

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

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

**Petition No. OP 9/2017**

- In the matter of : Petition for determination of tariff for 50MW Solar PV Project at Kasargod Solar Park developed by IREDA
- Petitioner : (1) Indian Renewable Energy Development Agency Limited, India Habitat Centre, 1st Floor, Core- 4A, East Court, Lodhi Road, New Delhi- 110 003  
(2) Solar Energy Corporation of India Limited. D – 3, First Floor, Wing A, Relegare Building District Centre, Saket, New Delhi -110 017
- Petitioner represented by : Shri. M G Ramachandran, Sr. Advocate  
Shri. Abhinav Kumar, Deputy Manager, SECI
- Respondent : (1) Kerala State Electricity Board Limited, Vydyuthi Bhawanam, Pattom, Thiruvananthapuram-695004  
(2) Renewable Power Corporation of Kerala Limited., Kanhanagad South, Kanhanagad, Kasargod, Kerala - 671531
- Respondent represented by : Sri. Bipin Sankar, DCE, KSEB Ltd.  
Sri. K.G.P Nampoothiri, EE, KSEB Ltd.  
Smt. Latha S.V, AEE, KSEB Ltd.  
Sri. Baby John, AEE, KSEB Ltd.

**Daily Order dated 20.06.2018**

1. M/s Indian Renewable Energy Development Agency Limited (hereinafter referred as M/s IREDA or the petitioner) has filed a petition on 16<sup>th</sup> June 2017, for the approval of Power Sale Agreement for 50 MW Solar PV project at Kasargode Solar Park, Kerala, under a tripartite agreement executed among KSEB Ltd, IREDA and Solar Energy Corporation of India Ltd (SECI). A power sale agreement has also been signed between IREDA and KSEB Ltd on 31<sup>st</sup> March 2017, and as per the Article 7 of the PPA, 'the tariff will be at a

levelised tariff of Rs 4.95/kWh or the rate as approved by Kerala State Electricity Regulatory Commission, whichever is lower’.

2. The Commission heard the petition on 29-08-2017 and vide daily order dated 30.08.2017, ordered as follows.

*The Commission noted that, the petitioner has not submitted the necessary and sufficient details for determining the tariff, including the ‘Capital Cost’ incurred by the project as per the EPC contract, other financial parameters for determining the tariff including the interest rate, O&M cost, RoE etc, Central Financial Assistance available/ availed etc. The Commission, therefore, direct the petitioner to file a proper petition for determination of tariff with necessary and sufficient details with supporting documents, latest by 20th September 2017, with a copy to KSEB Ltd.*

*The Commission may schedule hearing on the petition after appraising the documents submitted by the petitioner.*

3. Accordingly IREDA vide letter dated 11.12.2017 has submitted the revised petition, with a total project cost of 310.88 Cr. The Commission heard the petition on 06.02.2018. The Commission, vide the order dated 14.02.2018 has approved interim tariff @ Rs 3.90 per unit for the electricity generated and injected into the grid. The Commission, has also directed IREDA to submit additional information necessary for determination of project specific tariff of the electricity generated from the 50 MW solar plant at Kasargod. Accordingly IREDA vide letter dated 22.03.2018 has submitted the additional details.
4. The Commission conducted a detailed hearing on the petition 11.06.2018 at 11 AM in the Court Hall of the Commission. The Commission expressed serious concern on the laxity from the part of the KSEB Ltd for not submitting the comments on the additional documents submitted by the petitioner. During the hearing, the Commission clarified that, in the absence of the written comments with supporting documents, the Commission may decide on the matter based on the details submitted by the petitioners.
5. During the hearing, Sri. M. G. Ramachandran, Senior Advocate, presented the details on behalf of the petitioner, and Sri. Bipin Sankar presented the matter on behalf of the respondent KSEB Ltd. The summary of the deliberations during the hearing is given below.

- (1) The Commission sought clarification on the date of commercial operation of the project. As per the additional submission of the petitioner, first 4 MW commissioned on 15.12.2016, the next 16 MW on 04.01.2017, next 8 MW on 17.02.2017, next 8 MW on 30.03.2017 and the last 14 MW on 14.09.2017.

