

KERALA STATE ELECTRICITY REGULATORY COMMISSION

THIRUVANANTHAPURAM

Application No : OA 4/2019

Present: **Shri. R. Preman Dinaraj, Chairman**
Shri. S. Venugopal, Member
Shri. K. Vikraman Nair, Member

In the matter of determination of ARR & ERC of M/s Infoparks Kerala for the Control Period 2018-19 to 2021-22, based on the provisions of KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2018.

Applicant : **M/s Infoparks Kerala**

Order Dated 26-08-2019

1. M/s. Infoparks, Kerala, Kochi a Government of Kerala undertaking, engaged in the development of infrastructure for information technology (IT) and information technology enabled services (IT enabled Services) is the applicant. Infopark was granted distribution licence vide order dated 10-5-2010 of the Commission and the electricity distribution operation commenced from 1-7-2013.
2. The Commission had notified the KSERC (Terms and Conditions for Determination of Tariff) Regulations (hereinafter referred to as Tariff Regulations, 2018) on 26-10-2018. As per Regulation 10(1) of the said regulations, every distribution business/licensee shall file, on or before the thirty first day of October 2018, the petition for approval of Aggregate Revenue Requirement and determination of tariff for each year of the Control Period & petition for truing up of Aggregate Revenue Requirement for the financial years till 2016-17. The licensee has filed the petition on ARR & ERC for the control period, 2018-19 to 2021-22 as per the Tariff Regulation 2018 on 31-10-2018 in the Multi Year Tariff Framework. The licensee has also filed separately the petition for the truing up of accounts for the year 2016-17. A summary of the ARR-ERC contained in the Petition are as under:

Table – 1
Comparative Statement of ARR & ERC

Particulars	Previous years (Rs.lakh)		Control Period Estimates (Rs. Lakh)			
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
	Actual	ARR Approved	Projection	Projection	Projection	Projection
Income						
Revenue from sale of power	457.58	1612.47	934.02	1033.15	1181.03	1480.87
Other income	3.46	2.00	4.41	5.30	4.44	4.87
Total income	461.04	1614.47	938.43	1038.45	1185.47	1485.74
Expenditure						
Power Purchase Cost	483.85	1598.55	826.86	909.69	1049.06	1339.33
R&M Expenses	15.86	20.16	54.36	81.96	88.21	95.15
Employee cost	13.57	3.70	18.37	20.21	22.24	24.46
A&G Expenses	9.75	4.51	9.12	9.47	9.90	10.34
Depreciation	228.03	46.46	228.03	228.03	228.03	228.03
Return on equity	22.85	30.75	22.85	21.89	20.94	19.98
Total Expenditure	773.91	1704.13	1159.59	1271.25	1418.38	1717.29
Revenue Deficit	-312.87	-89.66	-221.16	-232.80	-232.91	-231.55

3. As shown above, the licensee proposes revenue gap for each year of the control period. The licensee has stated that the projections for the ARR&ERC for the control period based on the actual status as in September 2018. The Commission vide letter dated 06-02-2019 sought clarifications on the petition. The licensee submitted the reply on 02-03-2019. Thereafter the petition was admitted as OA4/2019.

4. In the petition, Infopark has stated the following anticipatory developments during the control period

- **Cherthala Substation will be taken over by KSEB.**

As per Government directions Infopark has taken up with KSEBL to take over the 110 KV substation, Cherthala for better utilization. Discussion & Paper works are in process. Once the process is completed the O&M charges and repair & maintenance cost will be considerably reduced. Subsequently in the letter dated 17-04-2019, the licensee has stated that the proposal is cancelled since the Government has signed a MoU with a private party to develop a data centre which have high power requirement (10 MVA).

- **Infopark Phase-II**

As per government directions the 10 MVA power to the Smart City Kochi Ltd. will be drawn through 220 KV substation of Infopark through open access. The initial power requirement is 3 MVA which will gradually be increased to 10 MVA. The licensee submitted that implementation of the same will generate additional income through wheeling charges which will be updated while submitting the petition for truing up of accounts.

- **Prepaid Metering System**

Infopark has stated that they have implemented, on trial basis, Prepaid metering system in one of the building namely Transasia in Phase II. The system is using communicable type of LT TOD meter with an interface unit designed by M/s.Deep Thought Systems Pvt. Ltd., a Trivandrum based company.

- **Solar Power plant**

One number 25 kWp solar power plant in Jyothirmaya building Infopark Phase-II Approximately 49539 units of energy is generated upto October 2018. The work of another 500 kWp solar plant has been completed at Infopark Phase-I & Phase-II which is awaiting the approval of the electrical inspectorate. Infopark have also installed a total number of 45 Solar street lights at Phase II.

- **Annual Maintenance Contract of 220 KV Substation**

With regard to the AMC of 220 kV substation, Infopark submitted that the Defect liability period has completed in 2018-19. Siemens, the supplier & manufacturer of the substation have quoted an amount of Rs.25 lakh for the First Year . Subsequently the licensee has negotiated the amount to Rs.16.55 lakh. The licensee has stated that it will be updated while truing up the accounts.

Hearing on the Matter

5. The public hearing on the application for the approval of ARR& ERC for the control period 2018-19 to 2021-22 was held at the Conference Hall of Infopark, Phase II, Kochi on 22-03-2019. The licensee was represented by Sri. V.R.Vijayan, Head- Projects & Engineering, Sri.Sarathchandran, (Engineer-Projects) & Sri. Santhosh. V, (Manager – Finance). Sri.Sarathchandran presented the details of the application and Sri Vijayan responded to the queries of the Commission. The main points submitted in the petition are briefed below.

