Minutes of the Meeting

Venue: NITI Aayog

Date of Meeting: Friday, 03 January, 2020

Time of Meeting: 12 PM

Subject: Consultation on cutting-edge charging technologies - regarding

A consultation on Frontier Cutting-edge Charging Technologies for India was held under the chairmanship of CEO, NITI Aayog on 03.01.2020 at 12:00 PM in Bengal Tiger Conference Room, NITI Aayog, New Delhi.

Presentations were made by Joint Secretary - MoP, Joint Secretary - DHI and National Mission on Transformative Mobility and Battery Storage on strategies to promote electric mobility in the country.

1. JS MoP highlighted various initiatives taken by the Ministry of Power in the past two years to provide impetus to the setting up of charging infrastructure across the nation.
2. JS DHI informed that Department of Heavy Industry has sanctioned 2636 EV charging stations in 62 cities across pan India.
3. Director, ARAI presented that findings of the study assigned by DHI to assess the feasibility of Battery Swapping as a business model. She added that battery swapping model is technically feasible and will reduce overall EV cost to consumers, bring efficient charging arrangement and address range anxiety issues. She also mentioned that the committee on Battery Swapping has agreed to support provide incentives through FAME II for E-3Ws and battery standardization will help for scaling of EVs in India.
4. National Mission on Tranformative Mobility and Battery storage presented the global outlook of lithium ion battery price which showed the drop in the lithium ion battery prices is much more than the anticipated trend by the global agencies. Countries like China, USA and Germany have adopted standards for battery swapping. A consortium has been formed by the Japanese OEMs to standardize the battery form factors. Standardization of battery will provide greater impetus for EV adoption in India. Various approaches to transition were projected by the Mission

highlighting the benefits of adopting business models that translate battery cost from CAPEX to OPEX and promote entrepreneurship to make EV CAPEX at par or less than ICE vehicles along with Innovative Business Models to make OPEX for EVs much less than ICE vehicles.

5. JS, DHI proposed subsidy should percolate down to the end consumer and not OEMs or Energy Service Providers. Also, he further mentioned that external charging provisions along with swappable battery should co-exist in an electric vehicle.
6. CMD, NTPC mentioned that battery swapping should be regulated under controlled environment. Subsequently, Automation will play a key role in efficient Battery Swapping Stations.
7. CEO, SmartE informed that Battery Swapping is the most economically viable option for fleet operators to maximize the asset utilization. Standardization of batteries for 2Ws and 3Ws would enable faster uptake of EVs in India.
8. HPCL suggested that for faster uptake of EVs in the country, OEMs may come together to form consortiums on battery standardization.
9. Lithium informed that financing of 2Ws, 3Ws by SBI and other public sector banks will bring down the initial cost of ownership for consumers. He also mentioned that subsidies are not required for adoption of EVs.
10. CEO, Lohia Auto informed about 100% localisation of EVs by them and discussed the issue of the refund of GST mentioning that delayed refunds block working capital. He was asked to provide a note on delay in refund of GST.
11. Nishant, Head Charging Infrastructure, Ather informed that the initial cost of the vehicle can be brought down by decoupling the battery and the vehicle. The OEMs should lease the batteries to the consumer, thus reducing the initial capex. He was asked to prepare a note on the same. Also, he informed that standards for charging protocols are not yet defined by BIS.
12. MD, EESL mentioned that land allocation in prime areas of 4 million plus cities is very tough and service tax and other levies on electricity are increasing the landing cost of the EV charging tariff to the end consumer. The land issues can be avoided by using revenue sharing model with ULBs. Further, Sub-metering and extending EV tariff to commercial areas would be beneficial. Commercial tariff is not viable for Charging infrastructure in common parking lots in residential areas. He also mentioned that MoPNG should identify the petrol pump outlets to grant the setup

of charging stations at non-commercial land tariffs considering electricity as a service. He was asked to prepare a note on Service tax on electricity and provide it to Mission Director.

13. Bharat Devanathan, SVP, Bounce mentioned that FAME subsidies should be extended to flow batteries owned by Battery Swapping operators. Battery purchased without vehicle attracts 28% GST.
14. Nitish Arora, Policy Lead, Ola Electric mentioned that Battery Swapping Model has been successful for the 3W vehicle segment. He further proposed that OEMs should adopt the battery leasing model to drive down the initial cost of the EVs.
15. CEO, NITI Aayog suggested that notes on issues mentioned by the members to be shared with Mission Director in 3 days inorder to be taken up by with respective Ministries and Departments.

After detailed deliberations, and with the objective of cleaning up Indian cities and to ensure rapid transition towards Electric Vehicles, CEO – NITI Aayog summed up the proceedings as follows:

1. There is an agreement on battery swapping option to be adopted for quicker uptake of EVs.
2. Standardisation of form factor would allow interoperability, thus catalysing the uptake of EVs. It is critical for OEMs to concur with this point.
3. Subsidy is only a trigger for the initial adoption. The size and the scale offered by the country would sustain the momentum thereafter. The industry should innovate business models to make EVs viable for consumers and look beyond subsidies.
4. CEO, NITI Aayog asked the OEMs to submit the notes on the topics discussed during the meeting to the Mission Director within 3 days.