KSEB Ltd submitted that, the date of commissioning of the last unit, i.e., 14.09.2017 may be taken as the date of commercial operation of the project.

The Commission invited attention of the KSEB Ltd on Article 1.2 (xv) and Article 6.0 of the power sale agreement signed by KSEB Ltd with M/s IREDA on 31.03.2017, where in it is clearly stipulated that, the date of commercial operation of the capacity commissioned till 31.03.2017 shall be treated as first part and remaining capacity (if any) within 30.06.2017. The Commission clarified that, KSEB Ltd cannot take a different stand from the agreement signed by them with IREDA.

The Commission sought clarification regarding the documents on declaring the CoD of the project. The petitioner clarified that the copies of the minutes of the meetings of the 'Commissioning Committee' constituted with representatives of KSEBL, RPCKL, IREDA and SECI, declaring each block of the solar plant capacity is submitted to the Commission. The Commission noted that, the petitioner had not produced documents/ minutes of the meeting of the Commissioning capacity regarding the commissioning of the last 14 MW capacity of the plant.

The Commission has also pointed out that, as per the power sale agreement signed by the petitioner with KSEB Ltd, the last 14 MW of the plant shall be commissioned by 30.06.2017, instead of the actual date of commissioning of 14.09.2017. The petitioner pointed out that, as per the PSA, the remaining 14 MW capacity to be commissioned after 31.03.2017, be commissioned within 30.06.2017 or as mutually agreed by the parties. The Commission directed the petitioner to produce the copies of the documentary evidences on the CoD of the last 14 MW of the plant.

- (2) The Commission sought clarification on whether Central Financial Assistance (CFA) is available for the project. The petitioner clarified that, they had not availed any CFA. The cost of evacuation system upto the interconnection point is to be included in the project cost of the 50MW solar plant. The Commission has pointed out that, as per the information available in the public domain, MNRE has released Rs 2.25 crore under CFA to SECI for the power evacuation system of the solar park. The Commission has also pointed out the minutes of the discussion between KSEB Ltd, SECI and IREDA, wherein it is recorded as follows.

*"Cost of External Transmission System*

*KSEBL stated that it has incurred an expense of Rs 37.35 Cr towards power evacuation expenses on 220 kV Ambalathara Substation and Ambalathara 33 kV line. SECI in its letter dated 28.09.2015 stated that the expenditure for the construction of 33/220 kV Sub-station at Ambalathara to evacuate 100 MW solar power from IREDA and THDC will be covered under project cost of Solar Park. KSEBL requested for the funding of total amount incurred for development of Transmission infrastructure at Ambalathara. M/s RPCKL in its letter dated 07.09.2016 has assured that the work for the development of transmission system*

*for the 200 MW Kasargod solar park has been entrusted with KSEBL on deposit work basis.*

*SECI informed that the transmission infrastructure development cost for 50MW shall be recovered from the Solar Power Park Developer (SPPD). An amount of Rs 15Cr to be received from IREDA (Rs 30 lakh/MW chargeable to IREDA for 50MW solar PV Project) shall be accounted for the transmission evacuation charges. The balance amount shall be apportioned from the CFA (20 lakhs/MW) available for the Solar Park from MNRE.*

*As per clarification given by MNRE in its office memorandum dated 09.02.2017, 40% of CFA or 30% of the cost for development of transmission system whichever is higher will be provided to the STU towards development of external transmission system.*

*Decision – the committee decided to place the proposal of recovery of portion of transmission costs before the Board of KSEBL. Balance to be recovered from the Solar Power Park Developer (RPCKL) on implementation of balance capacity at Ambalathara.”*

Commission has directed both the petitioners IREDA& SECI and respondent KSEB Ltd to clarify the following.

