

# U.P. POWER CORPORATION LIMITED

Office of Chief Engineer Power Purchase Agreement Directorate, 14th Floor, Shakti Bhawan Extn., 14-Ashok Marg, Lucknow -226 001 TeleFax:0522-2218812, Email:ce.ppa@uppcl.org

No. 1528 /CE/PPA

Date 03/09/2024

# Selection of Service Provider for Peer to Peer (P2P) Solar Energy Transaction through Block Chain Based Platform

# Corrigendum -II

# Expression of Interest (EOI)

U.P. Power Corporation Limited on behalf of Distribution Licensees of U.P. viz PuVVNL, MVVNL, DVVNL, PVVNL & KESCO has invited proposals for Service Provider for Peer to Peer (P2P) Solar Energy Transaction through Block chain based platform. The details of EoI were as below: -

| Sr. No. | EOI  | Details  Rs. 10,000 (Ten Thousand only) + GST 14.08.2024 |  |  |
|---------|--|--|--|--|
| 1.      | Processing Fees (Non Refundable)                   |  |  |  |
| 2.      | Availability of EOI document on website            |  |  |  |
| 3.      | Last date and time for submission of Application   | 03.09.2024   |  |  |
| 4.      | Date and time of opening of submitted Applications | 04.09.2024 at 12:30 PM                                   |  |  |

It is hereby informed that the last date for submission of application is extended till 10.09.2024 and Date and time of opening of submitted Applications is modified as 11.09.2024 at 12:30 PM.

The interested participants shall submit the application along with the Registration Fees and necessary documents on ce.ppa@uppcl.org and also submit in hard copy at the above address.

Note: U.P. Power Corporation Limited reserves the right to cancel or modify the process any time without assigning any reason and without any liability. This is not an offer.

Chief Engineer (PPA)

UPPCL



# U.P. POWER CORPORATION LIMITED

Office of Chief Engineer Power Purchase Agreement Directorate, 14th Floor, Shakti Bhawan Extn., 14-Ashok Marg, Lucknow -226 001 TeleFax:0522-2218812, Email:ce.ppa@uppcl.org

No.1487 /CE/PPA

Date 28/08/2024

# Selection of Service Provider for Peer to Peer (P2P) Solar Energy Transaction through Block Chain Based Platform

## Corrigendum

# **Expression of Interest (EOI)**

U.P. Power Corporation Limited on behalf of Distribution Licensees of U.P. viz PuVVNL, MVVNL, DVVNL, PVVNL & KESCO has invited proposals for Service Provider for Peer to Peer (P2P) Solar Energy Transaction through Block chain based platform. The details of EoI were as below: -

| Sr. No. | EOI  | Details  Rs. 10,000 (Ten Thousand only) + GST |  |  |
|---------|--|---|--|--|
| 1.      | Processing Fees (Non Refundable)                   |   |  |  |
| 2.      | Availability of EOI document on website            | 14.08.2024                                    |  |  |
| 3.      | Last date and time for submission of Application   | 27.08.2024                                    |  |  |
| 4.      | Date and time of opening of submitted Applications | 28.08.2024 at 12:30 PM                        |  |  |

It is hereby informed that the last date for submission of application is extended till 03.09.2024 and Date and time of opening of submitted Applications is modified as 04.09.2024 at 12:30 PM.

The interested participants shall submit the application along with the Registration Fees and necessary documents on **ce.ppa@uppcl.org** and also submit in hard copy at the above address.

Note: U.P. Power Corporation Limited reserves the right to cancel or modify the process any time without assigning any reason and without any liability. This is not an offer.

Chief Engineer (PPA)

UPPCL



## U.P. POWER CORPORATION LIMITED

Office of Chief Engineer
Power Purchase Agreement Directorate,
14th Floor, Shakti Bhawan Extn.,
14-Ashok Marg, Lucknow –226 001
TeleFax:0522-2218812,
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No. 1395 /CE/PPA

Date 13 /08/2024

# Selection of Service Provider for Peer to Peer (P2P) Solar Energy Transaction through Block Chain Based Platform

## **Expression of Interest (EOI)**

U.P. Power Corporation Limited on behalf of Distribution Licensees of U.P. viz PuVVNL, MVVNL, DVVNL, PVVNL & KESCO invites proposals for Service Provider for Peer to Peer (P2P) Solar Energy Transaction through Block chain based platform.

