomato for 10,000 electric scooters, aiming to revolutionize last-mile delivery and reduce carbon footprint.

The shift to electric commercial vehicles is motivated by the need to reduce crude imports, vehicular pollution, and fixed operating costs. Companies such as Coca-Cola are embracing EVs for distribution purposes, with thousands of electric vehicles already in their fleet.

Economic factors are driving the push toward EV adoption. The running cost per kilometer for commercial electric vehicles is significantly lower compared to petrol or diesel vehicles. As of now, about 50-55% of the three-wheeler market is electric, a number that is expected to rise to 80% in the next year. Similarly, 60-70% of the two-wheeler market is predicted to transition to electric within the next three years.

Cell companies seek flexible terms

COMPANIES manufacturing cells - a key component of batteries used in electric vehicles, consumer electronics and high-tech electricity grids - have asked the government to make flexible the minimum capacity required to be set up for availing of incentives under the ₹18,100 crore production linked incentive (PLI) scheme for advanced chemistry cells (ACC).

The government has been pushing the shift towards EVs in its bid to clamp down on crude oil imports and vehicular pollution. The PLI scheme for ACC has been floated to make India self-reliant in the transition to clean energy, when the country is projected to see sales of a million electric cars and 22 million electric two-wheelers by 2030.

Senior government officials ET spoke with said industry stakeholders have recommended that the government reduce the minimum capacity required to become eligible for PLI ACC and make it flexible at 1 GWh (gigawatt hours) or 3 GWh from the minimum of 5 GWh in the earlier round, to allow more companies to participate and foster innovation.

"We have held consultations with stakeholders. They have asked for more flexibility in minimum capacity. We are looking into it. The final norms will be issued within a month," a senior government official said.

Revolutionizing the BMW iDrive Experience

THE BMW Group is set to redefine the way drivers interact with their vehicles with the introduction of the all-new BMW iDrive. This cutting-edge display and operating concept mark a significant leap forward in intuitive driver-vehicle interaction. Scheduled to debut in the Neue Klasse from 2025, the future generation of BMW iDrive promises to transform your vehicle into a digital haven. With groundbreaking features like BMW Panoramic Vision, a multifunction steering wheel, a new central display, and the innovative BMW 3D head-up display, the iconic BMW user experience is reborn across all Neue Klasse models.

The upcoming BMW iDrive in the Neue Klasse is all about embracing the latest technologies, resulting in a modern and distinctly BMW interior design, with a strong emphasis on touch and advanced voice interaction. This next iteration of BMW iDrive revolves around four central elements, each designed to enhance your driving experience.

BMW Panoramic Vision introduces a fresh perspective on the classic BMW driver orientation, now accessible to all passengers. This feature employs a groundbreaking head-up display technology that projects information at the ideal height for the driver across the entire windshield. Complementing this, the BMW 3D head-up display comes into play during active driving moments, providing precise 3D animations for assisted driving and traffic guidance. The new multifunction steering wheel enables easy, hands-on-the-wheel control of these displays, ensuring your focus remains on the road.

The new central display, at the heart of BMW iDrive in the Neue Klasse, boasts BMW's signature style and introduces an intuitive touch function. Utilizing matrix backlight technology, this display guarantees high resolution, vibrant colors, and strong contrast, regardless of ambient lighting conditions.

Building on the QuickSelect concept introduced in 2023, the future BMW iDrive in the Neue Klasse leverages a highly integrated software architecture and the next generation of the BMW Operating System. This intelligent system seamlessly connects with the BMW Cloud and your digital ecosystem, offering an immersive user experience that transforms Neue Klasse vehicles into digital experience spaces

Tata Power, Zoomcar join hands for EV adoption

TATA POWER EV Charging Solutions said that, it has tied up with car-sharing platform Zoomcar to promote electric vehicle adoption. The collaboration aims to promote Tata Power's EZ Charge points on the Zoomcar platform and will focus on supporting existing and aspiring EV owners along with Zoomcar's existing customers.

Tata aims to establish 25,000 charging points in the next five years, bolstering the national EV ecosystem and driving sustainable mobility growth. Zoomcar has over 20,000 cars on its platform across India, Indonesia, and Egypt.

As India's leading EV charging infrastructure provider, we are constantly collaborating with industry partners such as Zoomcar to develop a technologically advanced and robust EV ecosystem in the country," Tata Power CEO & MD Praveer Sinha.

