



India will emerge as EV hub soon
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Crucial to run EVs on Renewable sources

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Volvo poised to get into acceleration mode

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Roads to GO GREEN

**World looks for sustainable mobility
by curbing carbon footprints**



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Aiming at sufficient infra to electrify transportation

We are planning to install nearly 1000 charging stations by 2021-22 to support growth of e-vehicles in the National Capital, Delhi. We are in talks with key stakeholders including commercial complex owners, Office Complexes, DMRC and NDMC for providing parking Spaces for putting up e- vehicle charging infrastructure, says **Praveer Sinha**, CEO & MD, Tata Power-DDL.



Electric Vehicles are the key to a sustainable future. Shifting to electric vehicles will solve problems like air pollution, reduction of oil import, reduction of carbon footprint, Grid Management etc. and at the same time will be economical.

With the Government of India and NITI Aayog working on a policy for promotion of e-vehicles, there are going to be huge initiatives to encourage and promote e- mobility in the future. We are focusing both on creating the necessary charging infrastructure as well as also

on upgrading the network to meet the enhanced load of electric vehicles. Our focus is to provide sufficient infrastructure towards electrified transportation.

As the numbers will increase, we anticipate making distribution network upgrades and capacity additions to handle large charging loads at peak hours. In preparation, we are working closely with all stakeholders like automobile companies, battery manufactures, regulators, government, municipal corporations and also consumers to develop



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more and more consumers will opt for e-vehicles once the government incentivizes them in the form of financial and non-financial incentives. We had also provided free pick and drop service from metro stations during the second phase of Odd-Even rule in the Delhi.

We are planning to install nearly 1000 charging stations by 2021-22 to support growth of e-vehicles in the National Capital, Delhi. We are in talks with key stakeholders including commercial complex owners, Office Complexes, DMRC and NDMC for providing parking Spaces for putting up e- vehicle charging infrastructure.

Parking lots are one of the best places to provide e-vehicle charging facility. The revenue model for setting up facilities on their land is not yet decided, but we are ready to experiment with any kind of arrangement such as partnership, franchisee system, etc.

Tata Power-DDL is also developing end-to-end solutions for encouraging consumer to opt for e-vehicles. Apart from providing charging infrastructure, we shall be providing 24X7 quality power supply with Time of Day (ToD) tariff structure to incentivize off-peak charging along with web based mobile applications. The mobile applications shall have multiple services such locating charging stations, booking a slot, making payment, customer support, billing data and analytics, etc. One of the major cost components is battery, and to tackle that we are also examining battery leasing model which

will be cost effective for consumers.

Considering the increasing numbers of e-rickshaws in Delhi, we intend to provide legalized connections to e-rickshaws by incentivizing them through unique business proposition. Apart from this, we are also evaluating to collaborate with fleet operators. We definitely see a huge potential in demand growth from distribution utility's perspective. We are also undertaking a study to develop a network planning model to mitigate the Grid related challenges.

●● ADVOCATING FOR POLICIES

Tata Power-DDL is at the forefront of advocating policies and regulations to promote and expand EV Market. In line with the National Electric Mobility Mission plan 2020, Department of Heavy Industry (DHI) and Department of Science and Technology (DST) have set up an Inter-Ministerial Technology Advisory Group (IM – TAG) which has been subdivided into different groups. Tata Power – DDL is heading the group on the development of low voltage charging Infrastructure, which under its broad scope contains Device and Hardware Development for the charging station, Software Development and Communication Protocol and Grid Development. We are now in talks with Central and Delhi Electricity Regulatory Commission (CERC/DERC) and the Central and Delhi governments that they should come up with a special tariff for charging of electric vehicles so that it becomes reasonable to the consumers. Unless the tariffs are economical for charging of e-vehicles, they won't come to the charging station.

Indian market has a strong need of incentivizing through various financial and non-financial means including lower tariffs, separate lanes for driving, subsidized or free parking spaces to encourage people to go for e-vehicles. We expect extensive action to strengthen electric vehicles in the country and make a huge difference to public and private mobility. 

*The author is CEO & MD, Tata Power-DDL
(Views expressed by the author are personal)*

the ecosystem for the same.

EVs and the grid can have enormous synergy. Not only can EVs charge whenever there is "surplus" power, they have a battery useful for absorbing variable energy, both conventional and renewable. They can even offer backup power for the grid during emergencies. This is one reason we should create a new electricity consumer category for EVs, one that includes aggressive time-of-day pricing (cheap charging when power is surplus especially during night time and off peak time).

●● INITIATIVES

We have installed five charging stations in our area, which are set up on a pilot basis to see what kinds of vehicles come and what kind of charging load is required. To demonstrate our leadership in e- vehicle usage, we propose to replace our operation's fleet with e-vehicles. We have already deployed e-vehicles in our maintenance fleet which comprise of 60 e-scooters and 8 e-rickshaws. The aim of the project is to analyze the demand to better prepare the infrastructure for e-vehicles. Today, the consumers are skeptical about the viability of e-vehicles due to lack of support or charging infrastructure. We believe

