

Event Report

“Low Carbon Mobility and EV Integration Framework for Jaipur City”

October 31st, 2019

Jaipur

Introduction

CUTS International along with Bask Research Foundation organised a one-day roundtable discussion on “**Low Carbon Mobility and EV Integration Framework for Jaipur City**” on October 31st, 2019 at Jaipur. The initiative was supported by Friedrich Ebert Stiftung India (FES India) as part of Grow-GET (Green Growth and Energy Transformation) project.

The objective of the roundtable was to identify relevant stakeholders and their role in strengthening EV Integration Framework for Jaipur city. The event saw participation from various corners providing critical insights. Public sector participation was anchored by representation from Rajasthan State Road Transport Corporation (RSRTC) & Jaipur Vidyut Vitran Nigam Limited (JVNL). The roundtable also received participation from experts belonging to industry, academia, financial and institutions active in mobility space.

The opening remarks during the session were provided by Abhishek Kumar, Director, CUTS International. He highlighted the need of EV integration framework based on the requirements of different areas within the Jaipur city. He emphasized on the holistic assessment of evidence based research informing the implementation phase of the framework. The discussion during the conference was divided into four sessions covering wide ranging issues related to the role of EV framework in low carbon mobility planning, congestion trends in Jaipur, value chain analysis of state EV policies, experiences from EV adoption in other cities of country & challenges related to EV adoption. The challenges and issues highlighted during the roundtable are provided in subsequent sections.

Systematic and convergent planning:

- Permissions and information on the various aspects of EVs, including setting up charging infrastructure, tariff structures, etc. should be easily available and in the same place, and digitally available for preference.
- Goal oriented mobility planning, which takes into account urban planning, the development of the city over the period of the plan, including review cycles and funding cycles, and also taking into account likely technological disruptions. Institutional capacity for such planning must be developed.
- Additionally, institutional capacity to adhere to plans and create and utilize indicators to closely monitor the fulfilment of plans must be developed. (Mobility Matrix as a tool for planning as utilized by Shakti Foundation may be useful in this regard)
- Assessments based on the diversity within cities, mode-of-transport and population characteristics and different citizens willingness to pay are vital. (For eg: demand for private vehicles or premium services may be higher in Mahindra City, whereas e-rickshaws are common in the Old City)
- Data on use of transport, mobility needs must be available easily and publicly for accurate planning. JDA/RSRTC may have the data but not release it willingly. Crowdsourcing of data, if possible, may be effective.

Role of CSOs in Developing a Mobility Framework

- For the FES Study it is important to map recommendations from existing studies to Jaipur (For eg: Shakti Foundation's <https://shaktifoundation.in/report/handbook-e-rickshaw-deployment-in-indian-cities/>)
- Mapping recommendations to which regulators and institutions, or other stakeholders can take action on it.
- Developing an action-enabler-outcome framework to summarise the impact of actions, such that other cities can utilise it.
- Comparative analysis with other similar cities in India (Surat, Vizag, Lucknow, with similar populations and estimated GDPs) and outside.

Government Engagement

- Discoms may not be able to provide subsidized rates for charging infrastructure. Alternative financing should be addressed (for eg: Mumbai Municipality subsidises tariffs in Mumbai)
- Alternatives to capital-intensive infrastructure development or augmentation: assessing underutilized capacity and business models which emphasise demand-side management to reduce load. Viable business models for high utilisation of renewables for this purpose is an important part of the equation. For instance: e-3-wheelers can be run on solar and without fast charging more easily than other electric vehicles.
- State-level engagement as opposed to Central govt engagement, for decentralized development. Along with this, states must make regulatory commitments as regulatory certainty is vital for the private sector to be willing to invest.

Citizen Engagement

- Engaging with citizens to develop a positive narrative around EVs, the probability of increase in systems cost over the years, and citizen willingness to pay for better transport services.

Long-term vision: EVs are a viable pathway to zero transport emissions, which is a long-term need for the world. However, the vision cannot be reached by blanket bans on non-electric vehicles. Economic viability can be supported by an environment with regulatory certainty, goal-oriented planning, and phase-wise progression towards a fully-electric transport system.

The **Summary Points** are as follows:

- The needs & challenges (in terms of mobility) of different areas within a city are diverse , hence the policy governing mobility & EV Integration should be decentralised.
- Need for comparing city specific EV system in India with corresponding city of other countries with strong EV ecosystem.

- Absence of Integrated mobility ecosystem i.e lack of convergence between different departments including discoms & state transport department is a concern.
- Except the EV policies in Delhi, Kerala, Telangana & Bihar, all other state policies are focused on manufacturing which doesn't necessarily reflect their mandate of low carbon mobility.
- EV policies in different states is being governed by different departments , hence the focus of each state varies.
- An action-enabled framework(Low Carbon Mobility and EV Integration Framework for Jaipur City) needs to be built.
- Need to look at a study - "e-rickshaw deployment in India cities" (<https://shaktifoundation.in/wp-content/uploads/2019/07/Handbook-ERickshaw-deployment-in-Indian-Cities.pdf>) in order to understand the ways to accomodate e-rickshaws as part of urban mobility.
- Different ecosystem for different vechiles is required , for instance the old city in Jaipur & Lucknow would require e-rickshaws rather than e- cars . However, the outskirts of both these cities would require e-cars as well as e-public transportation.
- The location for building the ecosystem for EV sould be mix of demand as well as profit based model.
- Regularity certainty is a must for OEMs & not subsidy.
- The need to look at existing capacity utilization of EV charging points before creating more.
- Need to explore ways for linking charging stations with solar panels during peak loading hours .
- The need for creating an ecosystem for battery swapping serving two purposes:
 - It would save time for consumers
 - The battery can be charged during non-peak hours
- Phase wise approach where OEMs produces x % of EV in a year shall be delployed.
- Mobility Matrix- a tool to measure mobility has been used by Shakti Foundation which can further be used in urban planning of cities.

- Value chain analysis of state EV policies can provide useful insights into EV framework.
 - Electric Vehicle Value Chain
 - Network Value chain
 - Infrastructure value chain
- The system cost is gonna go up irrespective of the type of shared mobility being put in place.
- Mobility can be improved by both CNG & EV, immediate reliance on EV is not feasible.
- Need to create discourse on the cost of efficiency.
- The need of provoking civic engagement in order to push govt. to come up with an EV policy.
- The requirement of data in order to create a viable mobility & EV ecosystem. The cost effective ways to collate data shall be discovered.
- The need for finalising list of indicators in order to monitor the EV integrated mobility ecosystem.

Participants

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