

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

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

**Petition: OP No. 37/2023**

In the matter of : Petition seeking exemption of RTU and SCADA visibility at injection points.

Petitioners : M/s Malayakam Aggregates & Sands Pvt. Ltd  
Petitioner represented by : Shri. Arun Varghese, Project Manager

Respondents : 1. Kerala State Electricity Board Ltd (KSEB Ltd)  
2. State Load Dispatch Centre (SLDC)

KSEB Ltd represented by : Shri. M.P. Rajan, Dy CE, TRAC  
Smt. Latha.S.V. V, AEE, TRAC

SLDC Represented by : Shri. Viju Rajan John, Chief Engineer, TSO  
Smt. Kavitha C.K, Dy CE (Grid)  
Shri Rajesh K, EE

Date of first hearing : 06.07.2023, 10:30 AM

Date of second hearing : 25.07.2023, 04:00 PM

Venue : Court Hall of the Commission

**Petition: OP No. 38/2023**

In the matter of : Petition seeking exemption of RTU and SCADA visibility at injection points.

Petitioners : M/s KIK Plastics Private Limited  
Petitioner represented by : Shri. K.K. Ibrahim, Managing Partner

Respondents : 1. Kerala State Electricity Board Ltd (KSEB Ltd)  
2. State Load Dispatch Centre (SLDC)

KSEB Ltd represented by : Shri. M.P. Rajan, Dy CE, TRAC  
Smt. Latha.S.V. V, AEE, TRAC

SLDC Represented by : Shri. Viju Rajan John, Chief Engineer, TSO  
Smt. Kavitha C.K, Dy CE (Grid)  
Shri Rajesh K, EE

Date of first hearing : 06.07.2023, 10:30 AM  
Date of second hearing : 25.07.2023, 04:00 PM  
Venue : Court Hall of the Commission

**Petition: OP No. 39/2023**

In the matter of : Petition seeking exemption of RTU and SCADA visibility at injection points.  
Petitioners : M/s KK Plastics  
Petitioner represented by : Shri. K.K. Ibrahim, Managing Partner  
Respondents : Kerala State Electricity Board Ltd (KSEB Ltd)  
State Load Dispatch Centre (SLDC)  
KSEB Ltd represented by : Shri. M.P. Rajan, Dy CE, TRAC  
Smt. Latha.S. V, AEE, TRAC  
SLDC Represented by : Shri. Viju Rajan John, Chief Engineer, TSO  
Smt. Kavitha C.K, Dy CE (Grid)  
Shri Rajesh K, EE  
Date of first hearing : 06.07.2023, 10:30 AM  
Date of second hearing : 25.07.2023, 04:00 PM  
Venue : Court Hall of the Commission

Additional parties impleaded during the proceedings:

1. M/s Ramakkalmedu Power Pvt Ltd
2. M/s C.V. Renewables Pvt Ltd
3. M/s Greenland Paper Mills Pvt Ltd

**Common Order dated 04.08.2023**

**OP No.37/2023**

1. M/s Malayakam Aggregates & Sand Pvt Ltd, on 10.01.2023 filed a petition before the Commission with the following prayers.
  - (1) *“Exempt us from the installation of RTU and SCADA visibility at injection point.”*
  - (2) *Directions may be given to KSEB Ltd not to insist on the installation of RTU and SCADA visibility at injection point, while granting Intra State Open Access.”*
2. Summary of the petition filed by the petitioner is given below.
  - (1) The petitioner is a HT Industrial consumer of KSEB Ltd at Palakkad, with a contract demand of 1000 kVA.
  - (2) The petitioner established a 250kW wind project at Ramakkalmedu at Idukki district for the captive use at their industry at Palakkad. The petitioner has executed the connectivity agreement with the Deputy

Chief Engineer, Electrical Circle, Thodupuzha. The petitioner also submitted the application for open access. KSEB Ltd provided a dedicated feeder and connectivity work is in progress.

- (3) As per the Open Access Regulations, 2013, ABT meter and SCADA visibility both at 'injection and drawal points' are mandatory. The petitioner is having only a single injection of 250kW at 33kV Nedumkandam s/s at Ramakkalmedu.
- (4) The Regulation- 24 of the KSERC (Renewable Energy and Net Metering) Regulations, 2020 stipulates the installation of RTU and SCADA monitoring to facilitate real time monitoring for SLDC.
- (5) The Regulation 11(4) of the KSERC (Connectivity and Intrastate Open Access) Regulations, 2013, stipulates that before granting open access, the nodal agency shall ensure that special energy meters are installed and maintained in accordance with the provisions of The Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time and remote terminal units (RTU) are installed and maintained, to facilitate real time monitoring by SLDC.
- (6) However, the Regulation 36(2) of KSERC (Connectivity and Intra State Open Access) Regulations, 2013 stipulates that the Commission, in consultation with the STU or the distribution licensees, may exempt small generators of capacity less than or equal to 1 MW and consumers with contract demand less than or equal to 1 MVA from the installation of Special Energy meters and SCADA connectivity.
- (7) The petitioner has installed Special Energy Meters (SEM) as specified in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 at the injection point.
- (8) The petitioner further submitted that they are having a single injection point at 33KV in the Nedumkandam substation of KSEB Ltd.
- (9) The Petitioner requested the commission to intervene in the matter and exempt the installation of RTU and SCADA visibility in the injection point, permitting the present SEM Meter installed by the petitioner.

