



## KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956) CIN:U40100KL2011SGC027424  
Tariff & regulatory Affairs Cell  
9<sup>th</sup> Floor, Vydyuthi Bhavanam, Pattom, Thiruvananthapuram - 695 004, Kerala.  
Telephone: +91 471 2514681, 2514650. E-mail: trac@kseb.in

No. KSEBL/TRAC/G/ Tariff Revision/2022-23 / 73

05.05.2023

To

The Secretary,  
Kerala State Electricity Regulatory Commission  
KPFC Bhavan  
CV Raman Pillai Road,  
Vellayambalam, Thiruvananthapuram-10

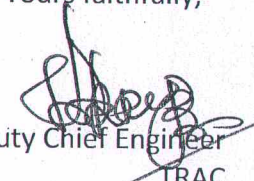
Sir,

Sub: Additional submission to the 'Tariff revision proposals for the Control period from 2023-24 to 2026-27' in the matter of clarification sought by Hon'ble Commission vide letter No. 427/Con(T) /2023/KSERC dated 13.04.2023- submitting of-reg.

Ref: Letter No. 427/ Con(T) /2023 /KSERC /300 dated 13.04.2023 of that office.

Kind attention invited to the reference cited above. Hon'ble Commission, vide letter referred (1) above, has directed KSEB Ltd. to submit additional details as part of the proposal to revise the tariff schedule w.e.f. 01.04.2023 to 31.03.2027. Hence, an additional submission incorporating necessary clarifications on points sought by Hon'ble Commission is submitted herewith for kind consideration and approval of the Hon'ble Commission, along with tariff revision proposal already submitted before the Hon'ble Commission.

Yours faithfully,

  
Deputy Chief Engineer  
TRAC

Acc: Additional submission

**BEFORE THE HON'BLE KERALA STATE ELECTRICITY REGULATORY COMMISSION**

In the Matter of : Additional submission to the 'Tariff revision proposals for the Control period from 2023-24 to 2026-27' in the matter of clarification sought by Hon'ble Commission vide letter No. 427/Con(T) /2023/KSERC dated 13.04.2023.

Petitioner : Kerala State Electricity Board Limited,  
Vudhyuthi Bhavanam,  
Pattom, Thiruvananthapuram.

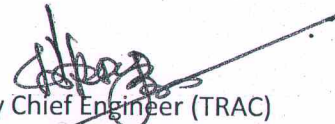
AFFIDAVIT VERIFYING THE APPLICATION

I, **Rajan. M.P.**, son of Sri. **M.S. Podiyan** aged 51 years, residing at **JAYAS, Hilltop Haven, NAD (P.O.), Aluva, Ernakulam.** do solemnly affirm and state as follows:

I am the Deputy Chief Engineer (TRAC) of Kerala State Electricity Board Limited, Vidyuthi Bhavanam, Pattom, Thiruvananthapuram, the representative of the petitioner in the above matter and I am duly authorized by KSEB Ltd. to make this affidavit on its behalf. I solemnly affirm at Thiruvananthapuram on this the **5<sup>th</sup> May 2023** that

- (i) Contents of the above petition are true to my information, knowledge and belief. I believe that no part of it is false and no material has been concealed there from.
- (ii) That the statements made in paragraphs of the accompanying application now shown to me are true to my knowledge and are derived from the official records made available to me and are based on information and advice received which I believe to be true and correct.

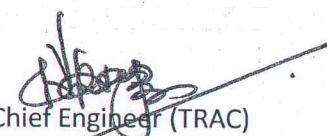
Deponent

  
Deputy Chief Engineer (TRAC)  
Kerala State Electricity Board Limited,  
Vidyuthi Bhavanam, Pattom  
Thiruvananthapuram – 695 004.

**VERIFICATION**

I, **Rajan. M.P.**, son of Sri. **M.S. Podiyan** aged 51 years, residing at **JAYAS, Hilltop Haven, NAD (P.O.), Aluva, Ernakulam.** and the above-named deponent, solemnly affirm at Thiruvananthapuram on this the **5<sup>th</sup> May 2023** that the contents of the petition are true to my information, knowledge and belief, that no part of it is false and that no material has been concealed there from.

Deponent

  
Deputy Chief Engineer (TRAC)  
Kerala State Electricity Board Limited,  
Vidyuthi Bhavanam, Pattom  
Thiruvananthapuram – 695 004.

