# KERALA STATE ELECTRICITY REGULATORY COMMISSION THIRUVANANTHAPURAM

Petition No. : OP 40/2013

In the matter of : ARR & ERC of M/s Cochin Special Economic Zone for 2014-15

Petitioner : M/s Cochin Special Economic Zone Authority, Kochi

PRESENT: Shri. T.M.Manoharan, Chairman

**Shri P Parameswaran, Member Shri. Mathew George, Member** 

# **ORDER DATED 30-04-2014**

#### Introduction

1. The Cochin Special Economic Zone Authority (hereinafter referred to as CSEZA or the licensee) submitted its petition for the approval of ARR&ERC for 2014-15 on 9-1-2014 vide letter fated 8-1-2014 with a request for condonation of delay on account of administrative reasons. The Commission considered the request and admitted the petition on 20-1-2014 as OP No.40 of 2013, condoning the delay. In the petition, the licensee has estimated the total revenue gap as Rs.36.39 lakh for 2014-15. The total projected income from the sale of power for the year 2014-15 is Rs.3037.69 lakh and the estimated expenditure is Rs.3204.04 lakh. The non-tariff income is projected at Rs.129.96 lakh. Summary of the ARR&ERC petition of the Licensee is given below:

#### Summary of ARR&ERC of CSEZA for 2014-15

Particulars	2011-12	2012-13	2013-14	2014-15	
	Actual	Actual	Approved	Projection	
Revenue					
Revenue from Sale of Power	2,267.11	2,541.15	2,934.20	3,037.69	
Non – Tariff Income	74.50	131.24	120.00	129.96	
Total Revenue	2,341.61	2,672.39	3,054.20	3,167.65	
Expenses					
Purchase of Power	2,078.79	2,425.85	3,038.23	2,851.00	
Repairs & Maintenance	6.23	9.78	16.50	24.00	
Employee costs	121.63	128.00	128.50	135.00	

A&G expenses	26.21	16.11	32.16	32.03
Depreciation	40.63	41.43	64.55	62.24
Interest & Finance Charges	-		-	
Revenue Return	99.77	99.77	10.00	99.77
Aggregate Revenue Requirements	2,373.27	2,720.94	3,289.94	3,204.04
Surplus (Deficit)	-31.66	-48.55	-235.74	-36.39

2. In the petition the licensee has projected energy sales of 55.22 MU for 2014-15, which is lower than the approved sales (60MU) for 2013-14. As part of the capital expenditure programme, the Licensee proposed works to the tune of Rs.209 lakh, which include balance amount of investment for solar power plant, built in ducts for 11kV cables, 11kV switchyards and RMU panels. The Commission has sought certain clarifications vide its letter dated 21-1-2014, to which the licensee furnished its explanation vide letter dated 4-3-2014.

# Hearing on the matter

- 3. The hearing on the petition was held on 11-3-2014 at the conference hall, CSEZA. Kakaknad. Shri. R.C. Seetharaman, Chartered Accountant, Shri. Ajayakumar, Secretary-in Charge, and Shri. Krishna Varma, KITCO, presented the petition before the Commission and answered the queries of the Commission. Representing the consumers, Shri. A.R.Satheesh, Member, Committee, CSEZ Industrial Association, stated that the distribution loss projected by the licensee is 1%, which is best in the power sector. The average cost of power purchase projected is Rs.5.11/unit and the average realization is Rs.5.68/unit. Thus the contribution margin is 57paise/unit. He said the actual negative distribution loss needs to be addressed by the Commission. Though the Commission has given 6 months for completion of works, not much progress has been made. If the notional distribution loss of 1.5% is assumed, excess energy billed by the licensee is works out to be about 11.40MU with a value of Rs. 4.33 crore with average realization of Rs.3.88 per unit. He suggested that at least in the industrial parks, the Commission should introduce kVAh billing and CSEZ should be taken as a test case.
- 4. The objections/comments of KSEB Limited were presented by Shri. Sharmakumar, Dy. Chief Engineer. According to KSEB Limited, the licensee has a revenue surplus instead of revenue gap projected if certain discrepancies are corrected. The licensee has projected an R&M expenditure of Rs.24 lakh against the approved expenditure of Rs.16.50 lakh for 2013-14. The petitioner has not implemented the direction of the Commission to select the O&M agency through

