

## **HARYANA ELECTRICITY REGULATORY COMMISSION**

Bays No. 33-36, Sector-4, Panchkula-134112, Haryana

### **Notification**

**The 23<sup>rd</sup> December, 2021**

**Regulation No. HERC/55/2021:** - In exercise of the powers conferred on it by section 181 (zp) of the Electricity Act, 2003 (Act 36 of 2003) and all other powers enabling it in this behalf and after previous publication, the Haryana Electricity Regulatory Commission makes the following regulations: -

**1. Short title, commencement, extent of application and interpretation: -**

- 1.1 These Regulations may be called the Haryana Electricity Regulatory Commission (Terms and Conditions for setting up Charging Infrastructure, Tariff and other Regulatory issues for Electric Vehicles), Regulations, 2021.
- 1.2 These Regulations shall come into force from the date of their publication in the Haryana Government Gazette.
- 1.3 These Regulations shall extend to all Charging Infrastructure, Tariff and other Regulatory issues for Electric Vehicles in the State of Haryana.

**2. Statement of Objects and Reasons: -**

- 2.1 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.

- 2.2 The Charging Infrastructure, Tariff and other Regulatory issues for Electric Vehicles shall broadly be implemented through the following: -
- i. Demand Incentive
  - ii. Establishment of Network of Charging Stations
  - iii. Administration of Scheme including Publicity, IEC (Information, Education & Communication) activities.
- 2.3 The upfront incentives for purchase of Electric Vehicles and for setting up necessary Charging Infrastructure for Electric Vehicles available may be gainfully utilized. The Haryana Governments may offer appropriate fiscal and non-fiscal incentives.

### **3. General**

- 3.1 Private charging at residence/ offices / commercial complex shall be permitted. Distribution Companies (DISCOMs) may facilitate the same. The tariff charged shall be as determined by the Commission from time to time.
- Provided, in the absence of specific tariff determined by the Commission, the domestic/LT / HT tariff and charges (non-domestic category), as the case may be, shall be applicable.
- 3.2 Setting up of Public Charging Stations (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, safety as well as performance standards and protocols laid down below as well as any further norms/standards/specifications laid down by Ministry of Power and Central Electricity Authority (CEA) from time to time.
- 3.3 Any person seeking to set up a Public Charging Station may apply for connectivity and he shall be provided connectivity on priority by the Distribution Company licensee to supply power in the area. Discoms shall release such connections on priority subject to the developers making all the related payments upfront as per relevant HERC Regulations.
- 3.4 Any Charging Station/ Chain of Charging Stations may also obtain electricity from any generation company through open access as per HERC Open Access Regulations, 2012 as may be amended from time to time.

The open access facility shall be allowed subject to fulfilment of all terms & conditions of open access Regulation and payment of applicable open access charges.

Further, as there will be multi-dimensional impact (Nonlinear Loading, increase ohmic losses and accelerated degradation of network) on Discom's network, even in the case of charging station developers opting for open access, any deviation in scheduled drawl and actual drawl shall be dealt with in accordance with the HERC Regulation No. 43/2019 on Deviation, Settlement Mechanism and Related Matters.

3.5 For the purpose of these regulations, Electric Vehicle Supply Equipment (EVSE) shall mean an element in EV infrastructure that supplies electric energy for recharging the electric vehicles.

**4. Public Charging Infrastructure (PCI)-Requirements: -**

4.1 Every Public Charging Station (PCS) will have the following infrastructure:

- i) An exclusive transformer with all related substation equipment including safety appliance, if required.
- ii) 33/11 KV line/cables with associated equipment including line termination etc, if required.
- iii) Appropriate civil works.
- iv) Appropriate cabling & electrical works ensuring safety.
- v) Adequate space for Charging and entry/exit of vehicles.
- vi) Public Charging Station shall have, any one or more chargers or any combination of chargers from the table given below in one or more electric kiosk/boards :

Charger Type	S. No.	Charger Connectors*	Rated Output Voltage (V)	No. of Connector guns (CG)	Charging vehicle type (W=wheeler)
Fast	1	Combined Charging System (CCS) (min 50 kW)	200-750 or higher	1 CG	4 W
	2	Charge de Move (CHAdEMO) (min 50 Kw)	200-750 or higher	1 CG	4 W

