

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

**Present:** Shri. Preman Dinaraj, Chairman  
Shri. A.J Wilson, Member

**OP No 26/2020**

First Hearing on : 14.10.2020  
Second hearing on : 01.12.2020

In the matter of : Petition filed by M/s THDC India Ltd., for the approval of the procurement of power including price at which electricity to be purchased by KSEB Ltd., from THDC India Ltd's solar PV Project of 50MW capacity established at Kasargod District.

Petitioner THDC India Ltd., Bhagirathi Bhavan,  
Top Terrace, Bhagirathipuram  
Tehri Garhwal-249001

Respondents 1. Kerala State Electricity Board Ltd.,  
2. Renewable Power Corporation of Kerala Ltd.(RPCKL)  
3. Solar Energy Corporation of India Ltd., New Delhi (SECI)

THDC represented by Sri U C Kannaujia, General Manager (NCR)  
Sri Sanjay Singhal, AGM (Coal, RE)  
Smt. Sunita Tamta, Manager (RE)  
Adv Asok Kumar, Counsel of petitioner

SECI represented by Sri Shreedhar Singh, AGM (Projects)  
Sri I S Reddy, Manager (PS)

RPCKL represented by Sri Augustine Thomas, CEO  
Sri Bipin Sankar, Consultant

KSEB Ltd represented by : Sri. KGP Nampoothiri, Executive Engineer  
Smt. Latha. S.V, Asst: Executive Engineer

**Daily Order dated 14 .12.2020**

1. M/s THDC India Ltd., (hereinafter referred to as THDC or the petitioner) filed a petition before the Commission under Section 86(1) of the Electricity Act,

2003, read with Rule 8 of the Electricity Rules, 2005 with the following prayers:

- (1) Approve the procurement of power by KSEB Ltd., from THDC India Ltd.'s solar PV Project of 50MW Capacity being established in the 200MW solar power park in Kasargode District in the State of Kerala.
  - (2) Pass any such further Order or Orders as this Hon'ble Commission deems just and proper in the circumstance of the case.
2. The Commission conducted first hearing on the petition on 14.10.2020, through video conference. Based on the deliberations during the hearing, the Commission directed the petitioner M/s THDC and the respondent KSEB Ltd the following.
- “
- (1) M/s THDC shall amend the petition, so as to include the determination of tariff of the electricity generated from the 50 MW solar plant developed by the petitioner at 200 MW Solar Park at Kasargode. KSEB and SECI shall be impleaded as respondents, latest by 05.11.2020.
  - (2) Next hearing on the petition shall be held during second week of November-2020.”
3. In compliance of the above, THDC filed the revised petition on 04.11.2020, with following prayers.
- “
- (a) Admit the petition;
  - (b) Approve the procurement of power by KSEB Ltd from THDC Ltd's Solar PV Power Project of 50 MW capacity being established in the 200MW Solar Park in Kasargod District in the State of Kerala, including the price by determining the project specific tariff in terms of the KSERC (Renewable Energy and Net Metering) Regulations, 2020;
  - (c) Direct KSEB Ltd to reimburse the tax paid on RoE in terms of Regulations 43 of Renewable Tariff Regulations;
  - (d) Allow Pass through the taxes and duties in terms of Regulation 51 of Renewable Tariff Regulations; and
  - (e) Pass any such further Order or orders as this Hon'ble Commission may deem just and proper in the circumstances of the case.

4. Summary of the additional details submitted by the petitioner in the revised petition for the determination of tariff is given below.

- (1) SECI on behalf of THDC, selected the EPC Contractor, for developing 50MW solar plant through open competitive e-bidding followed by e-Reverse Auction as per the NIT dated 08/02/2019 for Design, Engineering, Procurement and Supply, Construction and Erection, Testing, Commissioning, Associated Transmission system and also for comprehensive operation and maintenance for a period of 10 years of the 50MW Solar plant at Kasargod district.
- (2) After completing all the procedures and formalities including e-Reverse Auction, M/s SECI selected, M/s Tata Power Solar Systems Ltd., as the EPC Contractor with the price as given below:

The breakup of cost is as follows:

SI No	Package	Price (Rs Cr)
1	Total EPC Price	211.34
2	Total O&M for 10 Years	26.04
3	Total NPV of O&M	16.22
4	Total EPC + NPV of O&M	227.56

- (3) EPC agreement including 10 years O&M were executed on 11.09.2019 between Tata Power and THDC. In the meanwhile, a Power Sale Agreement was signed between THDC and KSEB Ltd., on 16/01/2019. The clause (7) of PSA, provides for a ceiling on tariff as under:

***"(7) Tariff***

***The Tariff will be leveled tariff not exceeding Rs.3.10/kWh , which is subject to further reduction based on the project cost discovered through reverse bidding for selection of EPC contractor or rate as approved by Kerala State Electricity Regulatory Commission, whichever is lower"***

- (4) M/s THDC submitted the following documents.