Zoomcar CEO and Co-founder Greg Moran said that the partnership is poised to create a comprehensive ecosystem that fulfils the evolving needs of EV enthusiasts. "Our car-sharing platform is perfectly suited for electric vehicles and we expect to grow 50 per cent of our platform by 2025," he added.

TATA POWER EZ CHARGE | Zoomcar Never Stop Living

Dr. Praveer Sinha
CEO & Managing Director
Tata Power Company Limited

Greg Moran
CEO and Co-founder
Zoomcar

India's First Hydrogen-Based Rickshaw with OSM

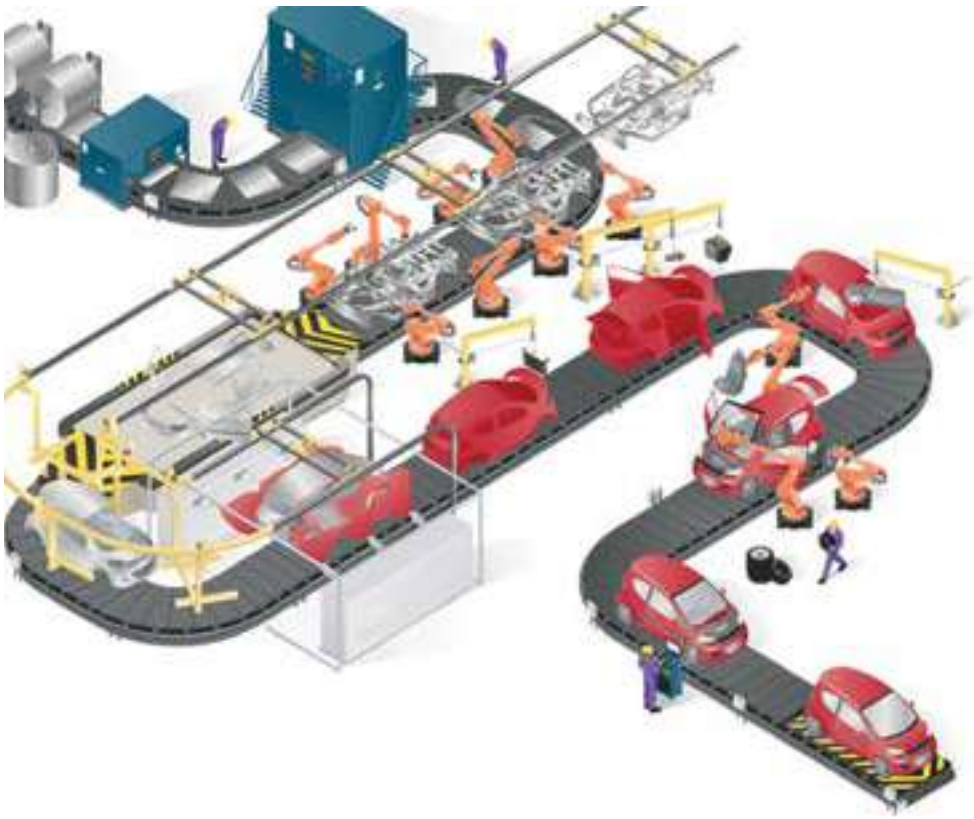
IN the next six months, Omega Saiki Mobility (OSM) plans to introduce India's maiden L-5 category rickshaw powered by hydrogen. This innovative vehicle is designed to cover a robust 350-400 km range on a single charge, even in challenging terrains. With a 1-ton load capacity, it will compete competitively with OSM's existing product line. While the complete specifications are yet to be disclosed, it has the potential to revolutionize the L-5 category rickshaw market.

The vehicle is currently undergoing testing in diverse locations, including Europe, Jaisalmer deserts, and Leh. It aims to address mass-market needs while alleviating concerns about charging infrastructure.

Hydrogen-based vehicles are entirely sustainable, as they rely solely on natural minerals, eliminating the need for fossil fuel extraction. Unlike electric vehicles, which depend on coal and other fossil fuels for electricity production, hydrogen is generated using renewable energy sources like solar and wind power.

