JBM Group
Our milestones are touchstones

JBM Electric Vehicles Private Limited
Sustainability Report 2023-24

Fueling Innovation through Sustainability

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Innovating to Transform Mobility

JBM is at the forefront of the global electric mobility revolution, driven by a dedicated vertical focused on the development, design, manufacturing, and sales of electric buses. The company has built the world's largest integrated EV ecosystem and electric bus manufacturing facility outside of China, which also houses advanced integrated electronics manufacturing capabilities.

In FY 24, JBM inaugurated a state-of-the-art electric bus manufacturing facility in the Delhi-NCR region. Spanning an impressive 4 million square meters, the ultra-modern plant is capable of producing up to 20,000 electric buses and special-purpose vehicles annually. Built to Industry 4.0 standards, the facility features a fully digitalized ecosystem with a Manufacturing Execution System (MES) and virtual manufacturing capabilities that ensure precision, efficiency, and scalability.

The manufacturing facility also includes an integrated vendor park, advanced testing laboratories, and cutting-edge innovation centers. It is engineered to utilize new-age materials and future-ready technologies, enabling JBM to serve not only the Indian market but also key international markets across Asia, Europe, the Middle East, and Africa. This facility represents a major leap in JBM's commitment to sustainable mobility, global quality standards, and technological innovation.

Leading the Electric Mobility Revolution

- First Indian OEM to showcase electric buses across multiple international platforms
- Launched the Global Left-Hand Drive (LHD) City Bus and ultra-luxury LHD Coach at renowned events like Busworld Brussels, MENA Transport Exhibition in Dubai, and Bus2Bus Berlin
- Successfully participated in India's Bharat Mobility Show, reinforcing its leadership in the domestic market
- Had a significant presence in the aviation segment with a commanding 90% market share
- Offering a comprehensive lineup of luxury electric buses ranging from Airport Coaches and Tarmac Coaches to Premium Intercity models uniquely positioned in the market
- Supplied electric buses nationwide for corporate staff mobility
- Played a key role in India's PM e-Bus Sewa initiative and the National Electric Bus Program

MILES OF IMPACT

JBM's journey in the EV space is marked by significant milestones that underscore its leadership and commitment to sustainability:

150 million+
Cumulative e-kilometers Delivered

75 million
Liters of Diesel Saved

6,500+
Electric Buses Deployed and Under Execution

Diverse Business Activities

JBM is driving the future of electric mobility through a range of diversified business verticals, each focused on innovation, performance, and sustainability.

EV AGGREGATES

The company's EV Aggregates division is dedicated to the design and manufacturing of clean, intelligent, connected, and cost-effective electric vehicle components. These aggregates are engineered to deliver maximum performance across diverse operating conditions, featuring capabilities such as fast charging, extended service life, high energy density, and IP-rated protection against dust and water. Built for durability and efficiency, they serve as essential building blocks for next-generation electric mobility solutions.

BATTERY ECOSYSTEM

JBM has established one of the most advanced and extensive battery manufacturing ecosystems in India. This state-of-the-art facility supports the complete development cycle—including simulation and rigorous testing—of high-voltage lithium-ion battery systems designed for electric vehicles and energy storage applications. These batteries are compatible with a wide range of electric mobility platforms, including buses, trucks, cars, SUVs, two- and three-wheelers, and off-road vehicles.

The company's smart lithium-ion battery systems offer a capacity range between 120 kWh and 500 kWh and are designed with modular, compact, and highly optimized battery packs. They incorporate high energy density cells with long life cycles and utilize fast-charging lithium-ion technology. Encased in IP68-rated enclosures, these battery systems provide superior safety and durability, making them well-suited for demanding and diverse mobility applications.

FUTURE-READY PORTFOLIO

JBM's commitment to sustainable transportation goes beyond reducing carbon emissions. it addresses the broader societal needs within the mobility ecosystem. With a strong focus on electric mobility, the company provides a diverse portfolio of 9 platforms and 16 variants of zero-emission electric buses, designed to meet various urban and regional needs.

