RAJASTHAN ELECTRICITY REGULATORY COMMISSION, JAIPUR

SUO-MOTU DRAFT ORDER

No._____ Date: _____

In the matter of Charging Infrastructure, Tariff and other regulatory issues for Electric Vehicles.

1. Section 1: Background

1.1. The Government of India launched the National Electric Mobility Mission Plan (NEMMP), 2020 to enhance national fuel security and provide affordable and environment-friendly transportation in the Country. Under this mission the scheme for 'Faster Adoption and Manufacturing of Electric and Hybrid Vehicle in India' (FAME) was launched by Department of Heavy Industry (DHI) on 13th March 2015. The policy aimed to promote manufacturing of electric and hybrid vehicle technology and to ensure its sustainable growth. The total outlay of the scheme was Rs. 795 Crore. The scheme focuses on four key areas such as Technological Development, Demand Creation, Pilot Projects and Charging Infrastructure. The scheme was initially approved for 2 years, commencing from 1st April 2015 and was extended from time to time up to 31st March 2019. The total outlay was also increased from Rs. 795 Crore to Rs. 895 Crore.

1.2. After review of FAME I, based on the outcome and experience gained during the implementation of the Scheme, the Department of Heavy Industries recently notified Phase-II of the FAME India Scheme on 8th March 2019. The scheme is proposed to be implemented over a period of three years with effect from 1st April 2019. The scheme is proposed to be implemented through the following verticals.

i. Demand Incentives

ii. Establishment of Network of Charging Stations
iii. Administration of Scheme including Publicity, IEC (Information, Education & Communication) activities

1.3. The Scheme provides upfront incentives for purchase of Electric Vehicles and for setting up necessary Charging Infrastructure for Electric Vehicles. The Scheme also talks about required supplemental support from State governments to offer bouquet of fiscal and non-fiscal incentives to be notified separately in terms of waiver/concessional road tax, toll tax, parking fees, registration charges etc.

1.4. The Ministry of Power (MoP) issued revised guidelines and standards for Charging Infrastructure for Electric Vehicles on 1st October 2019. The key features of the guidelines are stated below.

i) **Private Charging** at residences/offices **shall be permitted**. Discom may facilitate the same.
ii) **Setting up Public Charging Station (PCS) shall be a de-licensed activity** and any individual/entity is free to set up public charging stations, provided that, such stations meet the technical and performance standards and protocol laid down in the guidelines or any other norms/standards/specifications laid down by MoP and CEA from time to time
iii) Connectivity for Public Charging station to be provided on **priority basis** by the Distribution Company.
iv) Charging station or Chain of Charging Station may obtain electricity from any generation company **through open access.**
v) Technical Minimum Requirements for Public Charging Infrastructure
vi) Charger connectors with rated voltage and number of charging points for each type of charging (slow/medium/fast)
vii) Tie-up with network service provider to enable advance remote/online booking of charging slots. Online information to be provided to EV owners on location, type and number of chargers installed at each station.

viii) Share charging station data with appropriate DISCOM and adhere to the protocols as prescribed by CEA for such purpose. Database shall be accessible to Central Nodal Agency and State Nodal Agency.

ix) Electric Vehicle Supply Equipment (EVSE) shall be type tested by an agency/lab accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) from time to time.

x) At least **one charging station** should be available in a **grid of 3 Km X 3 Km** in the cities and one Charging Station at **every 25 Km** on both sides of highways/roads.

xi) Mega cities with population more than 4 million and the existing expressways/highways connecting to these mega cities will be taken up for coverage in first phase (1-3 years) and other cities like state capital/UT headquarters will be taken up in second phase (3-5 years)

xii) **Fast Charging Stations (FCS)** shall be installed at **every 100 km** on each side of the highway preferably within/alongside the Public Charging Station (PCS)

xiii) FCS Infrastructure details for long distance & heavy duty EV's

xiv) DISCOMs to facilitate fast/slow private charging at residences/offices

xv) Domestic charging shall be akin to domestic consumption

xvi) Tariff for supply to PCS shall be determined by Appropriate Commission

xvii) State Nodal Agencies (SNA)/State Government/Appropriate Commissions to fix the **ceiling of service charges** to be charged by PCS to EV owners considering charging of EV is a service.