The Indian government has committed to a green hydrogen mission, allocating an initial budget of INR 19,000 crore (approximately $190 billion). This substantial investment underscores India's dedication to advancing green hydrogen technology, fostering clean energy development. The government's goal is to produce five million tonnes of green hydrogen by 2030, facilitated by policies that promote the use of renewable resources like hydrogen and ammonia without transmission costs for 25 years.

Hydrogen Engine Combustion Control



TOTALENERGIES Lubrifiants has introduced a range of lubricants tailored for hydrogen-powered combustion engines. While the automotive industry is increasingly shifting towards electric drivetrains to reduce CO2 emissions and adopt renewable energy sources, there remains a substantial need for high-power applications with quick refueling capabilities. Green Hydrogen, produced using renewable energy sources, is a promising solution for such cases. It can be used in fuel cells to generate electricity, but it requires pure hydrogen, a buffer battery, and an electric drivetrain for fuel cells to function optimally.

In contrast, traditional combustion engines with mechanical drivetrains can be adapted relatively easily to run on hydrogen. They are more tolerant of impurities in the hydrogen fuel and offer a familiar and robust design. Hydrogen combustion in internal combustion engines is exceptionally clean, producing only water as a byproduct. Any trace amounts of CO2 and particles result from the combustion of the lubricant and engine wear particles. Notably, hydrogen/air mixtures require significantly less ignition energy compared to diesel or gasoline/air mixtures.

These unique combustion conditions necessitate specialized lubricants that can ensure both performance and safety. These lubricants must effectively control or prevent abnormal combustion incidents such as pre-ignition and backfires to safeguard the engine and facilitate high-power output. During engine operation, the water generated from combustion travels through the piston rings and liner into the oil sump, requiring proper management by the lubricant to maintain the engine's reliability.

TotalEnergies Lubrifiants has developed lubricants explicitly engineered for hydrogen combustion engines, offering various viscosity options to cater to diverse engine hardware and applications. This innovative technology is expected to deliver significant benefits in terms of protecting engines from abnormal combustion and efficiently managing combustion water, ultimately enabling high-power output and reducing particle emissions.

JSW Moves into EV Manufacturing

JSW GROUP, under the leadership of Chairman Sajjan Jindal, is making strides towards entering the electric vehicle (EV) market. The conglomerate is currently engaged in discussions with MG Motor India for potential collaboration in the EV sector. Simultaneously, JSW Group is also developing its own plans to manufacture electric vehicles. Jindal emphasized the company's dedication to entering the EV space and highlighted MG Motor as their preferred choice for collaboration.

However, should the partnership not materialize, JSW Group is prepared to independently pursue the creation of their own line of EV cars. Jindal expressed his conviction that entering the EV market is crucial for JSW Group's future success and timely given the current industry trends.

Seshagiri Rao, the Chief Financing Officer of JSW Group, previously mentioned the active consideration of manufacturing electric four-wheelers within the group. The discussions on EV production were reportedly taking place at the group level. JSW Group is known for its presence across diverse sectors, including steel, energy, infrastructure, cement, paints, venture capital, and sports. The ambitious move into EV manufacturing aligns with the organization's commitment to staying at the forefront of emerging industries and contributing to a sustainable future.

Seshagiri Rao,
Chief Financing
Officer
JSW Group

"EV Parivartan" Rally by Vegh Automobiles

Paving the Way for Electric Vehicle Adoption

LEADING the charge towards a cleaner Bathinda, Vegh Automobiles organized the city's inaugural "EV Parivartan" Rally on August 25th. This rally aimed to spread awareness about electric vehicles (EVs) and their role in curbing pollution. Over 200 families participated, riding Vegh EV scooters adorned with flags and placards, symbolizing their commitment to a greener future.

Sumeet Gupta, MD of Vegh Automobiles, flagged off the rally, uniting various groups in support of sustainable living and transportation. This diverse participation showcased EVs as a viable family-friendly mode of travel.

Support came from EV enthusiasts, social organizations, Resident Welfare Associations (RWAs), environmentalists, and more, reaffirming their dedication to mitigating pollution through sustainable transportation. Gupta highlighted the rally's significance, expressing that it's a collective step toward a cleaner and healthier future.

The rally extended its impact beyond participation; Vegh Automobiles collaborated with the NGO "Tree Lovers Society" to plant over 1000 trees, promoting a greener Bathinda. In alignment with this commitment, Vegh Automobiles pledged to plant a tree for every vehicle sold, fostering a sustainable ecosystem.

