

**KERALA STATE ELECTRICITY REGULATORY COMMISSION**  
**THIRUVANANTHAPURAM**

Present: **Shri. S. Venugopal, Member**  
**Shri. K. Vikraman Nair, Member**

**OP No 56 / 18**

In the matter of : Petition for grant of approval for inviting bids on reverse e-bidding route with e-reverse auction for procuring 200 MW solar power from solar PV power plants to be established in Kerala on IPP mode.

Petitioner : Kerala State Electricity Board Limited

**Daily order dated 24.10.2018**

1. Kerala State Electricity Board Limited (KSEB Ltd), on 17.08.2018, filed a petition before the Commission for the approval for inviting bids on reverse e-bidding route with e-reverse auction for procuring 200 MW solar power from solar PV power plants to be established in Kerala on IPP mode. The prayers of the petitioner are to grant approval for :
  - (1) *KSEBL proposal for procuring 200 MW solar power from solar PV power projects to be established within the state of Kerala, through competitive bidding on electronic mode (e-bidding with e-reverse auction) through the DEEP e-bidding portal of M/s. MSTC.*
  - (2) *The deviations made by KSEBL, as detailed under para 10 – (i) to (xiii) of the petition, from the guidelines notified by the Ministry of power on 03.08.2017 along with its subsequent amendments.*
  
2. The summary of the issues raised by KSEB Ltd in the petition are given below :
  - (1) As part of meeting the RPO, KSEB Ltd proposed to procure 200 MW of power from grid connected solar PV plants to be located within the State of Kerala.
  - (2) KSEB Ltd has prepared the draft bidding documents, as per the procedures specified in the 'Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV

Projects' notified by the MoP, GoI, vide the Resolution No. 23/27/2017-R&R dated 3<sup>rd</sup> August 2017 and its subsequent amendment dated 14<sup>th</sup> June 2018.

- (3) The parameter for the bidding proposed is the “ fixed tariff per kWh applicable for 25 years from the scheduled commissioning date” to be quoted by such bidders as per the clause 4.3.1 of the guide lines notified by MoP. Reverse bidding is proposed to be conducted through DEEP e-bidding portal of MoP.
  - (4) The benchmark price fixed for bidding is Rs 3.50/unit, and the same was fixed duly considering the offer from NTPC for supplying 15MW solar plant installed by them from RGCCP Kayamkulam at the rate of Rs 3.00/unit and scarcity of large extent of contiguous land for installing solar plants.
  - (5) The clause 18 of the guidelines dated 03.08.2017, notified by the MoP stipulated that, in the case there is any deviations from the guidelines in the Standard Bidding Documents (SBD), the same shall be subject to the approval by the Appropriate Commission.
3. Though the MoP, GoI has notified the guidelines for tariff based competitive bidding process for procurement of power from grid connected SPV on 03.08.2017, the Central Government is yet to notify the Standard Bidding Documents including the document of 'Request for Selection (RfS), Model PPA etc. However, the guidelines empower the procurer to prepare the RfS, draft PPA and other project documents consistent with the guidelines. Therefore KSEB Ltd prepared the draft RfS and PPA in consistent with the guidelines notified by the Central Government with some minor deviations, for the approval of the Commission.
  4. The Commission admitted the petition as OP No. 56/2018 and conducted hearing on 23.10.2018. The list of persons participated in the hearing is attached as Annexure-1.
  5. On behalf of the petitioner, Sri K G P Nampoothiri, Executive Engineer, presented the petition. The summary of the issues raised during the hearing are give below.
    - (i) In order to meet the solar RPO target fixed by the Commission, KSEB Ltd propose to procure 200 MW solar power from the IPPs within the State of Kerala.
    - (ii) MoP has notified “ Guidelines for Tariff based competitive bidding process for procurement of power from Grid Connected Solar PV plants” on

3.8.2017 and KSEB Ltd propose to procure the power through competitive bidding route as stipulated in the Tariff Policy 2016 notified by the Central Government.

(iii) The summary of the deviations proposed by KSEB Ltd, from the standard bidding guidelines notified by the Central Government are:

(1) Minimum bid capacity (clause 2.1.1 of the guidelines): The minimum bid capacity proposed by KSEB Ltd is 1 MW instead of 5 MW specified in the bidding guidelines.

This proposal is to ensure more participation of bidders, considering the scarcity and high cost of land in Kerala.

(2) The guidelines notified by the GoI provides 12 months from the date of the execution of the PPA for submission of documents/ lease agreements to establish the possession/ right to use 100% of the land in the name of the successful bidder.