- The licensee has projected revenue from sale of power considering the proposed increase in the sales for the control period. The major sale expected is towards the HT I B at Phase II- Kakkanad Campus. The licensee has estimated a distribution loss of 6.14%.
- The licensee has proposed income from interest on security deposit, meter installation charges and application fee for new connection as part of the Non Tariff Income.
- Employee cost for the control period is projected considering the full salary of resident engineer in Cherthala & Infopark Phase II and 50% salary of an accountant. The licensee has further proposed a 10% increase in the employee cost for each year of the control period. The employee cost projected is higher than the normative amount fixed by the Commission for the control period.
- R&M expense mainly comprised of the O&M cost and the AMC of the licensee. The licensee submitted that the increase in the R&M expense is mainly on account of the expiry of the warranty period for 220 kV GIS substation at phase II and hence the park had to incur the maintenance expense. The licensee has escalated the AMC amount by 5% for subsequent years of the control period. The O&M for both the phases are escalated by 10% for each year.
- The A & G Expenses proposed, includes Insurance, telephone, postage, audit charge, vehicle expenses, bank charges, licensee fee etc. The licensee has proposed the interest paid to consumers as part of A&G expenses, instead of interest and finance charges.
- The licensee has claimed an amount of Rs.228.03 lakh as depreciation under the straight line method for the assets at Cherthala and Kakkanad.
- The licensee has claimed Return on net fixed assets at the rate of 3%.

6. Smt. Mehrunisa, Executive Engineer TRAC, Sri. Manoj.G, AEE, TRAC and Sri. Ajith Kumar.G, DAO, TRAC represented KSEB Ltd. Sri. Manoj.G presented the counter statement/comments of KSEB Ltd. and submitted written remarks on the application. The major points raised by KSEB Ltd are abstracted below.

- As per regulation 12 of Tariff Regulation, 2018 the licensee having more than one area of supply shall submit separate details for each area of supply, which was not done.
- The licensee has claimed a distribution loss of 6.14 % for the control period 2018-19 to 2021-22. KSEB Ltd stated that the loss can be reduced considerably

as the 110kV substation at Cherthala is to be handed over to KSEBL and the losses of 220 kV substation at Kakkanad is going to be shared between Smart City and Infopark. Thus the transformer losses would be shared and the same can be reduced considerably. KSEB Ltd submitted that the loss may be fixed at less than 2%.

- The depreciation claimed is Rs 228.03 lakh. Commission may allow deprecation considering the source of funding. Further, it is stated that the 110 kV substation is to be handed over to KSEBL.
- The repair & maintenance and employee cost claimed by the licensee is more than the approved norms. The O&M expenses may be limited to the approved level.
- KSEB Ltd also submitted that the Commission may conduct a prudence check on the expenses and may approve only reasonable levels, in accordance with the applicable regulations.

7. The Commission during the hearing sought clarifications on the petition and directed the licensee to submit the following:

- The category wise details of the number of consumers, sales and revenue from sale of power for each area separately.
- Area wise actual distribution loss for the year 2017-18
- The distribution loss reduction target for the control period.
- The reason for the proposed reduction in the energy requirement at Cherthala for 2021-22 compared to previous years of the control period.
- The reason for the reduction in the average power purchase cost for 2019-20.
- Estimate of depreciation and return for the control period as per the provisions of the Tariff Regulations 2018.
- Area wise details of the actual amount of O&M contract for 2017-18 and the details of the number of employees engaged for the purpose
- Details of the apportionment made for the O&M expenses and the items & basis of apportionment made.
- Details of the capital additions including solar energy project proposed for the control period along with documents to substantiate the proposed investment and its funding.
- Infopark have omitted the revenue received from street lighting for a sale of 0.19 MU in year 2021-22. The same may be clarified.

- The methodology for estimating the revenue from sale of power for the control period is to be furnished.
8. The Commission directed the licensee to furnish the reply on the counter statement submitted by KSEB Ltd and the details called for by the Commission, on or before 20-04-2019. The licensee vide letter dated 17-04-2019 submitted the clarifications.

Analysis and decision of the Commission

9. The Commission considered the application for approval of ARR & ERC for the Control Period 2018-19 to 2021-22, the additional clarifications and submissions furnished by the licensee along with the comments of KSEB Ltd. The analysis and decisions of the Commission on the application for approval of ARR & ERC for the Control Period 2018-19 to 2021-22 are detailed below:
10. **No. of Consumers & Sale of power:** - As per Regulation 10 (8) of Tariff Regulations 2018, 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 year of the control period. Further, Regulation 71 provides as follows:

71.Sales forecast. –(1) *The distribution business/licensee shall submit, along with the petition 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 for the Control Period.*

(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 its reasonableness based on the growth in number of consumers and consumption per consumer, the demand of electricity in the preceding financial years, anticipated growth in the succeeding financial years 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 appropriate.*

11. As per the details available in the truing up petition for 2016-17, the number of consumers during the year was 52 and the actual sale was 6.03 MU. The licensee expects the numbers of consumers to increase to 83 for the year 2018-19, 116 in 2019-20, 130 in 2020-21 and 153 in 2021-22. The licensee also expects significant

increase in sales to the consumers. The details of the projection made by the licensee is tabulated hereunder.

Table – 2
Number of consumers & Energy sales projection

Consumer Category	2018-19		2019-20		2020-21		2021-22	
	Consumer Strength	Sale MU	Consumer Strength	Sale MU	Consumer Strength	Sale MU	Consumer Strength	Sale MU
Total	83	11.97	116	13.26	130	15.17	153	19.21
% Increase in the sales over previous year				10.78%		14.40%		26.63%

12. The license has submitted the phase wise split up of the projected consumer mix and sales projection for the control period are as follows:

Table – 3
Number of consumers & Energy sales projections for Cherthala

Consumer Category	Number of consumers at Cherthala				Sales at Cherthala (MU)			
	2018-19	2019-20	2020-21	2021-22	2018-19	2019-20	2020-21	2021-22
Industrial IT &IT Enabled	19	24	27	27	0.43	0.49	0.52	0.48
Commercial	2	2	2	2	0.02	0.02	0.02	0.02
Construction Power	3	2	2	2	0.03	0.02	0.02	0.02
Street light	1	1	1	1	0.06	0.06	0.06	0.06
HT 1 B	1	1	1	1	0.57	0.57	0.57	0.57
Total	26	30	33	33	1.11	1.16	1.19	1.15

Table – 4
Number of consumers & Energy sales projections for Phase II, Kakkanad

Consumer Category	Number of consumers at Phase II, Kakkanad				Sales at Phase II, Kakkanad (MU)			
	2018-19	2019-20	2020-21	2021-22	2018-19	2019-20	2020-21	2021-22
Industrial IT &IT Enabled	43	63	73	93	0.95	1.37	1.35	1.65
Commercial	-	1	1	1	-	0.01	0.01	0.01
Construction Power	10	15	15	15	1.61	1.91	1.91	1.91
Street light	1	2	2	2	0.08	0.12	0.13	0.13
HT 1 B	3	5	6	9	8.22	8.69	10.58	14.36
Total	57	86	97	120	10.86	12.10	13.98	18.06