- (i) DPR of the Project
- (ii) Cost estimate of major components
- (iii) Project completion cost, evidence for expenditure and sources of finance
- (iv) MOU dated 13.02.2015, signed between THDC and SECI
- (v) MOU dated 18.02.2015, signed between SECI and KSEB Ltd.
- (vi) Tripartite Agreement dated 31.03.2015 signed between THDC, SECI and KSEB Ltd.
- (vii) PSA dated 16.01.2019 signed between THDC and KSEB Ltd.
- (viii) NIT dated 08.02.2019 floated by SECI for selecting the EPC contractor.

- (ix) LoA dated 08.08.2019 issued by THDC to the EPC contractor M/s Tata Power Solar Systems Limited.
  - (x) EPC Contract agreement between THDC and the EPC contractor M/s Tata Power Solar Systems Limited.
  - (xi) Petition dated 19.05.2020 filed by THDC before CERC for the determination of tariff.
- (5) M/s THDC submitted that no subsidy were received for the project. The break up of capital cost claimed including the 'Solar park charges, consultancy charges and other charges are given below.

Sl No	Description	Price (Rs Cr)	Cost claimed as (%) of total cost	Other costs claimed as (%) of EPC cost
1	Total EPC Price	211.34	81.5%	
2	Solar park charges	25.83	10.0%	12.2%
3	Consultancy charges	14.57	5.6%	6.9%
4	Other cost including IDC	7.55	2.9%	3.6%
5	Total	259.29	100.0%	
6	Cost per MW	5.18		

- (6) The financial parameters recommended by the petitioner for the determination of tariff is given below:

Interest rate on loan @ 9.11% being 200 base points above MCLR  
 Loan tenure as 13 years  
 Depreciation for first 13 years 5.28 %  
 Auxiliary consumption 0.25%  
 CUF 23% is selected

M/s THDC clarified that for achieving the CUF, more number of panels are to be installed compared with Rajasthan and Gujarat.

- (7) THDC further submitted that O&M cost for 10 years is 26.04 Cr as quoted by Tata power. THDC also requested to permit degradation factor of 0.7% for solar cells, exercising power under Regulation 65, power to relax.
- (8) Based on the above, the tariff estimated by the petitioner is given below.

Levelised tariff without accelerated depreciation	Rs 3.82/unit
Levelised tariff with accelerated depreciation	Rs 3.39/unit

5. THDC further submitted that, it had placed the PSA before CERC and CERC had proceeded on the basis that a subsidiary of a company owned or controlled by Central Government is also a Central Government Company. Central commission has been exercising powers for subsidiary of NTPC and NLC. However, the present petition is being filed by THDC before this Commission to decide on the price of the purchase of electricity by KSEBL under Section 86(1) (b) of Electricity Act 2003 and THDC will pursue the proceeding before Central Commission under 79(1)(a) after the Kerala State Electricity Regulatory Commission determines the price.
6. RPCKL, who is entrusted with development of solar park submitted its comments on 27.11.2020. The cost claimed by RPCKL from the petitioner is given below.

No	Item	Amount	Remarks
1	One-time up-front fee	<b>Rs. 2188.74 Lakhs</b>	Already paid
2	Yearly O&M Charges	Rs. 135.18 Lakhs	Escalation @ 5.72% pa
3	Water Charges	Govt Rate	Based on metered usage

The upfront cost is required to provide facilities like acquiring land for installation of solar plant, develop road access to the site, water supply, drainage and power evacuation and other essential facilities.

7. The second hearing on the petition conducted on 01.12.2020. During the hearing the Commission clarified that, the present hearing is limited to the determination of tariff for electricity generated from the project. The appraisal of the approval of the draft initialled PSA between M/s THDC and KSEB Ltd will be held separately after determining the tariff. Smt Sunitha Tamta made a detailed presentation on the petition. Sri. Augustin Thomas, CEO, RPCKL and Sri. Bipin Sankar, consultant, RPCKL submitted the comments on behalf of the respondent RPCKL. Sri. K.G.P Nampoothiri, submitted the comments on behalf of KSEB Ltd.
8. Summary of the deliberations during the second hearing is given below:

- (i) Petitioner submitted that, entire cost of the project is financed from their own funds. However, for the purpose of determination of tariff, debt: equity ratio of 70:30 is adopted. Further, the financial parameters as per the KSERC (Renewable Energy and Net Metering) Regulations 2020 is adopted for estimating the tariff of the electricity generated from the project.

The CUF adopted is 23%, as agreed by the EPC contractor.

The solar park charges are paid to RPCKL based on the invoices raised by them.

