

**KERALA STATE ELECTRICITY REGULATORY COMMISSION  
Thiruvananthapuram**

Present : Shri. K.J.Mathew, Chairman  
Shri C. Abdulla, Member  
Shri.M.P.Aiyappan, Member

**Petition No. TP.72/2010**

**In the matter of**

**ARR&ERC OF COCHIN PORT TRUST FOR FY 2010-11**

**August 30, 2010**

**Cochin Port Trust  
Willingdon Island, Kochi : Petitioner**

**O R D E R**

The Kerala State Electricity Regulatory Commission having scrutinized the Petition on ARR&ERC for 2010-11 filed by Cochin Port Trust vide their letter No CAD/Costing/ARR&ERR-2008-09/2009 dated 18<sup>th</sup> November 2009, heard the views of the petitioner and other stake holders including the Kerala State electricity Board in the Commission's proceedings on 3<sup>rd</sup> March 2010 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/-  
K.J.Mathew  
Chairman

Authenticated copy for issue

Secretary

## CONTENTS

Chapter	Para	Description	Page
I		<b>INTRODUCTION</b>	<b>3</b>
	1.1	Preamble	3
	1.2	Procedural History	3
II		<b>ENERGY REQUIREMENT PROJECTIONS FOR 2010-11</b>	<b>4</b>
III		<b>AT &amp; C LOSSES</b>	<b>5</b>
IV		<b>AGGREGATE REVENUE REQUIREMENT FOR 2010-11</b>	
	4.1	Introduction	5
	4.2	Purchase of Power	6
	4.3	Interest & Finance Charges	8
	4.4	Depreciation	8
	4.5	Employee Cost	10
	4.6	Repair & Maintenance Charges	10
	4.7	Administration & General Expenses	11
	4.8	Statutory Surplus/Return on Equity	11
	4.9	Overall Position regarding ARR for 2010-11	11
V		<b>REVENUE RECEIPTS DURING 2010-11</b>	
	5.1	Revenue from Tariff Income	12
	5.2	Revenue from Non-Tariff Income	14
	5.3	Expected Revenue from Charges	14
VI		<b>REVENUE STATUS</b>	<b>14</b>
VII		<b>COMMISSION'S DIRECTIVES</b>	<b>15</b>

# **CHAPTER I**

## **INTRODUCTION**

### **1.1 PREAMBLE**

H.H. The Maharaja of erstwhile Cochin State, had issued a licence for distribution of electricity to the Cochin Port Trust and hence Port Trust is a deemed distribution Licensee under the proviso to Section 14 of Electricity Act 2003, for distribution of electricity in the Cochin Port Trust Area and nearby premises. Cochin Port Trust ( CPT ) submitted an application in the month of June 2009 for including the Special Economic Zones ( SEZ ) at Vallarpadom and Puthuvypeen in their area of licence for distribution of electricity . Approval for including the Special Economic Zones at Vallarpadom and Puthuvypeen was accorded by the Kerala State Electricity Regulatory Commission (heinafter called the Commission) in the month of January 2010.

CPT receives power at 110 kV from the Kerala State Electricity Board (KSEB) to meet its own power requirements and to supply to the consumers within the Cochin Port Trust area in Willingdon Island. For meeting the immediate requirements at Vallarpadom, CPT has approached KSEB for supply of power at 11 kV.

### **1.2 PROCEDURAL HISTORY**

CPT filed a petition for ARR and ERC for the financial year 2010-11 on 18<sup>th</sup> November 2009. which was placed before the Commission after initial scrutiny for the procedural requirements and the petition was admitted and registered as TP .72 of 2009.

As the next step in processing the petition, the Commission held proceedings for public hearing at Kochi on the 3rd March 2010.

During the proceedings, CPT stated that subsequent to the filing the ARR & ERC petition, the Commission gave approval for including the SEZ at Vallarpadom amd Puthuvypeen also in the area of licence, in the month of January 2010. As investment in the Vallarpadom SEZ was expected in the year 2010-11 CPT wanted to revise the ARR & ERC already submitted.