2. Section 2: Business Models for Setting up Public Charging Infrastructure

2.1. The Charging Infrastructure for Electric Vehicles shall be set up in the State based on the following models.

i) DISCOM owned Public Charging Stations

ii) Privately owned Public Charging Station

2.2. DISCOM owned Public Charging Station

DISCOM can set up Public Charging Station in their own premises or at any other location suitable for setting up Charging Station as part of other business in accordance with the provisions of **Section 51** of the Act and relevant Regulations.

2.3. Privately owned Public Charging Station

2.3.1. Any interested party/private investor can set up Public Charging Station with the minimum technical requirements specified by MoP in its Guidelines and Standards for Charging Infrastructure for electric Vehicles.

2.3.2. The privately-owned Public Charging station shall adhere to the norms/standards/specifications laid down by MoP and CEA from time to time.

2.3.3. The DISCOM shall publish on its website, a list of standard procedures and protocols to be followed by the Station owners/operators before and after setting up the Charging stations.

2.3.4. The Authorized Official of the DISCOM has the right to inspect/examine the procedures/protocols of privately-owned Charging station at all times.

2.3.5. The Authorized Official designated by the DISCOM shall inspect and validate whether the Charging Station is adhering to the minimum Technical requirements of MoP/CEA and has followed standard procedure and protocols.

2.3.6. The privately-owned Public Charging station shall be operational to public only after receipt of Clearance certificate signed by Authorized Official designated by the DISCOM.

3. Section 3: Procedures to be followed by DISCOM

3.1. The DISCOM shall facilitate growth of Electric Vehicle Charging Infrastructure either by setting up charging stations on its own or through franchisee agreement and also release connections to privately owned Charging Stations on priority basis on payment of charges as per prevailing orders/ Regulations.

3.2. DISCOM shall facilitate slow/fast charging at residence/offices by increasing its system capacity to avoid grid disturbances and make necessary provision for this in the Investment Plan.

3.3. The DISCOM shall publish 'Standard Procedures and Protocols for Charging Infrastructure' on its website and shall be made available in all its offices for access to public at large.

3.4. All Charging Stations are required to adhere to the guidelines specified in the 'Standard Procedures and Protocols for Charging Infrastructure' published by DISCOM as well as the guidelines and standards notified by MoP/CEA.

3.5. The Public Charging Station set up by Discom or privately-owned model, shall require a clearance certificate from the Authorized Official designated by the DISCOM for such purpose, before it is operational and accessible to the public.

3.6. The connectivity shall be granted to the Public Charging Station only after the issuance of Clearance certificate from the Authorized Official designated by the DISCOM.

3.7. The Authorized Official designated by the DISCOM shall have the right to inspect all Public charging Stations set up in the area of license of the DISCOM. The Authorized Official shall verify that the standard guidelines and protocols are followed by the Public Charging Station at all times.

3.8. The DISCOM shall set up a separate EV cell for monitoring of charging stations installed by individuals/private players. The EV cell shall be responsible for monitoring and facilitation of the functioning/operations/safety standards etc. adopted by charging

station operator. The DISCOM may charge a fee for this purpose which shall be determined the Commission in respective Tariff Orders.

3.9. The DISCOM shall maintain a database of all the Public Charging Stations set up in its area of License. The database shall include details of type of connectors/rated voltage/ number of charging points and type of charging available at different locations. The database shall be accessible to CEA.

4. Section 4: Incentives to Public Charging Stations

4.1. The Public Charging Stations may be allowed to purchase power from any source through open access route in accordance with the provisions of Terms and Conditions for Open Access Regulations, 2016.

