

Note on 'India EV Digest – 2023'

The EV market is expected to grow at a CAGR of 49% from 2022-2030, with major contribution from e-2W and e-3W segment. The reduction in upfront costs, uptake both personal and commercial mobility segments, increased awareness about benefits, continued central and state level subsidies are the factors for higher EV sales in e-2W and e-3W segments.

However, the share of EVs in total vehicle sales (as of mid Nov 2023), is below 1%. Thus, the country needs to spruce up the EV adoption, to remain aligned with its target of achieving 30% share of EVs in overall vehicle sales by year 2030.

Recently, the Government of India has taken various progressive steps to accelerate EV adoption, as a result of which country has witnessed growing EV demand, with CAGR of around 50% in last five years. Considering the EV sales penetration targets set by NITI Aayog which include 30% of private cars, 70% of commercial cars, 70% of buses and 100% of two and three- wheelers by 2030, it is expected that there will be ~9.0 crore EVs on Indian roads by 2030, resulting in reduction of around 28.0 million metric tonnes of carbon emission. Moreover, to support these EVs, around 4.44 lakhs public EV chargers would be required by year 2030. Currently, there are 10,000+ public EV charging stations operational across the country. Supportive policies, technological advancements, falling battery prices, robust public charging infrastructure and supply chain localization are some of the key factors that will come together to power growth of EVs, while ensuring solutions customized for the Indian markets are adopted.

Identifying safe, affordable and, reliable public charging deployment at scale as one of the key bottlenecks in large scale EV adoption, Ministry of Power (MoP), Government of India issued guidelines & standards for public EV charging infrastructure. The issuance of Revised Charging Infrastructure Guidelines & Standards on January 14, 2022 has been a corner stone in the Indian public EV charging paradigm and has brought role of public EV charging to the centre stage of ongoing discourse in the country. In conjunction with MoP guidelines, several state DISCOMs have provided preferential 'EV supply tariff' and have waived off the fixed demand charges to make Public EV Charging a viable business proposition.

State Government play a pivotal role in creating impact through effective implementation of policies or programmes conducive for adoption of e-mobility in states. Considering the significant number of EVs expected by year 2030 on roads, assessing states based on various provision in respective state EV policy, regulatory and implementation related criteria is critical as it unveils their preparedness towards EV adoption based on as-is scenario and enables them to develop future roadmap for accelerated EV adoption. BEE

has examined implementation status of e-mobility programmes at state level, based on 15 criteria. These criteria encompass provisions in the state EV policies, tariff related provisions in state tariff orders, deployment of public EV charging infrastructure, e-mobility awareness activities, as well as promotion of e-mobility in public transportation segment.

“India EV Digest-2023” edition presents current e-mobility policy & regulatory regime at National and sub-national level, market trends across the e-mobility ecosystem and recommends a way forward for states such as more aggressive role for state nodal agencies such as creation of EV Accelerator Cells to serve as single window entity for coordination & implementation of e-mobility programmes in respective states, creating awareness, managing demand and supply side incentives for e-mobility adoption in accordance with state EV policies, coordinating with state DISCOMs, monitoring timely grant of connection to PCS, etc.

Continued commitment and coordination between the central, state governments and the industry may bring technology and incentives together to develop a self-sustaining EV ecosystem in the country.