The product range includes solutions for government and private tenders, with ongoing expansions into global markets such as the Middle East, Africa, and the Asia-Pacific region. JBM's electric buses are equipped with smart, connected technologies including advanced safety features, remote diagnostics, real-time mapping, and geofencing. The Smart Dash interface ensures intuitive, confident electric operation, while over-the-air updates and fleet management integrations guarantee long-term, future-proof performance.

JBM is contributing to the evolution of mobility through sustainable, connected, and intelligent electric vehicle (EV) solutions. Supported by a future-ready ecosystem, the company offers a broad product portfolio designed to address the diverse needs of today's transportation landscape, both in domestic and international markets.

The company continues to expand its portfolio with innovative products that serve various sectors, including mobile medical units, executive tarmac coaches, and India's first luxury electric coach, GALAXY. Additionally, JBM has introduced 9-meter and 12-meter electric buses tailored for markets across Europe, the Middle East, and Africa.

- The GALAXY- Luxury Coach is at the top of the range, designed for premium intercity and long-distance travel. With platforms ranging from 12 to 13.5 meters and a capacity of up to 53 passengers, it offers a daily range of up to 1,000 kilometers, depending on battery configuration. The coach is equipped with advanced features such as ADAS, ECAS, EBS, EVSC, and hill hold functionality, and adheres to world-class IM and IL safety standards.
- For efficient and comfortable intercity transport, the **Intercity Bus** provides a 12-meter platform that accommodates up to 55 passengers and delivers an impressive daily range of 1,000 kilometers. It combines high performance with best-in-class safety systems, ensuring reliability across longer distances.
- Specifically engineered for airport operations, the **e-SKYLIFE** – Tarmac Bus is available in 12-meter and 9-meter low-floor configurations and can carry up to 72 passengers. It offers quiet, smooth battery-operated bus rides for up to 20 hours daily, meeting global IM and IL safety norms, making it ideal for airport tarmac transportation.
- For **intra-city travel**, JBM's City Buses are available in both low-floor and high-floor versions, with a 72-passenger capacity and a daily range of 300 kilometers. Known for over 97% uptime and excellent safety, these buses are designed to support urban public transport networks with high reliability.
- The **e-BIZILIFE** – Corporate Staff Commute solution caters to city employees' transportation needs. Available in 12-meter and 9-meter platforms, it can seat up to 63 passengers and covers up to 300 kilometers daily. Cutting-edge EV technologies enable its comfortable & noiseless operation, offering an optimal commuting experience for the corporate segment.
- Addressing urban and semi-urban mobility, the **ECOLIFE e9** provides a versatile solution with both low- and high-floor platform options. With a capacity of up to 42 passengers and a daily range of 300 kilometers, it ensures over 97% uptime and is ideal for flexible urban transit operations.
- Ensuring safe and reliable student travel, the **e-SKOOLIFE** – Safe School Transportation bus is available in 12-meter and 9-meter high-floor configurations, carrying up to 78 students. It offers a daily range of 300 kilometers and can be customized with specific safety features tailored to different geographies and demographics.
- Another key offering is the **Special Purpose Vehicle**, built on a 9-meter platform with seating for 40 passengers plus the driver. With a daily range of 250 kilometers, it provides extensive customization options and complies with global safety standards. This vehicle is ideally suited for specialized transport requirements across healthcare, government services, and event logistics sectors.

SUSTAINABILITY BLUEPRINT

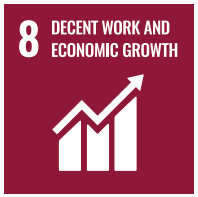
The Company is dedicated to advancing its sustainable manufacturing practices through a comprehensive range of environmental and social initiatives embedded in its operations. JBM's Sustainability Blueprint provides the framework for achieving the company's long-term Sustainability goals, focusing on efficiency, conservation, and workforce well-being. The company aims to continuously improve energy efficiency, waste reduction, and resource conservation while ensuring that employees and surrounding communities benefit from impactful social initiatives. These efforts reduce JBM's environmental footprint and create lasting value for society.