However, KSEB Ltd proposed to count the 12 months from the date of the Letter of Award (LoA) instead of the date of execution of the PPA. According to KSEB Ltd, this is for avoiding delay in commencement of the project activities.

(3) As per the clause 4.3.1 of the bidding guidelines, the tariff quoted by the bidder cannot be more than the tariff for grid-connected solar PV power plants, notified by the Appropriate Commission, if any, for the financial year in which the bids are invited.

However, KSEB Ltd has fixed the benchmark price at 3.50/unit duly considering the offer from NTPC for supplying 15MW solar plant installed by them from RGCCP Kayamkulam at the rate of Rs 3.00/unit and scarcity of large extent of contiguous land for installing solar plants.

(4) There is no provision in the bidding guidelines notified by GoI for accounting the reduction in capacity utilization factor due to panel degradation over the years.

However, KSEB Ltd proposes to introduce a clause on reviewing the CUF after a period of 15 years from the date of CoD as quoted below.

**'Provided that after a period of 15 years from the COD of the project, the minimum CUF may be reviewed based on past performance and may be brought down upto 14% to take care of panel degradation'.**

- (5) Though the bidding guidelines proposed three modes of payment security viz revolving letter of credit, payment security fund and State Government guarantee, KSEB Ltd is not for providing payment security mechanism, considering that KSEB Ltd has never defaulted payments to its suppliers.
- (6) As per the bidding guidelines, the net-worth of the procurer shall be 20% of the CERC bench mark capital cost. However, in the absence of the CERC benchmark capital cost, KSEB Ltd proposed to fix the net worth limit at Rs 75.00 lakh/MW.
- (7) The EMD as per the bidding guidelines is specified at 2% of the capital cost determined by CERC. However, in the absence of CERC determined capital cost, KSEB Ltd proposed to fix the EMD at Rs 1.00 lakh/MW.
- (8) The bidding guidelines specify the performance bank guarantee (PBG) at 5% of the CERC determined project cost. However in the absence of the CERC determined project cost, KSEB Ltd proposes the PBG at Rs 15.00 lakh/MW.
- (9) As per the bidding guidelines, the financial closure shall be 12 months from the date of execution of the PPA, however KSEB Ltd proposes that the successful bidder has to achieve the financial closure by 12 months from the date of LOA.
- (10) The bidding guidelines specify that, the project shall be commissioned within 21 months from the date of execution of the PPA, however KSEB Ltd proposes that, the project shall be commissioned within 21 months from the date of LOA.
- (11) As per the bidding guidelines, the metering point shall be the low voltage bus bar of the STU / CTU substation  
But in the bidding guidelines, KSEB Ltd proposes to elaborate the expression of the metering point with a view to give more clarity on the metering point.
  - (a) the line isolator, if voltage transformation is not required for connecting to the KSEBL s/s / switchyard; or
  - (b) the bus isolator at the voltage of injection, if voltage transformation is required before connecting to KSEBL substation/ Switchyard;

- (12) The bidding guidelines notified by the MoP, Gol is silent on whether the existing/ ongoing SPG can participate in the bidding process. In order to get a clarity on this issue, KSEB Ltd proposes as follows.

G. INCASE THE OFFER IS FROM AN EXISTING SOALR POWER STATION, documentary evidence regarding commissioning of such solar power station and available surplus capacity equivalent to the capacity offered in the bid to be specified.

- (13) KSEB Ltd submitted that, though the Reactive power compensation is a technical requirement, the bidding guidelines notified by MoP, Gol is silent on this issue. Hence, KSEB Ltd proposes to include a new clause on Reactive power requirement as follows.

The SPG shall install necessary equipments in the solar PV power plant for supporting required reactive power to the system as and when required by the SLDC. In case the required reactive power is not met with, the SPG shall be liable to pay penalty as determined by KSERC from time to time.

The SPG shall also install reactive power compensation devices as per Grid Code. The SPG shall not generally draw reactive power from the system of KSEBL at any point of time. If reactive power is drawn from the system, SPG shall be liable to pay penalty at the rate of Rs. 0.25 (twenty five paise) per kVARh or the rate fixed by KSERC from time to time.

