

**KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM**

**Present : Shri T K Jose, Chairman
Adv. A.J Wilson, Member
Shri B Pradeep, Member**

OP No 42/2024

In the matter of : Petition seeking approval for the draft Power Purchase Agreement for 350 kW Grid connected RTS PV project at Cochin Port Authority.

Petitioner : M/s Cochin Port Authority (CoPA)

Respondent : Kerala State Electricity Board Ltd (KSEB Ltd)

M/s CoPA represented by : Sri. Ajith Kumar D, Executive Engineer
Smt. S Jayalakshmi, Assistant Executive Engineer

KSEB Ltd represented by : Smt. Latha S V, Executive Engineer, TRAC
Shri. Rajesh R, Assistant Executive Engineer, TRAC
Smt. Asha A V, Assistant Engineer, TRAC

Date of hearing : 21.11.2024, 11:00 AM

Venue : Court Hall of the Commission (Hybrid hearing)

Order dated 10.02.2025

1. M/s Cochin Port Authority (hereinafter referred as M/s CoPA or Petitioner) on 07.10.2024 has filed a petition before the Commission with the following prayers

*"(i). Approve the proposal for implementing 350 kW/448kW tentative Grid connected RTSPV project at Cochin Port Authority under RESCO model for 25 years.
(ii). Approve L1 tariff of ₹3.95 discovered through competitive bidding conducted by M/s SECI for the 350kW/448kW tentative RTSPV plant at Cochin Port Authority.
(iii). Approve the draft Power Purchase Agreement to be executed between L1 bidder, M/sGH2 Solar Pvt. Ltd and Cochin Port Authority for 350kW/448kW tentative RTSPV plant."*
2. The summary of the petition filed by the petitioner CoPA is given below.

- (1) M/s Cochin Port Authority (CoPA) is an autonomous body under the Ministry of Ports, Shipping & Waterways, Government of India and is managed by board of trustees constituted by the government to manage the Cochin Port. CoPA is holding distribution license to distribute electricity within the port area in Willingdon Island, Vallarpadam & Puthuvypin, supplying electricity within their area. The electricity requirement of CoPA is being met by purchasing power from the incumbent licensee KSEBL at the Bulk Supply Tariff (BST) approved by the Commission from time to time. The power purchased by M/s CoPA for the FY 2023-24 is about 40MU. Out of it, the own consumption of the CoPA is about 18MU (45% of the total consumption) only.
- (2) Ministry of Ports, Shipping & Waterways, vide the office memorandum dated 11.05.2023 has notified the 'Harit Sagar' Green Port Guidelines. As a major port of India, CoPA has to implement these guidelines at the Kochi Port. As per the guidelines, share of RE at ports should exceed 60 percent by the Year 2030 and 90 percent by the Year 2047. Further they have also to comply the RPO notified by the Commission from time to time. The RPO target of M/s CoPA for the FY 2023-24 is 2%.
- (3) CoPA had proposed the following RE projects for increasing the RE consumption in compliance with the Regulations notified by the Commission and Harit Sagar Green Port Guidelines;
 - (i) Saturation of Rooftop as per Ministry's direction: 1500 kW by FY 2025-26.
 - (ii) RE Power Open Access for meeting RPO as per KSERC Regulation/ Harit Sagar Green Port Guidelines by FY2025-26.
 - (iii) Floating Solar 3500 kW in RESCO Model by FY 2025-26.
- (4) CoPA had invited Tenders in 2019 for 350 kWp RTSPV project and tender was cancelled, since the tariff quoted by the L1 Bidder was very high (4.30 per kWh). Further, tenders were invited in July 2020 and December 2020, on both occasions single bid received was not meeting the minimum qualifying criteria and hence the tenders were discharged.
- (5) M/s CoPA vide e-mail dated 28.04.2021 had requested to M/s SECI to invite Tender for 350 kWp RTSPV plant on behalf of CoPA. M/s SECI vide email dated 04.05.2022 informed that they shall take up the Project with installation of Rooftop Solar System on Government Buildings. Further after the repeated requests, M/s SECI had initiated the tendering process in 2024.