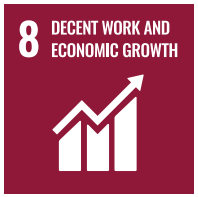
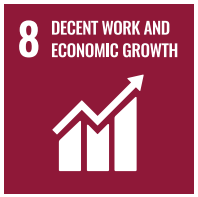
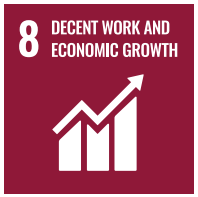
Materiality Assessment Framework

In the reporting period, JBM conducted a thorough materiality assessment, starting with an internal survey to identify key issues. The findings were refined through management and external consultations, ensuring the prioritization of the most impactful topics. This process aligns JBM's efforts with stakeholder expectations and long-term resilience.

Using the Materiality Assessment Framework, JBM systematically prioritizes key environmental and social factors, ensuring alignment with stakeholder needs and regulatory requirements while driving leadership in sustainable manufacturing.

Material Issues	Rationale	Management Approach	SDGs
Energy and Emissions	Reducing energy consumption and emissions is crucial for JBM EV as it transitions to sustainable energy sources. Efficient energy management reduces carbon footprints, lowers operational costs, and ensures regulatory compliance. Addressing emissions strengthens the company's sustainability and market competitiveness.	JBM is committed to reducing its dependence on fossil fuels by manufacturing electric buses and incorporating renewable energy sources into its operations. These initiatives align with its broader goal of achieving long-term carbon neutrality.	 
Climate Change	The impact of climate change can disrupt operations, affect supply chains, and create new regulatory challenges. By mitigating climate risks and adopting climate-resilient strategies, JBM EV can reduce vulnerabilities and safeguard long-term operations.	JBM EV is accelerating the transition to electric mobility to significantly reduce greenhouse gas emissions. The company remains focused on clean mobility innovations that align with global climate goals and build climate-resilient business models.	

Material Issues	Rationale	Management Approach	SDGs
 **Waste Management and Resilience**	Water management is critical, particularly in regions with water scarcity. Responsible water usage minimizes environmental impacts and ensures business continuity by reducing the risk of water-related regulatory penalties and operational disruptions.	JBM adopts responsible water usage practices and ensures sustainable disposal of EV-related waste. The company emphasizes conservation and resilience to support both environmental and operational continuity.	 
 **Waste Management and Circularity**	Embracing circularity and improving waste management practices allows JBM EV to reduce environmental impact, optimize resources, and contribute to a sustainable production process. Circular approaches enhance product lifecycle management and minimize waste generation.	JBM follows a circular approach through reduction, reuse, and recycling of both hazardous and non-hazardous waste. Special focus is placed on the safe handling and disposal of e-waste, battery waste, and chemical containers via authorized agencies.	 

Material Issues	Rationale	Management Approach	SDGs
 **Responsible Supply Chain**	Managing a responsible supply chain ensures ethical sourcing and compliance with environmental and social standards. It reduces risks related to supply chain disruptions, unethical practices, and supports sustainable production while building consumer trust.	JBM encourages suppliers to adopt clean technologies and sustainable materials. The company promotes transparency and responsibility throughout the supply chain by aligning supplier practices with its own sustainability goals.	 
 **Occupational Health & Safety**	Ensuring workplace health and safety is critical to maintaining a safe, productive environment. Ignoring OHS can lead to workplace accidents, legal liabilities, and employee dissatisfaction, which negatively impact overall productivity and reputation.	JBM prioritizes workplace safety by adopting comprehensive Occupational Health & Safety protocols. The company implements structured training, safety audits, and EV-specific safety practices across all facilities.	
 **Employee Well-being & Talent Management**	Fostering employee well-being enhances workforce engagement, satisfaction, and retention. By prioritizing physical and mental health, JBM EV can cultivate a positive work environment that promotes innovation, productivity, and talent development.	JBM fosters a positive and inclusive work environment through continuous learning programs, leadership development, and well-being initiatives. Structured initiatives like “Sankalp Siddhi 3.0” help create a future-ready workforce.	

