

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

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

**OP No 56/2023**

In the matter of : Petition seeking approval for the detailed procedure for implementing KSERC (Renewable Energy and Net Metering) Regulations,2020 and its amendments.

Petitioner : Kerala State Electricity Board Ltd (KSEB Ltd)

KSEB Ltd represented by : Shri M.P Rajan, Dy. Chief Engineer  
Smt Latha S.V, Executive Engineer

Date of hearing : 14.12.2023, 10:30 AM

Venue : Court Hall of the Commission (Hybrid mode)

**Daily Order dated 17.01.2024**

1. M/s Kerala State Electricity Board Ltd (hereinafter referred to as M/s KSEB Ltd or the petitioner), filed a petition before the Commission with the following prayers;  
  
*“KSEBL humbly request approval of the detailed procedure prepared as per Regulation 63 of the KSERC (Renewable Energy & Net Metering) Regulations,2020 submitted before Hon’ble Commission on 24-2-2021 and the modifications thereon as submitted in the instant petition”*
2. The Commission admitted the petition as OP 56/2023. Hearing on the petition was held on 14.12.2023 at the Court Hall of the Commission. Shri. Rajan M.P, Deputy Chief Engineer and Smt. Latha S.V, Executive Engineer appeared on behalf of the Petitioner M/s KSEB Ltd. The deliberations during the hearing are summarized below.
  - (1) The petitioner submitted the following during the hearing;
    - (i) The Regulation 63 of the KSERC (Renewable Energy & Net Metering) Regulations,2020 (hereinafter referred as RE Regulations 2020) authorize the KSEBL to prepare and submit in co-ordination with STU, the detailed procedure for implementing the various provisions of the RE Regulations, 2020, including the following;
      - (a) *procedure for **getting feasibility certificate** for getting connectivity for RE systems.*

- (b) *Filing applications for **connectivity** including format and fees to be remitted.*
  - (c) *Procedure for availing banking facility including the **draft banking agreement**.*
  - (d) ***Billing procedure** under net metering facility provided under **Chapter-III**,*
  - (e) ***Accounting and billing procedures** for prosumer having RE plant with capacity more than 1 MW and captive use specified under **Chapter-IV**.”*
- (ii) The Regulation 18 of the RE Regulations 2020, specify the procedure for granting feasibility certificate to the RE system to be connected with the distribution system under net metering facility. Since the RE Regulation 2020 does not specify the procedure for the grant of feasibility certificate of RE system proposed to be installed by prosumers with RE capacity more than 1MW and captive consumers, KSEBL proposed to extent the procedure specified in Regulation 18 to these categories also. For getting feasibility certificate, KSEBL submitted the following;
- Application form for getting feasibility certificate. The application form was specified in Annexure-A to the RE Regulation, 2020. KSEBL has reproduced the same as part of the detailed procedure.
  - KSEBL has proposed an application fee of Rs 1000/- (Rupees thousand only) along with the application for getting feasibility certificate.
- The Schedule to Regulation 18 of the RE Regulation 2020 had specified that, Rs 1000/- has to be remitted along with the application for getting feasibility certificate.
- As per the Regulation 18(4) of the RE Regulations 2020, the licensee has to intimate the feasibility or other wise as the case may be.
  - KSEBL has also specified the format for granting feasibility certificate to the applicant who applied for granting feasibility certificate
- (iii) The Regulation 19 (1) to 19(3) of the RE Regulations, 2020 specify the procedure for Registration of the RE system to be connected to the distribution system, including the following;
- The application for registration has to be submitted along with the documents required by the licensee as specified in the feasibility certificate.

- The Schedule to Regulation 19(3) of the RE Regulations, 2020 specify that, the application for registration has to be accompany with the Registration fee of Rs 1000/kW or part thereof.
- (iv) The procedure for the installation and testing of the RE system is specified in Regulations 19(4) to 19(9) of the RE Regulations, 2020.
- (v) The timelines for various activities involved in the procedure for grant of connectivity of RE system is specified in the paragraph 2.5.25 of the detailed procedure submitted before the Commission, which is extracted below.