- (6) M/s SECI vide RfS dated 10.05.2024 had invited RfS for 1448 kW Grid connected Rooftop Solar PV Project under RESCO Mode through Tariff based competitive Bidding on behalf of the following institutions/ organizations;
- (a) Indian Institute of Information Technology Design and Manufacturing, Kurnool (500 kW),
 - (b) NIT, Surathkal (500 kW)
 - (c) Cochin Port Trust- 448 kW,
- (7) Based on the roof top available, M/s SECI had considered the solar roof top capacity of 448 kW to M/s CoPA. The final capacity to be fixed will be determined at the time of signing of PPA between the SPD and CoPA.
- (8) M/s CoPA further submitted that, 350kWp RTSPV plant is proposed to be installed in the rooftop of 11 Block of Quarters of in RNAS area, 3 Blocks CISF Quarters and in 110 KV Substation at W. Island.

The total shadow free rooftop area is 4000 sq.m. Total connected load of the above buildings is 162 kW. Solar generation from the 350 kW plant will be distributed to the consumers in the respective area.

- (9) Following conditions have been stipulated by M/s SECI in the RfS dated 10.05.2024;
- (i) Clause No.8.1 of the RfS: CUF of the Project shall not be less than 15% for Project to be set up in the state of Andhra Pradesh, Karnataka and Kerala.
 - (ii) Clause 8.2 of the RfS: Liquidated damages for Short fall in CUF is @50% of the PPA tariff.
 - (iii) The Scheduled Commissioning Date is 9 months from the effective date of PPA.
 - (iv) Earnest Money Deposit (EMD) Value for the tender is @1,068/- per kW and performance Bank Guarantee (PBGs) Value is 1,602/- per kW.
 - (v) Selected Bidder shall pay Service charges @2,670/- per kW excluding GST to SECI towards Service Charges. (v)
 - (vi) Successful Bidder will be allowed to carry out site visits of buildings offered and assess the Project sizing and estimated installation.
 - (vii) PPA will be valid for a period of 25 years from Commercial Operation Date.
- (10) The details of the offers received from the four bidders is given below;

Sl No.	Name of the Firm	Tariff/kWh
1	M/s GH2 Solar Pvt Ltd	₹3.95
2	M/s Enature & 5 Technologier Pvt Ltd	₹4.74
3	M/s Solar Querst LLP	₹4.98
4	M/s Indusassist Pvt Ltd	₹5.00

M/s SECI has discovered the tariff for 350 kW RTSPV at Cochin Port Authority as ₹3.95/unit.

- (11) CoPA submitted that the generic tariff notified by the Commission for the solar PV projects capacity of 101 kW to 500 kW as per the KSERC (Renewable Energy and Net Metering) (First Amendment) Regulations, 2022 is ₹3.23/unit.

However, the discovered tariff of ₹3.95 (L1 tariff) is on the higher side compared to the generic tariff of Rs 3.23/unit, notified by the Commission. Hence, COPA informed to M/s SECI that the LoA may be issued to the L1 bidder only after obtaining approval from the Commission.

3. The Commission has conducted the hearing on the petition on 21.11.2024. Smt. S Jayalakshmi, Executive Engineer, CoPA appeared on behalf of the petitioner. Shri. Rajesh R, Assistant Executive Engineer, appeared on behalf of the respondent KSEB Ltd. The summary of the deliberations during the hearing is given below.

- (1) M/s CoPA during the hearing submitted the following;

- M/s. Cochin Port Authority formerly known as Cochin Port Trust is holding distribution license to distribute electricity in the port area at W.Island and Vallarpadam & Puthuvypin SEZ.
- CoPA entered into contract demand (CD) of 6500 kVA at 110 kV at W. Island (Consumer no. 21/1135). CoPA proposes to enhance the CD from 6500 kVA to 7500 kVA for meeting its additional electricity demand.
- CoPA proposes to implement total capacity of 350 kW Grid connected RTSPV in the 3 locations at W.Island,
 - (i) Quarters- RNAS area,
 - (ii) Quarters -CISF
 - (iii) 110 kV Substation
- CoPA had invited tenders, earlier for the installation of roof top solar PV projects, but the tenders were cancelled because the L1 tariff was on higher side. Hence, M/s. SECI was requested to invite tender on behalf of CoPA for 350 kWp RTSPV plant on in

2021. M/s. SECI decided to take up the tender along with RTSPV tenders for other Government institutions.

SECI invited tenders on 10/05/2024 for 1448 kW Grid connected RTSPV under RESCO mode through tariff based competitive bidding for three Government institutions including CoPA.

SECI has fixed tentative capacity of solar plant for CoPA as 448 kW in 4000 Sq.m area even though CoPA approached SECI for 350kWp capacity. Final capacity will be fixed after conducting feasibility by L1 bidder.