13. The licensee had proposed reduction in the energy requirement at Cherthala for 2021-22 compared to previous years of the control period. The reason for the reduction submitted by the licensee is that many consumers are moving major operations to Infopark Kochi as well as Smartcity due to availability of rental spaces. The licensee is expecting major increase in the number of consumers and the sales mainly at Phase II at Kakkanad. The major increase in sale is projected to the Phase II- Kakkanad Campus is to the HT I B category. The licensee during the hearing had stated that they are expecting growth in Phase II campus at Kakkanad.
14. As per the petition for the truing up of accounts for 2016-17, the total sale of the licensee is 6.03 MU. There is an increase of 37.7% in sales over the year 2015-16. The actual sale during 2015-16 was 4.38 MU. Considering the expansion in the activities of the licensee and the increase in the sales proposed for the control period, the Commission approves the sales as projected for the control period.
15. **Energy requirement & Distribution Loss:** As per Regulation 72, the licensee is to provide voltage level distribution loss and distribution loss trajectory for the control period with supporting studies along with the application. 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.
16. The licensee in the petition had not submitted any details of distribution loss as required as per the Regulation nor had submitted the details as per the forms specified in the regulations. The Commission sought clarification on the same. The licensee submitted the details as per the forms subsequently. As per the details furnished, the licensee projected the distribution loss 6.14 % for each year control period. The actual distribution loss for the year 2016-17 was 7.09% as per the details submitted in the petition for truing up of accounts for the year 2016-17.
17. The Commission in the ARR & ERC for the year 2015-16 had approved a distribution loss of 1.80%. However while truing up the accounts for 2015-16, the Commission had approved a distribution loss of 6.14%. This was so done considering the no load loss estimated for the 31.5 MVA and 12.5 MVA transformers installed at Kakkanad and Cherthala respectively.
18. During the hearing, the Commission directed the licensee to submit loss reduction trajectory for the control period. The licensee vide letter dated 17-04-2019 stated the following;

“We are operating at two different locations named Infopark Cherthala and Infopark Phase II. We are having 110 kV substation at Cherthala and 220 kV substation at Phase II. At both areas we are having low load requirement. Due to this, the losses on working transformer is more. Initially, we have idle charged the spare transformer so as to maintain its better life. In order to reduce the distribution loss to the minimum level, now we have switched off the idle transformers at both the areas. With the effect of the same and due to expected increase of load, we hope that transformer loss will get reduced as follows.

FY-2018-19 - 5.00%

FY-2019-20 - 4.50%

FY-2020-21 - 3.00%

FY-2021-22 – 2.50% “

19. The licensee has proposed an increase in the energy requirement to cater the proposed increase in the sale for the control period. The details of the total sales, total energy requirement and the distribution loss is tabulated hereunder.

Table – 5
Distribution loss and energy input projected for the control period

Year	2018-19	2019-20	2020-21	2021-22
	Projected	Projected	Projected	Projected
Energy sales (MU)	11.97	13.26	15.17	19.21
Distribution loss (%)	5.00%	4.50%	3.00%	2.50%
Energy Requirement (MU)	12.60	13.88	15.64	19.70
Distribution loss (MU)	0.63	0.62	0.47	0.49

20. The Commission notes that the licensee has not furnished any details of the technical studies while proposing the loss reduction targets. Hence the loss reduction targets appear to be arbitrary. Hence in the absence of further details, the Commission is constrained to approve provisionally the distribution loss as proposed by the licensee and directs the licensee to take necessary steps to limit the distribution loss within the specified limits.
21. **Power Purchase Cost:** - As per Regulation 75, the licensee has to submit a power procurement plan for the control period consistent with the sales forecast of unrestricted demand for electricity within the area of supply from each tariff category over each 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.

22. The licensee has proposed an increase in the power purchase cost for each year of the control period considering the increase in the sale of power and the number of consumers. As per the petition submitted by the licensee the power purchase cost is Rs.826.86 lakh for the year 2018-19, Rs.909.69 lakh for the year 2019-20, Rs.1049.06 lakh for the year 2020-21 and 1339.33 lakh for the year 2021-22 respectively. Subsequently the licensee has revised the power purchase cost considering the distribution loss reduction targets proposed by the licensee. The revised phase wise details of power purchase cost submitted by the licensee is tabulated hereunder.

Table – 6
Power Purchase Cost- Infopark Cherthala

Particulars	2018-19	2019-20	2020-21	2021-22
Energy Purchase (MU)	1.16	1.21	1.23	1.17
Maximum demand (kVA)	200	200	200	200
Contract demand (kVA)	300	300	300	300
Demand charge (Rs./kVA)	300	300	300	300
Total demand charge (Rs.lakh)	8.10	8.10	8.10	8.10
Energy charge (Rs./kWh)	5.55	5.55	5.55	5.55
Total energy charge (Rs. Lakh)	63.80	66.45	67.53	64.50
Power purchase cost (Rs. Lakh)	71.90	74.55	75.63	72.60

Table – 7
Power Purchase Cost- Infopark Phase II

Particulars	2018-19	2019-20	2020-21	2021-22
Energy Purchase (MU)	11.44	12.68	14.43	18.54
Maximum demand (kVA)	4000	4500	5000	7500
Contract demand (kVA)	4350	4600	5600	7600
Demand charge (Rs./kVA)	300	300	300	300
Total demand charge (Rs.lakh)	117.45	124.20	151.20	202.20
Energy charge (Rs./kWh)	5.55	5.55	5.55	5.55
Total energy charge (Rs. Lakh)	629.15	697.57	793.42	1019.55
Power purchase cost (Rs. Lakh)	746.60	821.77	944.62	1221.75

23. The Commission had sought the reason for the reduction in the average power purchase cost for 2019-20. The licensee vide letter dated 17-04-2019 stated that they have increased only the energy charge while increasing the unit purchased which had lead to a minor reduction in the average power purchase.