Fueling a Greener Future

REDEFINING ENERGY USE

As part of JBM's energy efficiency roadmap, multiple low-energy technologies and process improvements have been implemented. Automatic timer-based controls for street lighting are helping to reduce energy waste, leading to an annual saving of approximately 2,500 kWh while also extending the lifespan of lighting equipment. Adopting IE3 energy-efficient motors and LED lighting across production areas has resulted in a 15–20% improvement in energy performance. Upgrades in the compressed air system, including the transition to aluminum pipelines and real-time monitoring, have improved system integrity and reduced air leakage by 5%.

In material handling and internal logistics, battery-operated forklifts and towing vehicles have replaced diesel variants, supporting JBM's goal of zero-emission mobility within plant premises. Passive design strategies, such as utilizing 100% natural daylight in operational zones, further contribute to reduced reliance on artificial lighting and support JBM's broader decarbonization agenda. A Variable Frequency Drive (VFD) installed on the compressor system has helped reduce energy consumption by approximately 4,500 kWh per month. Additionally, through a Kaizen initiative, an in-house foot pedal Pokayoke integrated with bench grinders generates daily savings of 2.8 kWh.

2,500 kWh
Annual Energy Savings

15-20%
Improvement in Energy Performance

5%
Reduction in Air Leakage

100%
Utilization of Natural Daylight in Operational Zones

4,500 kWh per month
Reduction in Energy Consumption through VFD

2.8 kWh per day
Reduction in Energy Consumption through Kaizen Initiatives

EMISSIONS REDUCTION AT WORK

JBM is advancing its low-emission goals by embracing digital and diagnostic technologies that reduce carbon output and resource consumption. Digitalizing machines and electrical manuals via QR codes has significantly reduced paper usage, eliminating over 2,300 printed documents annually. This shift conserves natural resources and reduces emissions associated with printing and material handling. Complementing this, regular thermography-based energy audits are conducted across the electrical infrastructure to detect inefficiencies proactively. The most recent audits reported zero thermal hotspots, highlighting the strength of JBM's preventive maintenance systems and its commitment to operational efficiency with minimal environmental impact.

2,300
Printed Documents Eliminated Annually

WATER MANAGEMENT AND RESILIENCE

Water conservation remains a top priority at JBM. An integrated rainwater harvesting system has been established, connected to a borewell that provides low-TDS water for industrial use. This has improved RO plant efficiency from 40% to 70%, leading to a monthly reduction of nearly 2,000 KL in raw water intake. JBM has also implemented reuse strategies by diverting approximately 250 KL/month of treated STP water for horticulture, reinforcing the Group's zero liquid discharge policy.

Further, water used in bus shower testing is now recycled through an internal loop system. This has dramatically reduced consumption, bringing usage down to 0.18 KL per bus. These interventions demonstrate JBM's commitment to resilient water management and resource circularity.

70%
Efficiency of RO Plant

250 KL/Month
Treated STP Water Diverted for Horticulture

2,000 KL
Monthly Reduction of Raw Water Intake

95%
Survival Rate of Saplings

DRIVING CIRCULARITY IN OPERATIONS

Aligned with JBM's circular economy principles, sustainable packaging solutions have been deployed for battery kits using recycled material. This initiative not only provides cost savings per vehicle set but also minimizes solid waste and lowers the carbon impact of packaging. The paint shop's dry paint booth technology has replaced conventional water-based booths. This approach eliminates the need for water treatment, reduces energy consumption, and simplifies waste disposal while improving operator safety.

