

KERALA STATE ELECTRICITY REGULATORY COMMISSION

THIRUVANANTHAPURAM

Application No. : **OA 10/2015**

In the matter of : Determination of ARR & ERC of M/s Rubber Park India Private Limited for the first control period 2015-16 to 2017-18, based on the application submitted as per the provisions of KSERC (Terms and Conditions for Determination of Tariff) Regulations 2014.

Applicant : M/s Rubber Park India Private Limited, Industrial Park,
Valayanchirangara

PRESENT : Shri. T.M.Manoharan, Chairman
Shri. K.Vikraman Nair, Member

ORDER DATED 03.09.2015

1. Rubber Park India Private Limited (*hereinafter called the Licensee or RPIL*) a joint venture company of the Rubber Board and M/s Kerala Industrial Infrastructure Development Corporation (KINFRA), is a distribution licensee under the Electricity Act, 2003. The Licensee receives electricity at 110 kV from the Kerala State Electricity Board Ltd (*herein after called KSEBL*) and distributes to the Industrial units within the industrial park at Valayanchirangara near Perumbavoor in Ernakulam District. M/s RPIL vide their letter dated 06.03.2015 filed the application for approval of the Aggregate Revenue Requirement (ARR) & Expected Revenue from Charges (ERC) for the first control period from 2015-16 to 2017-18 as per the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 (*hereinafter referred to as the Tariff Regulations, 2014*) and it was admitted as OA No.10/15.
2. The Tariff Regulations, 2014, was notified on 14.11.2014 as per notification No.787/SEA/2011/KSERC. As per the provisions of the said regulations, the licensee should submit the application for determination of tariff on or before 31.12.2014. The licensee had filed OA No.2/2015 as early as on 07.01.2015. After scrutiny of the application, a public hearing was conducted on 19.03.2015.

Meanwhile, KSEB Ltd had filed Writ Petition No. 465/2015 on 06.01.2015 with the following prayers,

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- (i)** Issue a writ of certiorari or any other appropriate writ, order or direction calling for the records leading to Exhibit P5 and quash the same as illegal and violative of Article 14 of the Constitution of India;
- (ii)** To issue writ of mandamus or any other appropriate writ, order or direction to the respondent to revise Exhibit P5 regulations strictly as per the legal mandate provided in the Electricity Act, 2003, National Electricity Policy, National Tariff Policy and on the basis of past performance of KSEB including its audited accounts; and
- (iii)** Issue such other writs, orders or directions which this Hon'ble Court may deem fit and proper to issue in the facts and circumstances of the case. "

KSEB Ltd had also filed a petition for granting an ex-parte interim order staying the operation and implementation of Exhibit P5, pending adjudication of the writ petition. The Hon'ble High Court in its order dated 07.01.2015 issued an order to the effect that the tariff proposal if any submitted by the petitioner namely KSEB Ltd, shall not be rejected on the basis of Exhibit P5 . The Exhibit P5 regulation is the Tariff Regulations, 2014. As soon as the copy of the writ petition was received by the Commission a detailed counter affidavit was filed on 17.03.2015. Further the Commission also filed a detailed petition to get the interim order dated 07.01.2015 vacated. So far the interim order dated 07.01.2015 has not been vacated and the writ petition has not been heard by the Hon'ble High Court. The small licensees other than KSEB Ltd, are purchasing electricity from KSEB Ltd for the supply among their consumers. If different retail supply tariffs are fixed for the consumers of small licensees, who supply electricity to a very small number of consumers in comparatively very small areas, it is likely to create a sense of disparity among consumers. In the case of Thrissur Municipal Corporation, the supply of electricity within the area of corporation is done by the Thrissur Corporation Electricity Department (TCED) and KSEB Ltd. Therefore the tariff for consumers under TCED and KSEB Ltd would be different if differential retail supply tariff is adopted. Therefore the Commission has been following the principle of uniform retail supply tariff (RST) for all consumers in the State and differential bulk supply tariff (BST) for different licensees depending upon their consumer mix, expected revenue from charges and various constituents of the aggregate revenue requirement. Therefore the bulk supply

tariff can be fixed for a small licensee only after the retail supply tariff is fixed based on the applications for determination of tariff filed by KSEB Ltd. The Commission found it difficult to apply the Tariff Regulation, 2014 to the small licensees and to exempt KSEB Ltd from the application of the provisions of the said regulations. The issuance of the order in application No. OA No.10/2015 filed by the applicant is delayed in view of the fact that the writ petition challenging the validity of the Tariff Regulations, 2014 is pending before the Hon'ble High Court and that the interim order of the Hon'ble High Court dated 07.01.2015 has not been modified or vacated.

- The present application of M/s Rubber Park was filed in the Multi Year Tariff Framework as per the Tariff Regulations, 2014. A comparative statement of the ARR&ERC for the year 2014-15 and for 2015-16 to 2017-18, the first control period as per application is furnished below.

Table – 1
Comparative Statement of ARR & ERC

Rs.lakhs

Particulars	ARR-ERC Approved	ARR-ERC Approved.	Control Period Estimates		
			2013-14	2014-15	2015-16
Income					
Revenue from Sale of Power.	1323.40	1556.43	1546.80	1683.30	1833.40
Other Income	13.97	13.86	7.00	7.60	8.30
Total Income.	1337.37	1570.29	1553.80	1690.90	1841.70
Expenditure					
Purchase of Power	1222.41	1563.73	1461.10	1583.00	1715.80
Repairs and Maintenance	23.67	26.04	30.60	33.60	37.00
Employee Cost	24.74	27.21	42.00	46.20	50.90
Administration and General Expenses	16.13	17.74	54.30	59.70	65.60
Depreciation	34.27	34.26	38.00	44.00	49.00
Interest and finance charges	-	0.00	0.00	0.00	0.00
Interest on Normative Loan	-	0.00	66.94	77.29	80.44
Return on Equity	10.00	10.00	19.87	31.19	28.75
Total Expenditure.	1331.22	1678.98	1712.81	1874.98	2027.49
Net Surplus/(Deficit)	6.15	(108.69)	(159.01)	(184.08)	(185.79)