**BEFORE THE HON'BLE KERALA STATE ELECTRICITY REGULATORY COMMISSION**

In the Matter of : Additional submission to the 'Tariff revision proposals for the Control period from 2023-24 to 2026-27' in the matter of clarification sought by Hon'ble Commission vide letter No. 427/Con(T) /2023/KSERC dated 13.04.2023.

Petitioner : Kerala State Electricity Board Limited,  
Vudhyuthi Bhavanam,  
Pattom, Thiruvananthapuram.

1. The Petitioner, KSEB Ltd. may humbly submit the following before the Hon'ble Commission for the kind consideration. KSEB Ltd. has filed an application for Tariff Revision proposals for the period from 2023-24 to 2026-27 before the Hon'ble Commission on 08.02.2023.
2. KSEB Ltd. vide additional submission dated 02.05.2023 has submitted the proposal for allowing green tariff to the consumers of KSEB Ltd.
3. Hon'ble Commission, vide letter No. 427/Con(T) /2023 /KSERC dated 13.04.2023, has directed KSEB Ltd. to submit the additional details as part of the proposal to revise the tariff schedule w.e.f. 01.04.2023 to 31.03.2027.
4. Having considered the direction of the Hon'ble Commission, I am directed by the Board to submit the following for the kind consideration of the Hon'ble Commission.
  - i) Publication of abstract of petition in the dailies: As directed by the Hon'ble Commission vide letter dated 17.04.2023, KSEB Ltd. has published the abstract of the petition (duly approved by the Hon'ble Commission) in Kerala Kaumadi, Deshabhimani & The Hindu dailies on **18.04.2023**. The relevant pages of the dailies containing the abstract of the petition have already been submitted vide letter dated 18.04.2023 for favour of information of the Hon'ble Commission.
  - ii) Domestic category – Telescopic tariff limit: KSEB Ltd has proposed non-telescopic tariff for a monthly consumption from 201 units instead of 251 units. National tariff Policy,2016 notified by the Central Government provides following timeline for introducing smart meters:

- a. Consumers with monthly consumption of 500 units and more at the earliest but not later than 31.12.2017
- b. Consumers with monthly consumption of 200 units and more at the earliest but not later than 31.12.2019

Hon'ble Commission as per directive (PARA 7.7) of ARR &ERC order dated 08.07.2019 (O.A.15/2018) had directed KSEB Ltd. to submit a plan for introduction of smart meter for all the consumers having monthly consumption of and above 500 units, in accordance with the guidelines in paragraph 8.4(3) of the National Tariff Policy, 2016.

KSEB Ltd. is in the process of implementing smart prepaid meters under RDSS and the petition for approval of the scheme will be submitted soon. If non-telescopic method is adopted under smart prepayment metering system, the billing can be done without any complexity and the common people can grasp this method easily. So, in order to implement prepayment smart metering, non-telescopic method is proposed to domestic consumers having monthly consumption above 200 units.

As part of tariff rationalisation, a rate of Rs. 6.50/unit has been proposed for the consumption from 200 to 250 units i.e. same as that of 251 to 300 units. Also, rate revision is not proposed for 401–500-unit slab as part of tariff rationalisation. KSEB Ltd. has examined the impact on the proposal and found that effective per unit tariff will be changed from Rs. 5.08/unit to Rs. 6.50/unit and hence decided to submit the following revised proposal before the Hon'ble Commission. In order to compensate the revenue short fall on account of the revised proposal, tariff revision is sought for the slab 401-500 slab also. There is no change in the proposed fixed charges for these slabs.

