



తెలంగాణ రాష్ట్ర పునరుద్ధరణ యోజనాలో వనరుల అభివృద్ధి సంస్థ లిమిటెడ్

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To

All the Empanelled Charge Point Operators
TSREDCO

Sub: Selection of Charge Point Operators (CPO) among empanelled CPOs for allocation of Locations for Setting up of Electric vehicle Public charging stations across Telangana State under PPP Model- Calling of Expression of Interest - Reg

With reference to the above subject, TSREDCO has received 615 locations from various Government Departments across the State of Telangana for installation of Electric vehicle Public Charging Stations under Public Private Partnership (PPP) model.

In this model, TSREDCO desired to establish the suitable Fast/Slow EV Charging Stations in the locations received by various Government Departments across the State of Telangana. The details are as follows

The details of locations with the details of respective land providing agency along with TSREDCO District managers are enclosed with **Annexure- 1**.

1. Scope of work :

- Selected CPOs shall be responsible for Survey, installation, commissioning, and operation & maintenance of EV charging station (Slow/ Fast) at locations provided by TSREDCO. The maximum time for completion of the installation and commissioning of all charging stations shall be 2 months from the date of Site Handing over from the TSREDCO.
- Selected CPO's shall procure, install, and commission the minimum One No. of 30KW/60KW Dual Gun CCS-2 Type Fast Charger OR Higher Capacity And optional to install either Type 2 or AC-001 (Slow) EV chargers in the allotted locations which are ARAI/ICAT tested and certified with their own source of funds and operate these Charging Stations for the operating period of minimum 10 years.
- The Successful CPO's shall also be responsible for Operations, Maintenance, Security & Insurance. The value of the insurance can be in the scope of CPO only. However, the CPO should also consider the 3rd party liability insurance of all charging stations allotted to them by TSREDCO
- The Selected CPO's is responsible for obtaining new Electrical Supply connection from DISCOM under LT IX/HT IX Category for the allotted Charging Stations.

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- e) The Selected CPO's shall also be responsible for construction of civil works including Construction of compound wall, laying & maintaining the concrete paving or providing paver blocks including the beautification & marking etc. at charging stations along with minimum required amenities if required.
- f) No additional commercial activity at the premises will be allowed. If required, written permission for the same would need to be sought from TSREDCO after settling the commercial terms.
- g) The selected CPO should enlist the installed Chargers in TSREDCO EV APP (TSEV) for operational/viewing purpose. Also the bidders are responsible for linking their EV Chargers in our Charger Software Management System (CSMS) for monitoring the day to day sales happening from every Charger Location.
- h) The selected bidder should pay and a revenue sharing amount of Rs. 0.50 Paise along with applicable GST to TSREDCO for the service rendered and revenue share of Rs.1.00 Rupee along with applicable GST for the land provided to the land owning agency within 7 days from the date of the invoice from TSREDCO and the land providing agency. the rate has been arrived as per the assessment and report by ASCI vide their letter no ASCI/CES/2021-22/RC-062/525; Dated: 03/03/2022 with recommended rate of Rs. 18.04/- per kwh to the end consumer by CPO. The revenue share will vary based on the proportionate decrease/increase over the recommended rate of Rs. 18.04/- per kwh billed to the end user during the term of the project as Revenue share towards Land allotted and TSREDCO service charges
- i) For the purpose of calculating the revenue sharing amounts, the sales details (kWh) obtained through TSEV app and TSREDCO's Charger Software Management System (CSMS) will be final.
- j) The Selected CPO's shall submit the details of sales happened from the respective charging stations on fortnight basis to finalize and confirm the revenue share income to the respective stake holders.
- k) TSREDCO will carry out the frequent site inspections and random inspections at the charging stations with regards to the implementation of TSREDCO guidelines.
- l) The CPO should maintain 95% uptime (excluding grid outages)

2. Charging Station Functionalities:

The agency must ensure the following:

- a) Charging station must support at least the following functionalities for EV users:
 - Location of charging station (Address of the charging station along with the GPS coordinates)
 - Charging station operating hours
 - Type of chargers (Slow / Moderate / Fast)
 - Availability of slots at charging station (Whether the EVSE is connected to an EV or not)

- Waiting time and option for booking a slot in case of congestion (Whether the charger is available or booked for particular slots)
- Cost to the consumer for all types of chargers
- Authentication methods available (at least two methods: app-based and RFID cards)
- Option to lodge a complaint for non-functioning charging station/charger
- Payment methods available
- The EV user must be able to access these services through a mobile application (which is developed by TSREDCO), including the ability to make payment through the mobile Application.

b) **Communication Requirements:**

- **Digital Communication Between the EVSE and the EV-**

For AC/DC charging, the digital communication as described in IEC 61851-24 must be provided to allow the EV to control the EV supply equipment

- **Digital Communication between the EVSE and the Charger Management System-**

- a. The communication between any charger and the charger management system of the bidder must mandatorily use the communication protocol Open Charge Point Protocol (OCPP) – version 1.6 or higher, compatible with OCPP 1.6 or Open Charge Point interface (OCPI) – version 2.0 or higher, compatible with OCPI 2.0 or IEC 61850-90-8
- b. The interface between the charger and successful bidder/s must be reliable internet connectivity (Ethernet, 4G/5G). Telecommunication network or telecommunication port of the EV supply equipment, connected to the telecommunication network, must comply with the requirements for connection to telecommunication networks according to 6 of IS 13252 (Part 1): 2010.
- c. All the Chargers shall be made live on TSREDCO's EV charging mobile platform, however TSREDCO shall give OCPI access through APIs to the bidder for making the chargers live on bidder's app, if any.
- d. The EV Chargers should be made available always live in TSREDCO EV Mobile APP/ Web Link.

- **Digital Communication between the Charger Management System and the TSREDCO-**

The communication between EVSE and TSREDCO shall be Open Smart Charging Protocol (OSCP) 1.0 or (Open ADR + IEEE 2030.5) or IEC 61850-90-8 Protocol or higher version of these protocols as and when notified by TSREDCO. The Agency must have provision for the data to be made available for the TSREDCO or any agency as and when notified by TSREDCO.

- **Digital Communication between different Charging Stations:**

The Agency shall make provision for communication with other Charging Stations if required or as and when notified by TSREDCO. The communication between the two Charging Stations shall be either Open