Hearing on the Matter

4. Public hearing was held on 27-04-2015 at the Conference Hall of Rubber Park India Private Limited, Valayanchirangara, Ernakulam. In the hearing representatives of the licensee and KSEB Limited were present. The applicant M/s Rubber Park India (P) Ltd. was represented by Sri.J. Krishna Kumar, Managing Director, Sri.Anees.T.M, Resident Engineer, Rubber Park India (P) Ltd. Sri.J.Krishna Kumar presented the details of the Application on ARR & ERC for the first control period.
5. Sri. B. Pradeep, Executive Engineer, KSEBL presented the objections of KSEBL and submitted written remarks on the application, copy of which was served on the applicant. The main remarks were as follows
 - a. The T&D loss proposed by the licensee for the control period is higher than the approved level and the approval for additional purchase to meet the T&D loss than the approved level may not be granted.
 - b. The projection of the licensee on the Operation and Maintenance cost is higher than the provision in the KSERC (Terms and Conditions for Determination of Tariff) Regulation, 2014 and submitted that O&M expenses may be allowed only as per the norms specified in the Regulation.
 - c. The licensee has not provided the details of the assets created out of consumer contribution and further stated that depreciation may be allowed only after considering the vintage of the asset.
 - d. The proposal of capital expenditure to the tune of Rs.115 lakh may be considered only after the approval of the Commission.
 - e. The interest may be allowed only on the outstanding normative loans against the claim of the licensee for Rs.66.90 lakh under interest and finance charges.
 - f. On the claim of the licensee's non-tariff income, KSEBL stated that the licensee has not accounted the revenue from wheeling charge and the interest receivable for the security deposit available with KSEBL.

KSEBL prayed that the Commission may allow only the prudent expenses in accordance with the KSERC (Terms and Conditions for Determination of Tariff) Regulation, 2014. KSEBL also stated that projected consumption and purchase of power for the control period has reduced compared to the previous year and suggested that the same may be got clarified prior to approval.

6. In the counter remarks submitted by the RPIL to the comments made by KSEBL, the licensee clarified the following.
- a. The actual T&D loss for the year 2014-15 was 2.2%. The licensee stated that reason for the reduction in the distribution loss for the year was the non-operation of one of the 12.5 MVA power transformers for almost six months due to faulty relay. It was stated that the distribution loss for the control period has been calculated considering the two transformers in energised state.
 - b. RPIL stated that the company had invited quotations for operation and maintenance of substation through newspaper advertisements and the contract was awarded to the lowest bidder, M/s Electrotek Engineers P Ltd, with an annual increase of 5%. Every two years the company has to test and calibrate meters and protecting equipment such as relays, CTs, PTs etc. for ensuring accurate measurement and protection.
 - c. The repair and maintenance expenses for the years 2016-17 and 2017-18 are estimated by considering 10 % increase every year from the year 2015-16. The licensee stated that the A&G expenses estimated for 2015-16 is Rs.54.30 lakhs which includes Rs.16.00 lakh towards Electricity duty under Section 3 of the Kerala Electricity Duty Act, 1963 and bank charge Rs.21.45 lakh.
 - d. The licensee states that the reason for increase in bank charge is due to the charges for opening letter of credit (LC) and the charges in connection with additional security deposit required for additional power purchase. The total administration and general (A&G) expenses estimated for the year 2015-16 of the control period is Rs.0.54 lakh and the A&G expenses for the subsequent two years of the control period are estimated by considering an overall increase of 10% per year from the year 2015-16.
 - e. RPIL stated that the increase in the employee cost is more than that permitted by the regulation and this is due to the reason that they have considered the pay of the full time Managing Director and pay revisions on that account. It was also stated that the expenses for the subsequent two years of the control period are estimated by considering an overall increase of 10 % per year from the year 2015-16.
 - f. The licensee clarified that they had calculated the depreciation as per the depreciation schedule of the KSERC (Terms and Conditions for determination of Tariff) Regulations, 2014 and further stated that they had not created any assets out of consumer contribution. The licensee in their reply submitted that the bank

balance provided in the application was wrongly entered as Rs.159.58 crores instead of Rs.159.58 lakh.

- g. On the comment of KSEBL on non-tariff income, RPIL clarified that the estimation of ARR & ERC for the control period is calculated based on the actual figures up to September 2014 and they had included the revenue from wheeling charges in form 2.1 dealing with the revenue from sale of power. Hence in order to avoid double counting of the revenue, the same has not been included in the non-tariff income of the licensee. The licensee also stated that the projection for the control period was calculated based on the actual consumption up to September 2014 and the reduction was in tune with the request from M/s HLL Life Care to reduce their contract demand from 2000 kVA to 1000 kVA.

Analysis and decision of the Commission

7. The Commission had notified KSERC (Terms and Conditions for Determination of Tariff) Regulations 2014. The said regulations are effective from 14-11-2014, and provide for filing of ARR&ERC application in a multiyear framework. As per the said regulations application for approval of ARR&ERC is to be filed for a control period of three years i.e., for 2015-16 to 2017-18. M/s Rubber Park Limited has submitted its application for approval of ARR&ERC for the said three years. The Regulation 11 of the said Regulations provides the manner in which the application is to be filed. As per this, the application for approval of aggregate revenue requirement for the control period should contain estimates for each year of control period. Further the applicant has to provide full details of the forecast of variables used for the aggregate revenue requirement during the control period. In the following sections, each of these items is dealt with separately:

Sale of energy:

8. As per Regulation 11 (10), the applicant/distribution licensee shall develop the forecast of expected revenue from existing charges based on the estimates of contract demand and quantum of electricity to be supplied to the consumers and to be wheeled on behalf of the users of the distribution system for each financial of the control period. Further Regulation 73 provides as follows:

“73.Sales forecast. – (1) The distribution business/licensee shall submit, along with the application for approval of aggregate revenue

requirement and determination of tariff, a forecast of expected demand and sale of electricity to different categories of consumers and to each consumption slab within each tariff category, in its area of supply.