Time lines		
1	Feasibility Certificate from licensee	15 Days from the date of receipt of application
2	Application for Registration before the licensee	30 days from the date of receipt of feasibility certificate
3	Scrutiny of the application by the licensee	7 working days from the date of receipt of application
4	Registration	Within 7 working days from date of submission of completed application and registration fee
5	Inspection and safety checks by Electrical inspectorate	Within 10 working days from the date of submission of work completion report
6	Testing of RE system by the distribution licensee	Within 7 days from the date of submission of the approval of Electrical inspector
7	Net meters to be purchase by licensee	Distribution licensee shall provide the same within 10 days from the date of submission of the approval of Electrical Inspector
8	Testing of Net Meter if arranged by consumer	14 calendar days from the date of submission of meters

- (vi) KSEBL has also submitted the draft agreement for entering connectivity agreement and also the procedure for energy accounting and billing as per the provisions of the RE Regulations, 2020.

KSEBL requested before the Commission to grant approval for the detailed procedure for implementing the KSERC (Renewable Energy and Net Metering) Regulations, 2020 and its amendments.

- (2) Shri Jacob Cheriyan, C/o Malayala Manorama submitted the following;
  - (i) M/s Malayala Manorama is a captive consumer of KSEBL. It had established 10MW Wind Plant at Palakkad for their own use, at 18 printing units established across the State.
  - (ii) As per the Clause 2.5.5 of the draft detailed procedure, the licensee has to undertake technical feasibility within 15 days of the date of receipt of the application and intimate the applicant the feasibility or otherwise as the case may be.

However, in most of the cases, KSEBL could not fulfill the timelines specified in the RE Regulations, 2020. Hence, incase KSEBL could

not fulfil the time schedule for granting the feasibility certificate, the feasibility may be deemed to be approved. Necessary modifications in the billing procedure may be approved accordingly.

- (iii) Manorama further submitted that, the Commission may specify the open access charges applicable for interstate and intrastate to be mentioned separately in line with the RE Regulations, 2020.
  - (iv) The clause 4.0 specifies the “General Conditions and charges applicable, for usage of the transmission and distribution system by an independent renewable power generator/ open access consumer”. The Cross subsidy surcharge is applicable to interstate open access and third party sale. Hence, the heading of this clause has to be amended accordingly.
  - (v) Malayala Manorama further suggested that the distribution and transmission team have to mutually co ordinate for scheduled shutdowns that affects the generation by RE generators.
- (3) Shri Radhakrishnan K.R, HT and EHT Association submitted the following;
- (i) The licensee should incorporate provision to provide real-time information regarding the feasibility status when applying for feasibility and the extent of availability etc.
  - (ii) As per the Clause 2.5.5 specifies that the licensee shall undertake technical feasibility, within 15 days of the date of receipt of the application. In many cases delays occur and exceed 15 days. Hence a clause, may be added to the effect that, deemed approval may be granted if delay occurred beyond a specified period.
  - (iii) KSEB Ltd requested to modify the provisions in the Detailed procedure such that, if the RE plant offered by the prosumer fails the test due to the issues concerned with the plant, the prosumer shall re-apply for the connection afresh. The Commission through its Order has not allowed the same and hence the same should not be allowed.
  - (iv) There should be a separate procedure for the connectivity of RE system for the EHT consumers.
  - (v) The Clause 2.3(2) of the detailed procedure specifies the installation of manually operated isolating switch and grid-tied inverter/associated equipment with the specifications and standards as provided by the licensee. The licensee has to specify the standard whether it is national standard or international standard. The non-specifying of standards may create hard-ship to the consumers.

