

**KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM**

Present : Shri. K.J.Mathew, Chairman
Shri. P.Parameswaran, Member

December 7, 2011

Petition No. OP 23/2011

In the matter of

ARR & ERC of M/s Technopark for 2011-12

M/s Technopark, Thiruvananthapuram.

--- Petitioner

ORDER

Background

1. M/s.Technopark, Thiruvananthapuram, is a deemed distribution Licensee for distribution of electricity in the Technopark campus. The park has now four phases viz., phase I the existing park. Phase II campus leased out to Infosys and UST Global, Phase III adjacent to Phase II having 93 acres of land being developed and Phase IV Technopark Kollam. At present the entire power demand of Technopark is being supplied by Kerala State Electricity Board at 110 kV level at two substations. The total connected load is 15000 kVA and maximum demand of the Licensee is around 13 MVA. Phase I is fed through four 11 KV feeders from 110 KV substation at Kazakuttam. Phase II and III are fed through another 110 KV substation in Technopark Phase III campus.
2. The ARR&ERC petition for the year 2011-12 of M/s Technopark was filed on 18.08.2011 after a delay of more than 8 months. The Commission has taken a serious note of the delay. The summary of the petition is given below:

ARR&ERC Projected for the year 2011-12

Category	2010-11 (Approved) (Rs.lakhs)	2010-11 (Actual) (Rs.lakhs)	Projected (2011-12) (Rs.lakhs)
Power Purchase cost	2082.68	2,193.21	2,560.46
Interest & Financing charges	129.86	61.18	62.84
Depreciation	112.96	101.03	103.16
Employee costs	12.40	12.40	14.27

Category	2010-11 (Approved) (Rs.lakhs)	2010-11 (Actual) (Rs.lakhs)	Projected (2011-12) (Rs.lakhs)
R&M Expenses	65.00	78.73	92.32
A&G Expenses	55.96	44.68	47.98
Return on investment	22.39		
Total expenditure	2481.25	2,491.23	2,881.03
Revenue from Tariff	2522.67	2,286.88	2,815.20
Other income	33.70	24.98	25.75
Total Revenue	2556.37	2,311.86	2,840.95
Revenue (Gap)/Surplus	75.12	(179.38)	(40.08)

3. As per the petition the revenue gap expected in 2011-12 is Rs.40.08 lakhs before return on investment, compared to Rs.179.38 lakhs for 2010-11. After receiving the petition, the Commission sought clarifications on certain points on ARR& ERC vide letter dated 06.09.11, which the licensee furnished vide letter dated 04.10.11.

Hearing on the petition

4. Public hearing on the petition was held on 24.10.11 at Park Centre, Technopark Camus. Representatives of some consumers and KSEB attended the hearing. The Chief Executive Officer, Technopark, gave a brief account of various activities of the Park and the expansion programme envisaged. The General Manager (Technical), Technopark, presented the ARR&ERC petition before the Commission.
5. Kerala State Electricity Board in their arguments pointed out the delay in the submission of ARR&ERC for 2011-12 by the petitioner M/s Technopark. According to them, the licensee has not provided the projectwise details and investments made in the licensed area. The distribution loss projected by the licensee for 2010-11 is 5.57% which is higher than the actuals for 2009-10. The Board requested that a reasonable level of losses may be fixed for 2011-12. The depreciation applicable to the licensee shall be based on the CERC norms. The O&M expenses are 149% higher than the approved figure for 2008-09. It is due to inclusion of cost of other activities such as fire fighting, plumbing, water works etc., which are not part of distribution function. The Commission in the truing up order of the licensee for 2008-09 has directed to outsource the operations through a transparent process of bidding. It has to be ascertained as to whether the licensee has followed the directive. The Section 3(1) duty shall not be part of the expenses of the licensee. The licensee has projected Rs.10 crore worth of

distribution capital works, which needs to be examined. The depreciation and interest and finance charges are not to be allowed. The average rate of realisation projected by the licensee for the year 2011-12 works out to be Rs.4.65 paise per unit. However, the approved rate of realisation for 2010-11 was Rs.5.02 per unit. As part of the A&G expenses, the security expenses charged by the licensee is higher. The extra expenditure of Rs.262.6 lakhs due to revision of BST could be fully met from the truing up of previous year's accounts.

