

KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM

Present: Shri. Preman Dinaraj, Chairman

Petition No. OP 10/20

In the matter of : Petition filed by M/s Kochi Metro Rail Limited (KMRL) for amending certain clauses in the HT&EHT service connection agreement of KMRL etc.

Petitioner : M/s Kochi Metro Rail Corporation Ltd

Petitioner represented by : Sri. Rajendran A.R, General Manager, KMRL

Respondent : Kerala State Electricity Board Limited

Respondent represented by : Shri. K.G.P Nampoothiri, EE, KSEB Ltd.
Shri. Rajesh, AEE, K S E B Ltd.

Daily Order dated 30.07.2020

1. M/s Kochi Metro Rail Corporation Ltd (hereinafter referred to as the petitioner or KMRL) on 05.03.2020 filed a petition before the Commission. The issues in the petition were:
 - (1) Amending Clause 17 of EHT agreement and Clause 15 of HT agreement to accommodate the similar facility granted to Indian Railways on the Contract Demand during line outages.
 - (2) The method of billing for commercial loads and corporate office consumption at Metro Stations
 - (3) Keeping 33 kV Backup power supply at Kaloor without Demand Charges for using the power in case of exigencies.
2. The Commission admitted the petition as petition No OP 10/2020 and conducted first hearing on 08.06.2020 at 12.00 noon through video conferencing. During the deliberations, the Commission observed that, the petitioner KMRL and the respondent KSEB Ltd have already reached consensus on the Prayers 1 and 2. However, regarding the Prayer-3 on providing backup supply at 33 kV from the 110 kV Kaloor substation to KMRL

JLN stadium metro station, there was no consensus between KMRL and K S E B Ltd.

3. The Commission, vide daily order dated 17.6.2020 directed KSEB Ltd and KMRL to discuss and arrive a consensus on reducing the contract demand to maintain the 33kV HT supply as per the prevailing Rules and Regulations, and report the same before 29.06.2020.
4. KMRL vide letter dated 30.6.2020 made additional submission before the Commission. KMRL submitted that since no consensus could be arrived in the meeting held by Chief Engineer (Distribution Central), KMRL took up the matter with Director (Distribution), K S E B Ltd. KMRL submitted the copies of the Communication with K S E B Ltd. The additional submission was forwarded to K S E B Ltd. by the Commission vide letter dated 2.7.2020 for comments. Thereafter, KMRL, vide letter dated 8.7.2020 filed supplementary submissions which was also forwarded to K S E B Ltd. K S E B Ltd. submitted its comments vide letter dated 24.7.2020. The submissions made by KMRL and K S E B Ltd. are summarized below:

(i) Prayer 1: Modification of HT/EHT agreements

5. KMRL proposed to modify the clause as follows:

“ Increase in maximum demand, during shut down availed by KSEBL or during failure of incoming supply to KMRL, for reasons attributable to the licensee are to be waived off from billing, even if the actual demand exceeds the Recorded Maximum Demand prior to failure / after normalization of the shutdown/failure, in case of KMRL extending power supply from adjacent Receiving substation to the other section, which was originally fed from the previously healthy Receiving substation where shut down/failure of line has been effected by KSEBL. The recorded maximum demand prior to the failure / after normalization of the failure shall be taken for billing.”

K S E B Ltd. suggested to modify the agreement in line with the similar agreement for Railways as follows:

Clause 15(b) :- “When the 110 kV power supply of KSEB Ltd. to the traction substation fails due to force majeure conditions or the Board takes shut down on the 110 kV line, the KMRL shall be permitted to avail 33kV supply from the adjacent traction substation, subject to technical feasibility. KMRL shall on commencement of each year, ascertain from KSEB Ltd., such technical feasibility. When power is drawn from such alternate source, during shutdown periods specified above, if the recorded demand at the traction substation from where alternate supply is availed during the period of such outage, falls within the sum of contract demands specified for both the traction substations, then the billing demand applicable for the traction

substation from where alternate supply was arranged for such period of outage of 110 kV line shall be as per the billing procedure given hereunder in schedule –A.