### **OP No.38/2023**

3. M/s KIK Plastics, on 10.01.2023 filed a petition before the Commission with the following prayers:
  - (1) *“Exempt us from the installation of RTU and SCADA visibility at **injection point.**”*
  - (2) *“Directions may be given to KSEB Ltd not to insist on the installation of **RTU and SCADA visibility at injection point,** while granting Intra State Open Access.”*

4. Summary of the petition filed by petitioner is given below.

- (1) The petitioner is a HT Industrial consumer at Thrissur, with a contract demand of 350kVA.
- (2) The petitioner established a 250kW wind project at Ramakkalmedu at Idukki district for the captive use at their industry at Thrissur. The petitioner has executed the connectivity agreement with the Deputy Chief Engineer, Electrical Circle, Thodupuzha. The petitioner also submitted the application for open access. KSEB Ltd provided a dedicated feeder and connectivity work is in progress.
- (3) As per the Open Access Regulations, 2013, ABT meter and SCADA visibility both at 'injection and drawal points' are mandatory. The petitioner is having only a single injection of 250kW at 33kV Nedumkandam s/s at Ramakkalmedu.
- (4) The Regulation- 24 of the KSERC (Renewable Energy and Net Metering) Regulations, 2020 stipulates the installation of RTU and SCADA monitoring to facilitate real time monitoring for SLDC.
- (5) The Regulation 11(4) of the KSERC (Connectivity and Intrastate Open Access) Regulations, 2013, stipulates that before granting open access, the nodal agency shall ensure that special energy meters are installed and maintained in accordance with the provisions of The Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time and remote terminal units (RTU) are installed and maintained, to facilitate real time monitoring by SLDC.
- (6) However, the Regulation 36(1) of KSERC (Connectivity and Intra State Open Access) Regulations, 2013 stipulates that the Commission, in consultation with the STU or the distribution licensees, may exempt small generators of capacity less than or equal to 1 MW and consumers with contract demand less than or equal to 1 MVA from the installation of Special Energy meters and SCADA connectivity.
- (7) The petitioner has installed Special Energy Meters (SEM) as specified in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 at the injection point.
- (8) The petitioner further submitted that they are having a single injection point at 33KV in the Nedumkandam substation of KSEB Ltd.
- (9) The Petitioner requested the commission to intervene in the matter and exempt the installation of RTU and SCADA visibility in the injection point, permitting the present SEM Meter installed by the petitioner.

**OP No. 39/2023**

5. M/s KK Plastics, Industrial Development, filed a petition before the Commission on 10.01.2023 with the following prayers;
- (1) *“Exempt us from the installation of RTU and SCADA visibility at **injection point**.”*
  - (2) *Directions may be given to KSEB Ltd not to insist on the installation of RTU and SCADA visibility at injection point, while granting Intra State Open Access.”*
6. Summary of the petition filed by petitioner is given below.
- (1) The petitioner is a HT Industrial consumer at Aluva, with a contract demand of 160 kVA.
  - (2) The petitioner established a 250kW wind project at Ramakkalmedu at Idukki district for the captive use at their industry, Aluva. The petitioner has executed the connectivity agreement with the Deputy Chief Engineer, Electrical Circle, Thodupuzha. The petitioner also submitted the application for open access. KSEB Ltd provided a dedicated feeder and connectivity work is in progress.
  - (3) As per the Open Access Regulations, 2013, ABT meter and SCADA visibility both at ‘injection and drawal points’ are mandatory. The petitioner is having only a single injection of 250kW at 33kV Nedumkandam s/s at Ramakkalmedu.
  - (4) The Regulation- 24 of the KSERC (Renewable Energy and Net Metering) Regulations, 2020 stipulates the installation of RTU and SCADA monitoring facility to facilitate real time monitoring for SLDC.
  - (5) The Regulation 11(4) of the KSERC (Connectivity and Intrastate Open Access) Regulations, 2013, stipulates that before granting open access, the nodal agency shall ensure that special energy meters are installed and maintained in accordance with the provisions of the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time and remote terminal units (RTU) are installed and maintained to facilitate real time monitoring by SLDC.
  - (6) However, the Regulation 36(2) of KSERC (Connectivity and Intra State Open Access) Regulations, 2013 stipulates that the Commission, in consultation with the STU or the distribution licensees, may exempt small generators of capacity less than or equal to 1 MW and consumers with contract demand less than or equal to 1 MVA from the installation of Special Energy meters and SCADA connectivity.
  - (7) The petitioner has installed Special Energy Meters (SEM) as specified in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 at the injection point.

