Uttar Pradesh Accelerating Green Mobility

By Srajan Agarwal 15-April-2024













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The global automotive industry is undergoing a transformative shift towards electric mobility, prompted by concerns over fossil fuel depletion, rising fuel costs, and environmental pollution. In alignment with India's commitment to achieving Net Zero emissions by 2070, the state of Uttar Pradesh is actively embracing electric vehicles (EVs) to revolutionize its transportation system. With its robust economy contributing 9.2% to the national GDP, Uttar Pradesh is becoming a preferred investment destination. The state government's progressive policies aim to foster sustainable development, and the recent focus on the electric vehicle industry is a key component of this strategy.

BATTERY CONSUMPTION AND PROJECTIONS

Information from the India Energy Storage Alliance (IESA) suggests a significant surge in battery consumption. By 2025, the consumption of batteries is expected to surpass 36 Wh, reflecting the growing demand for energy storage in the EV sector. During the period from 2020 to 2027, the EV industry is anticipated to consume around 250 GWh of batteries, underlining the need for robust energy infrastructure.

Uttar Pradesh (UP) is the state with the largest number of EVs - 6,11,944 units, contributing significantly to the national tally of 28,30,565 EVs, totaling 18% of the entire EV park in India. In the other e-sub-segments, Uttar Pradesh ranks down the line - in e-two-wheelers, the state is in ninth position with 76,330 units (4% e2W market share), and also ninth in e-passenger vehicles (5,191 units/ 4% ePV market share) and third in e-buses (758 units/12% market share).

CHARGING INFRASTRUCTURE AND SUPPORTIVE MEASURES

Also Read | Harnessing Renewable Energy for Sustainable Development in Haryana

Uttar Pradesh is actively investing in charging infrastructure, with 582 stations sanctioned under FAME II. These

ELECTRIC VEHICLE LANDSCAPE IN THE STATE OF UTTAR PRADESH

stations are strategically located in nine cities, including Noida, Lucknow, Varanasi, Prayagraj, Kanpur, Aligarh, Saharanpur, Bareilly, and Jhansi. The state government is promoting EVs in public transportation, rolling out electric buses on key routes through public-private partnerships (PPP). Special tariff orders for EV charging have been implemented, and the state government is aligning with Union Government standards for creating charging infrastructure.

The state government's approach to promoting the EV industry revolves around three key pillars: the creation of

THE THREE PILLARS OF UTTAR PRADESH'S EV STRATEGY

charging infrastructure, faster EV adoption, and domestic manufacturing. These pillars align with success factors such as affordability, convenience, technology, and awareness. Emphasizing a phased approach, the state aims to smoothly transition its transportation system to EVs, induce demand through public transportation initiatives, and attract investments for indigenous manufacturing. PROMOTING CHARGING INFRASTRUCTURE IN UTTAR PRADESH

government of Uttar Pradesh has laid out a comprehensive strategy under the New Electric Vehicle Manufacturing and

Mobility Policy 2022. This policy emphasizes the creation of an enabling environment for both public and private charging infrastructure, including swapping facilities. **KEY INITIATIVES**

Recognizing the pivotal role of charging infrastructure in driving the adoption of electric vehicles (EVs), the state

The State Government will promote the creation of charging and swapping infrastructure in cities and urban conglomerates with a grid pattern of 3km X 3km, in line with the Ministry of Housing & Urban Affairs,

Strategic Location Planning

- Government of India Guidelines. · Charging Infrastructure will be strategically developed every 25 kms along expressways and highways to ensure seamless connectivity. Charging Locations
 - Charging and swapping facilities will be encouraged in public parking spaces, metro stations, bus depots, petrol pumps, government buildings corporate buildings, educational and health institutes, shopping malls, group

housing societies, and Gram Sabha land.

Transport, Housing, and Panchayati Raj Departments. Land Location Land will be provided to both government and private entities for setting up charging stations on a lease basis

Identification of suitable locations will be facilitated by collaboration between the State Urban Development,

revenue-sharing model at Rs. 1 per kWh, in adherence to Ministry of Power guidelines. Selection of private entities will be through a transparent tendering process to ensure competitiveness and

parking spaces, ensuring a smooth transition towards EV- friendly infrastructure.

Parking Policy Reforms

Comprehensive Electric Mobility Plan (CEMP) Coordination with NITI Aayog and Asian Development Bank for the formulation of a CEMP for Lucknow, to be

The CEMP initiative will identify strategic routes and locations through geospatial analysis, aiding the

Urban Local Bodies will initiate parking policy reforms to create public charging and swapping facilities in

development of charging facilities and planning the transition of the transportation system.

Fast-Track Electricity Connections

for 10 years, employing a

cost-effectiveness.

- Tariff Rationalization Regular coordination with the Uttar Pradesh Electricity Regulatory Commission (UPERC) to rationalize tariff
 - Distribution companies (DISCOMs) will expedite electricity connections to EV charging and swapping service providers, adhering to Gol/NITI Aayog guidelines.

rates for EV charging in the state, ensuring consumer affordability.

extended to all 17 cities with municipal corporations in subsequent phases.

 Open access will be allowed at charging and swapping stations or swapping kiosks with a cumulative demand of 1MW and above. Battery Lifecycle Management

Promotion of collection centers for end-of-life batteries at dealerships and disposal facilities at swapping/

Open Access Provision

charging stations to address environmental concerns. Also Read | Uttar Pradesh's Thrust Towards Sustainable Development Working Group Establishment

Establishment of a 'Working Group on Fast Track Development of Charging Infrastructure' under the Urban Development Department to regulate and implement the development of charging and swapping facilities.

the Bureau of Energy Efficiency (BEE) portal.

Facilitation and Communication

 Invest UP will serve as a single platform for facilitating inter-departmental coordination, processing incentive applications, and reporting issues to the Working Group.

TO SUM IT UP Uttar Pradesh's ambitious push towards electric mobility stands as a commendable and strategically sound initiative

Invest UP will also coordinate with departments for monitoring and updating the status of charging facilities on

within the broader context of India's commitment to sustainable development. With the global automotive industry transitioning towards electric vehicles, Uttar Pradesh has emerged as a leader in EV adoption, contributing significantly to the national tally. The state's three-pillar strategy focusing on charging infrastructure, faster EV adoption, and domestic manufacturing aligns with key success factors such as affordability, convenience, technology, and awareness.

The comprehensive New Electric Vehicle Manufacturing and Mobility Policy 2022 outlines a robust framework for the creation of charging infrastructure, emphasizing strategic location planning, diverse charging locations, land allocation, parking policy reforms, and tariff rationalization. By actively involving various departments and establishing a working group, Uttar Pradesh aims to ensure a coordinated and efficient implementation of its electric mobility plan. The focus on fast-tracking electricity connections, open access provisions, and battery lifecycle management further rekects the

state's commitment to overcoming potential hurdles and ensuring the success of its EV strategy.