Charger Type	S. No.	Charger Connectors*	Rated Output Voltage (V)	No. of Connector guns (CG)	Charging vehicle type (W=wheeler)
	3	Type -2 AC (min 22 kW)	380-415	1 CG	4 W, 3W, 2 W
Slow/Moderate	4	Bharat DC-001 (15 kW)	48	1 CG	4 W, 3W, 2 W
	5	Bharat DC-001 (15 kW)	72 or higher	1 CG	4 W
	6	Bharat DC-001 (15 kW)	230	3 CG of 3.3 kW each	4 W, 3W, 2 W
<p>*In addition, any other fast/slow/moderate charger as per approved DST/BIS standards whenever notified.  Note: Type-2AC (min 22 kW) is capable of charging e-2W/3W with the provision of an adapter.</p>					

- vii) Charging Station for e-two/three wheelers shall be free to install any charger other than those specified above subject to compliance of technical & safety standards as laid down by CEA.
  - viii) Tie up with at least one online Network Service Providers (NSPs) to enable advance remote/online booking of charging slots by EV owners. Such online information to EV owners should also include information regarding location, types and numbers of chargers installed/available, service charges for EV charging etc.
  - ix) Share charging station data with the appropriate DISCOM and adhere to protocols as prescribed by CEA for this purpose. CEA, Central Nodal Agency (CAN) and State nodal Agency (SNA) shall have access to this database.
- 4.2 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.
- 4.3 The above minimum infrastructure equipment does not apply to Private charging Points meant for self-use of individual EV owners (non-commercial basis).
- 4.4 Captive charging infrastructure for 100% internal use for a company's own /leased fleet for its own use will not be required to install chargers as per para 4.1 and to have NSP tie ups.

4.5 Charging Station may also be installed by Housing societies, Malls, Office Complexes, Restaurants, Hotels etc. with a provision to allow charging of visitor's vehicles which are permitted to come in its premises. The tariff charged shall be as per order of the Commission in its ARR/Tariff order.

**5. Public charging Infrastructure (PCI) for long range EVs and /or heavy duty EVs:**

5.1 Fast Charging Stations (FCS) i.e. Public charging stations for long range EVs and /or heavy duty EVs (like trucks, buses etc) will have the following:

1. At least two chargers of minimum 100 kW (200-750 V or higher) each of different specifications (CCS/CHAdeMO or any fast charger as approved by DST/BIS for above capacity) with single connector gun each. The charging specification may be notified by CEA/ BEE at the earliest.
2. Appropriate Liquid Cooled Cables for high speed charging facility as above, for onboard charging of Fluid Cooled Batteries (currently available in some long range EVs), if required.

5.2 Such Fast Charging Stations (FCS) which are meant only for 100% in house/captive utilisation, for example buses of a company, would be free to decide the charging specifications as per requirement for its in-house company EVs.

**6. Location of Public Charging Stations:**

6.1 In case of Public charging Stations, the following requirements are laid down with regard to density / distance between two charging points:

- i. At least one Charging Stations shall be available in a grid of 3 KmX 3 Km. Further, one Charging Station shall be set up at every 25 Km on both sides of highways/roads.
- ii. For long range EVs and /or heavy duty EVs like buses/rucks etc., there shall be at least one Fast Charging Station with Charging Infrastructure Specifications as per para 5.1 above at every 100 Kms, one on each side of the highways/road located preferable within/alongside the stations laid in para 3 above. Within cities, such charging facilities for heavy duty EVs may be located within Transport Nagars, bus depots.

A state specific roadmap for Haryana shall be prepared in accordance with NEMMP, 2020 and MoP, GOI guidelines by the nodal agency.

The roadmap shall contain gradual increase of the charging stations in the state based on a detailed study.