The "EV Parivartan" campaign embodies Vegh Automobiles' vision of bringing electric vehicles to every household. Focused on raising awareness about EVs, the event emphasized the benefits of EV adoption, from affordability to environmental sustainability. The aspiration is to transform Bathinda into a pollution-free city, setting an example for the region and the nation.

TATA PASSENGER ELECTRIC MOBILITY, the electric vehicle (EV) division of Tata Motors, has launched its revamped brand identity, TATA.ev, as part of its commitment to sustainability and innovative mobility solutions. This new identity embodies the philosophy of "Move with Meaning," uniting sustainability, community, and technology. It represents a collective effort to transition toward an electric future that benefits the planet and its inhabitants.

Key Highlights of TATA.ev's Brand Identity:

The Orbit: The logo mark "ev" is enclosed within an Orbit, symbolizing a circular ecosystem of human and environmental interaction working together for a brighter future.

The Brand Color: Evo Teal, the brand's distinctive color, signifies innovation and tech-forward capabilities, reinforcing the brand's commitment to sustainability.

Inter Typeface: The open-source Inter typeface represents modernity and accessibility, aligning with the brand's sustainability-first approach.

The Character: The addition of a "bridge" element to the typography infuses dynamism into the communication.

The Sound: The motion and sonic logo combines electronic circuits and a powerful ripple sound to create a sense of forward progress.

MY EV Store Launches IME Rapid

MY EV Store, a respected name in the multi-brand e-mobility retail sector, proudly presents IME Rapid, India's premier electric scooter. The IME Rapid sets a new milestone by offering an exceptional 300 kilometers range on a single charge, coupled with a remarkable top speed of 80 km/hr. This breakthrough addresses the prevailing range anxiety issue, representing a significant leap forward for sustainable transportation in India.

The IME Rapid achieves its remarkable range through MY EV Store's innovative Smart Range Technology (SRT). This technology intelligently analyzes real-time data, taking into account factors such as battery status, weather conditions, traffic density, and driving patterns to provide highly accurate range predictions. This game-changing advancement eliminates range anxiety and encourages electric vehicle adoption, contributing to a greener and cleaner environment.

Mr. Puneeth Gowda, Founder and Managing Director of MY EV Store, highlights the urgency of addressing rising air pollution levels in India. Electric vehicles offer a viable solution, but concerns about limited range have hindered widespread adoption. With the IME Rapid, they have broken down this barrier, offering a scooter that not only surpasses previous benchmarks but also makes sustainable transportation practical.

Initially launching in Bengaluru, the IME Rapid will later expand its presence across Karnataka, reshaping the landscape of the electric vehicle industry in India. Mr. Gowda shares that they are focusing on a Franchise Owned Company Operated (FOCO) model for Bengaluru, with plans to extend the IME Rapid range to 15 to 20 cities across Karnataka.

In a country where vehicle emissions are a pressing concern, e-mobility solutions are the future. India is on the verge of a transformative electric vehicle ecosystem, with projected electric two-wheeler sales of 22 million units by 2030. However, the challenge of range anxiety remains a prominent obstacle for electric two-wheelers today, eroding consumer trust and limiting industry growth.

MY EV STORE™
Drive the future

TVS Motor Aims to Double EV Production

TVS MOTOR Company is gearing up to boost its electric vehicle (EV) production, targeting more than 200,000 scooters based on the EV platform in the current fiscal year. Sudarshan Venu, Executive Director at TVS Motor, stated that they are increasing EV scooter production of the existing model, iQube, by 25,000 units per month starting from August. The introduction of new-born electric scooters will further contribute to the company's overall EV production.

As India's second-largest two-wheeler EV company with a July market share of 22%, TVS Motor has invested approximately Rs 250 crore in the development of its new electric scooter model, TVS X. The company plans a capital expenditure of Rs 900-1,000 crore for the fiscal year, with a major portion dedicated to EV products. In the previous fiscal year, TVS Motor sold nearly 100,000 EV scooters and around 47,102 units in the first four months of the current fiscal year.

The launch of new EV products is expected to expand TVS Motor's target audience. Sudarshan Venu anticipates that the company's EV scooter volume share will double over the next two years, while projecting India's EV scooter penetration to reach 30% by 2025.