CPT submitted the estimates for Vallarpadom vide letter dated 2<sup>nd</sup> July 2010.

Clarifications on the ARR&ERC were sought for vide letter dated 17<sup>st</sup> July 2010. Reply to the clarifications were received vide letter dated 28th July 2010.

In finalizing the order, the Commission has taken into consideration the materials filed by the Licensee, the clarifications furnished by them in the meetings with the Commission and further the views expressed by the Stakeholders during the proceedings held for hearing their objections.

## CHAPTER II

### ENERGY REQUIREMENT PROJECTIONS

In assessing the demand and energy requirement for 2010-11 , the Licensee had estimated that sales will be 289 lakh units in Willingdon Island and 30 lakh units at Vallarpadom. AT&C loss estimated for Willingdon Island is 2.94% and 0% at Vallarpadom. The energy to be purchased from KSEB has been given as 289.27 lakh units at Willingdon Island and 30 lakh units at Vallarpadom.

The energy requirement projections including consumption for street lighting are as follows

Lakh units

Sl. No	Category	Willingdon Island	Vallarpadom	Total
1	HT	122.7	30	152.7
2	Domestic	15.80		15.80
3	Other LT	118.53		118.53
4	Self consumption	33.45		33.45
5	Street lighting	3		3
	<b>GRAND TOTAL</b>	293.42	30	323.48

As per the above table sales in Willingdon Island is 293 lakh units. But purchase from KSEB was stated as 289 lakh units and loss was given as 1.1%. The discrepancy was taken up with the licensee who has clarified that purchase at Willingdon Island will be only 232.866 lakh units. Licensee has revised the sales data also because part of consumption in Vallarpadom is by shifting of activity from Willingdon Island. Loss at Willingdon Island has been modified as 2.94%.

Licensee has taken consumption for street lighting without taking in to consideration the revenue generated from the same. The same has to be included as self consumption and revenue added.

### **CHAPTER III**

#### **A T & C LOSSES**

Licensee has estimated that the AT&C loss in Willingdon Island will be 2.94% and that at Vallarpadom as 0%. The estimate for AT&C loss for the year 2009-10 was 3% at Willingdon Islan. This has been brought down to 2.94%. This must be due to the commissioning of the 110 kV substation in the load center. Commission is of the view that loss should be brought down further in a phased manner on the basis of energy audit. Commission does not propose to change the estimated loss figure.

### **CHAPTER IV**

#### **AGGREGATE REVENUE REQUIREMENT**

##### **4.1 INTRODUCTION**

The ARR& ERC submitted by the Licensee projects a total expenditure of Rs 18.81 crore for 2010-11. The details in comparison with the provisions in respect of various items for the year 2009-10 are furnished below:

Rs. lakh

Sl No	Particulars	2009-10 (approved)	2010-11 (estimated)
1	Power Purchase Cost	983.66	1015.6
2	Interest & finance charges	407.96	420.71
3	Depreciation	121.3	159.25
4	Employee cost	156.87	186.33
5	Repair & Maintenance Cost	29.80	45.57
6	A&G Expenses	115.81	53.85
7	<b>Total</b>	<b>1815.7</b>	<b>1881.31</b>

#### 4.2 PURCHASE OF POWER

The total cost for power purchase from KSEB by the Licensee are as follows.

	Willingdon Island- Rs lakh	Vallarpadom- Rs lakh	Total – Rs lakh
Fixed Charges	166.56	126	292.56
Variable charges	640.38	111	751.38
<b>Total</b>			<b>1043.94</b>

The details of energy sale at Willingdon Island as given in Form G are as follows.

