

BEFORE THE HON'BLE KERALA STATE ELECTRICITY REGULATORY COMMISSION

O.P. No :

In the Matter of : Petition for determining the composite tariff for LED lamps which are not included in the 'LT VIII (A) composite tariff for unmetered street lights' in the 'Schedule of tariff and terms and conditions for retail supply of electricity by KSEB Ltd. and all other Licensees w.e.f. 08.07.2019 to 31.03.2020", for facilitating the billing of street lights being installed under NILAVU scheme, for replacing the conventional streetlights with LED street lights in all local bodies across the State of Kerala.

Petitioner : Kerala State Electricity Board Limited
Vydhyuthi Bhavanam, Pattom
Thiruvananthapuram

Respondents : Local Self Government Department,
Government of Kerala.

AFFIDAVIT VERIFYING THE APPLICATION

I, **B.Pradeep**, son of **P.Balachandran** aged **55** years, residing at **Vipanchika, Anayara.P.O, Thiruvananthapuram** do solemnly affirm and state as follows:

I am the Deputy Chief Engineer (Commercial & Planning) with full powers of Chief Engineer of Kerala State Electricity Board Limited, Vydyuthi 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 **22nd February 2021** 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 (Commercial & Planning)
With full powers of the Chief Engineer
Kerala State Electricity Board Limited,
Vydyuthi Bhavanam, Pattom,
Thiruvananthapuram – 695 004

VERIFICATION

I, the above named deponent, solemnly affirm at Thiruvananthapuram on this the **22nd February 2021** 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 (Commercial & Planning)
With full powers of the Chief Engineer
Kerala State Electricity Board Limited,
Vydyuthi Bhavanam, Pattom,
Thiruvananthapuram – 695 004

Solemnly affirmed and signed before me

Advocate and Notary

BEFORE THE HONOURABLE KERALA STATE ELECTRICITY REGULATORY COMMISSION

- In the matter of : Petition for determining the composite tariff for LED lamps which are not included in the 'LT VIII (A) composite tariff for unmetered street lights' in the 'Schedule of tariff and terms and conditions of retail supply tariff w.e.f. 08.07.2019, for facilitating the billing of street lights being installed under NILAVU scheme, for replacing the conventional streetlights with LED street lights in all local bodies across the State of Kerala.
- Petitioner : The Kerala State Electricity Board Limited,
Vyduathi Bhavanam, Pattom,
Thiruvananthapuram
- Respondents : Local Self Government Department,
Government of Kerala.

The petitioner humbly submits as follows:

1. Nilaavu scheme of Local Self Government Department (LSGD) targets the replacement of all conventional street lights with LED Street Lights for illuminating all roads and sub roads of Grama Panchyats, Municipalities and Corporations across Kerala, in a phased manner. The project was announced in the Chief Minister's 12 point priority projects of Government of Kerala and is in line with Street Light National Program (SLNP), an initiative of the Government of India to promote energy efficiency in the country. Energy Efficiency Services Limited (EESL), a Public Energy Services Company under the administration of Ministry of Power, Government of India, is the implementing agency for SLNP. The main objective of the project is enhanced public lighting, public safety, energy conservation, savings in electricity bill & maintenance cost for public lighting and environment protection by reducing CO₂ emission & Mercury ingestion to earth.
2. KSEB Ltd, on 24.11.2020 filed a prior intimation petition before the Hon'ble Commission, regarding the role of KSEBL for the execution of NILAAVU Scheme – a project of Government of Kerala to replace all conventional street lights with energy efficient LED lights with longer life expectancy for illuminating all roads and sub-roads of Grama Panchayats, Municipalities and Corporations across Kerala in a phased manner, under Section 51 of Electricity Act 2003.
3. Hon'ble Commission, vide it's order dated 03.12.2020, as per the Electricity Act - 2003 and KSERC (Licensing Regulations) - 2006, has approved the role of KSEBL as SPV, subject to the condition that KSEB Ltd. shall maintain a separate account for the NILAAVU scheme, and account all direct and indirect cost associated with the implementation of the NILAAVU scheme by utilizing its assets such as manpower, storage and

transportation facilities. It was also ordered that the Hon'ble Commission shall regulate the income received by KSEB Ltd. by taking the role of SPV in NILAAVU scheme, strictly as per the Regulations 83 of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2018 and its amendments from time to time. Also KSEBL shall submit documents from Finance Department in State Govt. and KIIFB regarding the financial expenditure involved in the NILAAVU Scheme from the part of KSEB Ltd.