- (8) The petitioner further submitted that they are having a single injection point at 33KV in the Nedumkandam substation of KSEB Ltd.
  - (9) The petitioner requested the commission to intervene in the matter and exempt the installation of RTU and SCADA visibility in the injection point, permitting the present SEM Meter installed by the petitioner.
7. The Commission admitted the petitions as OP No.37/2023, OP No.38/2023 and OP No.39/2023 respectively. The Commission vide letter dated 24.03.2023 directed the Petitioners to submit an additional affidavit substantiating necessary clarifications pertaining to the grounds for seeking exemption. In compliance of the directions of the Commission, the petitioners vide additional affidavits dated 17.04.2023 and 19.04.2023 submitted the necessary clarifications, which are given below;
- a. The power generation carried out by them from its 250kW WEG is very small and therefore they cannot afford the installation expense and yearly recurring cost of SCADA visibility.
  - b. The Petitioner further submitted that as per the Regulation 36 of the KSERC (Connectivity and Open Access) Regulations, 2013 (hereinafter referred as Open Access Regulation, 2013), the Commission had exempted the installation of SEM meters at the drawal point of the petitioners. Hence, the same will be applicable in the present case also.
  - c. The developer company M/s Ramakkalmedu Power Pvt Ltd has sanctioned with 8 nos of 250 KW WEG machines and also constructed pooling station.
  - d. Hence the petitioner submitted that, if the exemption is not applicable as per the Regulation- 36 of the Open Access Regulation, 2013, it is requested that the Commission may allow the Distribution licensee/STU to install the 1 (one) RTU and SCADA visibility at their pooling station for all these 8 nos of 250 KW WEG machines as per the Regulation- 11(4) of the Open Access Regulation, 2013.
8. Since the issues and prayers in all the three petitions are the same, the Commission has conducted the common hearing on the three petitions on 06.07.2023.
9. The first hearing on the petition was held on 06.07.2023 at the Court Hall of the Commission. Shri. Arun Varghese and Shri. K.K. Ibrahim, appeared on behalf of the Petitioners. Smt Latha, AEE, TRAC, presented the comments on behalf of the Respondent KSEB Ltd. The deliberations during the hearing are summarized below.
- (1) The petitioners submitted the following during the hearing;  
  
The petitioners had established three wind power projects, each having capacity 250KW(1x250KW) at Ramakkalmedu. The Commission vide

Common Order dated 18.01.2023 in petitions OP No.65/2022, OP No.66/2022 and 67/2022 had exempted them the installation of SEM meters at drawal points. As per the Regulation-36(1) of the KSERC (Connectivity and Intra State Open Access) Regulations,2013 (hereinafter referred as Open Access Regulation, 2013) the Commission has the powers to exempt the petitioners from the installation of Special energy meters, RTU and SCADA visibility at injection point also. The petitioners have already installed SEM meters in the injection point

The petitioner submitted that they may receive the yearly generation of about 4 lakhs units/year each from the project and they will have to incur a cost of around 14 lakhs each for the installation of RTU. Further the existing structures provided has to be upgraded and one unit of CT and PT has also to be provided to each of the WEG. Moreover, the overall cost will be increased by providing RTU and SCADA visibility.

The petitioner further submitted that as per the Regulation- 11(4) of the Open Access Regulation,2013, the Distribution licensee shall install the Remote Terminal Units (RTU) in the premises of the applicant with in the stipulated time as per the detailed procedure. Hence, if the Commission cannot exempt the petitioners from the installation of RTU and SCADA visibility at injection point, the licensee may install the same at the injection point of the petitioner as per the above Regulation.

The petitioner further clarified that their developer M/s Ramakkalmedu Power Private Ltd had received technical approval for the installation of 8x250KW Wind Energy Generators (WEGs) at Nedumkandam, Ramakkalmedu. Out of 8(8x250KW) WEGs, 5(5x250KW) WEGs (3x250KW- installed by the petitioners, M/s Greenland Papper Mill Ltd(1x250KW) and M/s C V Renewables(1x250KW)) are installed and the works for the installation of 3WEGs (3x250KW- installed by M/s Shiva Electricals) are undergoing. The petitioners had constructed a 33KV pooling station at Ramakkalmedu and it is connected to the Kallar substation of KSEB Ltd via dedicated feeder.

(2) During the hearing, the Respondent KSEB Ltd submitted the following;

As per the Regulation-24(2) of the KSERC (Renewable Energy and Net Metering) Regulations, 2020(hereinafter referred as RE Regulations,2020), the metering system shall have RTU to facilitate real time monitoring to SLDC. Further, as per the Regulation-11(4) of the Open Access Regulation,2013, before granting the open access, the nodal agency shall ensure that RTU are installed and maintained. As per the above the petitioners are mandated to provide RTU at injection point.

However, the contention of the petitioner that exemption for the installation of RTU and SCADA visibility can be granted as per the Regulation- 36(1) of the Open Access Regulation,2013, is not right, since, the exemption is applicable to the SEM meters only. Hence, as per the Regulations, there are no exemptions for installation of RTU and SCADA visibility.

KSEB Ltd further submitted that the Renewable Energy (RE) additions to the grid of KSEB Ltd are increasing day by day and SLDC needs to monitor the variations in generation due to these infirm RE additions. KSEB Ltd further submitted that, if small Renewable Energy Generators (REGs) are connected under the pooling station, the RTU and SCADA visibility can be provided at that pooling station for the visibility of SLDC, instead of providing separate RTU and SCADA visibility to the REGs.

(3) SLDC submitted the following;

SLDC Kerala submitted that, as per the Open Access Regulations, 2013 the installation of RTU facility for the monitoring of SLDC is a precondition for the granting of Open Access. Moreover, considering the increase in renewable energy penetration, the existing provisions in the Regulations have to be fully complied with. SLDC opined that the RTU and SCADA visibility can be provided at the pooling station of the small REGs totalling up to one MW and above. Hence, SLDC submitted that the installation of RTU and SCADA visibility at the pooling station of REGs will meet the requirements of SLDC.

10. Based on the deliberations during the hearing, the Commission, vide Daily Order dated 10.07.2023, issued the following directions to the petitioner and the respondent for immediate compliance.