competitive bidding process. The Commission has adopted the methodology of approving the O&M expenses based on the inflation index taking 2008-09 as base year for KSEB Limited. As per the method, the allowable R&M expenses would be Rs,17.45 lakh, A&G expenses would be Rs,28.25 lakh and employee cost is about Rs.100.51 lakh, against the proposed rates. The petitioner has not provided the details of consumer contribution and the assets created out of consumer contribution. KSEB Limited also pointed out that the project cost of solar plant proposed by the licensee is higher than the prevailing costs. The cost benefit analysis of the capital investments has not been provided. The licensee proposed 11kV RMUs, 11kV switchboard etc., for providing connections in future. As per the provisions of Supply Code, cost of such equipment has to be borne by the beneficiary/consumer and hence it need not form part of capital expenditure of the licensee. The petitioner has stated that the depreciation is inclusive of proportionate cost of depreciation on assets proposed during the year, which shall not be allowed. The licensee has not addressed the issue of positive distribution losses as directed by the Commission. The KSEBL has also pointed out some discrepancies in tariff implemented by the petitioner. According to KSEB Limited, the petitioner has not properly accounted the electricity duty and in the revenue projections, the licensee has deducted Rs.81 lakh towards revenue from excess over quota, which is not correct. The RoE should be given as per the prevailing norms followed by the Commission rather than the amount proposed by the licensee.

## **Analysis and decision of the Commission**

5. **Energy Sales:** The licensee has projected total sales for the year 2014-15 as 55.22 MU. The total energy requirement projected is 55.70MU. The licensee is not expecting any change in the number of consumers. The projected consumer mix and sales projection of the licensee are as follows:

**Energy sales projections for 2014-15** 

	No	of consumer	·s	Energy sales			
	2012-13	2013-14	2014-15	2012-13	2013-14	2014-15	
Consumer category wise	(Actual)	(prov)	(proj)	(Actual)	(prov)	(proj)	
HT - I (A)		25	25		37.54	38.49	
HT - I (B)		2	2		7.01	6.99	
HT - III (B)		1	1		1.62	1.65	
(I) H T Consumers							
(total)	25	28	28	44.63	46.17	47.13	
(ii) D H T Consumers	4	6	6	1.78	2.19	2.05	
(iv) LT - VII (A)							
(Commercial + Temp.	12	10	10	0.21	0.188	0.19	

For construction)						
LT - IV (A)		74	74		3.88	3.85
LT - IV (B)		26	26		1.93	1.95
LT - VI (A)		1	1		0.006	0.006
LT - VI (B)		1	1		0.023	0.023
LT - VI (D)		1	1		0.00016	0.00012
LT - IX		1	1		0.033	0.02
LT Consumers (IV, VI &						
IX)	117			6.58		
LT Consumers - Total	129	114	114	6.79	6.06	6.04
Total	158	148	148	53.20	54.42	55.22

- 6. Total estimated sales for 2014-15 is 55.22MU which is about 1.5% higher than the revised estimates for 2013-14. The licensee has not proposed any increase in number of consumers. The increase proposed is though marginal, but reasonable. The Commission approves the sales estimates of the licensee.
- 7. **Distribution Loss and Energy Requirement:** The energy loss projected by the licensee for 2014-15 is 1%. However, it has been noticed that the loss levels in the system has been negative as the sales are higher than energy input as shown below:

## **Distribution Loss over the years**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Particulars	Actual						
Energy sales (MU)	33.23	44.12	43.32	44.24	56.10	57.21	53.20
Energy							
Requirements (MU)	33.34	43.53	42.00	43.31	54.88	55.92	51.81
Distribution losses							
(%)	0.33%	-1.36%	-3.14%	-2.15%	-2.22%	-2.31%	-2.68%

8. The Commission has directed the licensee to conduct investigation on the negative losses and the licensee has conducted an energy audit study. A proposal for calibration of meters has been submitted and the same has been approved. Though the licensee has committed to complete the calibration of meters in three months, so far the same has not been completed. After the hearing, vide letter dated 28-3-2014, the licensee has reported that work on calibration and testing of metering system will be completed by October 2014. Considering the undertaking given by the licensee, the Commission hereby directs that the licensee shall complete the testing and calibration of metering system by October, 2014, no further extension shall be allowed for the work.