6. Sri Sivaramakrishnan, representing SOURYA Natural Energy Solutions India Ltd submitted as follows;

- (i) The benchmark tariff based on the offer of NTPC Ltd is not correct, since no costs are incurred by NTPC towards dedicated transmission line, metering facilities or any other pooling station augmentation charges. The price discovered by SECI and other utilities are for large scale generation and hence the same also cannot be taken as the base for fixing the benchmark tariff. The recent introduction of safeguard duty for imports by Gol may result in increase the cost of electricity generation from solar plants by 10%. The price discovered through reverse auction in Gujarat @ Rs 2.98 per kWh was when the exchange rate of dollar was Rs 64.96 the present exchange rate Rs 73.75. Hence benchmark tariff may be fixed at Rs 5.00 /unit for capacities up to 2 MW, Rs 4.5 /unit for capacities from 2 MW to 5 MW and Rs 4.00/unit for above 5 MW. Keeping very low bid price will only reduce the developers participating in the bid

- (ii) KSEB Ltd has requested the Commission to allow it to avoid payment security considering the fact that it had never defaulted payment to power purchases. However, the solar developers are small generators and any default/delay in payment by KSEB Ltd may affect the developers. Hence KSEB Ltd has to provide escrow mechanism as payment security.
  - (iii) Solar power evacuation cost shall be borne by successful bidder; however, KSEB shall take up this as a deposit work, to ease out complications on Right of way.
  - (iv) CUF may be fixed at 14% considering the low level of local irradiance and weather conditions prevalent in Kerala.
7. Sri Shaji Sebastian, submitted that,
- (i) The cost per MW for a solar installation in the State is Rs 6.80 crore/MW and the cost of electricity generated from solar plants is in the range Rs 4.00/unit to Rs 4.50 per unit.
  - (ii) The deviation suggested by KSEB Ltd to count the financial closure, land acquisition etc from the date of execution of the PPA to date of LOA may be reconsidered, since it may complicate things and there is chances of non materialization of the projects.
  - (iii) Payment security may be provided as per guidelines
8. Based on the deliberations during the hearing, the Commission hereby direct the KSEB Ltd to submit the following clarifications/ additional details, latest by 01.11.2018.
- (1) The criterion adopted for fixing the bench mark tariff @Rs 3.50/unit, with supporting documents and documentary evidences.
  - (2) The Commission observes that, the letter of award (LOA) cannot be treated as a legally valid contract. Hence, the date of LOA cannot be considered instead of the date of execution of the PPA as specified in the bidding guidelines notified by the Central Government. Since the model PPA is also uploaded as part of the bidding documents along with the notice inviting tenders, KSEB Ltd to clarify the expected reason for delay in execution of the PPA from the date of issue of LOA to the successful bidder.
  - (3) Whether MNRE has specified any degradation of solar panels over the years? If so, why KSEB Ltd deviate from the degradation rate specified by MNRE? Please clarify.

- (4) The criterion and the capital cost adopted, for fixing the net worth, EMD and performance bank guarantee may be clarified with supporting documents.
- (5) KSEB Ltd may provide more clarity on the additional clause proposed on metering point.
- (6) Commission observed that, the reactive power compensation @ Rs 0.25/ kVAh for CIAL as a consumer of KSEB Ltd cannot be applied to the solar developers, who are developing the plants for supplying power to KSEB Ltd. The penalty for reactive power compensation shall be as per the utility practices followed across the country. Hence, KSEB Ltd shall submit suitable proposal for reactive power compensation with supporting documents.
- (7) Any additional clarifications and comments, if any, on the remarks of the stakeholders.

Sd/-  
**K.Vikraman Nair**  
**Member**

Sd/-  
**S.Venugopal**  
**Member**

**Approved for issue**

**Secretary**

**List of participants**

1. Sri. KGP Nampoothiri, Executive Engineer, KSEB Ltd.
2. Smt. Sangeetha.S, Executive Engineer, KSEB Ltd
3. Sri. Edward P Boniface, Asst. Executive Engineer, TRAC
4. Sri. Manu Senan.V, Asst. Executive Engineer, TRAC, KSEB Ltd,
5. Smt. Vijayalakshmi. V, Asst. Executive Engineer, KSEB Ltd
6. Smt. Hema.K, Asst. Executive Engineer, KSEB Ltd
7. Smt. Shalini Cyril, Asst. Executive Engineer, KSEB Ltd
8. Sri. Manoj B, Asst Executive Engineer, ESD, Charummood
9. Sri. Subramony. H.N, Asst. Executive Engineer, KSEB Ltd, Kalamassery
10. Smt. Saheeda. K, DAO, KSEB Ltd
11. Sri. Ajith Kumar.G, SA, KSEB Ltd.
12. Sri. Sivaramakrishnan , Soura Natural Energy
13. Sri. Shaji Sebastian, KSSIA
14. Smt. Ninu Scaria, KSSIA