- (1) *The petitioners shall implead the other developers, who have established/ establishing WEGs at Ramakkalmedu and getting connected to the common pooling station at Ramakkalmedu.*
- (2) *The developers of the 8(8x250KW) WEGs shall submit a joint affidavit substantiating the detailed scheme of cost sharing among 8(8x250KW) WEGs for setting up RTU and SCADA visibility at common pooling station at Ramakkalmedu, latest by 24.07.2023 at 05:00 PM, with a copy to KSEB Ltd and SLDC*
- (3) *The respondents KSEB Ltd and SLDC shall submit the comments on establishing RTU and SCADA visibility by the licensee/STU and regarding threshold capacity limits for the installation of RTU and SCADA visibility for individual stations and pooling stations for*



*evacuation of power from renewable energy plants, latest by 24.07.2023 at 05:00 PM, with copy to petitioners.*

11. In compliance of the directions of the Commission vide the daily order dated 10.07.2023, KSEB Ltd vide counter affidavit dated 24.07.2023 submitted the following;

- (1) The Petitioners are “Renewable Energy Systems installed by a Captive consumer, at a location different from the location of its usage, but within the State for his own use”. Therefore, Regulation 24(1) & (2) of the KSERC (Renewable Energy & Net metering) Regulations, 2020 is applicable to the petitioners.

As per the Regulation 24(2) of the KSERC (Renewable Energy & Net metering) Regulations, 2020, ‘the metering system shall have the remote terminal unit (RTU) to facilitate real time monitoring by SLDC as and when specified by the Commission.

- (2) The Petitioners are open access consumers, so the provisions in the KSERC (Connectivity and Open Access) Regulations, 2013 are also applicable. As per the Regulation 11(4) of the said Regulations, before granting open access, the nodal agency shall ensure that special energy meters are installed and maintained in accordance with the provisions of the CEA (Installation and Operation of Meters) Regulations 2006 as amended from time to time and remote terminal units (RTU) are installed and maintained as stipulated in the detailed procedure to facilitate real time monitoring by SLDC.

KSEBL further submitted that, as per the first proviso to Regulation 36 of the KSERC (Connectivity and Intra-State Open Access) Regulations, 2013, the exemption is applicable only for the installation of the Special Energy Meters and not for RTU and SCADA visibility.

- (3) On the specific directions issued by the Commission vide the daily Order dated 10.07.2023, KSEB Ltd submitted the following;

- (a) Establishing RTU and SCADA visibility by the licensee/STU

If there is no pooling station for a wind/solar generator and the generating station is connected through common /dedicated feeder and terminated at a substation of the STU, the sub-station of the STU can be considered as the pooling station for such wind/solar generator. In such cases, STU can provide visibility to SLDC for the total generating stations connected to the dedicated feeder on deposit work basis. Rental charges and any other charges incurred for the operation and maintenance of SCADA System shall be paid by the generators.

- (b) Threshold capacity limits for the installation of RTU and SCADA visibility for individual stations and pooling stations for evacuation of power from renewable energy plants.

The visibility of all generators in the State irrespective of capacity shall be provided to SLDC SCADA. This is essential for the smooth, efficient and reliable real-time operations of the SLDC and for managing the real time LGB in the most effective and economic manner for overall benefit of the State of Kerala.

- (1) Individual stations: The lower limit of individual solar and wind generators for providing visibility to SLDC SCADA may be fixed as 1MW and above. Provided, if any generator of below 1MW capacity is availing open access and willing to provide SCADA visibility to SLDC independently that may be permitted.
- (2) Pooling Station: The Solar and wind generators of below 1MW capacity availing open access shall be insisted to be connected to the grid only through pooling stations and total visibility of generators at the common interconnection point at the pooling station shall be provided to SLDC. Provided, if any generator (Solar and Wind) of capacity 1MW and above wishes to provide SCADA visibility to SLDC through pooling stations that may be permitted.

12. The State Load Dispatch Center (SLDC) vide submission dated 24.07.2023 submitted the following.

- (i) Regarding the threshold capacity limits for the installation of RTU and SCADA visibility for individual stations and pooling stations for evacuation of power from renewable energy plants, SLDC submitted that, the visibility of all generators in the State irrespective of capacity shall be provided to SLDC SCADA. This is essential for the smooth, efficient and reliable real-time operations of the State Load Dispatch Centre and for managing the real-time LGB in the most effective and economic manner for the overall benefit of the State of Kerala.
- (ii) The lower limit of individual Solar and Wind Generators (11 kV and above voltage level) for providing visibility to SLDC SCADA may be fixed as 1MW and above. Provided if there is no pooling station and any generator of below 1MW capacity opts to provide SCADA visibility to SLDC independently, that may be permitted.
- (iii) Solar and Wind Generators of below 1 MW capacity (11 kV and above voltage level) shall be insisted to be connected to the grid only through pooling stations. Total visibility of the generators at the common interconnection point at the pooling station shall be provided to SLDC SCADA.

Provided, if any generator (Solar and Wind) of capacity 1MW and above opts to provide SCADA visibility to SLDC through pooling stations, that may be permitted.

13. In compliance of the direction of the Commission, the developer company namely Ramakkalmedu Power Ltd and the investor companies M/s C.V Renewable and M/s Green Land Paper Mills Pvt Ltd impleaded into the petitions OP No. 37/2023, 38/2023 and 39/2023.
14. Further, Mr. K.K. Ibrahim, Managing Director, M/s Ramakkalmedu Power Pvt Ltd submitted that, the company was established for developing wind energy and providing infrastructure facilities to the small-scale wind energy investors. The company had received technical approval for establishing 8 nos of 250 kW WEGs as CPP mode from ANERT. Out of this, the developer company transferred the technical approval to 5 new investors with 250 kW WEG each. The developer company had constructed the common pooling substation at Pushpakandam, Ramakkalmedu and completed the necessary development work.