6. In reply to the arguments, the licensee has given written reply dated 10-11-2011. According to the licensee the licence is granted for distribution of electricity in different project areas and it holds only one licence. Hence separate ARR&ERC for different phases is not necessary. The increase in technical losses is due to supply in new project areas and all possible measures will be taken to reduce the losses to a level below 5.22%. The depreciation is estimated as per the Electricity Act 2003. The O&M contracts are awarded after inviting competitive tenders and O&M contract is exclusively for distribution infrastructure, which does not include fire protection system, water distribution etc. The own consumption is metered separately and billed in LT IIA and the revenue recognised in the ARR&ERC.
7. The capital expenditure proposed is for the Technopark Kollam, which is under the development stage. The cost break up given by the licensee shows that expenses are for a 110kV substation (Rs.2.73 crore) and 110kV EHV UG cable (Rs.7.66 crore), which is booked under distribution capital expenditure. The average realisation projected for 2010-11 for HT consumers is Rs.3.76 per unit and Rs.4.35 per unit for LT consumers.

Analysis and decision of the Commission

8. In finalising the order, the Commission has considered the materials filed by the licensee and the arguments and clarifications of the petitioner and the Board. Various items in the petition are discussed hereunder.
9. **Energy sales and distribution losses:** The total sales estimated for the year 2011-12 is 60.50 MU as against 49.89 MU for the previous year. The increase projected is about 21% over the previous year. The reason for increase is the increase in consumers in Phase I and the consumption in Phase II and III, which are under development. The consumption of HT consumers is expected to increase due to the commissioning of NEST Towers, CDAC, KSITM data

projects in Phase I and Infosys in Phase II. As per the details provided by the licensee, sales expected in phase I is 55.73 MU and 5.13 MU in Phase II.

10. The total energy purchase projected by the licensee is 64.06 MU and the distribution loss projected is 5.56%. The distribution loss approved for 2010-11 was 4.2%. The licensee could not explain the reason for higher loss figures. In the public hearing, the licensee has explained several steps taken for reduction in losses. Demand side management activities undertaken by the licensee such as green building design, day light sensors, energy efficient equipment for air conditioning etc., are expected to reduce the energy consumption. The power quality improvements are achieved through implementation of STATCOM units in 11kV substations and APFC panels. Reactive compensation is provided at load end and also at the substations. In order to monitor and control the losses, power management system is being implemented at the 11kV incoming feeders. Electromagnetic meters are being progressively replaced with electronic meters. Considering the steps taken by the licensee, the Commission is of the view that the distribution losses can be reduced further. As per the truing up of accounts approved by the Commission the loss levels reported for 2008-09 is 3%. As per the account of 2009-10, the reported loss level is 5.52%. Considering the actual loss levels reported in 2008-09 and loss levels approved in 2010-11, the Commission is not in a position to approve the distribution loss level as proposed by the licensee. Hence for 2011-12, the Commission approves a loss level of 4%. Accordingly the power purchase requirements shall be 63.02MU as shown below

Projected and approved Power purchase

Description	2010-11		2011-12	
	Approved	Provisional	Projected	Approved
Energy sales (MU)	60.57	50.26	60.50	60.50
Power Purchase (MU)	63.11	53.70	64.06	63.02
Distribution loss (MU)	2.54	3.44	3.56	2.65
Distribution loss (%)	4.20%	6.41%	5.56%	4.00%

11. **Purchase of power** : The power purchase cost projected by the licensee for 2011-12 is Rs.2524.16 lakhs. The power purchase cost is estimated based on the revised BST of Rs.3.16/kWh. The Licensee has included Section 3(1) duty amounting to Rs.36.30 Lakh in the cost of power. As this duty is to be borne by the licensee, the same is disallowed. Based on the approved distribution loss of

4%, power purchase requirements and cost approved for 2011-12 is given below.