(2) Sale of electricity, if any, to electricity traders or other distribution licensees shall be separately indicated.

(3) The Commission shall examine the forecasts for reasonableness based on the growth in number of consumers and in consumption, the demand of electricity in previous financial years, anticipated growth in the next financial year and any other factor, which the Commission may consider relevant and approve forecast of sale of electricity to the consumers with such modifications as deemed fit.”

The Licensee M/s Rubber Park had in their application estimated the sales for the control period as shown below:

Table.2
Sales forecast for control period in MU (2015-16 to 2017-18)

Category	2015-16	2016-17	2017-18
HT industrial	24.3	24.3	24.3
LT IV industrial	1.66	1.66	1.66
LT VI non-domestic	0.05	0.05	0.05
LT VII Commercial	0.11	0.11	0.11
Street light	0.02	0.02	0.02
Total	26.14	26.14	26.14

9. According to the licensee, the projections for the year 2015-16 was estimated based on the actual consumption for the first 6 months for 2014-15. The sales for 2015-16 is estimated as 26.14 MU. The licensee also stated that sales for the subsequent financial years is kept same as that of 2015-16. The licensee is not expecting any increase in energy consumption due to general industrial slow down. The licensee also stated that no new consumers are expected in the year 2015-16 except a LT consumer, who is a temporary consumer at present, expecting to start full scale production.
10. The Commission has examined the sales projections of the licensee. As per the regulations, the sales projections shall be based on the consumer mix and past sales. The estimate of the licensee that there will not be any increase in sales

for the next three years is not reasonable considering the pattern of sales in the previous years, even considering the limited area of operation. The consumer mix and historical sales for the previous four years are shown below:

Table.3
Consumer profile of M/s Rubber Park from 2010-11 to 2014-15

Consumer Category	Number of Consumers				
	2010-11	2011-12	2012-13	2013-14	2014-15
HT Consumers	9	12	14	15	16
LT consumers	11	11	13	14	16
Temporary connections	13	19	16	13	15
Rubber park utilities	1	1	1	1	1
Total	34	43	44	43	48

Table.4
Sales growth for previous years

Category	2011-12	2012-13	2013-14	2014-15	Compounded Avg. Growth (2011-12 to 2014-15)
	(MU)	(MU)	(MU)	(MU)	(%)
HT industrial	17.26	21.11	22.71	21.96	8.36%
LT IV industrial	0.91	0.98	1.09	1.60	20.70%
Temporary Connections	0.09	0.08	0.01	0.01	-51.93%
Rubber park utilities	0.23	0.19	0.10	0.18	-7.85%
Total	18.49	22.36	24.00	23.75	8.70%

11. In 2014-15, the sales has come down marginally as compared to previous year. The actual sales in 2014-15 was 23.75MU. As shown above, there is a compounded annual growth rate of 8.7% based on the trend of sales growth of over the past four years. The growth is slightly high (14%) for the period 2011-12 to 2013-14. However, there is an increasing trend in number of consumers over the years. The licensee also stated that there are about 15 temporary connections, which will be converted to permanent consumers in future as and when the production commences. The consumers' consumption profile is such that HT Industrial consumers which account for about one third of the consumer base accounts for about 92% of the total consumption. LT(IV) Industrial consumption which is the second largest consumption segment is showing an

increase. However taking the most recent figures of HT Industrial consumption, there seems to be a slowdown in the growth of consumption. Considering the above pattern of past growth, the consumer mix profile and their consumption pattern, the constant sales estimate of the licensee does not appear to be reasonable. Thus based on the recent trends and factoring in a depressed consumption pattern of the predominant segment which accounts for 92% of the consumption, the commission estimates a sales growth for the control period, in the range of 5% per annum. Hence, as provided in Regulation 73(3), the Commission is inclined to modify the sales forecast of the licensee accordingly. Considering the above estimated growth rate, the sales for the next three years are estimated as given below.

Table.5
Approved sales for the control period

Category	2014-15 (Actual)	2015-16	2016-17	2017-18
	(MU)	(MU)	(MU)	(MU)
HT industrial	21.96	23.06	24.21	25.42
LT IV industrial	1.60	1.68	1.76	1.85
Temporary Connections	0.01	0.01	0.01	0.01
Rubber park utilities	0.18	0.18	0.18	0.18
Total	23.75	24.93	26.16	27.46

Distribution loss

12. As per Regulation 74, the licensee is to provide voltage level distribution loss and distribution loss trajectory for the control period. Necessary supporting studies have to be furnished along with the application. The distribution licensee shall also propose the loss reduction targets for each financial year of the control period along with the distribution loss levels. The Commission has to approve the target level of losses based on the opening level of losses, the figures filed by licensee and other relevant factors. The licensee proposed a distribution loss of 2.5% for the control period as shown below.

