

**KERALA STATE ELECTRICITY REGULATORY COMMISSION
Thiruvananthapuram**

**Petition No.TP-16 of 2006
ARR&ERC OF TECHNOPARK, THIRUVANANTHAPURAM FOR FY 2006-07**

August 23, 2006

Present : Shri. C.Balakrishnan, Chairman
Shri C.Abdulla, Member
Shri.M.P.Aiyappan, Member

Technopark, Thiruvananthapuram : Petitioner

O R D E R

The Kerala State Electricity Regulatory Commission having scrutinized the Petition on ARR&ERC for 2006-07 filed by Techno Park, Thiruvananthapuram vide their letter No.ETPK/ARR-Tech/2005-06/26 dated 26-11-05 and considered the comments of the KSEB on the petition, heard the views of the petitioner and KSEB in the Commission's proceedings on 26-04-06 and having considered other documents and materials on record passes the following order in exercise of the powers vested in it under the Electricity Act, 2003 in this behalf.

Sd/-
M.P.Aiyappan
Member

Sd/-
C.Abdulla
Member

Sd/-
C.Balakrishnan
Chairman

Authenticated copy for issue

Secretary

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CHAPTER I

INTRODUCTION

1.1 PREAMBLE

Government of Kerala had issued an electricity distribution licence to Technopark, Thiruvananthapuram as per G.O.(P) No. 19/99/PD dated 12th July 1999 published in Kerala Gazette No. 1409 dated 19th July 1999 for distribution of power to various establishments within the Technopark Campus, Thiruvananthapuram. Accordingly, Technopark is a deemed distribution Licensee under the first proviso of Section 14 of Electricity Act, 2003.

Technopark receives electricity through three 11kV feeders from the Kazhakootam 110kV substation of the Kerala State Electricity Board (KSEB) with a Contracted Demand of 4000 kVA, and the supply is deemed to be at 110kV (EHV). Technopark in turn supplies electricity to the establishments within the Technopark campus, Thiruvananthapuram.

Technopark has thirty nine HT consumers and one hundred and twenty-five LT consumers in FY 2005-06 and the number of HT consumers is expected to increase to 50 and LT consumers to remain at 125 during 2006-07.

During the year 2004-05, Technopark purchased 16.11 MU of electrical energy from the KSEB and in turn supplied 13.35 MU to the ultimate consumers at an average power factor (p.f) of 0.90 and load factor (LF) of 0.75. For the year 2006-07, the energy purchase is expected to be 23.02.MU with an estimated sale of 19.21 MU and self consumption of 1.729 MU.

The difference between the intake and supply of energy accounts for self consumption of energy and distribution losses. The average distribution loss is found to be 8.93 % for the FY 2004-05 and estimated to be 9 % in FY 2006-07.

1.2 PROCEDURAL HISTORY

Technopark filed a petition for ARR and ERC for the financial year 2006-07 on 26-11-05. The petition for ARR and ERC was placed before the Commission after initial scrutiny for the procedural requirements and the petition was admitted and registered as TP .16 of 2006 on 30th January 2006.

A copy of the ARR & ERC was forwarded to KSEB on 30th January 2006 for comments. Comments from KSEB were received vide letter dated 10th March 2006 (Annexure I). The comments from KSEB were forwarded to Technopark on 16th March 2006(Annexue II). Also clarification on certain points was sought for from Technopark vide Commission's letter dated 10th March 2006 and 2nd May 2006 (Annexure III and IV).Reply to the clarifications sought from the Commission and KSEB were furnished by Technopark. vide letter dated 25th March 2006(Annexure V) and 22nd May 2006 (Annexure VI).

As the next step in processing the petition, the Commission held proceedings for public hearing at. Commission's office on 26th April 2006.

There was no representation from the side of stakeholders in the hearing.. The Commission subsequently called for a meeting with the Licensee for seeking further clarifications. This meeting was held on 21st July 2006 at Thiruvananthapuram at Commission's office.

The Commission has thus ensured that the due process contemplated under the governing Act and Regulations were followed and adequate opportunity was provided at every stage to all individuals and organizations concerned, to express their views.

In finalizing the order on the ARR & ERC for the FY 2006-07, the Commission has taken into consideration the materials filed by the Licensee the clarifications furnished by the Licensee in the meeting with the Commission, and further views expressed by the Stakeholders during the proceedings held for hearing their objections.

