छत्तीसगढ़ राज्य
विद्युत नियामक आयोग

Petition

Chhattisgarh State Electricity Regulatory Commission
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Suo-Motu Petition No. 17 of 2025

In the matter of

'Minus metering' facility for electric vehicle charger connections'

Draft Order
(Dated: 21/03/2025)

Energy Efficiency Services Limited (EESL), vide letter No. 943 dated 24.12.2024, has submitted that they have signed an agreement with Naya Raipur Vikas Pradhikaran (NRDA) for installation of 20 fast chargers for electrical vehicles (EV). Out of these, 04 charges have been installed in Mantralaya premises and commissioned on December 2021. As per the agreement with NRDA, power supply to the EV chargers would be taken from their existing connections through sub-metering.

2. EESL has submitted that during the pilot trial between December 2021 to March 2022, utilization of these 04 chargers were very low due to limited number of EVs. However, demand charges levied by CSPDCL to NRDA was very high, even though zero usage of the chargers. Due to high demand charges, EESL disconnected the submeters and approached CSPDCL for providing separate connection for EV chargers under LV-2 tariff category. As infrastructure for this separate connection to the EV chargers is very high due to extensive cabling, EESL proposed use of 'minus metering' as the alternative of submetering but CSPDCL denied in the absence of any such provisions specified by the Commission.

3. The transition to electric mobility is a promising global strategy for decarbonizing the transport sector. India is among a handful of countries that support the global EV30@30 campaign, which targets to have at least 30% new vehicle sales be electric by 2030. Also, the Central as well as the State Government are framing clean environment friendly policies. The concept of minus metering has been recommended in the 'Handbook of Electric Vehicle Charging Infrastructure Implementation' published by NITI Aayog, the Ministry of Power, the Department of Science and Technology and Bureau of Energy Efficiency in collaboration with WRI India. Relevant para of this handbook is reproduced below:

"Large commercial and institutional establishments like malls, large office buildings, entertainment parks, etc. are preferred locations for providing EV charging points. Generally, these establishments have their own HT connections with exclusive DTs and a high sanctioned load. In such circumstances, there is a convenient way to provide a separate LT metered connection, for EV charging, from the existing HT connection."

4. The Commission is also encouraging EV charging stations because plug-in hybrid electric vehicles and battery electric vehicle ownership are expanding in the State. Also, there is a growing need for widely distributed publicly accessible charging stations. Hence, the Commission have been providing concessional tariff since 2019-20 for such facility in order to incentivize sustainable eco-friendly transport system.

5. Recently, in the tariff order for FY 2024-25, the Commission has given direction to the State Power Companies to gradually switch over to Electric Vehicle for their official commutation to promote EV.

6. It is observed that in the Supply Code (Fourth Amendment) notified by the Commission; to facilitate EV charging, the Commission has specified

for separate connection in the flat / house or any other consumer. However, the concept of 'minus metering' could not be specified in the amendment Code. Relevant para is reproduced below: -

"4.1(d)(XIII) – On the request of an Association or an owner of flat or house in an Association or any other consumer, the distribution licensee shall provide separate connection for supply of electricity for Electric Vehicle charging system."

7. In the view of the above the Commission have decided to initiate Suo-motu proceedings to facilitate minus metering. This arrangement is simpler and more cost-effective than establishing a new LT connection for the charging points. This arrangement benefits host establishments by simplifying the process of setting up charging points and rationalizing the sanctioned load requirements for new EV connections.

8. To facilitate minus metering, following methodology is proposed;

i. An exclusive electricity connection for EV charging is drawn from the existing HT/LT connection of the premises.

ii. The energy consumption for EV charging is measured using a sub-meter. Energy consumed for EV charging is billed based on the applicable EV tariff.

iii. As per prevailing tariff order, EV tariff is a flat rate, no demand charges will be levied on the EV sub-meter.

iv. In future, if the tariff order specifies EV tariff with Demand/fixed charges, these charges must be paid separately for the EV connection. Peak demand recorded in sub-meter shall be deducted from demand recorded in the existing connection (main connection) and accordingly billed for the main connection. Similarly, energy

recorded in sub-meter shall be deducted from energy recorded in the existing connection and accordingly billed for the main connection.

Note:

i. If, load enhancement is required to facilitate minus metering, it will done by the licensees as per the prevailing codes and regulations.

ii. Extension of wires/cables from metering panel to the point of charging stations shall be as per CEA safety standards/regulations and the guidelines issued by the Chief Electrical Inspectorate and Safety department.

9. Comments /suggestions of the stakeholders on the above proposal are invited by 21/04/2025 and date of public hearing will be intimated separately.

Sd/-
Chairman