- (ii) Sri. Augustin Thomas, and Sri Bipin Sankar, submitted that the land is allotted to RPCKL for development of solar park and the copies of the allotment of the land is already submitted to the Commission. All the relevant Government orders also submitted before the Commission. The Commission directed the RPCKL to submit the details of the cost incurred for developing the Solar park and source of investment for the same, and also the rationale adopted for the apportionment of the cost incurred for development of the park among the beneficiaries.

The Commission also noted that, the Renewable Power Corporation of Kerala Limited is a SPV formed jointly by KSEB Ltd and SECI. However, the distribution licensee yet to intimate the details of SPV and get formal approval from the Commission for the creation of the SPV with joint partnership with SECI and also for the equity contribution made by KSEB Ltd in the SPV.

KSEBL submitted that the RPCCKL is a Joint venture company of SECI and KSEBL with 50:50 equity participation.

- (iii) The Commission observed that, though the petitioner claimed that the entire project cost is met from their own funds, the petitioner has claimed IDC for tariff determination. The petitioner submitted that the administrative expenses and employee cost are considered as part of the IDC. The Commission directed THDC to submit the detailed calculation of IDC claimed with all supporting details.
- (iv) The Commission also noted that, EPC contractor is entrusted with the Operation and Maintenance of the plant for 10 years with a total cost of Rs 26.04 crore and the year wise details of the O&M cost to be paid by the petitioner to the EPC contractor also specified in the contract agreement. However, in the tariff calculation, the petitioner has claimed O&M cost @ Rs 7.13 lakh/MW for the first year, and 5.72% escalation annually for the subsequent years. The Commission is of the considered view that, the actual O&M cost as per the agreement signed with the EPC contractor shall only be considered for tariff determination.
- (v) The petitioner prayed before the Commission to allow the Tax on RoE as pass through as per the provisions of the KSERC (Renewable Energy & Net metering) Regulations, 2020.

In the draft PSA initialled by both the petitioner and KSEB Ltd, mutually agreed for a ceiling tariff of Rs 3.10/unit for the electricity generated and supplied from the 50 MW plant of the petitioner. The Regulations 56 and 59 of the KSERC (Renewable Energy & Net metering) Regulations, 2020 permits the generator and distribution licensee mutually agree to charge a lower tariff than the tariff determined on the basis of norms and parameters specified in these Regulations. Hence, at any case, the payment by KSEB Ltd shall be limited to Rs 3.10/unit

only including the tax on RoE for the electricity generated and supplied from the 50 MW plant of the petitioner to KSEB Ltd.

- (vi) The petitioner has claimed Rs 14.57 crore as consultancy charges, which is about 6.90% of the EPC contract price. The petitioner has not submitted the supporting documents for the claim of consultancy charges. The petitioner THDC and the respondent SECI agreed to provide the details of the claim of consultancy charges.
- (vii) Regarding the issue of approving the interim tariff till the Commission finally approving the final tariff, the petitioner submitted that, the project is expected to be commissioned by December 2020. Once the power starts flowing, the petitioner will require payment for the electricity generated and supplied to KSEB Ltd. Hence they requested that, in the case the approval of the final tariff getting delayed the Commission may approve a provisional tariff. KSEB Ltd also agreed for the same.

9. Based on the deliberations during the second hearing held on 01.12.2020, the Commission hereby direct the petitioner and respondents to comply the following.

- (i) M/s RPCKL shall provide the complete details of the cost incurred for developing the Solar Park at Kasargod including the source of funds with documentary evidence and supporting documents.  
RPCKL shall also provide the details of the O&M cost claimed for the park including land lease rent, maintenance cost of the park with supporting documents.  
RPCKL shall also submit the rationale adopted for apportionment of the capital cost and O&M cost among the beneficiaries of the park with supporting documents.
- (ii) KSEB Ltd shall submit through an affidavit on the creation of the SPV namely Renewable Power Corporation of Kerala Limited (RPCKL) with SECI for the development of the Solar Park at Kasargod including approval of the State Government and MNRE, Government of India.  
KSEB Ltd shall also in their affidavit mention whether KSEB Ltd had got approval / intimated regarding the creation of the SPV namely M/s RPCKL. Also whether approval of the Commission was taken for the equity contribution in RPCKL?. If not, KSEB Ltd shall immediately ratify the action in this regard.
- (iii) The petitioner M/s THDC and the respondent SECI shall provide the additional details on the issues discussed during the hearings as detailed under paragraph-7 above with supporting documents.

- (iv) Any other relevant details by the petitioner and respondent.

The above details shall be submitted before the Commission at the earliest, latest by 28.12.2020 with copy to either side. Next hearing is scheduled on **05.01.2021 at 11 AM** through video conference

Sd/-  
**A J Wilson**  
Member

Sd/-  
**Premar Dinaraj**  
Chairman

Approved for issue

C R Satheeshchandran  
Secretary (i/c)