Energy Charge

Slab	Existing	2023-24	2024-25	2025-26	2026-27
0-250 (submitted proposal)	8.00*	6.50	6.80	6.85	6.85
0-250 (revised proposal)	8.00*	5.50	5.80	5.85	5.85
0-500 (submitted proposal)	7.60	7.60	7.80	7.85	7.85
0-500 (revised proposal)	7.60	8.00	8.20	8.25	8.25

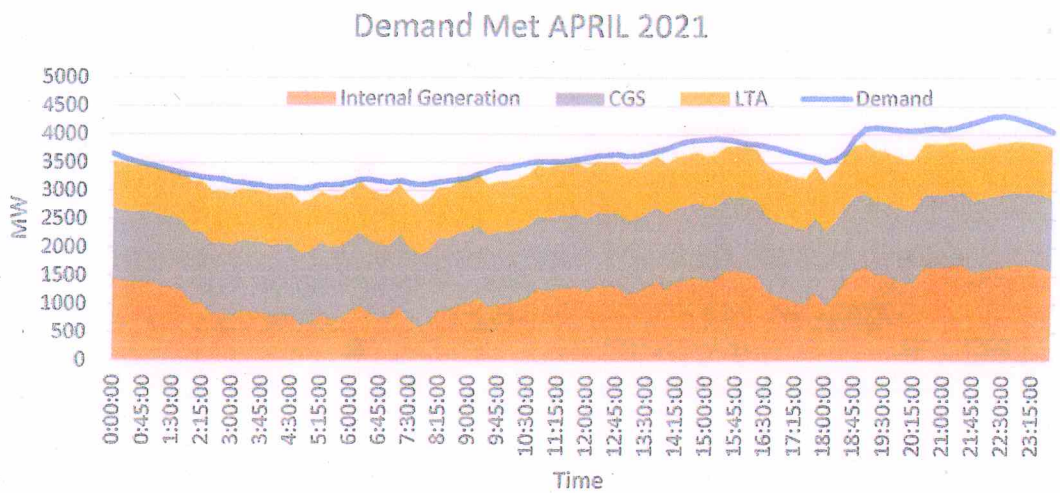
\* Telescopic tariff

iii) Time of Day tariff:

KSEB Ltd has analysed the proposal of off-Peak energy change thoroughly with respect to consumption of the State, marked rate, and LGB of the system.

- a. The daily average consumption of Kerala System typically varies around 80 to 85 million units. KSEBLs internal generation varies from 25 to 30 million units and the balance met through CGS (around 30 million unit), LTA (around 25 million unit) and through Power exchanges.

Due to the change in consumption behaviour of the state, the peak consumption some time falls during off peak time zone and high demand persist up to 01:00 Hrs. The load generation balance during a typical day is shown below;

