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Ref: TSREDCO/EVI/68/ Installation of EVCS/2022

Dated: 18/08/2023

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.

- 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 Paisa 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

Charge Point Interface (OCPI) 2.1 protocol or Open Clearing House Protocol (OCHP) direct 0.2 or higher version of these protocols as and when released.

- c) The Bidder must make provision that the following information would be made available to its respective DISCOM on a regular basis as agreed upon by TSREDCO.
- Peak hours of EV charging
 - Real-time power consumption from charging from each charge point (using smart meters)
 - Session - Start & Stop for each charger (Timings & Duration)
 - Instantaneous current flow to EV
 - Instantaneous AC RMS supply voltage
 - Instantaneous active power imported by EV (W or kW)
 - Instantaneous reactive power imported by EV (KVA or KVAH)
 - Instantaneous power factor of total energy flow
 - Charger ID
 - Location (GPS coordinates)
 - Emergency Stop (along with reasons), if any
 - Frequency of any voltage fluctuation issue
 - Tariff charged from consumer

3. Information to be submitted to open Database:

The licensee must make provision that the following information would be made available to the open database managed by TSREDCO

a. Station level data:

- Name of the charging station
- Location (latitude, longitude)
- Modes of payment accepted
- Advance booking availability with available slots
- Operating hours and days
- Operating status (operational or non-operational)

b. Charging unit level data

- Charging unit ID
- Type of charging gun along with quantity of each and the capacity of each charging gun
- Operating status (Connected or Available or Out of Service)
- Maintenance alerts
- Usage statistics- timestamps of charging usage
- Power consumption- Separately for each charging point

4. Safety Norms

All EV PCS should be incorporated with suitable protection and monitoring devices for safe and reliable operation of charging stations. All PCS must follow the following safety norms:

- 4.1.1 Safety provisions for charging stations, CEA (Technical Standards for Connectivity of Distributed Generation Sources) Regulations, 2019.
- 4.1.2 Bidder shall keep the records to an extent that the PCS installation have been carried out and maintained in accordance with safety norms as per the relevant CEA Regulation & manufacturer's installation and maintenance instructions.
- 4.1.3 All safety standards must be followed as mentioned in CEA guidelines dated 28 June 2019 and subsequent amendments.
- 4.1.4 Protection against the overload of the charging supply and incoming supply fittings must be provided
- 4.1.5 The bidder must ensure that the licensed space for PCS must not be misused due to actions such as intentional / unintentional blocking of parking space by vehicles which are not being charged.

5. Selection Process :

- a) This EOI is invited only from the empanelled Charge Point Operator with TSREDCO. However, if any interested CPO's who are not empanelled with TSREDCO also can empanel/apply for empanelment with TSREDCO on or before the due date of this EOI and participate in this EOI duly submitting valid proof.
- b) The bidders should participate along with the sealed EOI response as per the prescribed format (enclosed) physically on 04/09/2023 at TSREDCO, HO for finalizing /allotment of locations by TSREDCO to bidders.
- c) The bidders should submit the authorization certificate of the person responsible for participating in the EOI.
- d) The Bidders can select any number of locations under this EOI.
- e) Same bidders cannot submit multiple bids for the same locations.
- f) On the date of finalizing /allotment of locations TSREDCO will allot the locations to the bidders.
- g) If multiple bidders opts the same location, then TSREDCO will allot the location based on the following
 - i. EOI with highest capacity of Charger Proposed will be considered as First priority.
 - ii. If the multiple bidders opts the same location with the same capacity, then auction will be conducted in respect of Revenue sharing.
 - iii. In case if the allotment is not finalization with above process, then the allotment will be done on lottery basis.
 - iv. If the selected bidder fails to pay the security deposit within 3 days that will be treated as non responsive and stands automatically cancel. No separate notice will be issued in this regard.
 - v. The decision of TSREDCO in this regard is final and reserves the right to accept or reject the EOI without assigning any reason.

6. Terms and conditions :

- a) The Selected bidders shall pay a Security Deposit of Rs 1,00,000 (Per Location) in the form of DD or BG within 3 working days from the date of LOA Issued. The BG should be from any Nationalized Bank/Scheduled Bank valid for 10 years 6 months on M/s TSREDCO, Account no: 09540100026192, Bank of Baroda, Khairathabad, Hyderabad) IFSC Code: BARB0KHAIRA (fifth character is 0 'zero'. No interest shall be paid by TSREDCO on the amount of Performance Security deposit.
- b) All Electric Vehicle supply Equipment (EVSE) should have been type tested ARAI/ICAT for testing and Calibration from time to time. And also these Electric Vehicle Supply Equipment should be as per Indian standards for EV charging notified by Bureau of Indian Standards (BIS) on 01.11.2021 and which is also mentioned in revised guidelines and standards issued by Ministry of Power, Govt of India. Vide ref. No. 12/2/2018-EV (Comp No.244347) Dated: 14th January 2022 .The Electric Vehicle supply Equipment (EVSE) to be installed by the Charge Point Operators (CPO). The Selected CPO's should comply with the technical guidelines issued by TSREDCO from time to time.
- c) TSREDCO will enter Bi-lateral or Tripartite agreement as required. The Draft Agreement to be entered is placed at Annexure-II.
- d) If the successful bidder fails to complete the work allotted in the stipulated time, the security deposit will be forfeited and TSREDCO reserve the right to forfeit the Security deposit and the decision of TSREDCO in this regard is final.
- e) In case of any delay in the execution beyond the stipulated schedule/completion period including any extension permitted in writing by TSREDCO, TSREDCO reserves right to recover from the bidder by a way of demand notice a penalty at the rate of INR 10,000 for each site per week up to a maximum of INR 50000/- for locations allotted.

7. Project timeline:

- a) Total duration for the project shall be **02 (Two) months**. Project milestones are as under.

S.No	Activity	Timeline
1.	Location occupation by successful bidders	Within 7 days from the date of Agreement with TSREDCO
2.	Site Clearance, applying of Electrical Connection & placement of Purchase order for procurement of EV Chargers	Within 14 days from the date of Agreement with TSREDCO
3	Installation of the charging station with complete civil works and associated Electrical Works	Within 45 days from the date of Agreement with TSREDCO
4.	Commissioning of the Ev Charger and enlisting in TSEV Mobile APP	Within 60 days from the date of Agreement with TSREDCO

Note *: The successful bidder needs to submit all the proofs to TSREDCO pertaining to the above from time to time. TSREDCO reserves the right to cancel the allotment and forfeit the Security deposit if the bidders fail to meet the above time lines without valid reason acceptable to TSREDCO. The failure to operationalize the mandates will lead to weekly penalty.

The interested Charge Point operators who are empanelled/applied for empanelment with TSREDCO should participate along with the sealed EOI response as per the prescribed format (enclosed in Annexure- II) physically on 04 /09/2023 at TSREDCO, HO for finalizing /allotment of locations by TSREDCO to bidders.

Sd/-
VC & Managing Director

// T.C.F.O.B//



Project Director (EVI)

ANNEXURE-II**EOI response Sheet**

1. Name of the bidder:

2. Communication address:

3. Authorised Person name:

4. Telephone/Mobile No.:

5. Email ID:

6. List of locations bided for

Sl.No	List of locations bided for	Capacity of the charger proposed at each location	Cost of service proposed at each locations

Note: A Separate Sheet can also be attached