The expansion of EV volumes is not anticipated to adversely affect TVS Motor's double-digit margins. Venu highlighted that the iQube model has consistently maintained a positive gross margin. The newly introduced TVS X model is expected to be gross margin positive from the start, as it won't qualify for the Faster Adoption and Manufacturing of Electric Vehicles (FAME) subsidy due to its pricing.

TVS Motor has reported a double-digit operating margin (EBITDA margin) in each of the eight quarters up to June 2023, achieving a record EBITDA of Rs 8,000 per unit in the latest quarter.

With an eye on both domestic and export markets, TVS Motor aims to produce around 30,000 units of the TVS X model annually, with a daily capacity of 100 scooters. The company has also expanded its EV scooter presence to Nepal and is targeting new markets like Europe and Latin America with the launch of the TVS X electric scooter. Exports contributed to one-fourth of the company's total volume in the previous fiscal year.

Falling Lithium Prices and Battery Self-Reliance Spark Growth

As electric vehicle (EV) adoption gains momentum in India, manufacturers are focusing on enhancing cost-efficiency to entice potential buyers and sustain the trend.

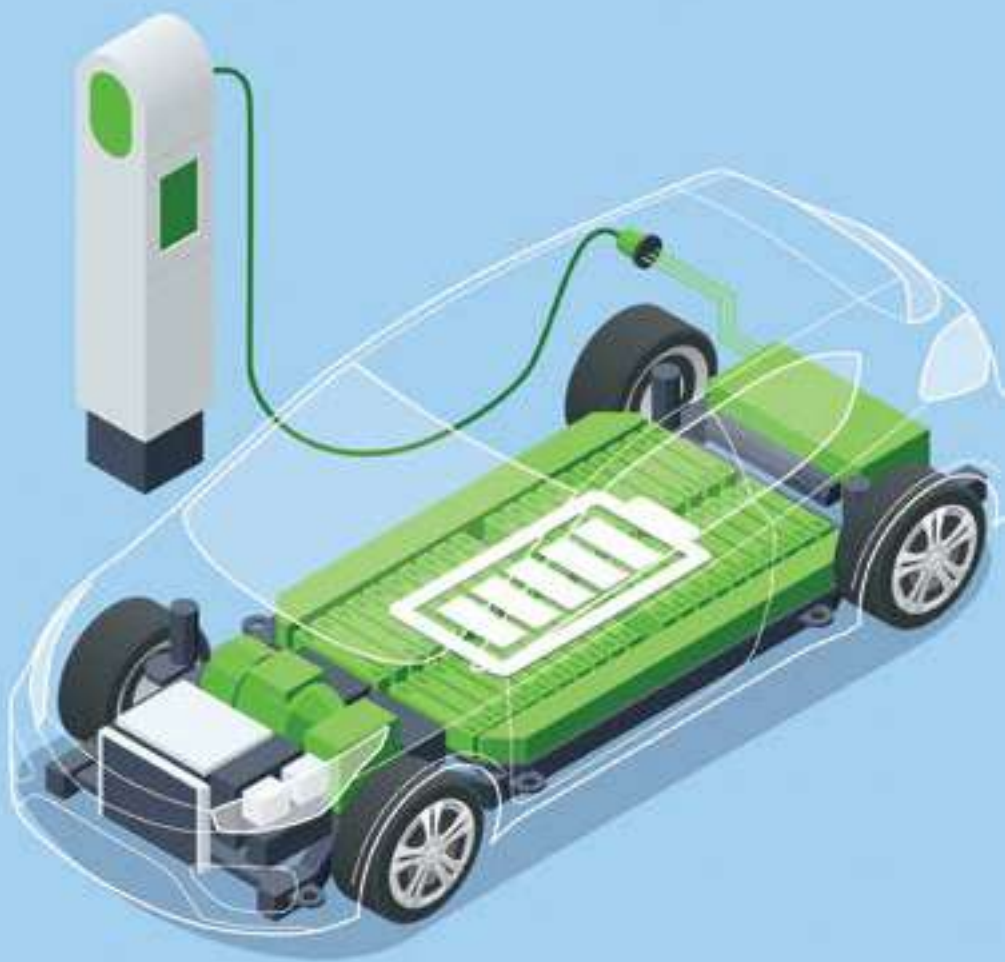
Historically, reliance on imported lithium-ion batteries hindered affordable EV production in India. Batteries account for 50-60% of an EV's cost, often imported from China or Taiwan and assembled domestically. Approximately 70% of India's Li-ion cell requirements are imported from China and Hong Kong, elevating EV costs.