Category of consumer	Consumption- Lakh units
HT	122.7
LT-I domestic	15.80
LT-II colonies	2
LT-III Industry	0.02
LT-IVb	1.2
LT-IVc	0.85

LT-Commercial-Three Phase	107.8
LT-Commercial-Single Phase	6.66
Self consumption	33.45
Street Light	3
<b>Total</b>	<b>293.48</b>
Less Self Generation	0.13
<b>Net</b>	<b>293.35</b>

But purchase from KSEB is given as 289.27 lakh units. This is not correct. As per the revised figures for sales and purchase at Willingdon Island, the power purchase cost at Willingdon Island works out as follows ( refer Chapter II ).

Energy purchase 253.41 lakh units.

Energy charges @ Rs 2.75 per unit Rs 696.89 lakh

For Vallarpadom maximum Demand taken is 3000 kVA. Energy purchase is 30 lakh units. Licensee has worked out the power purchase cost at Commercial Tariff. But the tariff to be applied is the Bulk Supply Rate. The revised cost will be as follows.

Energy purchase 30 lakh units.

Energy charges @ Rs 2.85 per unit Rs 85.5 lakh

Contract Demand 3000 kVA.

Demand charges for 12 months Rs 97.20 lakh.

The total power purchase cost works out as given below.

	Willingdon Island- Rs lakh	Vallarpadom- Rs lakh	Total – Rs lakh
Fixed Charges	161.26	97.20	258.46
Variable charges	696.89	85.5	782.39
<b>Total</b>	<b>858.15</b>	<b>182.7</b>	<b>1040.85</b>

### 4.3 INTEREST AND FINANCE CHARGES

Interest and finance charges estimated for Willingdon Island is Rs 392.78 lakh and that for Vallarpadom is Rs 27.93 lakh. The total commitment estimated is Rs 420.71 lakh. It is noted that Licensee has not used the surplus and reserves in the previous years to redeem a portion of debt. Commission has pointed out this in the previous orders on ARR & ERC. The Licensee had on previous occasions expressed that the total loan received from Govt. of India is as high as Rs 500 Crore and hence the issue of restructuring of the loan is not easy as other financial institutions may not come forward to give loans at cheaper rates in view of the overall performance of the Port Trust which was established long ago when mechanization was low and manual labour content was very high. Commission during the discussions with the Licensee expressed that loans from REC and PFC are available at cheaper rates and Licensee should come out of the loan from Govt. of India at least for the Electricity Distribution business which is a minor portfolio compared with the main activity of the CPT. Commission again would like to stress the same point. However no change in the charges are proposed.

### 4.3 DEPRECIATION

*Depreciation approved for 2009-10 and that projected by the Licensee for the year 2010-11, are as follows.*

	Approved for 2009-10 Rs lakh	Estimated for 2010-11 Rs lakh
Generating Plant	17.96	35.50
Sub stations	89.85	89.54
11 kv works	10.53	11.68
LT lines	1.79	1.2
Metering equipment	0.3	0.34
Misc equipment	0.89	14.66
Others	0.25	0.82
<b>Total</b>	<b>121.57</b>	<b>153.74</b>



During the discussions with the in Licensee the utilization of D.G sets was taken up in detail. The Licensee agreed that all the sets are not available throughout the year as certain units will be on routine annual maintenance in addition to breakdown maintenances. Further only the smaller sets can be put to service without much delay. Larger sets will take considerable time to feed power into the network. Thus whenever KSEB supply fails, only the smaller sets will be available without much time delay for meeting the demand. This will require isolation of essential loads of Port Trust from other loads. Thus it can be concluded that power from D.G sets is mainly used for the Port Trust's own consumption. Also, consumers like Luxury hotels have their own standby D.G sets. Thus the capacity sharing of the D.G sets between Licensee's own consumption and for others cannot go beyond the ratio of 1:1. It has been concluded that only 50% of the depreciation can be allowed to be debited to the distribution account.