Power purchase cost approved for 2011-12

	2011-12		
	Unit	Projected	Approved
Energy requirement	MU	60.50	63.02
Fixed charges	Rs.lakhs	499.80	499.80
Energy charges	Rs.lakhs	2,024.36	1,991.43
Section3 duty	Rs.lakhs	36.30	-
Total Charges	Rs.lakhs	2,560.46	2,491.23

12. Interest and financing charges: The Licensee has claimed interest and Finance Charges as detailed below:

Projected interest and financing charges for 2011-12

	Approved (2010-11)	Provisional (2010-11)	Projected (2011-12)
	Rs. lakhs	Rs. lakhs	Rs. lakhs
Loan for Electrical Installation of Bhavani and Gayatri building	11.66	11.66	9.66
Loan for Electrical Installation of Thejaswini buildings	22.77	22.27	19.27
Loan for Phase III	70.58	Nil	Nil
Interest on Consumers Security Deposit	24.85	27.25	33.91
Total	129.86	61.18	62.84

13. The interest on loan consists of share of loan taken for electrical installation of Bhavani and Gayathri buildings. Further, interest on security deposit is also included. As per details provided by the licensee, interest on security deposit actually paid for 2010-11 is Rs.27.39 lakhs. The licensee has projected Rs.33.91 lakhs as interest on security deposit for 2011-12. The interest on security deposit is provided at 6% for the deposits held by the Licensee. As per the details provided by the licensee the security deposit as on 1-4-2011 is Rs.511.18 lakhs. Hence the interest on security deposit for the year will be Rs.30.67 lakhs. The total interest and financial charges approved by the Commission for the year 2011-12 are as given below:

Interest and financing charges approved for 2011-12

	Projected (2011-12)	Approved for 2011-12
	Rs. lakhs	Rs. lakhs
Loan for Electrical Installation of Bhavani & Gayatri building	9.66	9.66
Loan for Electrical Installation of Thejaswini buildings	19.27	19.27
Loan for Phase III	-	
Interest on Consumers Security Deposit	33.91	30.67
Total	62.84	59.60

14. **Depreciation:** Depreciation approved for 2010-11 and the projections for 2011-12 made by the Licensee are given below:

Description of Asset	Approved for 2010-11 (Rs.lakhs)	Projected for 2011-12 (Rs.lakhs)	Rate of Depreciation (%)
Civil Works	3.40	3.40	1.80
Transmission lines	23.83	25.97	3.60
Substations	69.79	69.79	3.60
11 KV Works	3.00	3.00	3.60
LT Lines, Service Connections etc	0.88	0.88	3.60
Metering Equipment	0.09	0.09	3.54
Others	0.03	0.03	3.30
Total	101.02	103.16	

The licensee has claimed that the depreciation is estimated based on the rates as per the CERC norms. After considering the details provided by the licensee, the Commission approves the depreciation as proposed by the licensee for 2011-12.

15. **Employee cost :** The Licensee has stated that employee cost has been separated from the main business. The details of employee Cost from 2007-08 are furnished below :

Employee costs for previous years

Year	Employee costs (Rs.lakhs)	Increase over previous years (%)
2007-08 (Actuals)	6.36	
2008-09 (Actuals)	9.11	43.2%
2009-10 (Approved)	11.65	27.9%
2010-11 (Approved)	12.40	6.4%
2011-12 (Projected)	14.27	15.1%