The developer company further submitted that, they are ready to establish the RTU and SCADA visibility, and also the pooling station constructed at Pushpakandam, Ramakkalmedu within six months after getting scheme approval from the KSEB Ltd. This facility can be availed by the WEGs who are connected to the pooling station.

M/s Rammakkalmedu Power Pvt Ltd further submitted that, they would like to purchase the power quality meter SECURE make Elite 500 series. Hence the developer company requested to allow them to purchase the Power Quality Meter- SECURE make – Elite 500 series for the installation at the pooling station.

15. The second hearing of the petition was conducted on 25.07.2023. The summary of the deliberations during the hearing is given below.

- (1) The petitioners submitted the following during the hearing;

Instead of the installation of the RTU and SCADA visibility by individual WEGs at Ramakkalmedu, the developer company like to install the same at the pooling station on behalf of all the 8 WEGs at Ramakkalmedu, who are proposed to connect to the grid through the pooling station developed by the developer company Ramakkalmedu Power Pvt Ltd.

Ramakkalmedu power private limited (RPPL) is the developer of the 8x 250 kW WEGs at Ramakkalmedu. They had developed the pooling station and got all the technical approvals. The developer had given one machine each of 250KW capacity to the investors M/s KIK Plastics, M/s

KK plastics, M/s Malayakam Aggregates, M/s Green Land Paper Mills Pvt Ltd and C V Renewables. Entire cost will be shared by five generators now. Three more generators have to come.

Now KSEB Ltd agreed and given concurrence to install RTU at the pooling Station. Ramakkalmedu Power private Limited is ready to provide RTU SCADA at pooling station. Cost will be shared among investors. KSEB Ltd has provided the scheme for connection of pooling station to feeder 1.

Now KSEB Ltd is insisting on power quality meter as per the CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Amendment Regulations, 2019. The petitioner further submitted that, though the CEA Regulations on power quality meters was notified in the year 2019, KSEB Ltd, very recently only insisted for the installation of the power quality meters. Every time the developer approaches the offices of the KSEB Ltd for connectivity and related issues, the officials of KSEB Ltd is taking delaying tactics and this results wastage of electricity that can be injected into the grid.

- (2) SLDC of KSEBL submitted that, it has to follow CEA regulations and CERC regulations. There is a recent cyber-attack on the Tata power site through RTU. Power Quality meters are insisted due to high RE power integration into the grid. The CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Amendment Regulations, 2019 is to measure power quality harmonics, etc. injected into the grid by wind generators.
- (3) KSEB Ltd during the hearing submitted that, as per the KSERC (Connectivity and Intra-State Open Access) Regulations, 2013, the Commission cannot exempt the petitioners from installation of the RTU and SCADA visibility at the injection points. However, KSEB Ltd is agreed to exempt the individual WEGs from the installation of the same, however the RTU and SCADA shall be installed at the pooling substation.

Further, as per the CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Amendment Regulations, 2019, power quality meters shall install by all users seeking connectivity at 11kV or above for measuring and metering of harmonics.

### **Analysis and Decision**

16. The Commission having examined in detail the petitions filed by M/s Malayakam Aggregates & Sand Pvt Ltd, M/s KIK Plastics Pvt Ltd and M/s KK Plastics, as per the provisions of the Electricity Act, 2003, KSERC (Connectivity and Open Access) Regulations, 2013, and other Rules and Regulations in force, decided as follows;

17. The petitioner in OP No. 37/2023, M/s Malayakam Aggregates and Sand Pvt Ltd is an Industrial consumer at Palakkad with a contract demand of 1000KVA. The second petitioner in OP No. 38/2023, M/s KIK Plastics Pvt Ltd is an industrial consumer at Thrissur with a contract demand of 350 kVA. The third petitioner in OP No. 39/2023, M/s M/s KK Plastics is an industrial consumer at Aluva, with a contract demand of 160kVA.

All these petitioners have established 250 kW each Wind Power Plant at Ramakkalmedu, Idukki District for their captive use at the industries. The electricity generated from all the three 250 kW wind plants are proposed to inject at 33kV Nedumkandam substation.

As per the Regulations 25 and 27 of the KSERC (Renewable Energy and Net Metering) Regulations,2020, the petitioners have to avail open access facilities on payment of various charges and levies as specified the said Regulations for transmitting and wheeling the electricity generated from the wind power plants at Ramakkalmedu, Idukki to their industrial premises at Aluva, Palakkad and Thrissur respectively.

18. The Commission vide the Common Order dated 18.01.2023 in petitions OP No.65/2022,66/2022,67/2022 in petitions filed by above petitioners M/s KK Plastics, M/s Malayakam Aggregates & Sands Pvt. Ltd., and M/S KIK Plastics Private Limited, had exempted the petitioners from the installation of SEM meters at the drawal points.
19. In the instant petition, the petitioners M/s Malayakam Aggregates & Sands Pvt. Ltd., M/S KIK Plastics Private Limited and M/s KK Plastics, requested to exempt them from the installation of RTU and SCADA visibility at injection point. The petitioners also requested to grant the Intra-State Open Access without insisting for the installation of the RTU and SCADA visibility.
20. The Commission examined the prayer of the petitioners to exempt them from the installation of the RTU and SCADA visibility as per the prevailing Regulations notified by the Commission. The provisions in the relevant Regulations are extracted below.