Table.6
Distribution loss and energy input for the control period

Year	2015-16	2016-17	2017-18
	Projected	Projected	Projected
Total Energy Requirement (MU)	26.81	26.81	26.81
Total Energy sales (MU)	26.14	26.14	26.14
Distribution loss(MU)	0.67	0.67	0.67
Distribution loss(%)	2.50%	2.50%	2.50%

13. However, the licensee did not provide any reasoning for fixing the loss level at 2.5%. In the ARR&ERC for 2014-15, the Commission has approved the distribution loss at 2%. In the past the actual level of losses varies and it is about 2.5% as shown below:

Table.7
Distribution loss over the years

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Sales to consumers (MU)	14.43	14.05	18.27	22.17	23.81	23.56
Rubber park utilities (MU)	0.15	0.18	0.23	0.19	0.19	0.19
Total sales (MU)	14.58	14.23	18.49	22.36	24.00	23.75
Energy Purchase (MU)	14.95	23.12	18.99	22.92	24.90	24.21
Distribution loss (%)	2.5%	2.9%	2.6%	2.4%	3.6%	1.9%

14. As per the regulations, the licensee has to provide justifications for the loss levels proposed. As part of the clarifications, the licensee has stated as follows:

“The actual T&D loss for the year 2014-15 was 2.2%. The reason for reduction for distribution loss is non operation of one of the 12.5 MVA power transformers almost 6 months due to faulty differential relay. Hence the no load loss of one of the transformer is absent during half of the financial year, however during normal operation by considering the two transformers are on energized state we have anticipated distribution loss of 2.5 % for the control period. The actual distribution loss for the year 2013-14 was 3.6%. In order to reduce the distribution loss, we had conducted energy audit of the distribution system with the help of Kerala State Productivity Council. Based on the recommendations of energy audit we had reduced the distribution loss from 3.6 to 2.2% in 2014-15.

15. From the statements of the licensee, it is seen that they could reduce the loss levels to 2.2% in the year 2014-15. Based on the actual sales and energy input, the distribution loss for 2014-15 is below 2%. The main reason or higher level of loss in some years is on account of the excess transformation capacity in the distribution system of the licensee. Considering this, the Commission has approved open access transaction and wheeling through the distribution system of the licensee. The demand from the consumers is also likely to increase in the future. Considering the above factors, the Commission is of the view that it is reasonable to maintain the loss level as approved in 2014-15 i.e. 2% for the

control period. Since the existing loss target is at efficient levels, the Commission is not proposing any loss reduction targets for the licensee. Accordingly, the energy sales and energy requirement for the control period approved are as shown below:

Table.8

Approved energy input and distribution loss for the control period

Category	Unit	2014-15 (actual)	2015-16	2016-17	2017-18
Total Sales	(MU)	23.75	24.93	26.16	27.46
Distribution loss	%	1.90%	2.00%	2.00%	2.00%
Energy Requirement	MU	24.21	25.44	26.69	28.02

AT&C loss:

16. Since the licensee has prepayment metering system in the entire licence area, the collection efficiency reported by the Licensee is 100%. Hence AT&C loss for the control period is fixed as 2.00%.

Cost of Power Purchase:

17. The licensee has proposed an increase in the cost of power purchase for each year of the first control period in the power purchase cost. As per the application submitted by the licensee the power purchase cost is estimated to be Rs. 1461.10 lakhs for the year 2015-16, Rs.1583.00 lakhs for the year 2016-17 and 1715.80 lakhs for the year 2017-18 respectively. The average cost of energy for the year 2015-16 is estimated at Rs 4.55 per kWh, for the year 2016-17 at Rs 5.00 per kWh, for the year 2017-18 is at Rs 5.50 per kWh. Thus the power purchase cost is estimated to increase by 10% over the years as shown below

Table.9

Proposed Cost of Power Purchase for the control period

Particulars	2015-16	2016-17	2017-18
Energy purchase (MU)	26.810	26.810	26.810
Maximum Demand (kVA)	6700	6700	6700
Contract Demand(kVA)	6700	6700	6700
Demand Charges (Rs./kVA)	300	300	300
Total Demand charges (Rs in lakh)	241.20	241.20	241.20
Energy Charges (Rs./kWh)	4.55	5.005	5.5
Total energy Charges (Rs.in lakh)	1219.85	1341.84	1474.55
Cost of power purchase (Rs.in lakh)	1461.05	1583.04	1715.75

18. The Commission has examined the details of purchase of power. The licensee had entered into power purchase agreement with KSEB Limited on 24-03-2015 to enhance the contract demand w,e,f 25-05-2010 for 4500 kVA. Further, additional power to the tune of 3200 kVA was sought from KSEB Limited, which was later reduced to 2200 kVA. KSEBL had granted in-principle approval for the additional power of 2200 kVA. The licensee has calculated the cost of power purchase for the control period based on 6700 kVA as their contract demand. The maximum demand recorded during the year 2014-15 is 5082 kVA.
19. As per Regulation 75, the licensee has to submit a power procurement plan for the control period consistent with the sales forecast to meet the unrestricted demand for electricity within the area of supply from each tariff category over the financial year. Tariff for estimating the cost of power purchase shall be the tariff determined by the Commission for such purchase. Hence, the power purchase cost shall be based on the forecast of sales and existing approved tariff.
20. The existing bulk supply tariff applicable for the licensee is Rs.300/kVA as demand charges and Rs.4.55 per kWh. The licensee has estimated the power purchase cost by assuming 10% increase in energy charges. The licensee has estimated the fixed charges based on the contract demand of 6700kVA.. However, according to the licensee, the present maximum demand estimated at 5082kVA only. Based on the details furnished by the licensee, the average billing demand over the years is as shown below:

Table.10

Average monthly billing demand for previous years

	Demand Charges (Rs. Crore)	Estimated average monthly billing demand (KW)
2012-13	1.74	4,833
2013-14	1.63	4,528

21. Hence the Commission notes that the contract demand for the control period will be lower than the demand projected by the licensee. As per the agreement, the billing demand shall be the recorded maximum demand or 75% of the contract demand (5025kW) whichever is more. Based on the past trends in demand, the Commission is of the view that the contract demand may be escalated by 5%

over the control period. Accordingly, the estimates of approved power purchase cost is as shown below:

Table.11
Approved power purchase cost for the control period

Particulars	2015-16	2016-17	2017-18
Energy purchase (MU)	25.44	26.69	28.02
Maximum Demand (kVA)	5336	5603	5883
Contract Demand(kVA)	6700	6700	6700
Demand Charges (Rs./kVA)	300	300	300
Total Demand charges (Rs in lakh)	192.10	201.70	211.79
Energy Charges (Rs./kWh)	4.55	4.55	4.55
Total energy Charges (Rs.in lakh)	1157.52	1214.40	1274.91
Cost of power purchase	1349.62	1416.10	1486.70