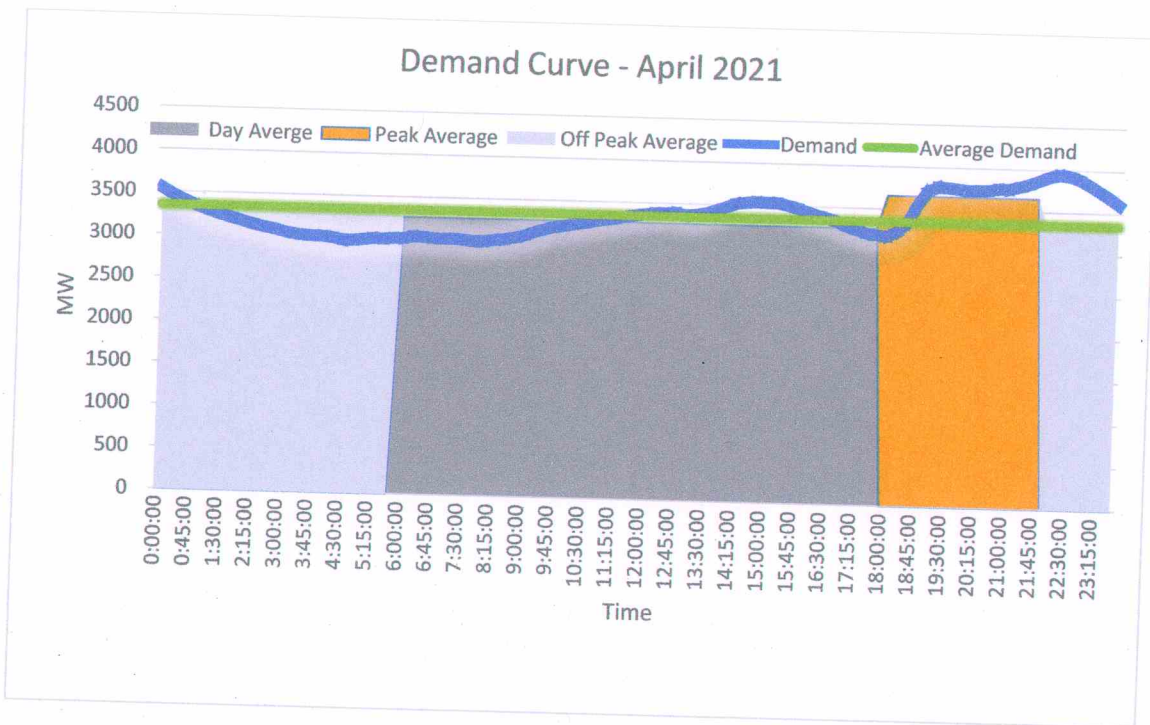


From the LGB it can be observed that, the gap between the demand and the sum of internal generation, LTA and CGS is dominant during Off peak time zone (Z3), especially during summer months. It is humbly submitted that, the gap can be met mainly through short term contract or medium-term contract, which is a high-cost option for procurement. Hence any concessional tariff during the off-peak period will impose financial burden to the utility, which ultimately affects the common man in the state.

Detailed analysis of consumption pattern detailed below:

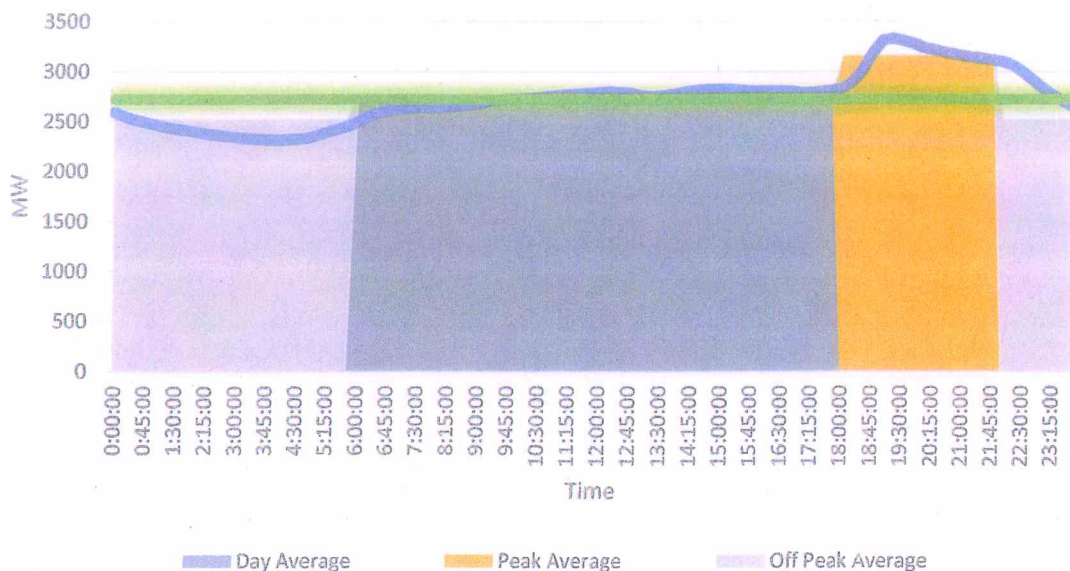
b. On analysing the consumption pattern, during April (Summer) , It can be observed that Normal, Peak, Off-Peak time zone consumption were 31.90%,35.73% and 32.37% of the total consumption respectively. Further, the average demand of the system during the month were 3267MW, 3660 MW and 3315 MW respectively, for the above said time zones. Maximum demand was occurred after 10.30 PM ie; after the peak hours. Moreover, the demand from 22.00 hrs to 01.30 hrs was above the normal average demand, which was 3349 MW.

The details are plotted for April2021. From the graph, it is clear that, average demand and average off-peak demand are more or less same. But due to extended peak demand over off-peak time zone, the utility has to rely high-cost power from the market to cater off-peak consumption, which is now being levied at 75% of normal energy charge.