**(1) Provisions in the KSERC (Renewable Energy and Net metering) Regulations, 2020**

The Regulation 24 of the KSERC (Renewable Energy and Net Metering) Regulations,2020 (herein after referred as RE Regulations, 2020) deals with the metering system of the Renewable Energy Generator/ Captive Generating Plants, which is extracted below.

*"24. Metering system. -*

- (1) The Renewable Energy Generator/ Captive Generating plant, the captive consumer and the open access customer as the case may be, shall install Special Energy Meters (SEM) as specified in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time, for accounting the quantum of energy generated, the quantum of energy injected into the transmission and/or distribution system and the quantum of energy consumed.*

*Provided that, if the RE generator/ consumer, elects to purchase his own special energy meter, he shall purchase the same from the firms empanelled by the STU/ distribution licensee, as specified in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time:*

- (2) *Special Energy Meters installed shall be capable of measuring the 15 minutes time-block-wise 'active energy and reactive energy', in accordance with the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time and the provisions of State Grid Code. The metering system shall have remote terminal unit (RTU) to facilitate real time monitoring by the SLDC as and when specified by the Commission.*
- (3) *Special Energy Meters shall be open for inspection by any person authorized by the STU or the State Load Despatch Centre or the distribution licensee, as the case may be."*

## **(2) Provisions in the KSERC (Connectivity and Open Access) Regulations, 2013**

- (i) The facilities of Open Access in the State are governed by the provisions of KSERC (Connectivity and Open Access) Regulations, 2013 (herein after referred to as Open Access Regulations, 2013. The Regulations, 11(4) of the Open Access Regulations, 2013 provides that, as follows:

*"(4) Before granting open access, the nodal agency shall ensure that special energy meters are installed and maintained in accordance with the provisions of The Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time and remote terminal units (RTU) are installed and maintained, as stipulated in the detailed procedure, to facilitate real time monitoring by SLDC...."*

- (ii) Further, the Regulation 36 of the Open Access Regulations, 2013 provide as follows.

*"36. Metering. –*

- (1) *All generating stations irrespective of capacity and all open access customers including embedded consumers shall be provided with special energy meters (SEM) by the State Transmission Utility or the distribution licensee, as the case may be:*

*Provided that, in case an open access customer or embedded consumer elects to purchase his own special energy meter, he shall purchase the same from the firms empanelled by the STU as specified in The Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time:*

**Provided further that the Commission, in consultation with the STU or the distribution licensees, may exempt**

**small generators of capacity less than or equal to 1 MW and consumers with contract demand less than or equal to 1 MVA from this condition as and when found necessary.**

*(2) Special Energy Meters installed shall be capable of time-differentiated measurements for time-block-wise active energy and voltage differentiated measurement of reactive energy in accordance with The Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time and the provisions of State Grid Code and shall have remote terminal unit (RTU) to facilitate real time monitoring by the SLDC as and when specified by the Commission.*

*(3) Special Energy Meters shall be open for inspection by any person authorized by the STU or the State Load Despatch Centre or the distribution licensee as the case may be.*

*(4) All open access customers, STU, transmission licensee other than STU, distribution licensee and generating company shall abide by The Central Electricity Authority (Installation and Operation of Meters) Regulations 2006 as amended from time to time.”*

As extracted above, the 2<sup>nd</sup> proviso to Regulation 36 of the Open Access Regulations, 2013 provides that, the Commission is permitted to exempt small generators having capacity less than or equal to 1 MW and consumers with contract demand less than or equal to 1MVA from installation of SEMs in consultation with STU.

As extracted above, as per the RE Regulations, 2020 and Open Access Regulations, 2013, all the Captive consumers installed RE power plants for their own consumption also has to install SEM at the injection point as well as at drawal points for measuring the time block wise ‘active and reactive energy’ and also have the remote terminal units (RTU) to facilitate the real time monitoring by SLDC.

However, the Commission, as per the second proviso to Regulation 36(1) of the Open Access Regulations, 2013, can exempt the consumers with contract demand less than 1 MVA, who intend to avail open access within the State, from installing Special Energy Meters, in consultation with the STU or the Distribution licensee. But there is no provisions in the RE Regulations, 2020 and Open Access Regulations, 2013 to exempt the petitioners from the installation of RTU and SCADA visibility at injection points.

21. The petitioners during the proceedings of the subject matter before the Commission submitted that, they are connected to the grid through the pooling station at Ramakkalmedu. The pooling station was developed by the developer

company M/s Ramakkalmedu Power Pvt Ltd. All the cost associated with the development of the pooling station is being shared among the 8 x 250 kW WEGs installed/under installation at Nedumkandam, Ramakkalmedu. Hence if the exemption is not possible as per the existing Regulations, the Commission may allow the distribution licensee/ STU to install 1 (one) RTU and SCADA visibility at the pooling station.