However, in case the recorded maximum demand is in excess over the sum of contract demands of both the traction substations, the consumer is liable to pay penal charges as specified in Clause 15(a), through the bill raised for the consumer location where such maximum demand is recorded. The billing procedure during the months in which 110 kV supply of KSEB Ltd. to the traction substation fails due to force majeure condition or KSEB Ltd. takes shutdown on the 110 kV line, shall be as per Schedule – A.

Provided further that drawl of power in excess of contract demand in any other circumstances will attract penal charges specified in Clause 15(a).”

(ii) Prayer 2.: Billing of corporate office loads and commercial loads at each Auxiliary Transformer

6. KMRL suggested as follows:

“The commercial loads at the Stations of KMRL are to be metered at one point at each Auxiliary Transformer by KSEB Ltd and the total energy consumption of such commercial loads shall be billed at the applicable energy charges of LT VII A tariff. KMRL corporate office load are to be metered separately at stations by KSEB Ltd and the total corporate office consumption shall be billed at LT VI(B)/HT II(A).The consumption of commercial loads and office loads is to be deducted from the total consumption recorded at KMRL point of supply at Muttom for billing the traction load. A single bill for the traction load is to be issued along with charges for commercial consumption and KMRL corporate office consumption as above.”

K S E B Ltd. submitted no comments on the proposal.

(iii) Prayer 3: Demand Charges payable for Standby supply to KMRL at 33kV Kaloor substation

7. KMRL submitted that no consensus was arrived between K S E B Ltd. and KMRL and submitted the copies of the communication between K S E B Ltd. and KMRL and requested for a favorable decision by the Commission.

8. K S E B Ltd. submitted that, in compliance to the direction contained in the daily order, K S E B Ltd. authorized the Chief Engineer (Distribution Central) to conduct discussion with M/s KMRL and to reach consensus. The meeting

was convened with the KMRL authorities on 24.06.2020. However, a consensus with the KMRL could not be arrived on the matter. As per the the order issued by the Hon'ble Commission dated 10.11.2016 in OP No. 09/2016, replacement of current transformers (CT) of consumers requesting for enhancement / reduction in contract demand shall be decided considering the provisions in Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 and the IS 15707:2006 and IS2705. As per the above standards, the primary rating of the current transformer shall match with the load current requirement as per the contract demand. The secondary current and voltage rating of the instrument transformers shall match with that of the meter. KMRL has stated in the meeting that their requirement on the 33kV connection during emergency comes to 2MVA. It is reported that the entire load of KMRL will be availed at 110kV supply at Muttom and Thykoodam and the 33kV supply at Kaloor is kept only as a standby supply with the provisions of loading in the case of power failure of both the 110kV stations and at that time the same will be used with high demand. KSEBL suggested for providing supply with contract demand of 400kVA with 40/5A CT of 0.2S class as a special case. K S E B Ltd. submitted that the suggestion was made considering the fact that technically the error limits of the CT will be generally within the accuracy limits of 0.2%, on the usage of Max emergency requirement (2MVA) and a contract demand of (400kVA) suggested.

9. The Commission conducted the second hearing on 28.7.2020 at 11 AM through video conferencing. Sri. Rajendran A R, General Manager presented the views of the petitioner KMRL which is summarised below:

In case of reduction in contract demand (*prayer 3*), the following submissions are made;

- (i) A meeting was held between Chief Engineer (Distribution – Central) and KMRL. During the meeting, KMRL requested to exempt the demand charges for the 33kV stand by supply at Kaloor, or to reduce to 100kVA, but was not accepted. Thereafter KMRL approached Director (Distribution), but it is learned that this was also not accepted.
- (ii) KMRL incurred Rs 2.18 Cr for availing 33kV supply from Kaloor substation. The work was done on deposit work basis. Originally 5 MVA was the contract demand expected, but it was later changed to 1 MVA.
- (iii) When an emergency situation arises, the requirement will vary upto 5MVA. Hence, a CT with ratio of 100/5 is required to be installed, in case of such an eventuality. Sri Rajendran pointed out the incident of 2018 floods when KMRL operated its services, with the support of K S E B Ltd. benefitting the common people.