Chapter II

ENERGY REQUIREMENT PROJECTIONS FOR 2006-07

2.1 METHODOLOGY

Licensee has clarified vide letter dated 22nd May 2006 that the data relating to the purchase and sale of electricity during 2004-05 and the actual data relating to the period April-October 2005 has been taken as the base and the estimated power requirement for the financial year 2006-07 has been worked out. It has also been clarified that by the end of 2005-06, the existing buildings in the Technopark will be almost leased out. The new building coming up will become leasable from 2007-08. Hence during the year only 8-10 % growth is considered.

2.2 PROJECTIONS BY THE LICENSEE

Details furnished by the Licensee vide letter dated 27th July 2006 are as follows.

Sl No	Particulars	Consumption for 2005-06- kwh	Consumption for 2006-07- kwh	Percentage increase
1	HT consumers	14303001	15494900	8.33
2	LT Consumers	3491397	3724200	6..66
3	St Light & self	1482835	1729700	9.46

2.3 COMMISSION'S OBSERVATIONS

The increase in number of consumers and consumption during 2006-07 when compared to the values assumed for 2005-06 are given below:

Category	No of consumers in 2005-06	No of consumers in 2006-07	Percentage increase	Consumption in 2005-06 -MU	Consumption in 2006-07 - MU	Percentage increase
HT consumers	39	50	28.2	14.30	15.4949	8.52
LT consumers	125	150	20	3.49	3.7242	7.22

The increase in consumption is close to the growth for the State as a whole and hence seems reasonable. Commission does not propose any changes on the projected figures.

Chapter III

A T & C LOSSES

3.1 INTRODUCTION

The details of actual AT & C losses for the year 2004-05 and estimated losses for 2005-06 and 2006-07 are as follows:

Actual AT & C Loss for 2004-05	8.93%
Estimated loss for 2005-06	10.50%
Estimated loss for 2006-07	9.00%.

The AT&C loss approved for the year 2005-06 was 6.89 %.

3.2 COMMISSION'S OBSERVATIONS

Commission is of opinion that for such a small area of distribution of electricity which mostly through 11 KV U.G cables, the loss of 9.0% is on the higher side. The study conducted by CPRI does not propose any serious steps for loss reduction. It is felt that a detailed study using experts in power system design should be done and loss reduced as per the roadmap given below.

Year	2005-06	2006-07	2007-08	2008-09	2009-10
loss in %	10.5	8.5	7	6	5

The licensee should take effective measures to reduce losses.

CHAPTER IV

AGGREGATE REVENUE REQUIREMENT FOR 2006-07

4.1 INTRODUCTION

The ARR& ERC submitted by the Licensee projected a total expenditure of Rs 9.52 crores for 2006-07. The details in comparison to the provisions in respect of various items for 2004-05 and 2005-06 are furnished below:

Sl No	Particulars	2004-05 (Actuals) Rs lakh	2005-06 As approved Rs lakh	2006-07 Now given Rs lakh
1	Power Purchase Cost	492.82	585.39	757.38
2	Interest and finance charges	29.84	30.15	37.80
3	Depreciation	30.41	47.50	79.09
4	Employee Cost	8.97	6.62	8.65
5	Repairs & Maintenance cost	31.71	30.19	41.08
6	A & G Expenses	27.74	23.20	27.84
7	Gross expenses	621.52	-	951.86
8	Less expenses capitalized	-	-	-
9	Less interest capitalized	-	723.05	-
10	ROE	37.40	53.22	93.96
11	ARR	658.92	776.27	1045.82
12	Revenue from tariff	619.64	744.49	928.73
13	Non tariff income	-	-	-
14	Total revenue	619.64	744.49	928.73
15	Surplus	-39.28	-31.78	-117.09

4.2 PURCHASE OF POWER

4.2.1 The ARR submitted by the Licensee has given an energy purchase requirement of 23.0207 Million units during 2006-07. The total cost for power purchase during 2006-07 has been projected at Rs 757.381 lakh. The details are as follows:

Total projected consumption	23.0207 MU
Fixed charges	Rs 149.63455 lakh
Variable charges	Rs 552.4968 lakh
Duty and other charges	Rs 5.524968 lakh

As stated in chapter 3.2 above Commission approves a loss of 8.5% only. The revised fixed and variable charges are as follows.

Consumption	22.894 MU
Fixed charge	Rs 148.81 lakh
Variable charge	Rs 549.456 lakh
Total	Rs 698.266 lakh

10% Electricity Duty cannot be considered for ARR as the same is collected from consumers.