22. The developer company M/s Ramakkalmedu Power Pvt Ltd submitted the following during the deliberations of the subject petition;
- (iv) The developer company has obtained all the technical approvals for the installation of the 8 Nos of 250 kW WEGs at Nedumkandam, Ramakkalmedu.
  - (v) After developing the WEG units of 250kW each, the units are handed over to the investors namely M/s Malayakam Aggregates & Sand Pvt Ltd, M/s KIK Plastics Pvt Ltd, M/s KK Plastics, M/s Green Land Paper Mills Pvt and M/s C V Renewables. The developer has to identify investors for the remaining three WEGs.
  - (vi) All the infrastructure such as roads, pooling stations etc is being developed by the developer M/s Ramakkalmedu Power Pvt Ltd. The total cost incurred by the developer for creating the infrastructure is being shared among the WEGs.
  - (vii) All the WEGs are proposed to connect to the State grid through the pooling station.
  - (viii) Hence, the developer company submitted that, they can install the RTU and SCADA facility at the pooling station within six months after getting the scheme approval from KSEB Ltd. The total cost of installation of the RTU and SCADA visibility may be shared among the users of the pooling station.
23. KSEB Ltd during the deliberations of the subject matter submitted before the Commission that, the solar and wind generators with capacity 1 MW and below, availing open access facility, shall be insisted to be connected through pooling stations. The total visibility of the generators at the common interconnection point at the pooling station shall be provided to SLDC. KSEB Ltd further submitted that, the solar and wind generators of capacity above 1MW also can be connected through pooling station and in such cases the SCADA visibility to SLDC through pooling station may be permitted.
24. SLDC of Kerala also submitted that, the solar and wind generators below 1MW shall be insisted to be connected to the grid only through pooling stations. Total visibility of the generators at the common pooling station shall be provided to SLDC SCADA. The solar and wind generators with capacity above 1MW can opt for provide SCADA visibility to SLDC through pooling stations.



25. *The Commission has examined the proposal of installation of the RTU and SCADA visibility at the common pooling station at Ramakkalmedu, instead of the installation of the RTU and SCADA visibility for each individual WEG.*

*The Commission noted that, all the 8 nos of the 250KW WEG developed at Ramakkalmedu is connected through the common pooling station at Ramakkalmedu, developed by the developer M/s Ramakkalmedu Power Pvt Ltd. As clarified by the KSEB Ltd and SLDC of Kerala, the total visibility of the generators connected to the common pooling station need to be provided from the pooling station only. There is no need to provide RTU and SCADA visibility of each of the 250kW WEGs separately to the SLDC. Hence, the developer M/s Ramakkalmedu Power Pvt Ltd can install the RTU and SCADA visibility at the pooling station at Ramakkalmedu and can share the cost of installation of the RTU and SCADA visibility among the users of the pooling station.*

*Considering these aspects in detail, the Commission hereby allow the developer M/s Ramakkalmedu Power Pvt Ltd to install the RTU and SCADA visibility at the pooling station at Ramakkalmedu. The total cost of the installation of the RTU and SCADA visibility may be shared among the users of the common pooling stations.*

#### **Installation of Power quality meters**

26. During the deliberations of the subject petition, the petitioners submitted before the Commission that, the officials of KSEB Ltd has recently insisted to install power quality meters as per the CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Amendment Regulations, 2019. Though the CEA has notified the Regulations in the year 2019, KSEB Ltd has insisted the installation of the power quality meters very recently at the time of connectivity of the WEG installed by them.

The developer M/s Ramakkalmedu Power Pvt Ltd submitted that, since the WEGs developed by them is connected to the grid through the pooling station at Ramakkalmedu, the developer may be permitted to install power quality meter- SECURE make- Elite 500 series at the pooling station on behalf the WEGs connected at the pooling station.

27. The SLDC during the hearing submitted that, they had noticed the provisions of the CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Amendment Regulations, 2019 regarding the installation of the power quality meters very recently. As per the CEA Regulations, it is mandatory to install power quality meters for the generators seeking connectivity 11 kV and above. KSEB Ltd also supported the submission of SLDC in this regard.
28. The Commission has noted the submission of the petitioners and also the explanation given by the SLDC regarding the installation of the power quality meters for measuring and metering the harmonics injected by the WEGs.

The CEA vide its notification dated 6<sup>th</sup> February 2019 has notified the CEA (Technical Standards for Connectivity of the Distributed Generation Resources)

Amendment Regulations, 2019 at its website. CEA has notified the said Regulations after completing the procedures prescribed in the EA-2003 including pre-publications and stakeholder consultation. KSEB Ltd as one of the prominent distribution licensees in the Country, may got the opportunity to submit its comments on the draft. There is no rationale on the argument of the SLDC and KSEB Ltd that they were not aware of the said Regulations till recently the petitioners approached to the licensee for getting connectivity.

The Commission has noted that, the petitioners had approached to KSEB Ltd for getting connectivity and for availing open access much earlier. Even the various issues of the petitioners were deliberated before the Commission during the last one year. Hence there may be some merit in the argument of the petitioners that, KSEB Ltd has been deliberately delaying the connectivity of the WEGs of the petitioners with the grid citing one reason or other.

29. The Commission noted with displeasure on the lethargic attitude of the KSEB Ltd towards the developers of the RE generators in the State. There are many complaints regarding the delay in issuing feasibility certificate, granting connectivity and not even clarifying the procedure to be followed by the developers for getting connectivity and charges payable for availing open access under CPP and IPP category. KSEB Ltd is reluctant to follow the time lines specified in the KSERC (Renewable Energy & Net Metering) Regulations, 2020 and its amendments for facilitating the accelerated development of the Renewable Energy Generation
30. The Commission also noted that, KSEB Ltd has designated one Chief Engineer namely CE (Renewable Energy and Energy Savings- REES) for the accelerated development of RE generation in the State. In order to facilitate the development of RE generation, the O/o the Chief Engineer (REES) has to provide necessary support to the field offices of the SBU-T including SLDC and SBU-D of KSEB Ltd and shall give standing instructions regarding the common and uniform procedures to be followed by them to provide feasibility certificate and connectivity etc.