Recent developments, including plummeting lithium prices and the discovery of domestic lithium reserves, are reshaping the landscape. Reduced lithium prices are influenced by factors like slower EV sales growth in Europe and China. Prices have dropped by over 30% this year after a two-year surge, driving down battery costs. In India, the discovery of lithium reserves in Jammu and Kashmir and Degana, Rajasthan, holds promise for local production.

These reserves could meet around 80% of India's lithium demand, reducing dependence on China. The discovery aligns with India's goals of establishing a robust domestic lithium supply chain and lowering imports, ultimately fostering affordable EV production.

Alongside declining lithium prices, the government's focus on battery self-reliance is pivotal. Initiatives such as the Faster Adoption and Manufacturing of Electric Vehicles (FAME) program and the Production-linked Incentive (PLI) scheme incentivize local cell manufacturing. The waiving of customs duty on capital goods for battery pack manufacturing further drives affordability.

Currently, India produces 81% of lithium-ion batteries for EVs and is poised for further growth. The lithium-ion battery market is projected to reach USD 5.03 billion in the next five years.



RevFin Empowers Women E-Rickshaw Drivers

REVFIN SERVICES, a leading digital consumer lending platform, celebrates the empowerment of women from Tier 2 and 3 Indian cities who are embracing the EV revolution by availing loans, fostering equity, and smashing stereotypes. On Women's Equality Day, their potential to break through barriers is recognized, with data highlighting that 24% of talented and empowered women in Tier 2 and 3 markets contribute to the EV industry. A notable 5500 women from Bihar and Uttar Pradesh have embraced this opportunity.

RevFin's report highlights the impact of EV financing on women's empowerment across different states. For instance, Uttarakhand sees 550 women securing loans, while Jharkhand boasts 362 beneficiaries.

Priya Verma's story exemplifies this progress. Formerly a security guard, she transformed her life during the lockdown by securing an E-rickshaw loan from RevFin. With consistent earnings, Priya now enjoys a balanced work-life, inspiring other women to follow suit and drive E-rickshaws, leading to empowerment.

Sameer Aggarwal, CEO and Founder of RevFin, commends this ascent, noting that these women are not only contributing to their households but also becoming breadwinners. RevFin's seamless loan process supports their journey, providing financial resources to foster empowerment.

Sameer Aggarwal,
CEO and Founder
RevFin

RevFin's financing solutions and dedication are shaping an industry where women's contributions are magnified through leadership roles and entrepreneurial ventures in the EV sector. This signifies a future where equity and growth go hand in hand.