- (vi) The meter rent charges as per the clause 2.4 of the metering arrangement is not right. The Commission should verify the same.
- (4) Smt Neenu Skaria, KSSIA submitted that KSEB Ltd has specified the billing procedure of a prosumer, having a Renewable Energy System with capacity more than 1 MW at the same premise for his own use/ a Renewable Energy System with capacity less than 1 MW but not proposed the billing procedures for prosumers coming under net-metering, i.e, prosumers having RE capacity less than 1MW.
- (5) Shri. Shaji Sebastian, fully endorsed the views of Smt. Neenu Skaria.
- (6) Shri. Sivaramakrishnan, President, KREEPA submitted that currently, the solar plants above 50 kW capacity are only subjected to the power quality (PQ) and safety tests. The prosumer installs the solar plant as per the technical specifications and requirements of KSEBL. The component makes are also as per the approved list of MNRE/KSEBL. Notwithstanding this many inverter PQ failures are reported during the testing by the KSEBL testing team. However, it is improper to attribute all of them to the prosumers. On many occasions, these occur due to multiple reasons, including the following;
- a Testing carried out at poor irradiance levels at site. This would result in low power outputs. A minimum of 400W/sq meter irradiance level is required for satisfactory measurement of PQ parameters.
  - b Pre-existing harmonic levels or other PQ impurities are not verified. This would result in attributing the entire PQ failure to the solar plant.
  - c KSEBL may be advised to follow a uniform test procedure in line with applicable IEC standards for Solar plant. Lack of written procedure causes different testing practices in different regions.
  - d It has been noticed that non-calibrated measuring instruments are deployed for testing and this would attribute to inaccurate measurements. Calibrated measuring instruments only shall be used for testing.

With above process in place, it is fair to ask for additional charges in case of test failures of solar plants. The prosumers shall not be forced to re-apply for testing by paying additional charges. Hence, KREEPA requested that the above prayer of KSEBL shall be rejected.

- (7) Shri Pradeep, Hindalco, submitted the following;
- (i) KSEB Ltd has not specified any time line for the connection agreement and banking agreement. Further the authority authorized to sign these agreements are not specified in the detailed procedure.

- (ii) Hindalco further submitted that is no need of separate connectivity agreement and other agreement if the consumer installs renewable energy system without any alteration in the connected load or connectivity.
  - (iii) There are prolonged delay happens in the timelines for various activities involved in the procedure for connectivity specified by the licensee. In the case of exceeding these time lines, deemed approval provision should be provided in the detailed procedure.
- (8) Shri Satheesh Kumar, Sr. Manager, Carborundum Universal Ltd(CUMI) submitted the following;
- (i) Feasibility Approval  
The detailed procedure shall provide the workflow on the recipient office, processing office and finally feasibility approving authority including timeframes for each process steps. In case the timelines exceeds, a deemed feasibility approval shall be made available to the applicant through the online system.
  - (ii) Connection Agreement  
For execution of connection agreement, the various conditions to be fulfilled by applicant, by various divisions of KSEBL (DISCOM).  
KSEBL may clearly detail the time lines for each activity.
  - (iii) Net Metering  
The RE Regulation 2020, specifies the bi-directional meter for net metering and unidirectional meter for solar metering. However, KSEBL is insisting bidirectional meter for solar metering in addition to the existing bidirectional meter already having at the Grid connection point. Clause 16.2, paragraph 2 of the RE Regulations specify that, no need of bidirectional meter in case the prosumer is having ABT complaint meter in the premises, which is not in line with the Regulations.
  - (iv) Power Quality Meter  
DISCOM insisting to provide Power Quality meter but the location of meter, specification of meter and parameters to be measured by this meter is not clearly mentioned.
  - (v) Category of Prosumer  
If a prosumer generates RE power in his campus, which is connected with grid but not intending to export even his consumption is lower than the generation capacity, a separate category may be included in the detailed procedure. The prosumer

shall be making provisions to curtail the generation to the tune of his consumption in case the load is lower than captive plant capacity to prevent export of energy to the grid and banking of the same for future use.