16. As per the details in the petition, certain percentage of the employee cost is apportioned from the main business. Since the operations of the licensee are outsourced, only supervisory staff cost is booked under the employee costs. During the previous years, the licensee has provided the details of employees fully and partially assigned to distribution business. As part of employee costs, 25% of the total staff welfare expenses of Technopark is also charged in the distribution business. The Commission noted the apportionment method adopted by the licensee. The Commission has already engaged a consultancy for apportioning the joint costs of the small licensees. Based on the study, the Commission will finalise its view on joint costs. Till then the present method adopted by the licensee is accepted

17. **R&M Expenses** : The Licensee has projected the R&M expenses as Rs.92.32 lakh for the FY 2011-12 while the approved amount for 2010-11 was Rs. 65 Lakhs. The projected amount is 42.03% over the approved expenses for 2010-11. The Licensee has clarified during the hearing that the excess is due to the increase in contract amount towards R&M work outsourced on account of the additional 110 KV substation. The licensee has also clarified that the contract for the R&M includes only the cost of maintenance of distribution assets. As per the clarifications provided by the licensee, the R&M expenses of Phase I (Rs.75 lakhs) and Phase II & III (Rs.17.32 lakhs) is included. The Commission also notes that phase II and III are only under construction and hence maintenance of the same may not be required. However the Commission is inclined to approve the R&M expenses, which shall be scrutinised in detail during the truing up process.

18. **A&G Expenses:** The A&G expenses projected by the licensee is Rs.47.98 lakhs. The A&G expenses for the previous years are as given below:

A&G expenses over the years

Year	R&M Costs Rs. lakhs	Remarks
2007-08	47.99	Actual
2008-09	59.92	Approved
2009-10	51.35	Approved
2010-11	55.96	Approved
2011-12	47.98	Projected

19. The major items of A&G expenses include Security charges (Rs.6 lakhs), conveyance and vehicle hire charges (Rs.5.33 lakhs), and electricity charges (Rs.18.73 lakhs). The licensee has clarified that security is provided to all

important electrical installations including the new substations. In fact the licensee has projected 25% of the total security expenses for the distribution business. The Commission on the previous occasions have commented on the higher allocation of security charges considering the round the clock O&M staff available in the substations. Regarding the electricity charges, the licensee has estimated and booked 40% of the self consumption in the distribution business. The Commission in the previous order has mentioned that the rationale for apportionment of the cost is not convincing. Since the detailed study on the apportionment of joint cost has been taken up with the consultants, the Commission provisionally approves the estimates of the A&G expenses for the year 2011-12.

20. **Statutory surplus** : The Licensee has projected Rs.153.92 lakhs as Return for investments @16% on Net Capital base of Rs.968.81 lakhs. However, the licensee has not included the same in the ARR. In the Balance sheet the Licensee's share capital is projected as Rs.775.18 Lakhs. As per order based on the due diligence study, the Corpus fund of the Licensee for the regulatory purpose as on 01.04.2007 is Rs.159.97 lakh. The issue of determining the reasonable ratebase for allowing the return is under the examination of the consultants. Till a decision is taken on the issue, the Commission allows a provisional return of Rs.10 lakhs for 2011-12.

21. **Gross Aggregate revenue requirements**: Based on the above, the Aggregate Revenue Requirements proposed and approved for 2011-12 are as given below.

Approved Aggregate Revenue Requirements for 2011-12

Category	2011-12	
	Projected (Rs.lakhs)	Approved (Rs.lakhs)
Power Purchase cost	2,560.46	2,491.23
Interest & Financing charges	62.84	59.60
Depreciation	103.16	103.16
Employee costs	14.27	14.27
R&M Expenses	92.32	92.32
A&G Expenses	47.98	47.98
Return on investment		10.00
Total expenditure	2,881.03	2,818.56

22. **Revenue from Tariffs**: The sales of energy as given in Form G in the ARR & ERC petition is as follows:

Revenue from tariff projected for 2011-12

Category	No. of Consumers	Energy sales (lakh units)	Amount Rs.in Lakh	Average realisation (Rs./kWh)
HT	16	215.82	923.38	4.28
LT	435	376.75	1,823.22	4.84
Self Consumption		12.23	46.81	3.83
Public Lighting		0.20	2.04	10.04
Total	451	605.00	2,795.45	