24. On analysis of the computation of the power purchase cost submitted by the licensee, it was seen that there is error in the calculation. The licensee has considered only 75%

of the contract demand for the calculation of the demand charges at phase II when the maximum demand is higher than 75% of contract demand. The Commission also notes an error in the estimation of energy charges projected for the control period.

25. The Commission vide order dated 08-07-2019 in OA No.15/2018 has revised the BST applicable to Infopark as shown below.

Energy Charge (Rs. per unit)	Pre revised Tariff	5.55
	Revised Tariff w.e.f 08-07-2019	5.65
Demand Charge (Rs. kVA per month)	Pre revised Tariff	300.00
	Revised Tariff w.e.f 08-07-2019	340.00

26. Considering the approved quantity of power purchase and increase in tariff applicable for the years of the control period, the phase wise power purchase cost approved is shown below.

Table – 8
Approved Power Purchase Cost- Infopark Cherthala

Particulars	2018-19	2019-20	2020-21	2021-22
Energy Purchase (MU)	1.16	1.21	1.23	1.17
Maximum demand (kVA)	200	200	200	200
Contract demand (kVA)	300	300	300	300
Demand charge (Rs./kVA)	300	300/340	340	340
Total demand charge (Rs.lakh)	8.10	8.89	9.18	9.18
Energy charge (Rs./kWh)	5.55	5.55/5.65	5.65	5.65
Total energy charge (Rs. Lakh)	64.38	68.04	69.50	66.11
Power purchase cost (Rs. Lakh)	72.48	76.93	78.68	75.29

Table – 9
Approved Power Purchase Cost- Infopark Phase II

Particulars	2018-19	2019-20	2020-21	2021-22
Energy Purchase (MU)	11.44	12.68	14.43	18.54
Maximum demand (kVA)	4000	4500	5000	7500
Contract demand (kVA)	4350	4600	5600	7600
Demand charge (Rs./kVA)	300	300/340	340	340
Total demand charge (Rs.lakh)	144.00	177.74	204.00	306.00
Energy charge (Rs./kWh)	5.55	5.55/5.65	5.65	5.65
Total energy charge (Rs. Lakh)	634.92	713.02	815.30	1047.51
Power purchase cost (Rs. Lakh)	778.92	890.75	1019.30	1353.51

27. The total power purchase cost approved for the control period is shown below

Table – 10
Approved Power Purchase Cost for the Control Period

Particulars	2018-19 (Rs. Lakh)	2019-20 (Rs. Lakh)	2020-21 (Rs. Lakh)	2021-22 (Rs. Lakh)
Power purchase cost proposed	826.86	909.69	1049.06	1339.33
Power purchase cost approved	851.40	967.68	1097.98	1428.80

28. It is seen that the licensee has not accounted the internal generation from solar while considering the power purchase requirement. The Commission directs the licensee to account the same while filing the truing up petition for the relevant years.

29. **O&M Expenses:** Operation & maintenance includes controllable expenses like Employee cost, Repair & Maintenance Expenses, Administrative & General Expenses. The Commission as per the Regulation 5 of the KSERC (Terms and conditions for determination of Tariff) Regulations, 2018 has stated that the norms of operation specified under these Regulations are the ceiling norms. The Commission as per Regulation 79(9) of the KSERC (Terms and conditions for determination of Tariff) Regulations, 2018 has approved the operation & maintenance cost of Infopark for the control period. A comparison of the projections made by the licensee and the normative amount fixed by the Commission is shown below.

Table – 11
Comparison of the O&M Expenses

Particulars	2018-19		2019-20		2020-21		2021-22	
	Projection (Rs.lakh)	Norms (Rs.lakh)	Projection (Rs.lakh)	Norms (Rs.lakh)	Projection (Rs.lakh)	Norms (Rs.lakh)	Projection (Rs.lakh)	Norms (Rs.lakh)
Employee cost	18.37	42.96	20.21	45.04	22.24	47.22	24.46	49.50
R&M Expenses	54.36		81.96		88.21		95.15	
A&G Expenses	9.12		9.47		9.90		10.34	
Total	81.85	42.96	111.64	45.04	120.35	47.22	129.95	49.50

30. As shown above, the licensee has projected the Operation and maintenance cost higher than the amount specified in the regulation. The Commission has fixed the norms for the control period considering the actual expense for 2015-16 as the base and escalation rates based on the CPI:WPI indices for finalizing the Tariff Regulations, 2018 as there is limited past data available and the licensee is still expanding the activities.

31. Based on the projections made by the licensee, the per unit O&M cost is tabulated hereunder.

Table – 12
Per unit O&M cost projected by the licensee

Sl.No	Particulars	2018-19	2019-20	2020-21	2021-22
1	Total Sales (Lakh Unit)	119.70	132.70	151.80	192.20
2	Projected Employee cost (Rs.lakh)	18.37	20.21	22.24	24.46
3	Projected R&M Expenses (Rs.lakh)	54.36	81.96	88.21	95.15
4	Projected A&G Expenses (Rs.lakh)	9.12	9.47	9.90	10.34
5	Projected O&M Expenses (Rs.lakh)	81.85	111.64	120.35	129.95
6	Per unit Employee cost - Rs/unit (2/1)	0.15	0.15	0.15	0.13
7	Per unit R&M Expenses - Rs/unit (3/1)	0.45	0.62	0.58	0.50
8	Per unit A&G Expenses - Rs/unit (4/1)	0.08	0.07	0.07	0.05
9	Per unit O&M Expenses - Rs/unit (5/1)	0.68	0.84	0.79	0.68

32. The per unit O&M cost proposed by the licensee is more than double, when compared to the per unit cost computed based on the normative amount approved by the Commission. Each item of the O&M expense is analysed in detail as hereunder.

33. **Employee cost:** The licensee has projected the employee cost for the control period considering the full salary of resident engineers in Cherthala and Infopark Phase II and 50% salary of an accountant.

Table – 13
Employee Cost projected by the licensee

Particulars	2016-17 (Actual) (Rs.lakh)	2018-19 (Rs.lakh)	2019-20 (Rs.lakh)	2020-21 (Rs.lakh)	2021-22 (Rs.lakh)
Resident Engineer - Cherthala	4.43	5.48	6.03	6.63	7.29
Resident Engineer - Kakkanad	7.00	10.15	11.17	12.29	13.51
Accountant	2.13	2.74	3.01	3.32	3.65
Total	13.57	18.37	20.21	22.23	24.46

The detailed split up of the projection made as per the petition is tabulated hereunder.