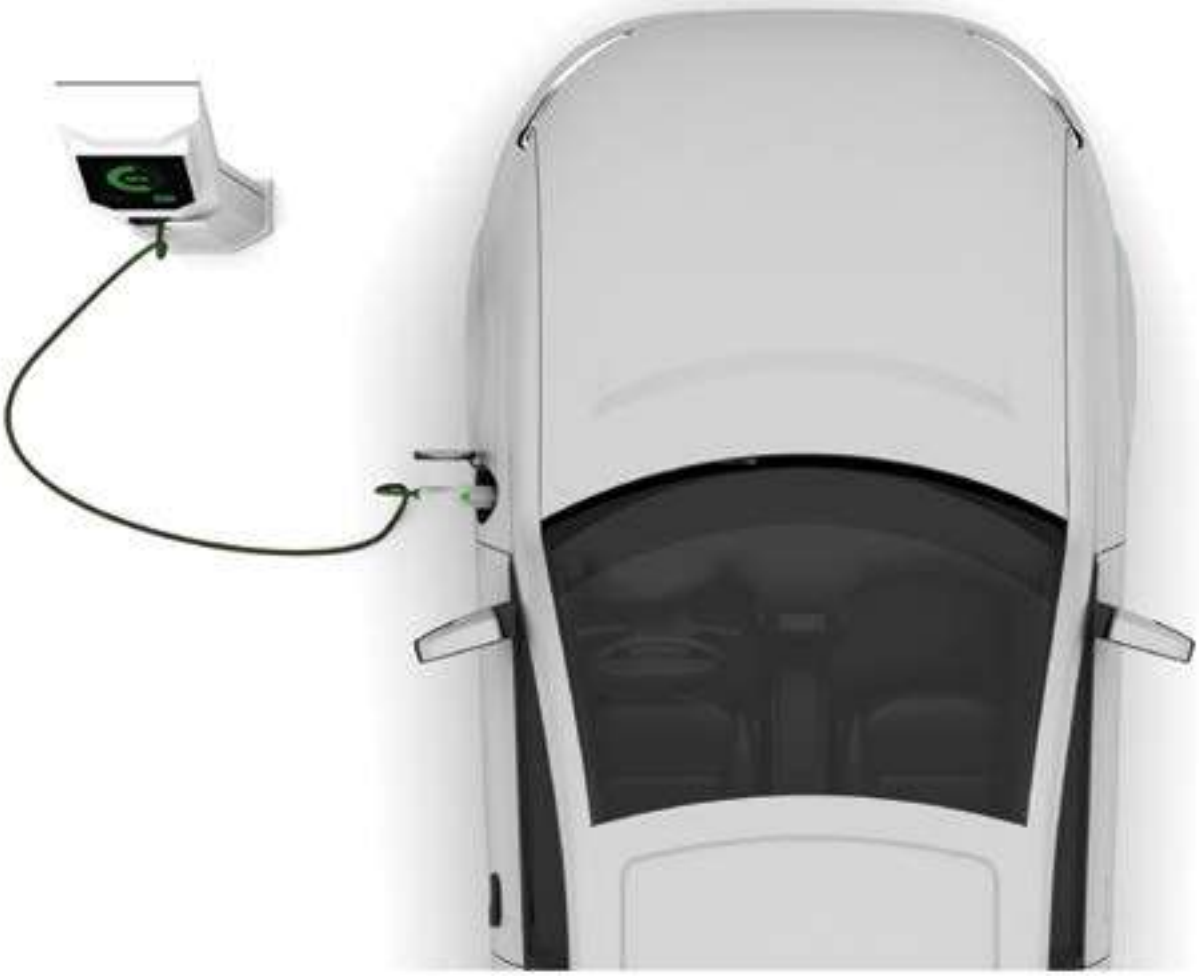
Inclusion of EVs in priority sector

THE Indian government is contemplating the addition of electric vehicles (EVs) to the priority sector lending category, aiming to enhance access to funding for EV-related initiatives. A senior official disclosed that a proposal had been received for this inclusion, requiring a review of priority sector lending criteria in consultation with the Reserve Bank of India.

Presently, priority sector lending mandates that banks allocate 40% of their adjusted net bank credit to specific sectors. The existing categories encompass agriculture, Micro, Small and Medium Enterprises (MSME), export credit, education, housing, social infrastructure, and renewable energy.

Incorporating EVs into the priority sector has multifaceted benefits. It could bolster investor confidence, signaling sustained government support for the EV sector. Additionally, it could expedite a balanced transition by mandating financial institutions to channel credit towards segments that face credit deficiencies despite strong economic viability.

A January 2022 Niti Aayog report highlighted the suitability of including EVs in priority sector lending, particularly for electric two and three-wheelers and commercial four-wheelers. These segments exhibit a substantial demand for formal credit, potential for employment generation in urban and rural settings, promising sales projections, widespread model availability, and a narrower gap in total cost of ownership parity.



Safexpress Expands Fleet with Eicher Electric Trucks

SAFEXPRESS, a leader in express distribution and logistics services, is bolstering its partnership with Eicher Trucks and Buses, a division of VE Commercial Vehicles Limited. Their collaboration spans services to over 5000 customers nationwide.

In the current fiscal year, Safexpress welcomed its 100th Eicher truck into its fleet. Additionally, they marked a significant milestone by receiving India's first 5.5-ton GVW electric truck, the Eicher Pro 2055 EV. This move aligns with the commitment to reduce carbon emissions in transportation, in line with the government's Net-Zero vision.

Vinod Aggarwal, Managing Director and CEO of VECV, expressed his satisfaction with the growing partnership and celebrated the delivery of Safexpress' 100th Eicher truck and the introduction of the groundbreaking Eicher Pro 2055 EV.

The Eicher Pro 2055 EV builds on Eicher's established electric vehicle technology, already used in intra-city bus applications. It features a 12ft deck and offers two fully built container solutions. Charging options, including fast and slow charging, cater to specific application needs.