Depreciation:

22. The depreciation approved for the year 2014-15 is Rs.34.26 lakhs as proposed by the licensee. The total depreciation claimed for the year 2015-16 after considering additions to the assets etc. is Rs 38.00 Lakhs. For the next two years of the control period the licensee claims depreciation of Rs.44.00 lakhs and Rs.49.00 lakhs respectively. The claim for the control period is mainly on the account of depreciation of substation equipments and distribution lines. The licensee has proposed an increase in the GFA for the control period in tune of Rs.115 lakhs estimated as the cost for implementing roof top solar system for 125 KW and Rs.35 lakhs for IT related equipments. The details of the claim of the licensee are as shown below:

Table.12
Depreciation Projected by the Licensee

	2015-16 (Rs.lakhs)	2016-17 (Rs.lakhs)	2017-18 (Rs.lakhs)	% of Assets
Distribution Lines	11.00	11.00	11.00	5.28%
Sub stations	25.00	25.00	25.00	5.28%
LT Distribution System	2.00	2.00	2.00	5.28%
IT Equipments	-	-	5.00	15.00%
Others	-	6.00	6.00	5.28%
Total	38.00	44.00	49.00	

23. Regulations 23 to 28 of the KSERC (terms and conditions for determination of tariff) Regulations 2014 provides for the procedure to be followed for addition of assets and the claiming of depreciation. The GFA and asset additions proposed by the licensee in the control period are as shown below:

Table.13
GFA proposed by the licensee for the control period

Asset Class	2013-14	2014-15	2015-16	2016-17	2017-18
	Rs. Cr	Rs. Cr	Rs. Cr	Rs. Cr	Rs. Cr
Land and Rights	0.27	0.27	0.27	0.27	0.27
Distribution lines	2.07	2.07	2.07	2.07	2.07
Substation equipments	4.05	4.74	4.74	4.74	4.74
Switch gears	0.00	0.00	0.00	0.00	0.00
LT distribution system	0.30	0.30	0.30	0.30	0.30
Meters	0.06	0.06	0.06	0.06	0.06
IT equipments				0.35	0.35
Any other items			1.15	1.15	1.15
Total	6.75	7.44	8.59	8.94	8.94

24. The Commission has examined the details of GFA furnished by the licensee. It was noticed that the licensee had not included assets worth Rs.2.283 crore under 'other items'. The licensee has rectified the error vide their letter dated 21-7-2015. Accordingly, the GFA at the end of 2013-14 was Rs.9.03 crores. Accordingly the licensee has revised estimates for the provision for depreciation as Rs.52.1 lakhs for 2015-16 & 2016-17 and Rs.57.1 for 2017-18.
25. Asset additions are proposed in 2014-15 to the extent of Rs.69.0 lakhs (for substation equipments), in 2015-16 Rs.115 lakhs (for Roof top solar plant – under any other items), in 2016-17 Rs.35 lakhs (for IT equipments). The licensee has not provided the details of the above items in the application. As per Regulation 23 (3), the capital cost approved by the Commission after prudence check shall form the basis for determination of tariff. Unless the approval is obtained, it is not eligible to be part of GFA. Hence, the licensee is directed to approach the Commission as per the provisions of the Regulations for its approval. The same will be considered as per Regulation during the truing up process. The licensee has also stated that , no assets are created out

of consumer contribution and grants. Thus, the depreciation approved for the control period based on the revised GFA is as shown below:

Table.14
Depreciation approved for the control period

Asset class	(Rs.lakhs)	(Rs.lakhs)	(Rs.lakhs)
Distribution Lines	11.00	11.00	11.00
Sub stations	25.00	25.00	25.00
LT Distribution System	2.00	2.00	2.00
IT Equipments	-	-	-
Others	12.05	12.05	12.05
Total	50.05	50.05	50.05

Interest and Finance Charges

26. The licensee has not obtained any loans so far and no interest has been claimed so far. However, in the present application, the licensee claims interest on normative basis as provided in the regulations. According to the licensee, entire assets are financed by the equity capital. The licensee has shown proper journal entries for accounting the fixed assets. The licensee proposes interest on normative loan at Rs. 66.94 lakhs for the year 2015-16, Rs.77.29 lakhs for the year 2016-17 and Rs.80.44 lakhs for the year 2017-18. This is based on the normative interest of 9% on the opening GFA for the three years of control period. The details are given below:

Table.15
Interest on normative loan proposed by the licensee for the control period

	2015-16	2016-17	2017-18
Opening level of GFA (Rs. Crore)	9.721	10.871	11.221
Rate of Interest (%)	9.00%	9.00%	9.00%
Interest (Rs. Lakhs)	87.49	97.84	100.99

27. The Commission has examined the proposal of the licensee. The licensee has revised the GFA from Rs.7.44 crores in 2015-16 to Rs.9.721 crores, mainly due to inclusion of other assets, which was not included in the original proposal.

28. The licensee sought interest on normative loan based on the provisions in the KSERC (Terms and Conditions for Determination of Tariff) Regulations 2014. As per the details given by the licensee, the distribution business is completely funded through equity contribution from promoters. As per regulation 27, the normative debt equity ratio of 70:30 has to be considered and where equity is more than 30%, the equity for the purpose is to be limited to 30% and the balance amount has to be treated as normative loan and interest on the same has to be allowed at the weighted average rate of interest of the actual loan portfolio. As per regulation 30, if there is no loan portfolio available, interest shall be allowed at the base rate.
29. Based on the above provisions, the licensee is eligible for the normative interest for the excess portion of the equity i.e., equity beyond the normative level of 30%. Since the loan is treated on a normative basis, while calculating the interest to be allowed, sufficient amount should be factored in to reflect the repayment of the principal amount of the normative loan, such that the interest liability gets reduced on a year to year basis, based on the repayment of the principal part. If this is not done, at the end of the estimated life of the asset, if the gross fixed asset (GFA) is not withdrawn from the books of accounts and the new asset too is accounted, there can be double counting of interest on the old asset figures too. Hence, it would be prudent to assume that the principal amount will be reduced based on the accumulated depreciation provided and interest be calculated on the net assets. Hence interest is provided on the proportion of net assets financed by the normative loan (ie 70%). Since the licensee has no actual loan portfolio, the interest is to be allowed at the base rate of SBI. The ruling base rate is 9.7%. Thus the allowable interest is estimated as shown below:

Table.16

Approved interest on normative loan for the control period

	2015-16	2016-17	2017-18
Opening level of NFA (Rs.lakhs)	573.90	523.85	473.80
70% of the Net Fixed Assets (Rs.Lakhs)	401.73	366.70	331.66
Base Rate (%)	9.70%	9.70%	9.70%
Normative interest (Rs.lakhs)	38.97	35.57	32.17

As shown above, the normative interest charges allowable for the control period is Rs 38.97 lakhs for 2015-16, Rs.35.57 lakhs for 2016-17 and Rs.32.17 lakhs for 2017-18.

O&M expenses

30. As per the Regulations, O&M expenses consists of employee costs, repair and maintenance expenses and administration and general expenses.

Employee cost:

31. Commission had approved the employee cost of Rs. 27.21 lakhs for the year 2014-15. The licensee has estimated the employee expenses for the year 2015-16 as Rs.42.00 lakhs and the employee expenses for the subsequent two years of the control period are estimated based on an overall increase of 10 % from the year 2015-16. The licensee proposes an increase in the employee cost for each year of the first control period as given below:

**Table.17
Employee Cost over the years**

Year	Employee Cost (Rs.in lakh)
2011-12 (actual)	20.39
2012-13 (actual)	16.01
2013-14 (approved)	24.74
2014-15 (approved)	27.21
2015-16 (projected)	42.00
2016-17 (projected)	46.00
2017-18 (projected)	51.00

The split up of the employee cost for the year 2015-16 as submitted by the licensee is shown below:

**Table.18
Employee cost Proposed for 2015-16**

Particulars	Cost (Rs.in lakhs)
Basic salary	20.21
Dearness Allowance	12.32
House Rent Allowance	0.20
Conveyance Allowance	0.18
Earned leave encashment	1.49
Medical reimbursement	2.10
Provision for PF fund	4.00
Gratuity Payment	1.50
Total	42.00

For the remaining years of control period, the licensee has assumed 10% increase over the first year.

32. The licensee has not provided the details of the employees deployed nor the basis of apportioning the employee expenses to the power distribution business. Most importantly the licensee has projected the employee costs, not in line with the KSERC (Terms and Conditions for Determination of Tariff) Regulation 2014. As per Regulation 81 (5), the allowable employee costs for the control period is as shown below:

Table.19
Employee costs allowable for the control period

	Projected	Approved
	(Rs.lakhs)	(Rs.lakhs)
2015-16	42.00	26.10
2016-17	46.20	27.62
2017-18	50.90	29.24

Repair and Maintenance Charges

33. In the year 2014-15 ARR Commission has approved Rs.26.04 Lakhs. The licensee has projected Rs.30.60 Lakhs for the year 2015-16. The increase in the R&M charges is on account of the contract awarded to M/s.Electrotek Engineers Private Ltd for operation and maintenance of substation which was conducted through bidding process. The details of the same were not submitted along with the application. The same matter was mentioned in the last ARR&ERC also. The licensee has estimated Rs 7.00 lakhs in tune with the expense for testing and calibration of meters and protecting equipments such as relays, CTs, PTs etc. for ensuring accurate measurement and protection. The repair and maintenance expenses for the years 2016-17 and 2017-18 are estimated by considering 10% increase every year from the year 2015-16.
34. As in the case of employee expenses, the R&M expenses allowable for the licensee for the control period as per Regulation 81(5) of KSERC (Terms and Conditions for Determination of Tariff) Regulation 2014 is clearly laid down in Table.5 of Annexure IX of the Regulation. The allowable R&M expenses is as shown below:

Table.20
Approved R&M expenses for the control period

	Projected	Approved
	(Rs.lakhs)	(Rs.lakhs)
2015-16	30.60	24.33
2016-17	33.60	25.75
2017-18	37.00	27.26

Administration and General Expenses

35. The A&G expense approved for the year 2014-15 was Rs.17.74 lakhs. A&G expenses constitute a controllable item. As per the application, the licensee claimed Rs.54.30 lakhs as the A&G expense for the year 2015-16. The split up details of the expenses is shown below:

Table.21
Administration and General Expenses proposed for 2015-16

Particulars	Rs.lakhs
Rent Rates & Taxes	1.00
Insurance	3.00
Telephone & Postage, etc.	0.50
Legal charges	0.50
Audit Fees	0.60
Consultancy charges	1.00
Conveyance	0.60
Electricity charges	0.50
Printing & Stationery	0.50
Advertisements, exhibition publicity	0.50
Training expenses	0.30
Bank Charges	21.45
Office Expenses	0.30
License Fee and other related fee	2.50
Security arrangements	4.00
Others	1.00
Ele. Duty u/s 3(I), KED Act	16.00
A&G Expenses	54.00

36. The major items of expenses booked under A&G expense are bank charges and the duty payable by the licensee to the Government under section 3 of the Kerala Electricity Duty Act, 1963. The proposed duty under section 3 of the above Act is Rs.16.00 lakhs for the year 2015-16. In view of the statutory provision in the above Act, the Commission has not been admitting the duty under section 3 (1) of the Act as a revenue expenditure stating that the duty under this section on the sales of energy should be borne by the licensee and shall not be passed on to the consumers. A&G expenses for the subsequent two years of the control period are estimated by considering an overall increase of 10% per year from the year 2015-16. The proposed A&G expense for the year 2016-17 and 2017-18 are Rs.59.70 lakhs and Rs.65.60 lakhs respectively.