23. Though the Commission has sought the details of phasewise details of consumers, sales and revenue, the details provided by the licensee are not matching with the filing. Hence the same could not be used. The average realisation, as per the Petition, from HT consumers is Rs. 4.28/unit and that from LT consumer is Rs. 4.84/ unit; but the same from self-consumption is only Rs. 3.83/unit. The Commission has noted the projections of the licensee. The imputed revenue from self-consumption is Rs.59.17 lakh. The Licensee has projected Rs.13.10 lakh towards delayed payment charges and Rs.6.65 Lakh towards other receipts. Total Revenue from tariff projected by the licensee is as given below.

Revenue from tariff projected for 2011-12

Category	Amount (Rs.in Lakh)
HT	923.38
LT	1,823.22
Self Consumption	46.81
Public Lighting	2.04
Total	2,795.45
Other charges	
Delayed payment surcharge	13.10
Other receipts	6.65
Total revenue from tariffs	2,815.20

The total revenue from tariffs projected by the licensee is Rs.2815.20 lakh. The Commission approves projections of the licensee for 2011-12.

24. **Non-tariff revenue** : The Licensee has projected the Non Tariff Income for 2011-12 as follows:

Non-Tariff income projected for 2011-12

	2010-11 (Provisional) Rs.lakhs	2011-12 (projected) Rs. lakhs
Interest on Security Deposit with KSEB	12.85	13.25
Interest on Bank Deposit	9.91	10.50
Interest from Banks	1.00	0.50
Misc. Recoveries	1.22	1.50
Total	24.98	25.75

The total revenue projected by the licensee is Rs.2840.95 lakhs. The Commission approves the projections of the licensee for 2011-12.

25. **Revenue surplus/Gap**: As per the projections of the licensee, the total revenue gap projected for 2011-12 before the statutory surplus is Rs.40.08 lakhs. Based on the materials provided by the licensee the Commission arrived at a revenue surplus of Rs. 22.39 lakhs as shown below:

Approved ARR&ERC for 2011-12

Category	2011-12	
	Projected (Rs.lakhs)	Approved (Rs.lakhs)
Power Purchase cost	2,560.46	2,491.23
Interest & Financing charges	62.84	59.60
Depreciation	103.16	103.16
Employee costs	14.27	14.27
R&M Expenses	92.32	92.32
A&G Expenses	47.98	47.98
Return on investment		10.00
Total expenditure	2,881.03	2,818.56
Revenue from tariffs	2,815.20	2,815.20
Non-Tariff Income	25.75	25.75
Total Revenue	2,840.95	2,840.95
Revenue (gap)/Surplus	(40.08)	22.39

Orders of the Commission

26. After the analysis of the ARR&ERC petition and the clarifications thereon submitted by the licensee M/s Technopark, the Commission provisionally approves the ARR of Rs.2818.56 lakhs and estimated revenue of Rs.2840.95 lakhs, leaving a revenue surplus of Rs.22.39 lakhs for the year 2011-12 as stated above. The licensee shall take earnest efforts to limit the expenses at the approved level. The existing Retail Supply tariff shall continue till further orders.

27. **Directions:** The licensee shall replace the electro-mechanical meters in a time bound manner. The progress shall be reported in the next ARR&ERC filing. The detailed list of connections under self consumption, tariff applied and units consumed shall be reported along with next petition. The licensee shall also provide the details of capital expenditure programme for the expansion works along with ARR&ERC petition. Henceforth the licensee shall file the ARR&ERC petitions strictly as per the time limit provided in KSERC(Tariff) Regulations 2003 and as directed by the Commission.

28. The petition is disposed of. Ordered accordingly.

Sd/-

P. Parameswaran
Member

Sd/-

K.J.Mathew
Chairman

Approved for Issue

Secretary