Vinod Aggarwal, Managing Director and CEO of VECV

Pawan Jain, founder and chairman Safexpress

The service solution takes into account charging infrastructure availability, operational requirements, charging times, battery capacity, and overall energy management strategies. The truck boasts Eicher's advanced telematics solution and leverages the My Eicher services.

Eicher stands out as the first player to introduce a 100% connected range of vehicles with advanced telematics. This innovation enhances fuel efficiency, ensures superior uptime through the Eicher Uptime Centre support, and provides sector-specific benefits, such as logistical efficiency in e-commerce and passenger safety in buses.

SUN Mobility & Swiggy Partner for Electrify Last-Mile Delivery

SUN MOBILITY, a leader in EV energy infrastructure and services, has teamed up with Swiggy, India's premier on-demand delivery platform, to electrify over 15,000 e-bikes in Swiggy's delivery fleet within the next year. Through this collaboration, Swiggy's last-mile delivery e-bikes will gain access to SUN Mobility's cutting-edge battery-swapping technology and an extensive station network, reinforcing Swiggy's commitment to fast, reliable, and eco-conscious deliveries.

Anant Badjatya, CEO of SUN Mobility, expressed their enthusiasm for partnering with Swiggy, a trailblazer in the food and on-demand delivery sector, to drive electric mobility adoption in India. SUN Mobility is dedicated to advancing sustainable last-mile deliveries through electrification, aligning with Swiggy's vision of reducing their carbon footprint, promoting sustainable mobility, and contributing to a greener environment.

Mihir Shah, Head of Operations at Swiggy, reiterated the company's early and long-term commitment to eco-friendly transportation. Their collaboration with SUN Mobility addresses concerns related to access to battery-swapping stations, enabling seamless deliveries for their partners. Swiggy's delivery executives can continue their operations without added mileage or delays, enjoying cost savings on fuel and vehicle maintenance while actively participating in environmental conservation.

Bharat NCAP's Vehicle Safety Revolution in India

INDIA has launched its own indigenous automobile crash testing program known as the Bharat National Car Assessment Programme (NCAP), following the recent unveiling by Mr. Nitin Gadkari, the Union Minister for Road, Transport, and Highways. This program, effective nationwide from October 1, 2023, positions India as the fifth country to adopt such an initiative, joining the ranks of the US, China, Japan, and South Korea.

Prioritizing Road Safety and Consumer Choice

Bharat NCAP's primary goal is to elevate vehicle safety standards for vehicles weighing up to 3.5 tonnes in India. In a nation plagued by a high rate of road accidents resulting in casualties and economic losses, the NCAP offers a much-needed reform, prioritizing consumer safety by providing comparative assessments based on NCAP ratings. This initiative will also bolster India's automobile industry on the global stage.

Voluntary Participation by Car Manufacturers

Under this program, car manufacturers can voluntarily submit their cars for testing as per Automotive Industry Standard (AIS) 197. Based on their performance in these tests, vehicles will receive star ratings for Adult Occupants (AOP) and Child Occupants (COP). This system enables potential buyers to compare vehicle safety standards, facilitating informed purchase decisions.

Promoting Electric and CNG Vehicles

In a forward-looking move, Bharat NCAP will not only test internal combustion-engined vehicles but also CNG and electric vehicles based on their crash performance. Unlike other NCAP formats that offer separate star ratings for adult and child protection, BNCAP aims to provide a single unified rating for both categories.

ARAI's Role in Testing

The Automotive Research Association of India (ARAI), the testing agency for BNCAP, is fully prepared for the forthcoming testing norms. Their equipped laboratories in Pune and Chakan have conducted over 800 pre-NCAP crash tests, demonstrating their readiness to execute international-level tests tailored for the Indian context. ARAI officials emphasize that the testing scope includes CNG vehicles, addressing a unique local concern not extensively covered by Global NCAP standards.

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SIAM 63rd annual convention 2023

Building the Nation, Responsibly

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SESSIONS

Inaugural Session	Sustainable Mobility - The Way Ahead for the Indian Automobile Industry
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Special Plenary Session 2	Sustainable Mobility - Global Benchmarks
Valedictory Session	'Aatmanirbhar'- The Roadmap to Increased Localisation and Harnessing Export Potential of the Indian Auto Industry

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