The sudden increase in depreciation under Misc Equipment was taken up with the Licensee who has clarified that the same is due to capitilisation of investment in High Mast Tower and Street Lights installed in 2008-09. The amount of capital involved is Rs 76.49 lakh. Licensee has assumed a depreciation of 18% which is not correct. Only 3.6% depreciation is allowed for such items. Thus depreciation for High Mast Tower and Street Lights works out to Rs 2.75 lakh. The revised depreciation table is given below.

	Approved for 2009-10 Rs lakh	Estimated for 2010-11 Rs lakh
Generating Plant	17.96	17.96
Sub stations	89.85	89.54
11 kv works	10.53	11.68
LT lines	1.79	1.2
Metering equipment	0.3	0.34
Misc equipment	0.89	3.64
Others	0.25	0.82
<b>Total</b>	<b>121.57</b>	<b>125.18</b>

#### 4.5 EMPLOYEE COST

The ARR submitted by the Licensee projects an amount of Rs 186.33 lakh towards employee cost during 2010-11 This has the Willingdon Island component of Rs 170.55 lakh and Vallarpadom component of Rs 15.82 lakh.

It is noted that the services of sixty technical personel, eleven non-technical personnel and three Assistant Engineers are utilized for managing the business at Willingdon Island. Commission has always been commenting on this high cost from a disproportionately big contingent. Now Licensee has included another 4 staff for managing the Vallarpadom business. This cannot be allowed. Licensee has to manage with the staff proposed for Willingdon Island. The amount admitted is only Rs 170.55 lakh.

#### 4.6 REPAIR AND MAINTENANCE CHARGES

The approved amount for 2009-10 was Rs 29.80 lakh. The projected figures for 2010-11 is Rs 45.57 lakh. As already commented in the order on ARR& ERC for 2009-10, *substantial portion of the R&M charges for Willingdon Island is attributed to the Generating Plant. As already explained under 4.3 only 50% of the cost for the generating Plant can be allocated to distribution business. Hence in the case of R&M charges also, only 50% of the charges for Generating plant can be debited to distribution business. The revised figures for R&M will be as follows.*

<i>Gnerating Plant</i>	<i>Rs 5.21 lakh.</i>
<i>Fuel charges</i>	<i>Rs 12.91 lakh.</i>
<i>Other expenses</i>	<i>Rs 5.46 lakh</i>
<i>LT Lines</i>	<i>Rs 1.86 lakh</i>
<i>Misc equipments</i>	<i>Rs 0.03 lakh</i>
<b>Total</b>	<b>Rs. 25.47 lakh</b>

#### 4.7 ADMINISTRATION & GENERAL EXPENSES

The allocation for A&G expenses for the year 2009-10 as per the approved ARR is Rs 115.81 lakhs and those projected for the year 2010-11, is Rs 53.85 lakh.

The A&G expenses consist of rent, taxes, insurance, legal charges, audit fees, and other charges such as travel expenses, freight, purchase related expenses, etc. Commission has noted that the provision for security arrangements is very high. During the discussion with the licensee, it was stated that para-military forces are used as security personal and guarding of all transformer points is a statutory requirement and hence the high cost. Commission has also expressed that that Licensee should review the deployment of security and minimise the use of high cost methods and find out cheaper solutions such as fencing etc. It is noted that Licensee has brought down the expenditure for security arrangements. But for such a small area the cost of Rs 14 lakh per annum is considered high. It is also noted that the provision for advertisements and donations is very high. These expenses should be brought down. Commission does not propose any change.

#### 4.8 STATUTORY SURPLUS/RETURN ON EQUITY

The assets have been built up with loans from Govt of India .There is no equity contribution for the business. Licensee has claimed interest on all loans and hence ROE is not included.