4.3 INTEREST AND FINANCE CHARGES

4.3.1 The Interest and Finance charges for the year 2006-07 has been given as Rs 37.80 lakh. The figures for 2004-05 and 2005-06 are given below:

For 2004-05 (actual)	Rs 29.84 lakh
For 2005-06 (approved)	Rs 30.15 lakh

The split up of the interest for 2006-07 is as follows:

For Electrical installations	Rs 25.20 lakh
For consumer deposit	Rs 12.6060 lakh

4.3.2 COMMISSION'S OBSERVATIONS

Commission does not propose any change in the provision sought for.

4.4 DEPRECIATION

4.4.1 The details of depreciation claimed is given below.

SI No	Item	Depreciation in Rs
1	Civil Works	690600
2	Switchyard Equipment	1912400
3	Substations	1800000
4	11 KV works	2231100
5	LT lines and Service connections	956200
6	Metering Equipment	318700
7	Total	

4.4.2 COMMISSION'S OBSERVATIONS

The depreciation amount projected by the Licensee and that admissible as per CERC norm is given below.

SI No	Item	Depreciation projected in Rs	Depreciation as per CERC norm-Rs
1	Civil Works	690600	463440
2	Switchyard Equipment	1912400	1853766
3	Substations	1800000	-
4	11 KV works	2231100	2162725
5	LT lines and Service connections	956200	926881
6	Metering Equipment	318700	308959
7	Total	7909000	5715771

It is noted that the Licensee has taken depreciation for the assets added during 2006-07 also. The depreciation for assets added during 2006-07 can be claimed in 2007-08 only.

4.5 EMPLOYEE COST

4.5.1 The ARR submitted by the Licensee projects an amount of Rs 8.65 lakh towards employee cost during 2006-07. A comparison with the provisions as approved by the Commission for 2005-06 are furnished below:

Approved cost for 2005-06 Rs 6.62 lakh
Cost now projected for 2006-07 Rs 8.65 lakh

The split up of the figures are as follows:

Sl No	Particulars	2005-06 Rs lakh	2006-07 Rs lakh
1	Salaries		4.52
2	DA		2.66
3	Other allowances		0.452
4	Medical Reimbursement		0.599
5	Earned Leave Encashment		0.419

4.5.2 COMMISSION'S OBSERVATIONS

Commission does not propose any change in the figure furnished by the Licensee. However, Commission would like to point out that computerization of operations should bring down employee costs. Licensee should try to reduce costs further.

4.6 REPAIR AND MAINTENANCE CHARGES

4.6.1 The ARR submitted by the Licensee has projected a requirement of Rs41.08 lakh towards Repair and Maintenance charges during the year 2006-07. The approved amount for 2005-06 is Rs 30.19 lakh.

4.6.1 COMMISSION'S OBSERVATIONS

The figure given for repair and maintenance cost seems to be very high because the distribution transformers are housed in weather proof shelters. Also there are no overhead lines in the system. From the details furnished by the Licensee it is not possible to assess the quantum of work involved. In future Licensee should give the data on cost estimation. The figure projected is accepted.

4.7 ADMINISTRATION & GENERAL EXPENSES

4.7.1 The Licensee has projected an amount of Rs 27.84 lakh towards A&G expenses for 2006-07 as compared to Rs 23.20 lakh approved for 2005-06. The A&G expenses consist of security charges, conveyance & vehicle hire, and electricity charges.

4.7.1 COMMISSION'S OBSERVATIONS

Licensee has projected an amount of Rs 22.763 lakh towards Electricity Charges. This is too high. As per the clarification given by the Licensee, 40% of the common area billing is considered for the purpose of distribution business. The figure projected by M/s Cochin Port Trust is only Rs 7.63 lakh for Electricity Charges. Hence only half of the amount projected for electricity charges is allowed. Thus the total A&G expenses allowed is Rs 16.46 lakh.

4.8 RETURN ON EQUITY

4.8.1 Return on equity proposed by the Licensee is Rs 93.36 lakh. The capital base taken is Rs 2610 lakh. The capital base taken for 2005-06 was Rs 1267 lakh. the capital base given in form W1 is Rs 2611 lakh. ROE of 14% of 30% of Capital base works out to Rs 109 lakh.