Table-14
Details of proposed employee cost for the control period

Particulars	2016-17 (Actual) (Rs.lakh)	2018-19 (Rs.lakh)	2019-20 (Rs.lakh)	2020-21 (Rs.lakh)	2021-22 (Rs.lakh)
Basic Salary	3.49	6.75	7.42	8.16	8.98
Dearness Allowance (DA)	8.39	7.56	8.31	9.14	10.06
House Rent Allowance	0.23	0.32	0.35	0.39	0.42
Conveyance Allowance	0.04	0.10	0.11	0.12	0.13
Earned Leave Encashment	0.97	1.14	1.26	1.39	1.52
Other Allowances	0.00	1.32	1.45	1.60	1.76
Medical Reimbursement	0.45	1.19	1.31	1.44	1.59
Total	13.57	18.38	20.21	22.23	24.46
%Increase over the year			9.96%	10.00%	10.00%

34. The licensee has proposed a 10% increase in the employee cost for each year of the control period. While truing up the accounts for the year 2015-16, the Commission had approved an amount of Rs.10.21 lakh for Phase I - Cherthala and Phase II – Kakkanad together. During 2015-16, the licensee had engaged one resident engineer each at Infopark Cherthala and Infopark Phase II, and a common accountant for both the parks, which according to the licensee is the bare minimum staff for the licensee operation. The licensee had apportioned 60% of the total salary of the resident engineer in Cherthala, resident engineer Infopark Phase II and of an accountant for the purpose of distribution business.
35. As per the details in the petition for the control period, the licensee has changed the apportionment rate and considered 100% of the resident engineer in Cherthala, and Infopark Phase II and 50% salary of the accountant. The licensee also stated that the increase is due to proposed development in phase II. It is not clear from the estimates given by the licensee that any pay revision etc has been factored in while projecting the employee cost for the control period. The significant increase in the employee cost over may be due to the change in the apportionment considered by the licensee
36. In this context it is to be noted that Regulation 11 of the Kerala State Electricity Regulatory Commission (Licensing) Regulations, 2006 clearly specifies the modality to be followed by the licensees in keeping the accounts. The regulations states that the distribution licensee shall not normally change the basis of charge or apportionment or allocation of revenues or expenses in relation to the preparation of the accounting statements in respect of a financial year from those applied in respect of the previous financial year, without prior intimation to the Commission. In the present case, the licensee has not followed a consistent method for apportioning the cost.
37. **R&M Expenses:** R & M expenses projected includes the R&M expenses for both Cherthala and Kakkanad. The amount includes the AMC charges for the substation and the cost of operation outsourced for the license area. The licensee has stated that the Repair and maintenance is generally outsourced based on competitive tenders. Being IT park working on 24 hr basis, it is required to engage one shift operator and one shift assistant in all the three shifts. i.e. round the clock operating staff is engaged. Same operating staff is arranged for doing preventive and break down maintenance. For specialised breakdown maintenance manpower is outsourced. Licensee further stated that the materials required for maintenance is purchased directly based on sealed open tenders. With regard to the increase in the O&M proposed for the years,

the licensee has stated that the projection includes the full cost of the shift operators and assistants for all the three shifts, where as during previous years had only apportioned the expense of the shift operator.

38. The major amount projected for the control period is towards the annual maintenance contract (AMC) and operation & maintenance contract. The licensee during the hearing had stated that the increase in the R&M expense is mainly on account of the expiry of the warranty period for 220 KV GIS substation at phase II. The detailed split up submitted in the form D 3.4(c) is as shown below.

Table-15
R&M expenses proposed for the control period

Particulars	2016-17 (Actual) (Rs.lakh)	2018-19 (Rs.lakh)	2019-20 (Rs.lakh)	2020-21 (Rs.lakh)	2021-22 (Rs.lakh)
Plant & Machinery	-	16.70	17.00	17.75	18.50
Buildings	-	0.30	0.20	0.25	0.36
Lines & Cable Networks	-	1.00	1.20	1.50	2.00
Furniture & Fixtures	-	0.00	0.19	0.25	0.30
Annual Maintenance contract (AMC)	6.54	0.00	25.00	26.25	27.56
O & M contract	9.32	36.36	38.37	42.21	46.43
Gross R&M Expenses	15.86	54.36	81.96	88.21	95.15

39. The Actual R&M expenditure during the year 2015-16 was Rs.17.69 lakh (Annual Maintenance Contract of Rs.9.65 lakh and O & M contract of Rs.8.04 lakh) which the Commission had approved while truing up the accounts. The projections made by the licensee for Annual Maintenance Contract and O & M contract for the control period are very much on the higher side. For the year 2016-17, the licensee has claimed an amount of Rs.15.87 lakh which is lower than 2015-16. As mentioned above, the licensee during the hearing mentioned that the Annual Maintenance Contract necessitated due to the expiry of the warranty period for 220 KV GIS substation at phase II. The licensee has projected the AMC charges to be Rs.25.00 lakh. Subsequently the licensee has informed that they have negotiated to reduce the amount to Rs. 16.55 lakh. The licensee shall submit proper details while submitting the truing up petitions for the relevant years.

40. **A&G Expenses:** The A & G Expenses proposed, includes Insurance, telephone, postage, audit charge, vehicle expenses, bank charges, licensee fee etc. The licensee has also proposed the interest paid to consumers as part of A&G expenses. The split up of the projection is tabulated hereunder.