37. As in the case of employee expenses, the specified A&G expenses allowable for the licensee for the control period as per Regulation 81(5) and Annexure IX of KSERC (Terms and Conditions for Determination of Tariff) Regulation 2014 alone is admissible. The allowable A&G expenses is as shown below,

Table.22
Approved A&G expenses for the control period

	Projected (Rs.lakhs)	Approved (Rs.lakhs)
2015-16	54.30	18.02
2016-17	59.70	19.07
2017-18	65.60	20.19

Return on Equity:

38. The licensee has projected Return on Equity for the control period. The RoE claimed by the licensee is 14% on the 30% of the Net fixed asset for each year of the control period. The Commission has allowed a notional return of Rs 10.00 lakh as ROE for the past years. The claim of the licensee under the head of RoE is shown below.

Table.23
ROE projected by the licensee for the control period

Particulars	Net Fixed Assets (Rs.lakhs)	Projected RoE (Rs.lakhs)
2015-16	473.2	19.87
2016-17	742.6	31.19
2017-18	733.6	28.75

39. The above figures on return on equity was revised vide letter dated 21-7-2015 on account of revision of GFA. The revised claim on RoE was Rs.27 lakhs for 2015-16, Rs.29.6 for 2016-17 and Rs.28.9 lakhs for 2017-18.
40. The Commission has examined the proposal of the licensee. According to the licensee, the entire business is funded through equity. As per the Regulation 27, if the equity is more than 30% of the capital cost, the excess portion is to be treated as normative loan and equity upto 30% is to be allowed at the rates approved for the purpose. As per Regulation 29, the return of 14% is to be

allowed for the regulated business. Based on this, the return to be allowed to the licensee for the control period is estimated as given below:

Table 24
Approved return for the control period (Rs. Lakhs)

	2015-16	2016-17	2017-18
Opening level of GFA	903.10	903.10	903.10
Normative level of equity of returns	270.93	270.93	270.93
RoE (14% of Normative Equity)	37.93	37.93	37.93

Provision for bad debts:

41. The licensee has not provided any provision for bad debts. The Commission notes that since the licensee is following the pre-payment billing system, the chances of having bad debts are low. Hence no provision is allowed.

Aggregate Revenue Requirement:

42. The Aggregate Revenue Requirement approved for the control period is summarised as given below:

Table.25
Approved for the Control Period

	2015-16		2016-17		2017-18	
	Projection (Rs.lakhs)	Approved (Rs.lakhs)	Projection (Rs.lakhs)	Approved (Rs.lakhs)	Projection (Rs.lakhs)	Approved (Rs.lakhs)
Purchase of Power	1,461.10	1349.62	1,583.00	1416.10	1,715.80	1486.70
Repairs and Maintenance	30.60	24.33	33.60	25.75	37.00	27.26
Employee Cost	42.00	26.10	46.20	27.62	50.90	29.24
A & G Expenses	54.30	18.02	59.70	19.07	65.60	20.19
Depreciation	38.00	50.05	44.00	50.05	49.00	50.05
Interest & Finance Charges	66.94	38.97	-	35.57	-	32.17
Other Debits			77.29		80.44	
Return on Equity	19.87	37.93	31.19	37.93	28.75	37.93
Aggregate Revenue Requirements	1,712.81	1545.02	1,874.98	1612.09	2,027.49	1683.54

Revenue from Sale of Power:

43. The Licensee has projected the revenue from the sale of power for the control period keeping the energy sales and the number of consumers the same. The details of the revenue from tariff for the control period are furnished below:

Table.26**Revenue from sale of power projected by RPIL for the control period**

Category	No. of Consumers	Energy Sales	Revenue in Rs. Lakhs		
			2015-16	2016-17	2017-18
HT industrial	16	24.30	1429.20	1555.60	1694.50
LT IV industrial	17	1.66	100.90	109.70	119.10
LT VI non-domestic	2	0.05	4.30	4.60	5.20
LT VII	15	0.11	11.70	12.70	13.80
Street light	8	0.02	0.70	0.70	0.80
Total	58	26.14	1546.80	1683.30	1833.40

44. The revenue from sale of power is estimated for the control period by considering 10% increase in average tariff for the rest of the control period. The licensee has booked the Section 4 duty collected from the consumers under the head "Electricity duty recovery" and surcharge on duty collected from the HT consumers under the head "other state levies recovery" for the first control period. The licensee has clarified that the same is exclusive of the duty under Section 3 of the Kerala Duty Act, 1963.
45. As per the provisions of the Regulations, the revenue from sale of power is to be estimated based on the existing tariffs only. Accordingly the Commission has projected the revenue from sale of power as shown below taking into consideration the average growth rate of 5% as reflected in the trend of past (detailed analysis of the Commission is given in para 11 of this order) growth in sales in the number of units, keeping the current rates constant.

Table 27(a)**Approved Revenue from sale of power for the year 2015-16**

Category	Sales	Average Realisation	Revenue
	(MU)	Rs./kWh	(Rs.lakhs)
HT industrial	23.06	5.73	1321.34
LT IV industrial	1.68	5.74	96.43
Temporary Connections	0.01	8.96	0.90
Rubber park utilities	0.18	7.72	13.89
Total Sales	24.93		1432.56

Table 27(b)**Approved Revenue from sale of power for the year 2016-17**

Category	Sales	Average Realisation	Revenue
	(MU)	Rs./kWh	(Rs.lakhs)
HT industrial	24.21	5.73	1387.23
LT IV industrial	1.76	5.74	101.02
Temporary Connections	0.01	8.96	0.90
Rubber park utilities	0.18	7.72	13.89
Total Sales	26.16		1503.04

Table 27(c)**Approved Revenue from sale of power for the year 2017-18**

Category	Sales	Average Realisation	Revenue
	(MU)	Rs./kWh	(Rs.lakhs)
HT industrial	25.42	5.73	1456.57
LT IV industrial	1.85	5.74	106.19
Temporary Connections	0.01	8.96	0.90
Rubber park utilities	0.18	7.72	13.89
Total Sales	27.46		1577.55

Other revenue:

46. Revenue other than sale of power includes, wheeling charges recoveries, reactive energy charges, miscellaneous charges from consumers etc., As per the details furnished by the licensee, wheeling charges for providing open access to M/s M fuels is about Rs.4000 per year. The Commission approves the same.