- L1 tariff discovered is Rs 3.95/kWh, which is 22.29% higher than generic tariff as per KSERC (Renewable Energy and Net Metering) (First amendment) Regulation 2022. So it was informed to M/s. SECI to place LoA on L1 bidder after obtaining approval of the Hon'ble Commission.
 - CoPA further submitted that, it has to comply with the Renewable Power Obligation in accordance with KSERC (Renewable Energy and Net Metering) Regulation 2020 and its subsequent amendments. Further, Kochi Port as one of the major port in India, CoPA has to implement RE Projects for achieving 60% RE Power by 2030 in compliance with Harith Sagar Green Port Guidelines of MoPSW, but the current status is less than 5% only.
 - 350 kW RE plant will be connected to CoPA's grid. As per the present scenario there will not be any RE export from the 350 kW solar plant to KSEBL's grid.
 - Hon'ble Commission had approved export of surplus power from the proposed 1500 kW Floating solar plant to KSEBL's grid vide order Dtd- 22/02/2023 in O.P no. 06/2023. CoPA could comply with the RPO target and Harit Sagar Green Port Guidelines only if M/s. KSEBL allows export of surplus RE power from CoPA.
- (2) The respondent KSEBL has not submitted any objections against the proposal of M/s CoPA.
- (3) The Commission during the hearing noted that, the present tender was floated by the Solar Energy Corporation of India (SECI) for setting up of 1448 kW grid connected roof top solar projects under RESCO model through tariff based competitive bidding guidelines, for meeting the mandatory requirements of renewable energy by 50% of the energy requirement by 2030.

- (i) Indian Institute of Information Technology Design and Manufacturing, Kurnool, Andhra Pradesh- 500 kW
- (ii) NIT Surathkal, Manglore, Karnataka. 500 kW
- (iii) Cochin Port Authority- 448 kW.

The roof top solar plants is proposed to setup by the selected bidders at the roof top of the buildings owned by the respective institutions.

The Commission further noted that, these bids are floated by SECI for meeting part of the energy consumption from the RE sources of the three institutions under the Government of India. The SECI has not followed the Guidelines dated 28th July 2023, notified by the MoP, Gol for the 'procurement of power from Grid connected Solar PV projects based on Tariff Based Competitive Bidding Process' by distribution licensees

The Commission do have authority in adopting tariff for power procurement by DISCOMs only. The bid floated by SECI is not based on bidding guidelines for procurement of power by DISCOMs. At the same time, the setting up of roof top solar plants by Consumers shall be in accordance with the KSERC (Renewable Energy and Net Metering) Regulations, 2020. The CoPA as a consumer may take efforts for meeting the RE requirements as mandated by Gol as per the said regulations. It is upto the CoPA as a consumer, to accept or reject, the rate determined by SECI through competitive bidding for the proposed 448kW roof top Solar PV plants proposed to be installed at the buildings of the CoPA.

4. KSEBL vide letter No. KSEBL/TRAC/CG/CoPA/2023-24/976 dated 28.11.2024 submitted the following;

- (1) KSEBL submitted that M/s Cochin Port Authority, being a distribution licensee, does not fall under the ambit of "banking facility" as defined under Regulation 2(e) of the KSERC (Renewable Energy and Net Metering) Regulations, 2020, and its subsequent amendments. It was emphasized that, as per the prevailing regulations, there is no provision for the petitioner to bank surplus energy with KSEBL. The provisions for banking are limited to prosumers or captive generators of renewable energy systems. CoPA must absorb the entire surplus energy generated from its Renewable Energy (RE) projects within its own distribution system, either through Battery Energy Storage Systems (BESS) or by increasing daytime energy consumption. Hence, KSEBL requested that, the Commission may not direct KSEBL to bank/procure/ settle the surplus power.