4.2. The Public Charging Station may also set up battery swapping stations with due intimation to the Distribution Licensee. The tariff applicable for Public Charging Stations shall also be applicable to Battery swapping Stations. However, the Commission may notify separate tariff for battery swapping stations in its subsequent Tariff Order.

4.3. The Public Charging Stations may also be set up with rooftop solar facility under applicable Regulations.

5. Section 5: Tariff Structure for Public Charging Stations

5.1. The tariff applicable for public charging stations shall be as per Commission's tariff order issued from time to time. The current position as follows.

5.2. The Commission in its latest tariff order dated 6.02.2020 has decided to introduce the following new categories under Electric Vehicle Charging with concessional tariff as under:

Electric Vehicle (EV) Charging Station (LT-8 and HT-6):

Public Charging Station

The tariff applicable to public charging station will be as follows:

Public Charging Station Tariff

Category	Energy Charges	Fixed Charges
Public charging station (LT-8)	Rs 6.00/unit	Rs 40/HP/month of sanctioned connected load.
Public charging station (HT-6)	Rs 6.00/unit	Rs 135/VA/Month

Time of Day (TOD) structure for Public Charging Station:

During Off-peak Hours (2300 hours to 0600 hours) rebate of 15% for Public Charging Station shall be allowed as under:

ToD Rebate for Public Charging Station

Off peak hours	Rebate on EC
11 PM-6 Am	15%

5.3. Voltage rebate, Load factor rebate, rebate for incremental consumption and rebate for new HT connections shall not be applicable for this category. Other general terms and condition as applicable to industrial consumers shall also apply to EV charging station.

Other Consumers

5.4. The consumers of other categories will be charged as per tariff applicable to their respective category or to say they need not to take a separate connection. They can charge Electric Vehicles within their respective connection, provided that load with EV charging does not exceed the Sanctioned connected/contracted load or demand as the case may be.

In case connected load or contract demand exceeds the sanctioned connected load or contracted demand as the case may be, the

consumer will be subject to penal provisions as per Tariff or Electricity Supply Code Regulations.

5.5. Consumers shall apply to DISCOMs in case there is an increase of connected /contract load on account of EV charging in their premises. The DISCOM shall revise the contract load of consumer as per guidelines specified in RERC (Electricity Supply Code and Connected Matters) Regulations, 2004 amended from time to time. The DISCOM shall take utmost efforts to upgrade its system as per the requirements of load for EV charging in its area of supply.

5.6. DISCOM shall propose Capital Investment Plan for upgrading its network for accommodating Charging Infrastructure in order to facilitate smooth and efficient EV Charging at respective Charging Stations. The Capital Investment Plan shall be prepared after rigorous discussions with investor/stakeholders/private players who are keen to set up charging stations in the License area of the DISCOM.

5.7. DISCOMS may also encourage other energy companies (like IOCL, HPCL, IGL etc.) to invest in providing a charging network, specially the fast charging stations at inter-city routes like state and national highways.

5.8. The DISCOM shall also promote Smart Charging features by optimizing the charging process according to distribution grid constraints and local renewable energy availability, whereby EV charging patterns could be controlled to flatten the peak demand and support real time balancing of the grid by adjusting their charging levels.

5.9. For implementation of Smart Charging, the DISCOM may install smart meter at all Public Charging Stations. Smart Charging will not only help DISCOM manage its load but also provide grid security in the long run.

5.10. With smart charging and metering in place and growth in solar applications, the Discom shall review the ToD hours and propose variable time differentiated pricing to take maximum benefit of available day time power.

5.11. State Nodal Agency shall be responsible for deciding the ceiling of Service Charges to be charged by PCS/FCS.

5.12. The Commission before finalizing the draft order invites comments/suggestions from the stakeholders on the same.

(Prithvi Raj)	(S.C.Dinkar)	(Shreemat Pandey)
Member	Member	Chairman