The details of the Processing Fees and critical dates are as follows: -

| Sr. No. | EOI  | Details                                 |  |  |
|---------|--|---|--|--|
| 1.      | Processing Fees (Non Refundable)                   | Rs. 10,000 (Ten Thousand only)<br>+ GST |  |  |
| 2.      | Availability of EOI document on website            | 14.08.2024                              |  |  |
| 3.      | Last date and time for submission of Application   | 27.08.2024                              |  |  |
| 4.      | Date and time of opening of submitted Applications | 28.08.2024 at 12:30 PM                  |  |  |

Participants may download the necessary eligibility and technical details and other documents from UPPCL website **https://www.uppcl.org** and also may obtain the same from Office of Chief Engineer, Power Purchase Agreement Directorate, 14th Floor, Shakti Bhawan Extension., 14-Ashok Marg, Lucknow –226 001.

The interested participants shall submit the application along with the Registration Fees and necessary documents on **ce.ppa@uppcl.org** and also submit in hard copy at the above address.

**Note:** U.P. Power Corporation Limited reserves the right to cancel or modify the process any time without assigning any reason and without any liability. This is not an offer.

Chief Engineer (PPA) UPPCL

### <u>Proposed Procedure for Registration of Service Provider- Peer to Peer Solar</u> Energy Transaction.

#### 1. Eligibility criteria:

- a) The Service Provider must be a company registered under the Companies Act/Partnership/LLP or an entity registered under Indian Society Act, for at least past three years and having experience as outlined here under.
- b) In case a Service Provider would like to come in along with a JV Partner then the lead member having the majority stake must meet the criteria outline above at Sl. no. 1(a). As a clarification the other Joint Venture Partner can also be a foreign entity in case where technical criteria is being relied upon.
- c) The Service Provider must have a minimum annual turnover of INR 5 Crores during the last two financial years FY 2022-23 and FY 2023-24.
- d) The Service Provider must not be blacklisted by any government agency or public sector undertaking at application stage.

#### 2. Technical Criteria:

- a) The Service Provider must have minimum 1 year experience in developing and implementing Peer-to-Peer based energy trading solutions or in any other sector based on Peer-to-Peer trading solutions.
- b) i- The Indian entity may apply based on experience in a foreign country or
  - ii- The Indian entity may apply in JV with foreign entity with experience in other country. In the this case, the Indian entity will be the lead partner for the period of contract & the JV partner will not exist

#### 3. Other Requirements and Obligations:

- The Service Provider must submit a detailed project plan that includes a timeline for development and implementation.
- b) The Service Provider shall have to give a presentation to UPPCL wherein plan of integration with UPPCL AMISP (Smart Metering) systems alongwith related MDM solutions as well as UPPCL RMS (Billing System) must be provided.
- c) RMS system will provide to cater input of P2P transaction which needs to be added to the prosumer and consumer bills. Component calculations shall be carried out on the P2P platform on the basis of reading parameters acquired from MDM. UPPCL shall provide required facilitation along with integration services to be provided from the AMISPs and RMS service provider.
- d) The Service Provider must submit a detailed risk mitigation plan w.r.t. IT security compatible with UPPCL Policy.
- e) The Service Provider must submit a detailed quality assurance plan.

- f) The Service Provider must demonstrate its plan for engaging with stakeholders and building a community around the peer-to-peer based energy trading platform as per the regulatory provisions.
- g) UPPCL shall carry out a IT Audit focusing on the system logic and transactions & cyber security provisions in the P2P system including its integration with UPPCL AMISP, UPPCL RMS etc.

#### 4. Pilot mode and roll out phase:

Initially P2P system of service provider will run in pilot mode for 6 month. Thereafter considering the report of IT Audit as outlined above at 3(g), roll out phase shall start.