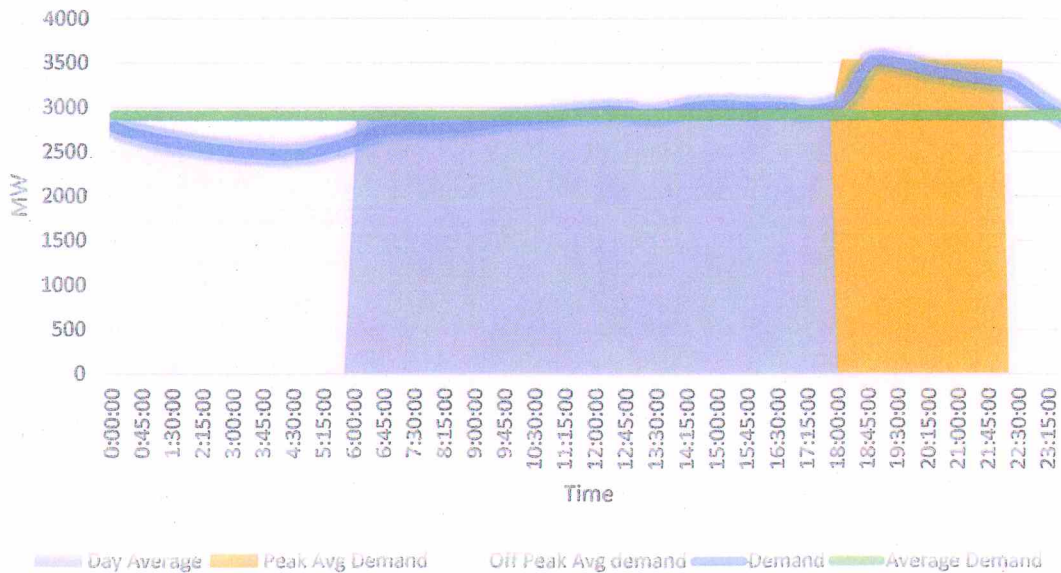


Similarly, during August, September and December, again the off-peak demand from 22.00 hrs to 23.30 were above the average demand, which is also burden to the utility, where revenue realisation is at lesser rates.

### Demand Curve - August 2021

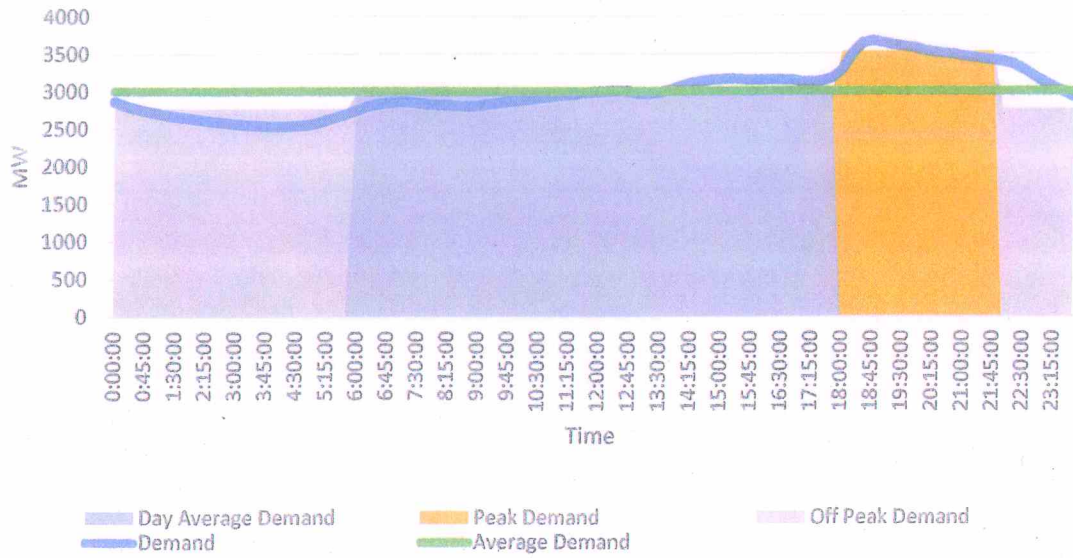


### Demand Curve - Sept 2021





## Demand Curve - Dec 2021



The excess demand during off peak times over and above the average is met through medium term /short term contacts and from power exchanges. The rates derived in these markets are higher than average power purchase cost, duly approved by the Hon'ble Commission. Also, the banking energy is to be compensated due to RE integration during off peak hours. KSEB Ltd. has contracted medium term power procurement from various sources and the rates are tabulated below in the Table-1. The rates are much higher than the average power purchase cost and the average realisation during off peak hours.