Table-16
A&G Expenses projected for the control period

Particulars	2016-17 (Actual) (Rs.lakh)	2018-19 (Rs.lakh)	2019-20 (Rs.lakh)	2020-21 (Rs.lakh)	2021-22 (Rs.lakh)
Insurance	-	2.66	2.80	2.90	3.00
Telephone & Postage, etc.	0.43	0.46	0.48	0.50	0.53
Legal charges	-	0.10	0.00	0.00	0.00
Audit Fees	0.22	0.15	0.16	0.17	0.17
Conveyance	0.11	0.12	0.12	0.13	0.14
Vehicle Hiring Expenses Truck / Delivery Van	0.30	0.33	0.36	0.40	0.44
Printing & Stationery	0.29	0.30	0.32	0.34	0.35
Interest paid to consumers	1.32	1.38	1.45	1.52	1.60
Rates and Taxes (inspection fee, ARR submission, License fee)	2.70	2.83	2.97	3.12	3.28
Bank Charges	4.37	0.78	0.80	0.82	0.83
Gross A&G Expenses	9.75	9.12	9.47	9.90	10.34

41. The actual A&G expense for 2016-17 as per the petition for truing up of accounts is Rs.9.75 lakh. The major expenses proposed for the control period are towards insurance, Inspection fee, ARR submission, License fee. The licensee has also projected interest paid to consumers and bank charges under the A&G expenses. The licensee shall account the interest on security deposit paid to the consumers and bank charges under interest and finance charges.

42. **O&M Expenses Approved:** The Commission had analyzed the operation and maintenance expenses projected by the licensee. It is seen that the projections are on the higher side and are not reasonable & consistent compared to the actual expense incurred in previous years. The Commission has fixed the normative O&M expense in the Tariff Regulations, 2018 considering the past trend. As per the Regulation 79(9) of the Tariff Regulations, 2018 all components of O&M expenses are controllable expenses. Accordingly Commission is of the considered view that the O&M expense is to be approved only in line with Regulation 79(9). The approved O&M expense for the control period is shown below.

Table-17
O&M Approved for the control period

Year	(Rs.lakh)
2018-19	42.96
2019-20	45.04
2020-21	47.22
2021-22	49.50

43. The licensee is directed to limit the operation and maintenance expenses at the normative amount approved by the Commission.

44. **Interest and Finance Charges:** - The licensee has not proposed any interest and finance charges for the Control period, whereas has claimed the interest on security deposits and bank charges under A&G expenses. The Commission approves the projection made as interest on security deposits and bank charges under interest charges.

Table-18
Interest and Finance charges approved

Particulars	2018-19 (Rs.lakh)	2019-20 (Rs.lakh)	2020-21 (Rs.lakh)	2021-22 (Rs.lakh)
Interest on security deposits	1.38	1.45	1.52	1.60
Bank charges	0.78	0.80	0.82	0.83
Interest and Finance charges	2.16	2.25	2.34	2.43

45. **Depreciation:** - The licensee in the petition has claimed depreciation in the straight line method as per the schedule specified in the Tariff Regulations 2018. The licensee has projected an amount of Rs.228.03 lakh as Depreciation for each year of the control period which includes depreciation for existing Cherthala 110 kV substation and Phase II 220 kV substation. The details of the claim are shown below.

Table-19
Depreciation proposed for the control period

Particulars	Cherthala 110 kV substation		
	Asset Value (Rs. Lakh)	Depreciation rate (%)	Depreciation Claimed (Rs. Lakh)
Land & land rights	150.00	-	-
Civil works	186.94	3.34%	6.24
Transformers	180.30	5.28%	9.52
Switch gear	288.03	5.28%	15.21
Batteries	13.45	5.28%	0.71
Others	52.70	3.34%	1.76
Distribution Lines	14.61	5.28%	0.77
Transformers	20.26	5.28%	1.07
Switch gear	110.00	5.28%	5.81
Batteries	1.67	5.28%	0.09
Others/DG	99.97	5.28%	5.28
Total	1117.93		46.46

Particulars	Phase II 220 kV substation		
	Asset Value (Rs. Lakh)	Depreciation rate (%)	Depreciation Claimed (Rs. Lakh)
Land & land rights	560.00	-	-
Other Civil works	708.88	3.34%	23.68
Distribution lines	401.06	5.28%	21.18
Sub-station equipments	113.36	5.28%	5.99
Transformers	715.12	5.28%	37.76
Switchgears	1026.02	5.28%	54.17
Control gear & Protection	113.36	5.28%	5.99
Distribution lines	24.35	5.28%	1.29
Sub-station equipments	19.04	5.28%	1.01
Transformers	5.71	5.28%	0.30
Switchgears, Control gear & Protection	215.92	5.28%	11.40
Distribution lines	43.72	5.28%	2.31
Sub-station equipments	15.14	5.28%	0.80
Batteries	25.54	5.28%	1.35
DG	13.12	5.28%	0.69
Others	224.92	3.34%	7.51
Communication equipment	97.42	6.33%	6.17
Total	4322.68		181.58

46. It is seen that the licensee for the control period has proposed depreciation for the assets created out of grant/ contribution which is not in line with the provision of the Tariff Regulations, 2018. In the order on the truing up of accounts for the year 2015-16 the Commission had not approved depreciation since the assets are created from the grant. During the process of truing up the accounts for 2015-16, the licensee had in letter dated 22-6-2017 stated that depreciation is claimed on a proportionate basis for the year 2015-16 for the 220kV substation which is being developed with the government grant. The licensee has also stated that the assets of 110kV substation Cherthala as well as the 220kV substation at Kakkanad developed through budgetary support are not booked in the licensee account.

47. The statement made by the licensee vide letter dated 22-06-2017 is quoted hereunder.

"In the case of Infopark power licensee account policy we have accounted the major assets like 110kV substation of Infopark Cherthala and 220kV substation at Infopark Phase II as a contribution from the infrastructure provider. The loan amount from South Indian Bank for construction of 110kV substation at Cherthala as well as the budgetary support obtained from Government for construction of 220kV at Infopark phase II Kakkanad is not booked in the licensee account. Once

these substation is commissioned, it is getting transferred from the infrastructure provider to the asset register of Infoparks Kerala Power Licensee. As the asset is transferred to the licensee as an infrastructure provider contribution we have worked out the depreciation as per accounting practices. Hon'ble commission may take note on this."

48. Regulation 25 of the Tariff Regulations 2018 is quoted hereunder

"25.Consumer contribution, deposit work, capital subsidy or grant. –

(1) Works of the following nature carried out by the generation business/company, transmission business/licensee or distribution business/licensee shall be classified under the categories of consumer contribution, deposit work, capital subsidy or grant,-

(a) capital works undertaken after obtaining a part or all of the funds from the users/consumers ;

(b) capital works undertaken by utilising capital subsidies or grants received from the State and/or Central Governments or any other sources;

(c) any other capital subsidy or grant of similar nature received without any obligation to return the same and with no interest costs attached to such subvention.