#### 5. Registration of Service Provider:

The Service Provider shall register with the Distribution Licensee by paying a Registration Fees of Rs.1,00,000 (Rs. One Lakh only) plus applicable GST, where it will provide services. The registration shall be initially valid for a period of 3 years after commissioning and commercial operationalization, which can be extended on mutually agreed terms.

#### 6. Bank Guarantee:

The Service Provider shall provide Electronic Bank Guarantee (e-BG) to UPPCL which shall be calculated on the basis of detailed project plan for the duration of the contract. The bank guarantee shall be issued by a reputable bank acceptable to UPPCL and shall remain valid till the expiry of the Contract plus one year. In the event of any breach of contract by the Service Provider, UPPCL reserves the right to encash the Bank Guarantee, and the Service Provider shall promptly replenish the Bank Guarantee to the originally agreed amount within a specified timeframe, as deemed appropriate by UPPCL.

The minimum amount of Bank Guarantee shall be Rs. 10,00,000/- (Rs. Ten Lakh only) upto Ten Thousand users (Prosumers and Consumers) at Service Provider Platform. The amount shall be revisited on the basis of last six (6) months System handling & maintenance fee remitted to UPPCL, subject to minimum amount remaining Rs. 10,00,000/- (Rs. Ten Lakh only).

#### 7. Transaction Charges:

a) The transaction charges payable at P2P platform are as follows: -

| Transaction Charges per unit (Rs.) |                                  |                  | System Handling and Maintenance Fee* (Rs.) |                               |                  |
|------------------------------------|----------------------------------|------------------|--|-------------------------------|------------------|
| Payable by<br>Consumer<br>(A)      | Payable<br>by<br>Prosumer<br>(B) | Total<br>(C=A+B) | Payable by<br>Consumer<br>(D)              | Payable by<br>Prosumer<br>(E) | Total<br>(F=D+E) |
| 0.21                               | 0.21                             | 0.42             | 0.05                                       | 0.05                          | 0.10             |

<sup>\*</sup> This fee is in addition to transaction charges.

Note: -In addition to above charges/fee, the open access charges, as per applicable UPERC tariff order, alongwith mutually agreed price, for the P2P energy transaction shall be payable by consumer at P2P platform.

The Service Provider shall impose a transaction charge of Rs. 0.42 per unit for all peer-to-peer (P2P) solar energy transactions facilitated on the P2P platform, in accordance with the directive outlined by the Hon'ble Commission's Guideline dated 05.04.2023.

- b) This charge of Rs. 0.42 shall be borne equally by both the P2P Prosumer and the P2P Consumer, resulting in a charge of Rs. 0.21 per unit for each.
- c) All operational expenses related to the activities of P2P transactions including but not limited to maintenance, connectivity, messaging etc. shall be borne by the service provider.
- d) Furthermore, the Service Provider shall remit a System handling & maintenance fee of Rs. 0.10 per unit (to be changed from time to time) to UPPCL. This fee shall be recoverable from P2P consumers / prosumer in addition to transaction charges at P2P platform.
- e) The System handling & maintenance fee payable to UPPCL, shall be applicable for the entire duration of the contract, subject to any revisions or modifications by UPPCL.
- f) Additionally, the open access charges such as Wheeling Charges, Cross Subsidy Surcharge and Imbalance Charges for the P2P energy transaction shall be as per applicable UPERC Tariff Order. Presently, on P2P transaction the open access charges will be same as that for provided in tariff order.