4.9 OVERALL POSITION REGARDING AGGREGATE REVENUE REQUIREMENT FOR 2006-07

Based on the above discussion, the overall position regarding the Aggregate Revenue Requirement for 2006-07 would be as below:

Rs.lakh

Sl No	Particulars	Approved
1	Power Purchase Cost	698.266
2	Interest and finance charges	37.80
3	Depreciation	57.15
4	Employee Cost	8.65
5	Repairs & Maintenance cost	41.08
6	A &G Expenses	16.46
7	Gross expenses	859.406
8	Less expenses capitalized	-
9	Less interest capitalized	-
10	ROE	109
11	ARR	968.406

CHAPTER V

REVENUE RECEIPTS DURING 2006-07

5.1 REVENUE FROM TARIFF INCOME

Revenue from Tariff Income for 2006-07 has stated to have been calculated by the Licensee on the basis of the anticipated consumption by various categories of consumers at the prevailing tariff rate. Details in this connection have been furnished in the ARR & ERC for 2006-07 filed by the Licensee, which are summarized below.

Sl. No	Category	Energy Sales in MU	Revenue in Rs Lakhs
1	HT consumers	15.4949	722.06
2	LT consumers	3.7242	202.224
3	Self consumption	1.729	57.080

The total revenue realisation from tariff is projected at Rs 981.36.lakh on a total energy consumption of 20.948..MU .

5.2 REVENUE FROM NONTARIFF INCOME

The revenue from Non-Tariff income for 2006-07 has been projected as Nil.

5.3 EXPECTED REVENUE FROM CHARGES

Based on the above discussion, the Commission would place the expected revenue from charges for 2006-07 at Rs. 981.36 lakhs.

CHAPTER VI

COMMISSION'S ORDER ON THE ARR & ERC FOR THE YEAR 2006-07

6.1 AGGREGATE REVENUE REQUIREMENT FOR THE YEAR 2006-07

As discussed in the Chapter IV on ARR for 2006-07, the Commission approves an Aggregate Revenue Requirement of Rs 10.215 .crores as against Rs 10.458 crores proposed by the Licensee. The comparative details are furnished below:

Sl No	Particulars	Proposed by Licensee	Approved by Commission
1	Power Purchase Cost	757.38	698.266
2	Interest and finance charges	37.80	37.80
3	Depreciation	79.09	57.15
4	Employee Cost	8.65	8.65
5	Repairs & Maintenance cost	41.08	41.08
6	A & G Expenses	27.84	16.46
7	Gross expenses	951.86	859.406
8	Less expenses capitalized	-	-
9	Less interest capitalized	-	-
10	ROE	93.96	109
11	ARR	1045.82	968.406

6.2 EXPECTED REVENUE FROM CHARGES

As discussed in the Chapter V on Revenue Receipts, the Commission has accepted the total expected revenue from charges at Rs 981.36 lakh projected by the Licensee in the ARR for 2006-07. The comparative break-up is furnished below:

Expected Revenue from Charges: Rs.

Sl. No	Category	Energy Sales in MU	Revenue in Rs Lakhs
1	HT	15.4	722.06
2	LT	3.72	202.22
3	Self	1.72	57.08

6.3 COMMISSION'S ORDER

On the above basis, the Commission hereby approves an Annual Aggregate Revenue Requirement of Rs 968.406 lakh and Total Expected Revenue from Charges of Rs 981.36 lakh for the year 2006-07 as against Rs 1045.82 lakh and Rs 981.36 lakh projected respectively by the Licensee. Surplus is Rs 12.954 lakh.

CHAPTER VII

COMMISSION'S DIRECTIVES

1. On finalization of the accounts for the FY 2005-06, Technopark shall submit the actual audited accounts for the electricity distribution business for the FY 2005-06 along with following details:

- i. Actual monthly TOD meter recording of kWh, kVAh, kVARh, maximum demand, average PF and LF for normal, peak and off-peak period and similar recorded meter reading for self consumption and for energy sold to consumers, category wise and voltage wise.

- ii. Monthly cyclic billing and collection data in respect of all categories of consumers.
 - iii. Payments to the KSEB along with billing details.
 - iv. Actual distribution loss based on the metered figures.
2. Licensee shall file a petition for rationalization of tariff. In the proposal the 50 % of the surplus should be passed on to the consumers by way of reduction in tariff. The petition should be filed before 31st August 2006.
 3. Reliability Index should be published in the website of the Licensee.
 4. Licensee should submit a proposal for reduction in losses as per the road map given in chapter 3.2 above within two months from the date of this order.
 5. In future, while filing the petition for approval of ARR & ERC all detailed calculations and assumptions should be clearly spelt out.
 6. Draft PPA initialed by Licensee and KSEB shall be submitted to the Commission for approval within one month from the date of this order.5