The O/o the CE (REES) has to be well equipped and aware of the Rules and Regulations notified by Government of India, CEA, CERC, KSERC and other statutory bodies for the development of electricity from RE sources. In this matter, the O/o CE (REES) should be functioning as a helping hand towards the investors in this field.

However, it is ironical to note that, though KSEB Ltd is the incumbent distribution licensee in the State, neither the O/o the CE (REES) or the field offices of SBU-T including SLDC and SBU-D of KSEB Ltd are aware of the various Rules and Regulations issued by the statutory agencies for the development of electricity generation from RE sources. The offices of the KSEB Ltd also not aware of the procedures to be followed when an investor approached for getting connectivity and availing open access.

KSEB Ltd as the STU, and distribution licensee has to advise and help the investors in the RE field regarding the rules, Regulations and procedures to be

followed for the development of RE sources including connectivity, banking procedures, charges payable for availing open access for CPP and IPP category.

Considering the entire issue in detail, the Commission hereby direct that, KSEB Ltd shall nominate a nodal officer, under the CE (REES) for facilitating the RE generation especially under IPP and CPP category in the State. The nodal office shall upload all the rules and Regulations notified by the statutory agencies including Central Government, CEA, CERC, KSERC etc. at the licensee's website for the information of all the stakeholders. The nodal agency shall also prepare a check list on the documents to be submitted along with the application for feasibility certificate, connectivity and for availing open access.

31. The investors shall be given the option to directly apply to the nodal office electronically with necessary fees and other supporting documents for the RE development including getting feasibility certificate, connectivity etc. instead of directly contacting the field offices on such matters. The nodal office may in liaison with the field offices shall also intimate the time schedule for various activities including connectivity to the applicant and the licensee shall bound to comply with the timelines with respect to the maximum period specified in the KSERC (Renewable Energy and Net metering) Regulations, 2020 and its amendments.

The Commission once again direct KSEB Ltd that, it shall facilitate the RE development in the State by providing a helping hand to all prospective investors in this filed instead of standing against them.

The Commission hereby clarify that, the noncompliance of the directions of the Commission as above shall invite punishment under Section 142 of the EA-2003 to the concerned officials of KSEB Ltd at various levels.

32. Regarding the installation of the power quality meters, the Commission is of the considered view that all the stakeholders have to follow the rules and Regulations issued by the statutory agencies including CEA. The only question is whether the power quality meters have to be installed by the individual generator or a common power quality meter can be installed at pooling station on behalf of all the WEGs at Ramakkalmedu.

Commission has noted that, WEGs of the petitioners and other investors are connected to the grid through the pooling substation at Ramakkalmedu. The power quality meters are insisted by CEA for measuring and metering the harmonics injected by the WEGs to the grid. Since the WEGs are connected to the grid through the pooling station, the power quality meter may be permitted to install at the common pooling station at Ramakkalmedu.

The developer company M/s Ramakkalmedu Power Pvt Ltd vide the affidavit dated 24.07.2023 has submitted that, they shall purchase and install the power quality meters – SECURE make- Elite 500 series within six months at the pooling station constructed by them at Pushpakandam, Ramakkalmedu after getting scheme approval from KSEB Ltd.

After considering all these aspects in detail, the Commission hereby grant approval to the developer company M/s Ramakkalmedu Power Pvt Ltd to install the power quality meter at the pooling station constructed by them at Ramakkalmedu, on behalf of all the WEGs connected at the pooling station. The cost of installation of the power quality meters may also be shared among the users of the pooling station along with the cost of installation of the RTU and SCADA visibility at the pooling station.

### **Orders of the Commission**

33. The Commission, after examining the petitions filed by M/s Malayakam Aggregates & Sand Pvt Ltd, M/s KIK Plastics Pvt Ltd and M/s KK Plastics, as per the provisions of the Electricity Act, 2003, KSERC (Connectivity and Open Access) Regulations, 2013, and other Rules and Regulations in force, and the circumstances discussed in the preceding paragraph hereby orders that;

- (1) The prayers of the petitioners to exempt them from the installation of the RTU and SCADA visibility at injection point is hereby rejected.
- (2) The developer company M/s Ramakkalmedu Power Pvt Ltd is permitted to install the RTU and SCADA visibility at their pooling station at Ramakkalmedu on behalf of all the WEGs connected at the pooling station, as discussed under paragraph 25 of this Order. Accordingly, the individual WEGs including the petitioners are exempted from installation of the RTU and SCADA visibility individually.
- (3) The developer company M/s Ramakkalmedu Power Pvt Ltd is permitted to install power quality meter as specified in the CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Amendment Regulations, 2019, on behalf of all the WEGs connected at the pooling station, as discussed under paragraph 32 of this Order.
- (4) KSEB Ltd shall put in place an inhouse mechanism under its Chief Engineer (REES) within two months from the date of this Order for facilitating investment in RE sector as discussed in paragraphs 28, 29, 30 and 31 of this Order. The status of compliance shall be submitted to the Commission latest by 09.10.2023. Non-compliance of the direction shall invite punishment under Section 142 of the EA-2003 to the concerned officials of KSEB Ltd at various levels.

The petition disposed off. Ordered accordingly.

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

Sd/-  
**B Pradeep**  
Member

Sd/-  
**T K Jose**  
Chairman  
Approved for issue

Sd/-  
C R Satheeshchandran  
Secretary