- 6.2 Additional PCS/FCS can be installed even if there exists a PCS/FCS in the required grid or distance.
- 6.3 The above density/distance requirement shall be used by the concerned state/UT Governments/their Agencies for the purposes of land use planning for public charging stations as well as for priority in installation of distribution network including transforms/feeders etc. This shall be done in all cases including where no central/state subsidy is provided.
- 6.4 The Haryana Government may also give priority to existing retail outlets (Ros) of Oil Marketing Companies (OMCs) for installation of Public EV Charging Stations (in compliance with safety norms) to meet the requirements as laid above. Further, within such Ros, Company Owned and Company Operated (COCO) ROs may be given higher preference.

**7. Database of Public EV Charging Stations:**

HAREDA shall create and maintain a database of all the Public Charging Station through DISCOMs and make the same available on its website. Appropriate protocols shall be notified by DISCOMs for this purpose which shall be mandatorily complied by the PCS.

**8. Tariff for Supply of Electricity to EV Public Charging Stations:**

- 8.1 The tariff for supply of electricity to EV Public Charging Station shall be determined by the HERC in accordance with the Tariff Policy issued under section 3 of Electricity Act 2003 as may be amended from time to time.

Provided in its absence the tariff applicable for Domestic Consumption, including the slab benefit, shall be applicable for domestic charging and / HT / LT tariff, as the case may be for others.

- 8.2 The separate metering arrangement shall be made for PCS to that consumption may be recorded and billed as per applicable tariff for EV charging stations.

**9. Service charges at PCS:**

9.1 Charging of EVs is a service, as also clarified by Ministry of Power vide letter No. 23/08/2018 – R & R dated 13.04.2018.

9.2 In such cases where the PCS/FCS has been installed with Government Incentives (financial or otherwise), State Nodal Agency i.e. HAREDA shall fix the ceiling of Service Charges to be charged by such PCS/FCS.

**10. Priority for Rollout of EV Public Charging Infrastructure:**

10.1 Phasing shall be as follows for rollout of EV Public Charging Infrastructure in Haryana:

a) Phase I (1-3 Years): All Mega Cities with population of 4 million plus as per census 2011, all existing expressways connected to these Mega Cities & important Highways connected with each of these Mega Cities may be taken up for coverage.

b) Phase-II (3-5 Years): Big Cities like State Capitals, UT headquarters may also be covered for distributed and demonstrative effect. Further, important Highways connected with each of these Mega Cities may be taken up for coverage.

10.2 The above priorities for phasing of rollout may be kept in mind by all concerned, including, different agencies of Central/State Governments while framing of further policies /guidelines for Public Charging Infrastructure of EVs, including for declaring further incentives/subsidies for such infrastructure and for such other purpose.

**11. Implementation Mechanism for Rollout:**

11.1 Shall be in line with the policies of Bureau of Energy Efficiency (BEE) for rollout of EV Public Charging Infrastructure.

11.2 HAREDA shall be the Nodal Agency for the purpose of these regulations.

**12. Selection of Implementation Agency for Rollout:**

12.1 The State Nodal Agency shall finalize the cities and expressways/ highways to be taken up on priority.

12.2 HAREDA may select an Implementation Agency to be entrusted with responsibility of installation, operation and maintenance of PCS/FCS for designated period as per parameters laid down in these regulations.

Provided that the Implementation Agency may be an Aggregator as mutually decided between Central and State Nodal Agencies. However, they may also decide to choose different PCS providers for bundled packages are carved for bidding, such packages may include at least one identified expressway/highway or part thereof to prepare a cohesive regional package; the selected identified cities may be divided into one or more parts as necessary for such purposes.

Provided where the PCS/FCS has been installed with Government Incentives (financial or otherwise), State Nodal Agency shall fix the ceiling of Service Charges to be charged by such PCS/FCS. The appropriate agency as mentioned above shall have the option for giving subsidy such as bidding for lower service charges or bidding for quantum of subsidy for fixed service charges etc.

**13. Business Models for Setting up Public Charging Infrastructure:**

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

- A. DISCOM owned Public Charging Stations
- B. Privately owned Public Charging Stations

Further, State Nodal Agency for creation of charging infrastructure for electric vehicles in the State shall be New and Renewable Energy Department/ HAREDA.

**A. 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.

**B. Privately owned Public Charging Station**

- i. 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.