- (9) Shri. Rajumon P.C, DGM- Electrical, CIAL, submitted that a provision should be provided in the solar bill to view the month wise banked energy.
  - (10) Shri Prabhakaran K.V, Office Manager, HT and EHT Association, submitted that, KSEB Ltd should establish full-fledged online facility for the procedures specified in the detailed procedure.
- 3 Based on the deliberations during the hearing, the Commission hereby direct the petitioner to submit the revised Detailed Procedure for implementing the KSERC (Renewable Energy and Net Metering) Regulations, 2020 and its amendments, on or before 31.01.2024, duly considering the following;
- (1) All the applications in connection with the getting feasibility certificate, registration, connectivity etc shall be facilitated through online mode as the default option.
  - (2) The time lines specified in the RE (Regulations), 2020 for various activities in connection with the grant of connectivity of RE system is the maximum time limits that can be availed by the licensee and that too specified in the year 2020. KSEBL can reduce the time lines duly considering the online facilities, advancement of technology etc.
  - (3) KSEBL shall provide online facilities to the prosumers to get the status of the applications for feasibility certificate, registration, connectivity etc.
  - (4) Different types of subsidy programs are available to the prosumers especially for roof top solar installations such as KSEBL Soura Scheme, MNRE Direct Subsidy Program etc. For installing roof top solar system through KSEBL Soura Scheme, the prosumers has to register through e-kiran portal of KSEBL, where as for MNRE Direct Subsidy Program, the prosumers has the option to register through National Portal. KSEBL shall specify the procedures for connectivity of roof top solar system separately for each different schemes, if required.
  - (5) The monthly bills issued to the prosumers shall clearly specify the solar generation during the month, total electricity consumption during the month, and the net energy availed from the KSEBL grid/ net surplus energy injected into the grid during the month etc. The bills also invariably contain the net surplus solar (RE) generation at the beginning of the month and the at the end of each billing month. The bill generated immediately after the annual settlement period shall contain the details of settlement including the refunds if any made to the prosumer.

- (6) The suggestions of KSEBL regarding the deemed approval of feasibility certificate, registration and connectivity etc, in case the licensee failed to fulfil the time limit specified for each activity in the RE Regulations, 2020.
- (7) Appropriate annexures shall be added to provide flowcharts depicting process involved for getting feasibility/registration/connectivity etc., for easy assimilation of the process among all stake holders. The prosumers are the consumers of KSEBL and they already have necessary supply agreement with the licensee. Further, the RE installations are governed by the provisions of the RE Regulations, 2020. Hence, KSEBL shall clarify the rational for having separate connectivity agreement, and especially the banking agreement with prosumers who install the RE system of and below the connected load/contract demand and without any alterations in the system for availing supply from grid/ injecting surplus power to the grid.
- (8) KSEBL should have circle wise, on line data base of the RE system installed and connected to the grid, including total capacity installed as on date, RE capacity installed during each month, monthly generation from the RE system, total updated generation from RE system during the financial year etc. These data base shall be updated at the web portal of the licensee at the end of each month.
- (9) Verbatim reproduction of provisions in the RE Regulations without due application of mind for appropriate incorporation in the detailed procedure is noted. This shall be duly rectified.
- (10) KSEB Ltd shall earnestly attempt to incorporate the genuine suggestions of stakeholders made during the public hearing, in the revised detailed procedure.

The final hearing of the petition may be scheduled after getting revised detailed procedure for implementing the various provisions of the KSERC (Renewable Energy and Net Metering) Regulations, 2020 and its amendments.

**Sd/-**  
**T K Jose**  
**Chairman**

**Sd/-**  
**Adv. A J Wilson**  
**Member**

**Sd/-**  
**B Pradeep**  
**Member**

Approved for issue

**Sd/-**  
**C R Satheesh Chandran**  
**Secretary**



## **Annexure 1**

### **List of participants attended the hearing held on 14.12.2023**

- (1) Shri M.P Rajan, Dy. CE, TRAC, KSEB Ltd
- (2) Smt Latha S.V, EE, TRAC, KSEB Ltd
- (3) Shri Shine Raj, AEE, TRAC, KSEB Ltd
- (4) Smt Asha A.V, AE, TRAC, KSEB Ltd
- (5) Shri Lajju M.S, AEE, REES
- (6) Shri Rakesh Prasannan, AE, REES
- (7) Shri Jacob Cheriyan, Malayala Manorama
- (8) Shri Satheesh Kumar, Sr. Manager, Carborundum Universal Ltd
- (9) Shri Nair Nandakumar P, Carborandum Universal Limited
- (10) Smt Neenu Skaria, KSSIA
- (11) Shri Prabhakaran K.V, Office Manager, HT and EHT Association
- (12) Shri Pradeep, Hindalco
- (13) Shri Radhakrishnan K.R, HT and EHT Association
- (14) Shri. Rajumon P.C, DGM- Electrical, CIAL
- (15) Shri Santhosh K
- (16) Shri Satheeshkumar K.P, HT and EHT Association
- (17) Shri. Shaji Sebastian, Industrial Consumers
- (18) Shri. Sivaramakrishnan, President, KREEPA