- (i) What is the total cost of the evacuation system constructed by KSEB Ltd for the 50 MW solar park? Provide the details with supporting documents.
  - (ii) What amount is deposited by SECI/IREDA to KSEB Ltd through the Renewable Power Corporation of Kerala Power Limited (RPCKL).
  - (iii) The details of the CFA availed by RPCKL through SECI for the construction of the evacuation system.
  - (iv) Whether the SECI and IREDA had done any prudence check of the amount claimed by KSEB Ltd through RPCKL for the construction of the evacuation system.
  - (v) The Commission has also directed the petitioners to submit through an affidavit the reason for not availing the CFA for the transmission evacuation system.
- (3) The Commission has directed the petitioner to clarify the reason for the high capital cost to the tune of Rs 6.22 crore / MW, against the normative capital cost of Rs 5.31 crore/MW approved by CERC for the

year 2016-17. The normative capital cost approved by the CERC includes Rs 0.25 crore/MW towards land cost.

The petitioner clarified that, the capacity utilization factor (CUF) at 19% is fixed as a bid parameter. However, in the State of Kerala, the solar intensity is very low compared to the State of Gujarat, Rajasthan etc. Per panel conversion rate is less for Kerala compared to other states having higher intensity solar. Hence in order to ensure the CUF of 19%, EPC contractor has to install more number of solar panels at Kasargod and this has resulted in high EPC cost.

The Commission has directed the petitioner to provide the reasons through an affidavit with supporting documents.

- (4) The Commission has also sought clarification on the basis of providing 5.50% of the capital cost as soft cost. The petitioner submitted that, the claim is in line with the CERC norms as project management charges. Further, the 5.1.4 of the Tripartite agreement provides for the same.
  - (5) The Commission has pointed out that, as per the Article 3.2 of the supply contract between the SECI and the contractor M/s Jackson Engineers Limited, the noncompliance of the time lines and deficiency in services attract liquidated damages up to 5% of the EPC contract value as penalty as per the paragraph 34 of the notice inviting tender. The Commission has directed the petitioner to clarify whether the petitioner levied any liquidated damages as per the above provisions.
  - (6) The Commission has also directed the petitioners to clarify the role of RPCKL and how their administrative expenses are being met.
6. Based on the deliberations during the hearing, the Commission hereby direct the petitioners IREDA & SECI and the respondent KSEB Ltd submit the following additional details, with supporting documents latest by 21<sup>st</sup> June 2018:
- (1) KSEB Ltd shall submit the detailed comments on the additional details submitted by the petitioner vide its letter dated 22.03.2018.
  - (2) The petitioner shall submit a copy of the O&M contract signed between the EPC contractor and SECI.
  - (3) The petitioner and respondent shall submit the following regarding the evacuation system of the solar park through an affidavit.
    - (a) What is the total cost of the evacuation system constructed by KSEB Ltd for the 50 MW solar park? Provide the details with supporting documents.

- (b) What amount is deposited by SECI/IREDA to KSEB Ltd through the Renewable Power Corporation of Kerala Power Limited (RPCKL).
  - (c) The details of the CFA availed by RPCKL through SECI for the construction of the evacuation system.
  - (d) Whether the SECI and IREDA had done any prudence check of the amount claimed by KSEB Ltd through RPCKL for the construction of the evacuation system for the project.
  - (vi) The reason for not availing the CFA for the transmission evacuation system.
- (4) The petitioner shall submit the reason for the excessive increase in capital cost of the project compared to the normative capital cost approved by CERC for the FY 2016-17.
  - (5) The petitioner shall also submit the details of the liquidated damages claimed from the contractor M/s Jackson Engineers Limited as per the Article 3.2 of the supply contract between SECI and the contractor, read along with the paragraph 34 of the notice inviting tender.
  - (6) The petitioner and KSEB Ltd shall clarify the role of RPCKL and how their administrative expenses are being met.
  - (7) Copy of the minutes of the meeting on mutual acceptance on the date of commissioning of the balance capacity after 31.3.2017 as per clause 6.0 of the agreement.
  - (8) Any other relevant information.

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

Sd/-  
**S. Venugopal**  
Member

Sd/-  
**Preman Dinaraj**  
Chairman

**Approved for Issue**

Sd/-

**Santhosh Kumar. K.B**  
Secretary