4. The scheme is now on the implementation stage. The scheme envisages installation of LED lights across the State in two phases - first phase of 2 lakh street lights from January to March 2021 and second phase of 8.5 lakh street lights from February to June 2021. Energy Efficiency Services Limited (EESL) the Project Management Consultancy (PMC) has been entrusted to supply LED street lights of wattages 18, 35, 70 and 110 and in the first phase of the project involves installation of 18W and 35W LED Street Lights only.
5. The LSGIs have been paying the electricity charges in respect of street lights to KSEB Ltd. at the tariff approved by the Hon'ble Commission (KSERC). Energy charges payable for streetlights which are provided with metered supply are being billed based on the recorded consumption. Even though statutes stipulate that all consumers, including street lights are to be supplied with metered energy, there are considerable numbers of street lights which are yet to be switched over to metering system. The energy charges payable for these lights are assessed under 'Composite Tariff' approved by the Hon'ble Commission. KSEB Ltd has to raise the bill to LSGIs during the first week of April -2021, for the newly installed LED lamps under the scheme, once the installation is materialised in accordance with the envisaged scheme.
6. Now, unmetered streetlights are being billed under LT VIII (A) street lights in the Schedule of tariff w.e.f. 08.07.2019. The composite tariff applicable for LED for various wattage rating is given below:

Type of Lamp.	Wattage (W)	(Rs.)/Lamp/Month		
		Burning Hours/day		
		4hrs.	6hrs.	12hrs.
LED	12	3	4	10
	18	4	8	15
	20	6	8	17
	24	7	10	22
	30	8	12	28
	40	11	17	33
	45	12	18	39

7. The project envisages to use LED lamps of wattages 18, 35, 70 and 110 and the composite tariff for 18W LED alone is specified in the Schedule of Tariff w.e.f.08.07.2019. KSEB Ltd. has explored the possibility of extending the approved tariff in accordance with the wattage of lamps. But, on an analysis of the above said composite tariff, it is found that, the composite tariff of various LED lamps varies from 43% to 60% of the tariff applicable to LT VIII (B) metered street lights.
8. Also, field office sought clarification in raising invoices in favour of LSGIs towards electricity charges for street light billing in lamps which are not included in the approved schedule.
9. Hon'ble Commission vide tariff order dated 25.07.2012 in O.P No.23 of 2012, has fixed an implied rate of Rs. 1.50 per unit. ie half of the implied rate for determining the composite tariff (Rs.3.00 per unit) for CFL and LED lamps. The relevant portion of the order is quoted below:

quote

Tariff for unmetered Supply (Composite Tariff)

86. The Commission is of the view that in order to determine the composite tariff for unmetered supply, implied rate of Rs.3.00 per unit can be used. However, to promote energy conservation, it seems appropriate to offer concessional rates for CFL and LED based public lighting lamps. Accordingly, the composite tariffs for CFL and LED lamps are fixed based on an implied rate of Rs. 1.50 per unit. The Commission expects that the concessional tariff for CFL/LED lights would incentivize shifting of public lighting from high energy consuming Sodium Vapour / Mercury Vapour lamps to CFL/LED lamps. Based on the premise, the composite tariff is approved as shown below:

Unquote

10. Approved tariff for metered street lights during 2012-13 is tabled below:

Particulars	Proposed Tariff	Approved Tariff
Fixed charge (Rs/ meter/month)	30.00	30.00
Energy Charge (paise per unit)	2.75	2.75

This methodology had been adopted upto tariff revision order dated 14.08.2014 for CFL and LED without any change in composite tariff rates. The concession allowed for CFL was dispensed w.e.f. 18.04.2017 (Tariff order for FY 2018-19) and the concession rates are being allowed for LED in the prevailing tariff order also.

11. As the NILAVU project envisages installation of about 10.5 Lakhs of LED street lights in two phases for the replacement of conventional lamps and provides for the usage of

lamps of higher wattage ratings, appropriate composite tariff will have to be notified for raising bills to the LSGIs.

12. Based on the approved metered tariff, KSEB Ltd. considered an implied tariff of Rs. 4.60/unit for composite tariff for conventional street lights and accordingly an implied rate of Rs.2.30/unit is considered for LED lamps in tune with the approach of Hon'ble Commission. The implied rate proposed is the sum total of per unit cost of approved energy charge (Rs.4.30/unit) for metered street lights (LT VIII (B)-Metered street lights and traffic signal lights) and the average of monthly fixed charge component corresponds to the monthly consumption of each lamp (27 paise). The FC component is calculated with a connected load of 5kW ie. the maximum permissible connected load for a single phase service connection as per Kerala Electricity Supply Code, 2014. Based on the implied rate proposed as RS.2.30/unit, KSEBL suggest following composite rates for LED lamps under Nilavu scheme.

Table-A

Type of Lamp.	Wattage (W)	Composite tariff		
		(Rs.)/Lamp/Month		
		Burning Hours/day		
		4hrs.	6hrs.	12hrs.
LED	35	10	15	30
	70	20	30	60
	110	30	46	91

13. Hence, it is requested before the Hon'ble Commission to approve and notify the composite tariff for LED lamps having wattages of 35, 70 and 110 W for enabling KSEB Ltd to raise monthly electricity bills to Local Self Government Institutions, especially for NILAVU scheme.

PRAYER

KSEBL humbly pray before the Hon'ble Commission to consider and grant approval for the composite tariff proposed in Table-A of this petition for non-metered LED street lights having wattages of 35 W, 70W and 110 W till the date of effect of tariff order dated 08.07.2019.

Deputy Chief Engineer (Commercial & Planning)
With full powers of Chief Engineer