Table-1

Medium Term Power Purchase Rates	
Purchase	Rs/kwh
Purchase through DEEP NVVN	8.03
Purchase thru DEEP from TPTCL	7.18
Purchase from PTC	7.18

Hon'ble Commission may kindly note that exchange rates are also higher. Real time market rate in the S3 region is tabulated (Table-2) for Jan-December 2022 and Day-ahead market rate (Table-3) was also detailed in the table below:

Table-2

RTM rates: January - December 2022			
Summary	S3	Rate (Rs/kwh)	Time duration
RTC	5534.65	5.53465	
Evening	7059.69	7.05969	(17-23 Hrs)
Day	4549.23	4.54923	(10-17 Hrs)
Night	5283.84	5.28384	(23-24, 00-06 Hrs)
Morning	5408.72	5.40872	(06-10 Hrs)

Table-3

DAM rates: January - December 2022		
Summary	S3	Rate (Rs/kwh)
RTC	5942	5.942
Evening	7733.05	7.73305
Day	4786.43	4.78643
Night	5442.44	5.44244
Morning	6151.92	6.15192

Considering all the above aspects and to ensure the financial viability and sustainability of the utility, KSEB Ltd. has proposed to modify the off-peak power energy rates from 75% to 90% of the normal ruling tariff in the case of ToD billed consumers.

- iv) Change in Billing Demand: KSEB Ltd. has proposed to change the billing demand of demand based billed consumers from 75 % of the contract demand (CD) to 80% of the CD. In this regard, KSEB Ltd. submits the following:

As per Kerala Electricity Supply Code,2014, the maximum demand is defined as follows:

(28) "contracted load" or "contract demand" means the maximum demand in kW or kVA, agreed to be supplied by the distribution licensee and indicated in the

*agreement executed between the licensee and the consumer; or the contracted load or contract demand duly revised thereafter;*

As an incumbent Licensee in State, KSEB Ltd. has to cater the requirement of the consumers and Licensees in the State in accordance with the Supply /Service Connection agreement as specified in the Supply Code Regulations. In order to fulfil the requirements, KSEB Ltd has to invest for the augmentation works in transmission/distribution networks and to add up the its Generation Capacity. Also KSEB Ltd. has to go for power purchase contracts as 65 % of the power requirement is being met from external sources. But the recovery is not up to the levels and to cause surrendering of contracted power. On analysis, the proposed fixed cost recovery for the FY 2023-24 from the EHT consumers is estimated as 16.64% of the electricity charges and it is 11.42% for Licensees, 21.32 % for HT consumers. The fixed cost burden of the utility (about-Rs.3700Cr.) alone will be higher than the estimated recovery through fixed charges of the utility for FY 2022-23 (about Rs.3400Cr). The total No. of HT&EHT consumers in KSEBL is 7366 Nos as on 31.03.2023. On an analysis, the demand of 6036 consumers fell below 75% of the Contract Demand in one or more months in FY 2023-24. The total No. of events (below 75% of the contract demand) occurred in 54450 times. On the other hand only 3140 Consumers fell below 80% of the Contract Demand in one or more months in FY 2023-24 and the total No. of events (below 80% of CD) were 30140 events. Thus, through this modification better revenue realisation in commensurate to the investments made by the utility. Also, in Southern States, this percentage is fixed at 80% or more during FY 2022-23. The details are tabulated below:

State	Minimum billing Demand (as % of CD)
Tamil Nādu	90 % of CD
Andhra	80 % of CD
Karnataka	85 % of CD
Telangana	80 % of CD

v) Green tariff: KSEB Ltd. has already submitted the proposal for allowing green energy tariff to its consumers as an additional submission on 02.05.2023, before the Hon'ble Commission.

vi) Tariff of Self-Financing Educational Institutions under Government:

- a. Hon'ble Commission vide tariff order dated 14.08.2014, which was in effect from 16.08.2014, the self-financing educational institutions were categorized under LT VIF tariff and the Government or aided educational institutions were categorized under LT VIA tariff. Since, IHRD institutions doesn't come under the categorization of Government or aided educational institutions the same had been assigned LT VIF tariff by KSEBL in compliance to the above tariff order.
- b. In the meantime, the Government as per the GO dated 14.02.2017 has ordered that all the institutions of IHRD are to be treated at par with the Government Institutions in the matter of assigning electricity tariff by KSEBL. The above matter was taken up with the Hon'ble Commission and the Hon'ble Commission in issuing the tariff order dated 17.04.2017 had categorized the educational institutions run by IHRD under LT VIA tariff along with the Government and aided educational institutions.
- c. Later, the Government had issued similar orders in the case of LBS institutions, SI-MET Institutions and Co-operative Academy of Professional Education (CAPE) for treating the electricity tariff at par with the Government/Aided educational institutions. The Principal of the LBS Institute for Technology for Women had taken up the above matter with the Hon'ble Commission to which the Hon'ble Commission as per the order dated 08.07.2019 in OP No. 15/2018 has rejected the request for giving Government/ aided institution tariff for the LBS institutions. The relevant portion in the above tariff order is extracted below.

*"LBS Centre for Science and Technology is an autonomous body registered under the Travancore-Cochin Literary, Scientific and Charitable Societies Act XII of 1955, established by the Government of Kerala in 1976. The administrative expenses of the autonomous bodies are not met by the State Government, though grants are provided by the Government to such institutions. The fees for*

*studying at the LBS centre is much higher than the that prevailing at similar Government/Aided Educational Institutions.*

*Hence the Commission is of the view that, the electricity tariff applicable to the Government/Aided Educational Institutions cannot be extended to the educational institutions run by the autonomous bodies under the State Government. The request of the LBS centre is rejected. “*

- d. Accordingly, Hon'ble Commission in its tariff order dated 08.07.2019 has removed IHRD institutions from the LT VIA tariff. The Institute of Human Resources Development had filed review petition before the Hon'ble KSERC against the tariff order dated 08.07.2019. Hon'ble Commission as per order dated 29.09.2021 has dismissed the appeal petition (OA No.42/2021) on the grounds of delay. Aggrieved by the above order of the Hon'ble Commission, a petition was filed by the petitioner before the Hon'ble High Court. The Court disposed the petition allowing the petitioner to pursue an appeal before the competent authority. The appeal filed against the above order was also disposed by the Division Bench in similar terms allowing extended time for filing appeal. In compliance to the above, an appeal has been filed by the appellant before the Hon'ble APTEL (Hon'ble Commission as 1<sup>st</sup> Respondent) praying for the following relief:

*to pass an order condoning the retainment of the electricity tariff to LT VI(A) General Category, challenging the order dated 29.09.2021 of the 1st Respondent –Kerala Electricity Regulatory Commission in the Application No as OP No. 42/2021.*

KSEB Ltd. has filed its counter affidavit before the Hon'ble Tribunal. Hence it is requested that Hon'ble Commission may consider the matter subject to final decision of the Hon'ble Tribunal.

- e. Further to the above, the matter was again taken up by the Director, IHRD before the Hon'ble KSERC in the tariff revision process for the FY 2022-23 to 2026-27. The Hon'ble Commission in issuing the order on 25.06.2022 had

denied their request for considering it under LT VIA tariff along with the Government and aided institutions. The observation made the Hon'ble Commission in the above order is extracted below;

*"The Commission noted the request of IHRD, ILDM, Shri. Ramesh, NFPS Association, General Secretary State Committee, School Management Association and others for determining their tariff at par with electricity tariff applicable to Govt educational institutions/ Aided educational institutions. The Commission has been approving the Retail tariff of electricity in the State as per the provisions of the Electricity Act 2003 and Tariff Regulation 2021. The Commission noted that in the case of Government/ Aided Educational Institutions all the expenses associated with the administration of educational institutions are met by the Government from its exchequer. However, the administrative expenses of autonomous bodies such as IHRD, LBS etc are not met by State Government, though grants are provided by Government to such institutions.*

From the above, it is evident that Hon'ble Commission had taken a consistent approach in determining the tariff of Govt. Autonomous Educational Institutions. Hence it is requested before the Hon'ble Commission to retain the said institutions under LT VI(F) General Category along with Self-financing educational Institutions for the time being.

Prayer

KSEB Ltd. humbly request before the Hon'ble Commission to consider the above clarifications and to read along with the Tariff Revision Proposals submitted before the Hon'ble Commission, for the period from 2023-24 to 2026-27 on 08.02.2023.

  
Deputy Chief Engineer (TRAC)