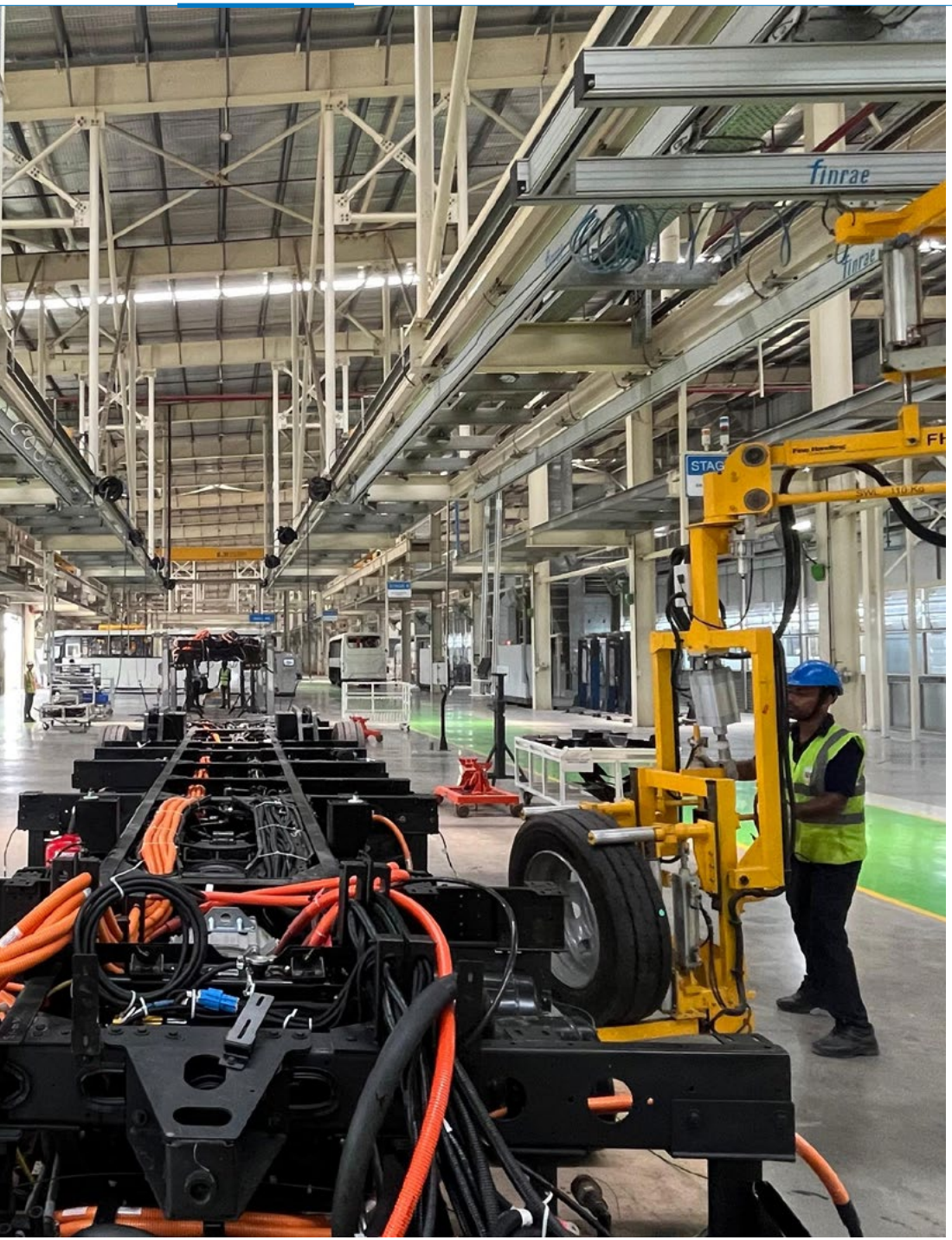
While the comprehensive use of recycled raw materials is still being evaluated, some aluminum die-cast components are being reused in manufacturing processes. This is complemented by ongoing R&D and capex planning focused on enhancing environmental performance across JBM's value chain.

PRESERVING BIODIVERSITY

JBM continues to support biodiversity and carbon sequestration efforts through tree plantation drives. Approximately 150 saplings have been planted within the facility premises, with a survival rate of 95%. These trees help reduce stormwater runoff, lower ambient temperatures, and improve air quality, reinforcing JBM's alignment with global climate goals.