Non-Tariff Income:

47. The projection for the year 2015-16 is Rs.7.00 lakhs. As per the details in the application, non tariff income for the first control period includes interest on the investments, deposits, bank balances and other miscellaneous receipts .The licensee expects a non tariff income of Rs.7.60 lakhs and Rs.8.30 lakhs for the succeeding years of the control period.

Table.28**Non tariff income projected (Rs.in lakhs)**

Particulars	2015-16	2016-17	2017-18
Interest on Bank Fixed Deposits	6.00	6.60	7.30
Misce. Recoveries	1.00	1.00	1.00
Total	7.00	7.60	8.30

The Commission approves the non – tariff income as projected by the Licensee.

Total revenue for the control period

48. The total revenue approved for the control period is as shown below:

Table.29

Total revenue from tariff and non-tariff

Income	2015-16		2016-17		2017-18 Projection	
	Projection (Rs.lakhs)	Approved (Rs.lakhs)	Projection (Rs.lakhs)	Approved (Rs.lakhs)	Projection (Rs.lakhs)	Approved (Rs.lakhs)
Revenue from Sale of Power.	1,546.80	1432.56	1,683.30	1503.04	1,833.40	1577.55
Wheeling charges recoveries		0.04		0.04		0.04
Non-tariff income	7.00	7.00	7.60	7.60	8.30	8.30
Total Income	1,553.80	1439.60	1,690.90	1510.68	1,841.70	1585.89

Revenue Surplus/Gap:

49. Based on the above, the revenue surplus/gap for the control period estimated by the licensee and that approved by the Commission are as follows:

Table.30

Approved Revenue gap/surplus for the control period

	2015-16		2016-17		2017-18	
	Projection (Rs.lakhs)	Approved (Rs.lakhs)	Projection (Rs.lakhs)	Approved (Rs.lakhs)	Projection (Rs.lakhs)	Approved (Rs.lakhs)
Purchase of Power	1,461.10	1349.62	1,583.00	1416.10	1,715.80	1486.70
Repairs and Maintenance	30.60	24.33	33.60	25.75	37.00	27.26
Employee Cost	42.00	26.10	46.20	27.62	50.90	29.24
A & G Expenses	54.30	18.02	59.70	19.07	65.60	20.19
Depreciation	38.00	50.05	44.00	50.05	49.00	50.05
Interest & Finance Charges	66.94	38.97	-	35.57	-	32.17
Other Debits			77.29		80.44	
Return on Equity	19.87	37.93	31.19	37.93	28.75	37.93
Aggregate Revenue Requirements	1,712.81	1545.02	1,874.98	1612.09	2,027.49	1683.54
Less Non-Tariff income	7.00	7.00	7.60	7.60	8.30	8.30
Less income from wheeling charges	-	0.04	-	0.04	-	0.04
Aggregate Revenue Requirement from Tariff	1,705.81	1537.98	1,867.38	1604.45	2,019.19	1675.20
Revenue from existing tariffs	1,546.80	1432.56	1,683.30	1503.04	1,833.40	1577.55
Revenue gap/Surplus	(159.01)	(105.42)	(184.08)	(101.41)	(185.79)	(97.65)
Net Surplus/(Deficit)	(159.01)	(105.42)	(184.08)	(101.41)	(185.79)	(97.65)

Directives of the Commission

50. In view of the facts and reasons explained in earlier paragraphs, the Commission gives the following directives. The licensee shall,
- (i) Promote demand side management and energy efficiency measures within its area of licence.
 - (ii) Promote renewable energy either by generation or by purchase of renewable energy certificates.
 - (iii) Bring down the distribution loss to a level of or below 2%.
 - (iv) Assess accurately the requirement of power and obtain sanction from KSEB Ltd for optimum additional load so that the contract demand can be accurately fixed and incorporated in the power purchase agreement.
 - (v) Submit necessary details of the assets and their vintage for proper assessment of depreciation; and
 - (vi) Submit the capital investment plan to the Commission and obtain the approval of the Commission.

Orders of the Commission

51. (1) After carefully considering the claims of the applicant and the views expressed by M/s KSEB Ltd and in view of the pendency of Writ Petition No. 465/2015 filed by M/s KSEB Ltd before the Hon'ble High Court of Kerala, the Commission hereby approves provisionally the ARR and ERC for the licensee for the first control period as stated below,-

Financial Year	ARR (Rs. in lakh)	ERC (Rs. in lakh)	Surplus / (Revenue Gap)
2015-16	1537.98	1432.56	(105.42)
2016-17	1604.45	1503.04	(101.41)
2017-18	1675.25	1577.55	(97.65)

- (2) The licensee shall limit the expenditure to the levels approved by the Commission.
- (3) The existing RST and BST shall continue until further orders.

These orders are issued subject to the result of the judgment of the Hon'ble High Court in Writ Petition No. 465/2015 filed by KSEB Ltd, in the view of the fact that impact, if any, on the ARR and ERC of KSEB Ltd may have consequential impact on the ARR and ERC of the licensee, since the Commission is following the principles of uniform retail supply tariff (RST) and differential bulk supply tariff (BST).

The application is disposed of and it is ordered accordingly.

Sd/-
K.Vikraman Nair
Member

Sd/-
T.M. Manoharan
Chairman

Approved for issue

Sd/-
Santhosh Kumar.K.B
Secretary