- ii. The privately-owned Public Charging station shall adhere to the norms/ standards/ specifications laid down by MoP and CEA from time to time.
- iii. 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.
- iv. The Authorized Official of the Nodal Agency shall have the right to inspect/examine the procedures/protocols of privately-owned Charging station at all times.
- v. The Authorized Official designated by the Nodal Agency 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.
- vi. The privately-owned Public Charging station shall be operational to public only after receipt of clearance certificate signed by Authorized Official designated by the Nodal Agency.

**14. Procedures to be followed by HAREDA, Nodal Agency nominated by the State Government**

14.1 Being the State Nodal Agency, HAREDA is primarily responsible to follow the procedures mentioned in this section.

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

- iii. The NRE department 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.
- iv. All Charging Stations are required to adhere to the guidelines specified in the 'Standard Procedures and Protocols for Charging Infrastructure' published by NRE department as well as the guidelines and standards notified by MoP/CEA.
- v. The Public Charging Station set up by NRE/HAREDA or privately-owned model, shall require a clearance certificate from the Authorized Official designated by the Nodal Agency for such purpose, before it is operational and accessible to the public.
- vi. The connectivity shall be granted to the Public Charging Station only after the issuance of Clearance certificate from the Authorized Official designated by the Nodal Agency.
- vii. The Authorized Official designated by the Nodal Agency shall have the right to inspect all Public charging Stations set up in the State. The Authorized Official shall verify that the standard guidelines and protocols are followed by the Public Charging Station at all times.
- viii. The State Nodal Agency (NRE Department) 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 NRE Department may charge a fee for this purpose which shall be determined the Commission in respective Tariff Orders.
- ix. An Implementation Agency may be selected by the State Nodal Agency and shall be entrusted with responsibility of installation, operation and maintenance of PCS/FCS for designated period as per parameters laid down in this policy and as entrusted by the concerned Nodal Agency. The Implementation Agency may be an Aggregator as mutually decided between Central and State Nodal Agencies. However, they may also decide to choose different PCS providers for bundled packages are carved for bidding, such packages may include at least one identified

expressway/highway or part thereof to prepare a cohesive regional package; the selected identified cities may be divided into one or more parts as necessary for such purposes.

- x. The Nodal Agency 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.

#### **15. Incentives to Public Charging Stations**

- a. 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 of HERC Open Access Regulations, 2012 and its amendments from time to time.
- b. 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.
- c. The Public Charging Stations may also be set up with rooftop solar facility under applicable Regulations.

#### **16. Tariff Structure for Public Charging Stations**

- a. The tariff applicable for public charging stations shall be as per Commission's tariff order issued from time to time.
- b. As of now, the Commission in its recent tariff order dated 30.03.2021 has approved the concessional tariff for Electric Vehicles Charging Station of Rs. 5.55 / kWh or Rs. 5.00 / kVAh. The Fixed Charges shall be Rs. 100 / kW / kVA per month
- c. Additionally, the energy charges as per TOD / TOU tariff shall also be applicable during the off-peak demand period (November to March) between 9.00 P.M. and 05.30 A.M as applicable to the HT Supply consumers on the total consumption, instead of incremental consumption, during the said time period.

- d. In such cases where the PCS/FCS has been installed with Government Incentives (financial or otherwise), State Nodal Agency shall fix the ceiling of Service Charges to be charged by such PCS/FCS.
- e. 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.

**17. Other consumers:**

- a. The consumers desirous of charging their private vehicles 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 consumers shall apply to DISCOMs for increase in their connected /contract load on account of EV charging in their premises. The DISCOM shall take utmost efforts to upgrade its system as per the requirements of load for EV charging in its area of supply.

- b. 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.
- c. 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.
- d. 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. For implementation of Smart Charging and to give benefit of ToD rebate, 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.

- e. For Combo Charger C-122 (CCS+CHAdEMo+AC-002) (122 kW). Contract demand of 122 KW is required. In the Combo Charger, there are three charges 2 of 50 KW each and one of 22KW.
- f. In case of HT connection for E-Vehicle Charging Station(s) for load more than 50 kW, the cost of separate / dedicated transformer along with allied equipment shall be borne out of CSR fund of Discoms to rein in cost of installation(s).
- g. Also, for a series of Charging Stations set up in the same campus/nearby areas (approachable with single connection) shall be allowed to set up with single HT connection so that a separate transformer is not required for each such charging station.
- h. NRE Department being the State Nodal Agency may also encourage other energy companies (like IOCL, HPCL, IGL, EESL etc.) to invest in providing a charging network, specially the fast charging stations at inter-city routes like state and national highways and in cities.