- (iv) KMRL is a public utility service and hence demand charges may be exempted or at least reduced to 100kVA without change of CT.
10. Sri.K.G.P Nampoothiri, Executive Engineer presented the counter arguments of the respondent of KSEB Ltd, in line with the response submitted by K S E B Ltd. vide letter dated 24.7.2020.
11. Detailed discussion were held on the minimum contract demand to be fixed at 33kV Kaloor substation. The major points discussed are:
- (i) The proposal of KMRL is to reduce contract demand to 100 kVA with existing CT of 100/5 and that of KSEB is to fix contract demand as 400 kVA with change of CT to 40/5.
 - (ii) Both K S E B Ltd. and KMRL are public utility services and KMRL is in its early stages of operation. The reduced expenses of KMRL will therefore not only helpful to KMRL, but to the travelling public of city of Kochi.
 - (iii) The load expected at Kaloor is only in the event of failure of both 110 kV supply, and in that case the load requirement will be more than 2 MVA, and may go up to 5 MVA. If 40/5 CT is installed, load of 2 MVA only can be availed defeating the very purpose of stand by supply.
 - (iv) K S E B Ltd. proposed the contract demand of 400kVA based on the Regulations and earlier Orders of the Commission. K S E B Ltd. clarified that, decision of replacing the CT with ratio of 100/5 with 40/5 was taken on the assumption that KMRL will avail 2 MVA load.
 - (v) The order dated 10.11.2016 was issued by the Commission in OP No 09/2016 "in the matter of removal difficulties encountered by HT & EHT consumers in implementing provisions of Supply Code, 2014 Regulations 99 & 100 by licensee Kerala State Electricity Board Ltd." That was in a different situation and cannot be applied here since the present situation is for back up supply and the actual demand at the time of emergency is expected to match with the CT installed at present.
 - (vi) The CT presently installed is having an accuracy class of 0.2S. As per Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, the accuracy class must be of 0.5S or better for 33kV consumer meters. Since the CT installed is of 0.2S class, the error will be well within the limit specified by CEA. Thus even at 5 % loading, the specified meter accuracy is fulfilled, even though no such low load is expected.
 - (vii) A demand between 2 to 5 MVA is expected during emergency. Further, when number of trains increases, chances are there for an increased demand. Further, the contract demand is availed throughout the day.

The present requirement is only to ensure a standby supply. Hence decision is to be taken on the minimum demand to be fixed.

- (viii) KMRL may, if required by K S E B Ltd., give an undertaking that under normal circumstances, KMRL will not be availing 33kV supply at Kaloor and the facility will be kept as stand by supply. K S E B Ltd. may propose a minimum demand considering these views favourably.
12. In case of amendment of the HT and EHT agreements (*prayer 1*), KMRL submitted that the billing procedure proposed in Schedule A to the Annexure B proposed by K S E B Ltd. is agreeable to KMRL. But it is observed that KMRL substation is referred to as traction substation instead of Receiving Sub Station (RSS) and therefore suitable modification is to be made in the proposed amendment. Further, the reference to 110kV supply is also to be included along with 33 kV.
13. After deliberations, the Commission directed as follows;
- (i) KMRL shall give a detailed letter to K S E B Ltd. within 3 days of date of this order clearly indicating the various issues involved
- (ii) K S E B Ltd. shall make appropriate recommendations to the Commission duly considering the request of KMRL

K S E B Ltd. shall submit the response on or before 11.8.2020.

**Sd/-
Preman Dinaraj
Chairman**

Approved for issue

C.R.Satheesh Chandran,
Secretary-in-charge