(2) The expenses on such capital assets created out of contribution or grants or deposit works or capital subsidy shall be treated as follows:-

(a) O&M expenses as specified in these Regulations shall be allowed;

(b) provisions for depreciation, as specified in Regulation 27, shall not be allowed to the extent of financial support provided through consumer contribution, deposit work, capital subsidy or grant; and

(c) provisions related to return on equity share capital or net fixed assets as applicable, as per Regulation 28 shall not be allowed to the extent of financial support provided through consumer contribution, deposit work, capital subsidy or grant."

49. Since the assets are created from contribution, depreciation cannot be allowed. The licensee is directed to show details of assets in the books of accounts properly and also maintain a fixed asset register for the distribution licensee operations. The licensee shall submit details if any on the assets created out of loans to claim depreciation while truing up the accounts for the respective years of the control period. The licensee is also directed to properly segregate the assets created out of contribution and loans.

50. **Return on Equity:-** As per Regulation 28(2) of the Tariff Regulations 2018, if there is no equity invested in the business or equity invested in the regulated business of the

distribution licensee is not clearly identifiable, return at the rate of three percent shall be allowed on the net fixed assets at the beginning of the financial year for such regulated business. Accordingly, the licensee has claimed a RoE at the rate of three percent on the net fixed assets at the beginning of the financial year as shown below.

Table-20
Return on Net Fixed Assets projected

Particulars		2018-19 (Rs.lakh)	2019-20 (Rs.lakh)	2020-21 (Rs.lakh)	2021-22 (Rs.lakh)
NFA at the beginning of the year		5440.61	5212.58	4984.54	4756.51
Return on Equity at the beginning of the year	14%	761.69	729.76	697.84	665.91
Depreciation projected for the year		228.03	228.03	228.03	228.03
Total return on NFA	3%	22.85	21.89	20.94	19.98

51. Regulation 28 of Tariff Regulation 2018 provides for Return on Equity Share capital or Net Fixed Assets

“28. Return on Equity Share capital or Net Fixed Assets. – (1) Return on equity shall be computed in rupee terms, on the paid up equity capital determined in accordance with the regulation 26 and shall be allowed at the rate of fourteen percent for generating business/companies, transmission business/licensee, distribution business/licensee and state load despatch centre:

Regulation 28(2) provides as shown below

“(2) If the equity invested in the regulated business of the generating business/company or transmission business/licensee or distribution business/licensee or state load despatch centre is not clearly identifiable, return at the rate of three percent shall be allowed on the net fixed assets at the beginning of the financial year for such regulated business:

Provided that net fixed assets shall be exclusive of the assets created out of consumer contribution, deposit works, capital subsidy or grants”

52. As per proviso to Regulation 28(2), net fixed assets eligible for returns shall be exclusive of grants/contribution. Based on the statement of the licensee, the assets are created from the contribution as shown in para 47. Accordingly the licensee is not eligible for any return on investment as such.

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

Table 21
Aggregate Revenue Requirement approved for the control period

Particulars	2018-19		2019-20	
	Projection (Rs. lakh)	Approved (Rs. lakh)	Projection (Rs. lakh)	Approved (Rs. lakh)
Power Purchase Cost	826.86	851.40	909.69	967.68
O&M Expenses	81.85	42.96	111.64	45.04
Interest and finance charges	-	2.16	-	2.25
Depreciation	228.03	-	228.03	-
Return on equity	22.85	-	21.89	-
Total Expenditure	1159.59	896.52	1271.25	1014.97

Particulars	2020-21		2021-22	
	Projection (Rs. lakh)	Approved (Rs. lakh)	Projection (Rs. lakh)	Approved (Rs. lakh)
Power Purchase Cost	1049.06	1097.98	1339.33	1428.80
O&M Expenses	120.35	47.22	129.95	49.50
Interest and finance charges	-	2.34	-	2.43
Depreciation	228.03	-	228.03	-
Return on equity	20.94	-	19.98	-
Total Expenditure	1418.38	1147.54	1717.29	1480.73

54. **Total Revenue:** - The total revenue includes revenue from the sale and non tariff income claimed by the licensee.

55. **Revenue from Sale of Power:** The licensee in the petition has projected the revenue from sale of power the years of the control period. The sale and the revenue projected for each year of the control period is tabulated below.

Table-22
Revenue from sale of power

Particulars	Number of Consumers	Sale (MU)	Revenue from Sale (Rs.Lakh)	Average Tariff
2018-19	83	11.97	934.03	7.80
2019-20	116	13.26	1033.14	7.79
2020-21	130	15.17	1181.02	7.79
2021-22	153	19.21	1488.44	7.75

56. The Commission vide order dated 08-07-2019 in OA No.15/2018 has revised the retail supply tariff applicable to consumers across the state. Accordingly the revenue from sale of power proposed for the years of the control period was submitted based on the new tariff. Since there is no tariff revision applicable for the year 2018-19, the

projection made by the licensee is considered. Accordingly, the revenue projection based on the relevant tariff applicable for the years of the control period is tabulated hereunder.

Table-23
Revenue Projections for the control period

	2018-19				2019-20			
Consumer Category	Number of consumers	Sale MU	Revenue from sale Rs.lakh	Average Tariff (Rs./unit)	Number of consumers	Sale MU	Revenue from sale Rs.lakh	Average Tariff (Rs./unit)
Industrial IT &IT Enabled	62	1.38	87.79	6.36	87	1.86	125.13	6.73
Commercial	2	0.02	2.22	11.10	3	0.03	3.45	11.50
Construction Power	13	1.64	161.46	9.85	17	1.93	192.51	9.97
Street light	2	0.14	5.42	3.87	3	0.18	7.50	4.17
HT 1 B (Cherthala)	1	0.57	43.69	7.66	1	0.57	45.83	8.04
HT 1 B (Phase II)	3	8.22	633.45	7.71	5	8.69	702.71	8.08
Total	83	11.97	934.03	7.80	116	13.26	1077.13	8.12
	2020-21				2021-22			
Consumer Category	Number of consumers	Sale MU	Revenue from sale Rs.lakh	Average Tariff (Rs./unit)	Number of consumers	Sale MU	Revenue from sale Rs.lakh	Average Tariff (Rs./unit)
Industrial IT &IT Enabled	100	1.87	129.52	6.92	120	2.13	146.94	6.90
Commercial	3	0.03	3.46	11.53	3	0.03	3.46	11.53
Construction Power	17	1.93	193.20	10.01	17	1.93	193.20	10.01
Street light	3	0.19	8.38	4.41	3	0.19	8.38	4.41
HT 1 B (Cherthala)	1	0.57	46.54	8.16	1	0.57	46.54	8.16
HT 1 B (Phase II)	6	10.58	868.81	8.21	9	14.36	1179.10	8.21
Total	130	15.17	1249.91	8.23	153	19.21	1577.63	8.21

