



ELECTRIC VEHICLE INDUSTRY

Electric bus adoption cruises along

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Electric buses are at the forefront of India's EV journey, aided by the Government's focus on shifting to cleaner modes of transport, further supported through various subsidies.

Accordingly, the segment is expected to witness increased traction with 11-13% of new bus sales in the country to be electric by FY2025.



- The global automobile industry is witnessing major technological transitions to the electric powertrain. The intra-city bus segment has been at the forefront of this, aided by the Government's subsidy support in the green energy shift.



- Despite being among the leading automotive markets, India lags in electric vehicle (EV) penetration. China has emerged as the leader in EVs globally. It also dominates the global e-bus market, with ~97% share of the global e-bus fleet, driven by an organised, collaborative approach with involvement of all stakeholders and significant government subsidies. Electrification in other geographies like Europe is also picking up.



- In India, significant incentives for EV penetration are offered through various schemes like Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME), Smart Cities Mission, etc. to reduce acquisition costs and spur adoption. Subsidies under the FAME II scheme (~30-40% of the bus cost) help to significantly reduce upfront capital costs of e-buses and, ICRA expects 11-13% of new bus sales by FY2025 to be electric.



- Within the bus segment, the intra-city division has witnessed early adoption, supported by subsidies, while EV penetration in other divisions would happen once the bus costs drop with evolving technology. Additionally, operational savings, especially on fuel costs (3-5x lower) vis-à-vis diesel buses, support total cost of ownership (TCO) of e-buses and their penetration.



- The Gross-Cost Contract (GCC) model, or the opex model, has emerged as the preferred route for e-bus adoption in India. The model helps to alleviate the upfront capital burden on cash-strapped SRTUs, while increasing private participation to spur electrification. While execution-related risks remain relatively low in these projects, operational risks are higher, given the lack of adequate track record in the country. The model is currently evolving, and operators are looking at various measures to mitigate risks in the model.



- Overall, the e-bus market in India is likely to witness healthy traction over the near to medium term, supported by various cost economics and the Government push on clean transportation. Accordingly, various stakeholders such as the OEMs, the SRTUs, lenders etc. are adapting themselves for the transition.

1 Global landscape



2 Electrification scenario in India



3 GCC operating model



4 Operational track record of rated e-bus projects



5 Outlook





ICRA Analytical Contact Details

Name	Designation	Email	Contact Number
Shamsher Dewan	Group Head	shamsherd@icraindia.com	0124 – 4545 328
Kinjal Shah	Co-Group Head	kinjal.shah@icraindia.com	022 – 6114 3442
Sruthi Thomas	Sector Head	sruthi.thomas@icraindia.com	0124 – 4545 822
Karan Punjabi	Senior Analyst	karan.punjabi@icraindia.com	022 – 6169 3358





ICRA

Business Development/Media Contact Details

Name	Designation	Email	Contact Number
L Shivakumar	Chief Business Officer	shivakumar@icraindia.com	022-61693304
Neha Agarwal	Head – Research Sales	neha.agarwal@icraindia.com	022-61693338
Rohit Gupta	Head Business Development - Infrastructure Sector	rohitg@icraindia.com	0124-4545340
Vivek Bhalla	Head Business Development - Financial Sector	vivek.bhalla@icraindia.com	022-61693372
Vipin Saboo	Head Business Development – Corporate Sector - West & East	vipin.saboo@icraindia.com	022-61693348
Shivam Bhatia	Head Business Development – Corporate Sector - North & South	shivam.bhatia@icraindia.com	0124-4545803
Naznin Prodhani	Head – Media & Communications	communications@icraindia.com	0124-4545860





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