#### 4.9 OVERALL POSITION REGARDING AGGREGATE REVENUE REQUIREMENT FOR 2010-11

Based on the above deliberations, the overall position regarding the Aggregate Revenue Requirement would be as below:

Item	Rs.lakh	
	Estimated by Licensee	Approved by the Commission
<b>ROE</b>	-	-
Power purchase	1015.6	1040.85
Interest charges	420.71	420.71

Depreciation	159.25	125.18
Employee Cost	186.33	170.45
Repair & Maintenance	45.57	25.47
Administration & General	53.85	53.85
<b>ARR</b>	<b>1881.31</b>	<b>1836.51</b>

## CHAPTER V

### REVENUE RECEIPTS

#### 5.1 REVENUE FROM TARIFF INCOME

The sales of energy as given in form G in the ARR & ERC petition is as follows.

Category of consumer	Revenue- Rs lakh (Willingdon Island)	Revenue- Rs lakh Vallarpadom
HT	652.1	237
LT-I domestic	35.12	
LT-II colonies	15	
LT-III Industry	0.1	
LT-IVb	5.52	
LT-IVa	1	
LT-IVc	4.3	
LT-Commercial-Three Phase	685.03	
LT-Commercial-Single Phase	29.14	
Self consumption	136.01	
<b>Total</b>	<b>1563.32</b>	<b>237</b>

The data was subsequently revised by the Licensee. The revised figures are given below.

Category of consumer	Revenue- Rs lakh (Willingdon Island)	Revenue- Rs lakh Vallarpadom
HT	617	237
LT-I domestic	35.12	
LT-II colonies	15	
LT-III Industry	0.1	
LT-IVb	5.52	
LT-IVa	1	
LT-IVc	4.3	
LT-Commercial-Three Phase	685.03	
LT-Commercial-Single Phase	29.14	
Self consumption	136.01	
<b>Total</b>	<b>1528.22</b>	<b>237</b>

As already discussed under section 2.3 above, Licensee has not taken revenue from street lighting consumption. The average revenue from self-consumption is Rs 4.06 per unit. Assuming the same rate, revised figures for revenue will be as follows.

Category of consumer	Revenue- Rs lakh (Willingdon Island)	Revenue- Rs lakh Vallarpadom
HT	617	237
LT-I domestic	35.12	
LT-II colonies	15	
LT-III Industry	0.1	
LT-IVb	5.52	
LT-IVa	1	
LT-IVc	4.3	

LT-Commercial-Three Phase	685.03	
LT-Commercial-Single Phase	29.14	
Street Light	12.18	
Self consumption	136.01	
<b>Total</b>	<b>1540.4</b>	<b>237</b>

**Total revenue from Tariff is Rs 1777.4lakh.**

## 5.2 REVENUE FROM NON-TARIFF INCOME

The revenue from Non-Tariff income has been projected as Nil. But it is noted that the income under this head estimated for the year 2004-05 was Rs 6.11 lakh and for 2005-06 Rs 6.61 lakh and that estimated for 2006-07 was Rs 6.87 lakh. As the interest income from KSEB for the security deposit given in cash has to be reckoned an amount of Rs 6 lakh is included.

## 5.3 EXPECTED REVENUE FROM CHARGES

Based on the above discussion, the Commission would place the expected revenue from charges as follows

Revenue from Tariff	Rs 1777.4 lakh
Non-tariff income	Rs 6 lakh.
Total	Rs 1783.4 lakh.

## CHAPTER VI

### REVENUE STATUS

#### REVENUE GAP

Based on the above analysis and revisions, the gap between ARR&ERC is as follows.

ARR	Rs 1836.51 lakh
Income	Rs 1783.4 lakh
Gap	Rs 53.11 lakh

## **CHAPTER VII**

### **COMMISSION'S DIRECTIVES**

- 1) On finalization of provisional accounts for 2010-11, Licence shall submit the actual accounts against the ARR.
- 2) Licensee shall deploy excess staff to other activities to the extent possible
- 3) Licensee shall continue with the existing tariff till order on truing up petition is issued.
- 4) Quarterly report on achievement of standards of performance has to be submitted.
- 5) 5% of the total sale of energy shall be met from renewable energy sources.