57. As per the projections made, the major sale is to the Phase II- Kakkanad Campus (HT I B). The revenue from sale is increasing year on year considering the proposed increase in the sale of power. It is seen that there is a reduction in the average realization for the year 2021-22 in the Industrial IT & IT Enabled consumer category which might be due to the proposed reduction in the energy requirement at Cherthala for 2021-22 compared to previous years of the control period. The reason for the reduction submitted by the licensee is that many consumers are moving major operations to Infopark Kochi as well as Smartcity due to availability of rental spaces.

58. After examining the details of the revenue from sale of power furnished by the licensee, the Commission approves the same as proposed for the control period.

Table-24
Approved revenue from sale of power as per revised tariff

Particulars	Sale (MU)	Revenue from Sale (Rs.Lakh)
2018-19	11.97	934.03
2019-20	13.26	1077.13
2020-21	15.17	1249.91
2021-22	19.21	1577.63

59. **Non-Tariff Income:** The licensee has proposed interest on security deposit, meter installation charges and application fee for new connection as part of the Non Tariff Income. The licensee has stated that they have deposited an amount of Rs. 12.00 lakh and Rs. 13.00 lakh respectively as security deposit for availing power connection from KSEB Ltd at Infopark Cherthala and Phase II and interest on security deposit is based on the same. The split up the non -tariff income projected for the control period is tabulated below.

Table-25
Non Tariff Income projected for the control period

Non-Tariff Income	2018-19 (Rs.lakh)	2019-20 (Rs.lakh)	2020-21 (Rs.lakh)	2021-22 (Rs.lakh)
Interest received from bank	2.14	2.14	2.14	2.14
Interest received from others (KSEB)	1.60	1.63	1.65	1.66
Meter cost	0.07	0.00	0.00	0.00
Meter installation charge	0.59	1.51	0.64	1.05
Application Fee	0.01	0.02	0.01	0.01
Total	4.41	5.30	4.44	4.87

60. The actual Non tariff income for 2016-17 is Rs.3.46 lakh, which mainly includes Rs.2.14 lakh income received from KSEB Ltd Rs.0.74 lakh as interest received from bank. The Commission approves the non-tariff income as projected for the control period.

61. **Revenue Surplus/Gap:** 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 -26
Approved ARR&ERC for the control period

Particulars	2018-19		2019-20	
	Projection (Rs. Lakh)	Approved (Rs. Lakh)	Projection (Rs. Lakh)	Approved (Rs. Lakh)
Revenue from sale of power	934.02	934.02	1033.15	1077.13
Other income	4.41	4.41	5.30	5.30
Total income	938.43	938.43	1038.45	1082.43
Power Purchase Cost	826.86	851.40	909.69	967.68
O&M Expenses	81.85	42.96	111.64	45.04
Interest and finance charges	-	2.16	-	2.25
Depreciation	228.03	-	228.03	-
Return on equity	22.85	-	21.89	-
Total Expenditure	1159.59	896.52	1271.25	1014.97
Revenue Surplus (+)/ Gap (-)	(-)221.16	(-)41.91	(-)232.80	(-)67.46

Particulars	2020-21		2021-22	
	Projection (Rs. Lakh)	Approved (Rs. Lakh)	Projection (Rs. Lakh)	Approved (Rs. Lakh)
Revenue from sale of power	1181.03	1249.91	1480.87	1577.63
Other income	4.44	4.44	4.87	4.87
Total income	1185.47	1254.35	1485.74	1582.50
Power Purchase Cost	1049.06	1097.98	1339.33	1428.80
O&M Expenses	120.35	47.22	129.95	49.50
Interest and finance charges	-	2.34	-	2.43
Depreciation	228.03	-	228.03	-
Return on equity	20.94	-	19.98	-
Total Expenditure	1418.38	1147.54	1717.29	1480.73
Revenue Surplus (+)/ Gap (-)	(-)232.91	(-)106.81	(-)231.55	(-)101.77

Order of the Commission

62. The Commission considered the application for approval of ARR & ERC for the Control Period 2018-19 to 2021-22, the additional clarifications and submissions furnished by the licensee along with the comments of KSEB Ltd. Accordingly the approved ARR & ERC for the Control Period 2018-19 to 2021-22 are as shown below.

Particulars	2018-19 Approved (Rs. Lakh)	2019-20 Approved (Rs. Lakh)	2020-21 Approved (Rs. Lakh)	2021-22 Approved (Rs. Lakh)
Total income	938.43	1082.43	1254.35	1582.50
Total Expenditure	896.52	1014.97	1147.54	1480.73
Revenue Surplus (+)/ Gap (-)	(-)41.91	(-)67.46	(-)106.81	(-)101.77

Directives of the Commission

63. 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 license and report compliance while filing the truing up of accounts for each year of the control period.
- (ii) Implement steps to promote renewable energy and report compliance while filing the truing up of accounts for each year of the control period.
- (iii) Bring down the distribution loss to the level stipulated in this order.
- (iv) Limit the controllable expenditure to the amounts approved in this order.
- (v) Show details of assets in the books of accounts properly and maintain a fixed asset register for the distribution licensee operations. The licensee shall submit details if any on the assets created out of loans to claim depreciation while truing up the accounts for the respective years of the control period. The licensee is also directed to properly segregate the assets created out of contribution.
- (vi) Submit detailed capital investment plan before the Commission and obtain the formal approval of the Commission.

Sd/-
K.Vikraman Nair
Member

Sd/-
S.Venugopal
Member

Sd/-
Preman Dinaraj
Chairman

Approved for issue
Sd/-
G.Jyothichudan
Secretary