

## SETTING EV INFRA MORE CHALLENGING THAN ANTICIPATED

BY PRAVEER SINHA

**A**S India is staring at future energy requirements for our growing population, only clean and green energy is the guarantee for a sustainable development. The government has taken many steps to promote the use of renewable energy. National solar mission was one big step in this direction which aims to establish India as a global leader in solar energy. Other technology driven initiatives like smart grid, smart metres, e-vehicles will help in smart and efficient usage of traditional energy resources.

Introduction of e-vehicles and CNG Tower Wagons in maintenance fleet is a right step in this direction. The tower wagons produce up to 95 per cent less emissions, compared to petrol and diesel powered vehicles and produce 20-30 per cent fewer green house gas emissions.

India is looking at becoming an all-electric vehicle country by 2030. If implemented properly, the initiative will certainly be a game changer. However the challenge of setting electric vehicle infrastructure is bigger than anticipated.

Charging stations are critical to the mass adoption of electric vehicles, which is not a big task. The government and private players can together can put up huge number of charging stations in a year. The real challenge is to supply the quantity of electricity required for running



technology which can provide data on charging and tell that how much vehicle has been charged, and how much time will it take to charge, at what cost and till what distance this charged vehicle will go. Only accuracy and efficiency of data will ensure smooth servicing.

As a part of this initiative we have proposed various ideas to the Regulator and the government towards setting up of e-charging infrastructure in the city, including the tariff regulations, turning parking bays into charging stations and many more. Still there are multiple challenges in terms of clear road-map on power requirement, the right

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these stations.

To elaborate it further, roughly a fast charging vehicle would require 8-20 kilowatt (kW) of power, while a slower one would require 2-3kW. Now say if a fast charging vehicle requires 10kW of power and 500 vehicles need to be charged, you need to have 5 megawatt (MW) of power. That will require to create a complete electric vehicle ecosystem and it is certainly not a smooth task.

To use the system efficiently, the stations must be integrated with

power tariff and also in terms of efficient and speedy services to make the task feasible.

In the current scenario, electric vehicle charging is caught in a “catch-22” situation. While the players are unclear about the future demand of e-charging stations, vehicle owners are doubtful if there would be enough charging stations for such vehicles. This needs to be fixed.

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*Praveer Sinha is CEO and MD,  
Tata Power DDL  
As told to Anuradha Shukla*