- (2) KSEBL observed that the tender floated by CoPA does not comply with the Ministry of Power (MoP) Guidelines for Tariff-Based Competitive Bidding Process for Procurement of Power from Grid-Connected Solar PV Power Projects dated 28.07.2023. KSEBL highlighted the following discrepancies:
- (i) As per Clause 6.2 (b) of the MoP guidelines, any shortfall in energy output below the minimum CUF requires the Solar Power Generator (SPG) to pay a penalty equivalent to one and a half times the PPA tariff. However, CoPA's tender specifies liquidated damages at only 50% of the PPA tariff, which is a deviation from the guidelines.
 - (ii) Clause 8.3 of the guidelines mandates that the EMD shall not be less than 2% of the estimated capital cost. However, CoPA's tender specifies an EMD of ₹1068/kW, with no rationale provided for this deviation.
 - (iii) Similarly as per the guidelines, the performance bank guarantee (PBG) is limited to 5% of the estimated capital cost, but in the RfS document PBG is specified at Rs 1602/kW. The rationale for the above change is not specified in the petition.
 - (iv) The minimum CUF specified in the tender is 15%, which is very low compared with the present technological upgradation. Hence KSEBL requested that, prudent check is needed on the CUF adopted. KSEBL further submitted that, the low CUF might have resulted in the higher discovered tariff of ₹3.95 per unit.
- (3) KSEBL submitted that, the Commission vide the Order dated 25.04.2023 in OP No. 06/2023, in the matter of 'petition seeking permission for retendering of 1.5 MWp Grid Connected Floating Solar PV plant at W.Island, Cochin Port Authority under RESCO Model (BOOT) for 25 years' directed KSEBL to settle excess energy in the grid by CoPA at a rate specified by KSERC and account such energy against RPO of KSEBL. As per the KSERC (Renewable Energy and Net Metering) (Second Amendment) Regulations, 2024, the solar energy, hydro generation etc are specified under 'other RPO' category. KSEBL further submitted that, it can meet its RPO requirements through internal hydro stations and rooftop solar projects.
- (4) KSEBL also submitted that, the discovered tariff of ₹3.95 per unit for the 350 kW rooftop solar PV project is significantly higher than the generic tariff of ₹3.23 per unit approved by KSERC and the prevailing market rates for similar solar PV projects.

- (5) The proposed 350 kWp is only a part capacity and the cumulative capacity envisaged by the petitioner is 448 kW.

KSEBL prayed before the Commission that, in light of the discrepancies and deviations as above, the bid documents and tendering process do not conform to the guidelines issued by the Ministry of Power. Hence the petition is not maintainable.

Analysis and Decision of the Commission

5. The Commission having examined in detail the petition filed by M/s CoPA dated 07.10.2024, the provisions of the Electricity Act, 2003, Guidelines for Tariff Based Competitive Bidding Process for procurement of Power from Grid Connected Solar PV Projects dated 28.07.2023 and its amendments, KSERC (Renewable Energy and Net metering Regulations) 2020 and its amendments, other relevant Rules and Regulations in force, decides as follows;
6. The instant petition was filed by M/s Cochin Port Authority (CoPA) for the approval for the draft Power Purchase Agreement for 350 kW Grid connected RTS PV project at Cochin Port Authority. In this matter, the Commission has noted the following;
- (1) Kochi Port is one of the largest ports in India. The Vallarpadam container terminal, part of the Cochin Port, is the first transshipment port in India. The Kochi port is owned by Ministry of Ports, Shipping and Waterways, Govt of India. The port is operated by Cochin Port Authority (CoPA), an institution under Ministry of Ports, Shipping and Waterways.
 - (2) M/s CoPA holds distribution license to distribute electricity within port area in Willing Isand, Vallarpadam & Puthuvypin, and distributing electricity to the consumers and for own use within these area. The entire electricity requirement of the CoPA is being purchased from the incumbent licensee KSEBL at the BST determined by the Commission from time to time. Besides this, CoPA has installed 250 kW solar plants and the consumers of CoPA (prosumers) has installed 215 kW solar plants.
 - (3) At present, the annual electricity consumption within the CoPA area is about 40MU. Out of it 45% of the energy consumption, i.e., about 18 MU is the own consumption of the CoPA.
 - (4) M/s CoPA is a consumer of electricity with an annual consumption of about 18MU and also a distribution licensee as per Section 14 of the

EA-2003 having total electricity consumption of about 40MU annually within their licensed area.

The own consumption of electricity is accounted under energy sale of CoPA within its licensed area, and the electricity expenses is reflected in the expenditure of CoPA for operating the Kochi Port.

- (5) As a major port under GoI, M/s CoPA has to be comply with the various guidelines, policies and orders issues by the Government of India from time to time on various aspect of the operation and maintenance of the port. One of such guidelines is the 'Harit Sagar' Green Port Guidelines notified by the Ministry of Ports, Shipping & Waterways dated 11.05.2023. As per the said guidelines, CoPA has to meet 60% of its total electricity consumption from RE sources by the Year 2030 and 90% from the RE sources by the Year 2027. It appears that the percentage mentioned is in respect of own consumption of CoPA.