**18. Other:**

- a. State Nodal Agency- HAREDA shall be responsible for deciding the ceiling of Service Charges to be charged by PCS/FCS, where PCS/FCS has been installed with Government Incentives. For all other PCS/FCS, a range for service charges may be fixed by the approval of Commission, on the proposal of State Nodal Agency.
- b. 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.
- c. As far as providing financial incentives is concerned, the Commission is of the view that the State Government may decide or frame a policy for providing incentive / subsidy / subvention to the owners/prospective owners of privately-owned Charging Stations.
- d. In view of Regulation 9 of HERC (Duty to supply electricity on request, Power to recover expenditure incurred in providing supply and Power to require

security) Regulations, 2016, as a special case for EV, the Commission allows as under: -

- i. tariff applicable for charging of Electric Vehicle at premises other than charging stations shall be the same as applicable for the relevant category of connection at such premises.
  - ii. tariff for electric vehicle charging stations on single point delivery shall be applicable for charging of batteries at swapping facilities provided that such swapping facilities are exclusively used for swapping of batteries of E-Rickshaw/E-Vehicle only.
  - iii. at electric vehicle charging station, a separate electricity connection shall be taken by the applicant for other associated purposes such as office of charging station, public amenities, consumption of other equipment etc. The applicant shall ensure a separate metering arrangement for such purposes and tariff as applicable to relevant category shall be applicable to the same.
  - iv. permit a separate connection for electric vehicle charging in Retail outlets of Oil Marketing Companies, Housing Societies, Malls, Office Complexes, Restaurants, Hotels, Parking of Metro Stations or its premises etc.
  - v. further, in cases where single point connection has been provided in the premises, and a separate electric vehicle connection is desired at LT level, distribution licensee in such cases may adopt metering by providing separate wiring and metering for electric vehicle charging activities.
  - vi. applicant must be having the approval for safety and/or fire clearance for the electric vehicle charging station wherever applicable from the concerned department such as Petroleum and Explosives Safety organization (PESO), fire department, etc.
- e. In case of HT connection for E-Vehicle Charging Station(s) for load more than 50 kW, the cost of separate / dedicated transformer along with allied equipment shall be borne out of CSR fund of Discoms to rein in cost of installation(s).

19. **Power to Relax.** – The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected may suo moto relax any of the provisions of these regulations or on an application made before it by an interested person.
20. **Issue of orders or directions.** – Subject to the provisions of the Act and these regulations, the Commission may, from time to time, issue orders and procedural directions with regard to the implementation of these regulations and specify the procedure to be followed on various matters, which the Commission has been empowered by the regulations to direct and matters incidental thereto.
21. **Power to amend.** – The Commission may, at any time, add, vary, modify or amend any of the provisions of these regulations.
22. **Power to remove difficulties.** – If any difficulty arises in giving effect to any of the provisions of these regulations, the Commission may, by general or special order, make such provisions, which in the opinion of the Commission are necessary or expedient to do so.
23. **Savings.** – Nothing in these Regulations shall limit the inherent power of the Commission to make such orders as may be necessary to meet the ends of justice or to prevent abuses of the process of law / statutes. Nothing in these Regulations shall bar the Commission from adopting, any other procedure, which may be at variance with any of the provisions of these Regulations, as long as they are in conformity with the provisions of the Electricity Act, 2003 and the policies framed by the Central / State Government thereto.

Provided that the reasons for any such deviating shall be recorded in writing.

Provided also that nothing in these Regulations shall, expressly or implicitly, bar the Commission from dealing with any matter under these Regulations or exercising any power under the Act for which no regulations have been framed.

Panchkula  
The 20<sup>th</sup> December, 2021.

By the order of the Commission  
(Sd.)...,  
Director/Tariff  
HERC