150 Saplings
Planted

95%
Survival Rate of Saplings



Prioritizing Safety & Growth

SAFEGUARDING HEALTH & SAFETY

Ensuring a safe workplace is integral to JBM's operational excellence framework. Annual internal safety audits are conducted to assess compliance and drive continuous improvement in occupational safety standards. In response to risk assessments, safety enhancements such as life-line systems in elevated areas like the paint shop have been deployed to prevent fall-related incidents and enhance employee protection during rooftop operations.

UNLOCKING EMPLOYEE POTENTIAL

The establishment of DOJO training centers exemplifies JBM's investment in skill-building. These centers offer hands-on training modules that accelerate learning, reduce production errors, and enhance workforce productivity. By standardizing on-the-job training, the DOJO model helps minimize material wastage and significantly shortens the onboarding curve for new associates.

Beyond professional development, JBM fosters employee engagement and social responsibility through community initiatives. A recent blood donation camp held on-site resulted in the collection of 105 units, contributing to critical healthcare needs and promoting emotional well-being among employees by fostering a sense of social impact and belonging.

105 Units
Collected in Blood Donation Camp

REGISTERED OFFICE:

JBM Auto Limited

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Faridabad - 121005, Haryana
CIN: L74899HR1996PLC123264
Ph: +91 0129-4090200
E-mail: jbma.investor@jbmgroup.com
Website: www.jbmgroup.com

CORPORATE OFFICE:

JBM Auto Limited

Plot No. 9, Institutional Area
Sector - 44, Gurugram - 122003,
Haryana Ph: +91-124-4674500-500,
Fax: 91-124-4674599

WORKS:

Plot No. 133, Sector - 24,
Faridabad - 121005, Haryana

Plot-3 Plot No. AV-13
Ford supplier park, BOL,
Industrial Estate, GIDC
Sanand-II-382170 (Gujarat)

Plot No. 80, Sector-3,
Pithampur industrial Area - 454775,
Dist. Dhar, Indore (M.P.)

Plot-2 RNS 1
Renault-Nissan Supplier's park,
Orgadam, sriperumpudur Taluk,
Kanchipuram - 603109 Tamil Nadu

Plot-1 Building No. 06
Onsite supplier park,
Toyota Kirloskar Motors Pvt Ltd,
Plot No. 1 Bidadi Industrial area
Ramnagaram - 562109 (Karnataka)

Plot No. 16, Sector-20B,
Faridabad - 121007, Haryana

71-72, MIDC, Satpur,
Nashik - 422007, Maharashtra

Plot No. SP-891,
Pathredi Industrial Area,
Bhiwadi - 301707,
Dist. Alwar, Rajasthan

Plot No. SP-891,
Pathredi Industrial Area,
Bhiwadi-301707, Dist. Alwar,
Rajasthan

Plot-1 Survey No 113/2A
Village Harnia Khedi Opp
Veterinary College AB Road,
Tehsil MHOW,
Indore-453446

Plot-1 C-1/2 MIDC, Chakan
Telegaon Road, Chakan,
Pune-410501 (Maharashtra)

A-4, Industrial Estate,
Kosi Kotwan - 281403
Dist. Mathura, Uttar Pradesh

B1 KM Milestone,
Delhi - Agra Highway
NH-2. Banchari, Hodal, Palwal,
Haryana - 121106

Plot No. B-2, Survey No. 1,
Tata Motors Vendor Park,
Sanand-382170,
Ahmedabad, Gujarat

Plot No. 157-E, Sector-3,
Pithampur Industrial Area-454775,
Dist. Dhar, Indore (M.P.)

Plot-1, Ford supplier's park,
S.P.Kail Post, Chengalpattu Taluk,
MM nagar Kanchipuram - 603204
Tamil Nadu

MVIML Vendor Park 410501, Pune
Plot No. A-1/6, Maharashtra

Plot No. 5, Sector-31, Kasna
Industrial Area Greater
Noida-201306, Uttar Pradesh

Plot No. SP-1-888, RIICO Industrial
Area Pathredi, Bhiwadi-301018,
Alwar, Rajasthan