The Commission have no authority in interfering on the steps taken by CoPA as an electricity consumer for meeting the targets as per the 'Harit Sagar' Green Port Guidelines notified by the GoI. However, as a distribution licensee, the electricity distribution and related aspects including creation and maintenance of the distribution infrastructure, electricity purchase and distribution, RPO compliance are governed by the rules and regulations issued by the Commission from time to time as per the provisions of the EA-2003.

7. M/s Solar Energy Corporation of India Limited (SECI) is a Government of India enterprise under the administrative control of the MNRE, GoI, for facilitating development of the Solar Power in the Country. SECI is acting as an Intermediary procurer on behalf of the DISCOMS for procuring RE Power (including Solar, Wind etc) through competitive bidding route as per the guidelines notified by GoI under Section 63 of the EA-2003.

In addition to the above role, SECI is also helping the government institutions for setting up of Solar Plants under RESCO Mode, by selecting the bidders through a competitive bidding process.

8. Based on the request of three Government Institutions namely, Indian Institute of Information Technology Design and Manufacturing, Kurnool, NIT Surathkal and CoPA, Vallarpadam, Kochi, SECI has invited a bid on 10.05.2024 for the selection of bidders for setting up 1448 kW Grid Connected Roof Top Solar PV (RTSPV) projects on BOO basis. The tentative Solar roof top capacity identified for CoPA is 448 kW but in the instant petition M/s CoPA stated the capacity of the proposed RTSPV project as 350 kW.

9. The Commission has also noted that, the tender was invited by SECI for meeting part of the electricity requirement of CoPA as a consumer, from RTSPV 448kW projects to be setup on the buildings owned by CoPA. Hence, SECI has not followed the 'Guidelines for Tariff Based competitive bidding process for procurement of power from Grid connected Solar Power Projects' notified by MoP, GoI dated 28th July 2023 and its subsequent amendments under Section 63 of the EA-2003, for the power procurement of distribution licensees in the country under Section-63 of the EA-2003.
10. As per the Section 63 of the EA-2003, the Commission cannot adopt the tariff and approve the PPA if the bidding process of procurement of power by the distribution licensee is not done as per the guidelines notified by the Central Government.

Further, the Commission have no authority to grant approval for the procurement of power by electricity consumers in the State from the sources other than the distribution licensees. Such procurement by the consumers are based on their own wisdom and in accordance with the regulations notified from time to time

11. The Commission also noted that, the L1 rate of Rs 3.95/unit, determined by SECI through the bidding process is high for the Solar energy generated from the RTSPV project to be setup at the buildings of CoPA compared to the prevailing market rate of solar energy.
12. The Commission further clarify that, if the CoPA decide to proceed with the setting up of RTSPV as per the bid invited by the SECI on behalf of CoPA, the electricity generated from the project shall be accounted by CoPA against its own consumption, and cost of such purchase may be accounted towards the electricity expenses of CoPA as a Government institution. The energy generated and consumed by the CoPA as a consumer of electricity shall be governed by the provisions of KSERC (Renewable Energy & Net Metering) Regulations, 2020 as amended in 2022, and 2024, and also subject to its subsequent amendments/re enactments from time to time.

It is further clarified that; the cost of such power purchase shall not be accounted in the power purchase cost of CoPA as a distribution licensee in the ARR and Truing Up of accounts to be filed before the Commission.

13. With the above observation and comments, the Commission is of the considered view that, the instant petition filed by the CoPA seeking approval for the draft power purchase agreement for the 350kW grid connected RTS PV project at Cochin Port Authority (CoPA) is not maintainable and hence rejected.

Order of the Commission

14. The Commission, has examined in detail the petition filed by M/s CoPA dated 07.10.2024, the provisions of the Electricity Act, 2003, Guidelines for Tariff Based Competitive Bidding Process for procurement of Power from Grid Connected Solar PV Projects dated 28.07.2023 and its amendments, KSERC (Renewable Energy and Net metering Regulations) 2020 and its amendments, other relevant Rules and Regulations in force, has ordered that, the petition is not maintainable and hence rejected.

The petition disposed of. Ordered accordingly.

Sd/-
T K Jose
Chairman

Sd/-
Adv. A J Wilson
Member

Sd/-
B Pradeep
Member

Approved for issue

Sd/-
C R Satheesh Chandran
Secretary