#### 8. Billing Conditions:

The Billing settlement shall be as per following:

| SI<br>No. | Heads                               | Seller<br>(Prosumer) | Buyer<br>(Consumer) | Utility      | P2P<br>platform |
|-----------|-------------------------------------|----------------------|---------------------|--------------|-----------------|
| 1         | Mutually agreed Price (Mp)          | 0                    | -Mp                 | 0            | +Mp             |
| 2         | Settlement of Mutually agreed Price | +Mp                  | 0                   | 0            | -Мр             |
| 3         | Transaction Charges                 | -0.21                | -0.21               | 0            | +0.42           |
| 4         | System handling Fee                 | -0.05                | -0.05               | 0            | +0.10           |
| 5         | Settlement of System handling Fee   | 0                    | 0                   | +0.10        | -0.10           |
| 6         | Wheeling Charges*                   | 0                    | -0.92               | 0            | +0.92           |
| 7         | Settlement of Open Access Charges   | 0                    | 0                   | +0.92        | -0.92           |
|           | Total                               | Mp-0.26              | -(Mp+0.26+0.92)     | +(0.10+0.92) | 0.42            |

<sup>&</sup>quot;+" reflects receivable by entity, "-" reflects payable by entity.

<sup>\*</sup> In addition to wheeling charges, CSS etc. shall also be included as per applicable UPERC tariff orders.

- a) Billing & Collection for energy charges (at mutually agreed transaction price), transaction charges, System handling & maintenance fees and applicable Open Access charges (Wheeling Charges, Cross Subsidy Charges & Imbalance charges) for each P2P energy transaction shall be carried out by Service Provider at P2P Platform.
- b) Service provider shall settle the energy charges (at mutually agreed transaction price), System handling & maintenance fee alongwith Open Access charges under P2P transaction on their platform on daily basis.
- c) The Open Access charges and System handling & maintenance fee shall be remitted to the Distribution Licensee on daily basis. The Open Access charges shall consist of Wheeling charges and Imbalance charge as defined in the guidelines dated 05.04.2023 set forth by the UPERC.
- d) Service Provider shall fetch time block wise meter data from MDM for each day for both P2P Prosumer and P2P Consumer for actual energy generated and consumed respectively.
- e) Service Provider shall send data regarding P2P transaction to UPPCL RMS (Billing System) on the basis of which settlement and billing can be done in RMS.
- f) As per UPERC P2P Guidelines, the bill shall be raised for total demand (P2P transaction + purchase from Distribution Licensee) by the Distribution Licensee as per the provisions of Tariff Order and Supply Code.

#### 9. De-registration due to Default by the Service provider

In case of default, the registration of service provider will be cancelled and registration fee forfeited. Upon curing the default, the service provider will require to re-register with the payment of registration fee.

#### 10. Data Breach by the Service Provider:

In the event of any data breach, the Service Provider must promptly inform the other party, take necessary corrective measures, and be liable for any resulting damages. Both parties must comply with legal obligations and cooperate fully in resolving the breach. Persistent breaches may lead to termination of the agreement.

It is proposed that a meeting of Committee constituted for the development and implementation of P2P roadmap be convened so that proposed steps as above can be considered for making appropriate recommendation for UPPCL.

#### 11. Software Capabilities:

- i. Compliance of CMMI level 5 standards,
- ii. Compliance of ISO 27000 standards,
- iii. MeitY Cloud Service Provider guidelines,
- iv. MDM implementation.

## 12. Metering Criteria:

No connection shall be given without a meter and such meter shall be the smart pre-payment meter or pre-payment meter. Any exception to the smart meter or prepayment meter shall have to be duly approved by the Commission.

## **Instructions to P2P Service Provider**

Below listed documents are to be submitted along with the application form:

- 1. Formal application letter (cover letter).
- 2. Process fees paid receipt.
- 3. Supporting documents to meet the eligibility criteria as per the document.
- 4. Supporting documents to meet the Technical Eligibility as per the document.
- 5. Detailed project plan that includes a timeline for development and implementation.
- 6. Detailed quality assurance plan for the project.
- 7. All other supporting documents (if any) pertaining to meet the 'Other Requirements and Obligations' mentioned in the selection procedure document.

#### **UPPCL** account details are given below for submission of application fees:

Name of Bank: State Bank of India

Name of Beneficiary: Account Officer Kendriya Bhugtan Prakosth, UPPCL,

Account Name: UPPCL Electricity Kendriya Bhugtan Prakosth Expenditure Account

Branch Name and Address: State Bank of India, 15 – Ashok Marg, Lucknow 226002

Account Number: 10101987510

IFSC Code: SBIN0003347