9. Though in actual terms, the loss levels in the system is negative, the Commission is inclined to provide for a reasonable level of technical losses for the licensee. In the petition, the licensee claims that distribution loss will be about 1%. Accordingly, the Commission allows 1% distribution loss for the year 2014-15 as shown below:

## Distribution loss approved for 2014-15

	Projected	Approved
Energy Sales (MU)	55.22	55.22
Distribution loss (%)	1.00%	1.00%
Energy Purchase requirement (MU)	55.77	55.77

- 10. Fixing distribution loss at normative level may entail in some excess revenue to the licensee due to metering discrepancies. Hence it is directed that, the excess revenue if any generated through the discrepancy in metering data, may be kept as a separate fund and refund/adjustment if any required shall be made as per the orders of the Commission in this regard.
- 11. AT&C Loss: In the distribution business, distribution loss and AT&C loss are the common performance parameters employed. The collection efficiency reported by the licensee is nearly 100% due to pre-paid meters. Hence, the A&TC loss target for 2014-15 is fixed as 1%.
- 12. Cost of Power Purchase: In the ARR, the licensee has projected the cost of power purchase at Rs.2851.00 lakh. The cost of power purchase was estimated considering the existing BST. The licensee has stated that power purchase agreement with KSEB Limited for supply of 10000 kVA has been executed on 31-12-2009. Application for enhancement of power allocation to 15000kVA has been in principle agreed to by the KSEB Limited. However, the same has not availed as the industrial climate is dull. However, for estimation of cost of power purchase, maximum demand is considered as 11000kVA. The cost of power purchase estimated by the licensee is as follows:

#### **Estimated Cost of Power Purchase for 2014-15**

	Proposed by
	Licensee
Energy requirement (MU)	55.77
Maximum demand billed (KVA)	1,32,000
Rate of demand charge (Rs./kVA)	300.00
Demand charges (Rs.lakhs)	396.00

Rate of energy charges (Rs.kWh)	4.40
Energy charges (Rs.lakhs)	2,455.00
Total cost of power purchase	2,851.00
Average cost (Rs./kWh)	5.11

- **13.** The licensee has estimated the power purchase cost based on the existing BST. The Commission approves the estimates of the licensee on power purchase cost.
- 14. Interest and financing charges: The Govt. of India met the entire investment on infrastructure for power distribution in CSEZ. The licensee has not proposed any interest and financing charges for 2014-15.
- 15. **Depreciation:** The licensee has claimed depreciation of Rs.62.24 lakh for the year 2014-15, which is inclusive of depreciation on assets to be created during the year on a proportionate basis. The GFA at the beginning of the year 2014-15 proposed by the licensee is Rs.1252.23 lakh. The total addition to GFA proposed for the year 2014-15 is Rs.382 lakh, which includes the solar power plant also.
- 16. As per the filing of the licensee, the addition to GFA for 2013-14 is mainly on the metering equipment. As per the details given by the licensee, the addition to metering equipments include commissioning of SCADA and web enabled system and purchase of meters and testing equipments for calibration of meters. However, the licensee has not completed the calibration of meters so far and the process is going on. So that asset additions proposed for 2013-14 cannot be considered now. Further, the asset additions proposed for 2014-15, mainly consists of solar power plant for which the Commission has yet to accord approval. Hence for the purpose of estimation of depreciation, GFA at the end of 2012-13 is considered. As such the depreciation allowed for the licensees is based on the revised CERC norms applicable from 2009 onwards. The Commission allows the depreciation to the licensee as per the CERC norms applicable for the tariff period 2009-14, on the condition that during the truing up process, the licensee has to show that the accounts are maintained to reflect the depreciation as per the CERC norms. In its absence, the depreciation as per the CERC norms applicable for the period from 2004 - 2009 will only be allowed in the truing up. The depreciation allowed for the year 2014-15 is as shown below:

## **Approved Depreciation for 2014-15**

	Value of Assets at the beginning of 2013-14 (Rs.lakh)	Depreciation rate	Allowable depreciation (Rs.lakh)
Substations	484.97	5.28%	25.61
11kV Works	496.79	5.28%	26.23
Distribution transformer	3.5	5.28%	0.18
Metering equipment	97.99	6.30%	6.17
Batteries	1.35	6.30%	0.09
Furniture & Fixtures	0.18	6.30%	0.01
Office Equipments	1.38	6.30%	0.09
Solar Plant (Not allowed)			
Total	1086.16		58.38

- 17.In the truing up of accounts for the years 2006-07 to 2009-10 the Commission had allowed depreciation and directed the licensee to create a fund for depreciation reserve. It is further directed that the amount of depreciation now allowed by the Commission also to be deposited in the said fund.
- 18. **Employee Cost:** The employee cost proposed by the licensee is Rs.135 lakh as against Rs. 128.50 lakh approved for the year 2013-14. The licensee has given the actual employee costs for 2012-13 as Rs.128 lakh mainly on account of O&M charges payable to M/s. KITCO Limited. The O&M charges to M/s KITCO is proposed at Rs.120.00 lakh for 2013-14. The proportion of cost of CSEZ employee is taken as Rs.15 lakh. The licensee in the filing stated that action has been taken to invite bids for appointing agency to operate and manage the power distribution system from the next financial year onwards. The Commission has directed in the earlier orders to select the O&M agency through competitive bidding process. The licensee in the previous year also stated that steps are being taken for selecting agency through transparent competitive bidding process. However, it is unfortunate to note that even after the lapse of three years, the licensee has not implemented the direction. The Commission views the lack of progress in this regard seriously. The licensee shall give necessary publicity for the tender so that adequate competition is ensured. The process has to be completed in a time bound manner. The approval of employee cost in the truing up will be subject to the satisfactory implementation of the directions.

- 19. The licensee has proposed Rs.135 lakh as the employee cost for 2014-15, as against the approved expenses of Rs.128.50 lakh for 2013-14. The increase proposed is about 5% only. The Commission approves the increase projected by the licensee.
- 20. Repair and Maintenance Expenses: The licensee has projected Rs.24 lakh for repair and maintenance expenses. The labour portion of the R&M work of the distribution system has been outsourced and is included in the employee cost. Only cost of materials is included in the R&M. The actual cost of materials incurred in 2012-13 was Rs.9.78 lakh. The projected R&M expense is substantially higher than the actual for previous years. The licensee has given list of works to be included in the R&M plan for 2014-15. According to the licensee many works such as overhauling of OLTCs of power transformers, procurement of VCBs, oil filtration of distribution transformers, etc., are planned and accordingly the R&M expenses are higher than previous years.
- **21.**The Commission is of the view that the proposed R&M expenses are high considering the past trend. The past figures are as follows:

**R&M Expenses over the Period from 2006-07** 

Year	R&M expense (Rs. lakh)
2006-07	7.39
2007-08	4.77
2008-09	10.52
2009-10	9.80
2010-11 (Actual)	13.61
2011-12 (Actual)	6.23
2012-13 (approved)	9.78
2013-14 (approved)	16.50

22. As shown above, the cost of periodical maintenance of the licensee is below Rs.10 lakh. The Commission has allowed sufficiently higher provision for R&M expenses for the year 2013-14 compared to the previous year. The Commission does not under estimate the need for proper R&M for maintaining supply to the consumers. Considering the above, the Commission approves an increase of 10% over the amount approved in 2013-14. Accordingly, the approved amount of R&M expenses is Rs.18.15 lakh. It is also brought to the notice of the licensee that, R&M expenses of capital nature should be accounted under capital expenditure.

- 23. Administration and General Expenses: The Administration and General expenses proposed by the licensee is Rs.32.03 lakh for 2014-15 where as the actual expenses for 2012-13 was Rs.16.11 lakh and approved expenses for 2013-14 was Rs.32.16 lakh. The main items under the A&G expenses are lease rent, insurance, statutory fees etc., The licensee has projected Rs.12 lakh for insurance, where as the revised estimates for 2013-14 is Rs.6 lakh for 6 months.
- 24. The A&G expense is a controllable item. The licensee has made a provision for insurance charges in the earlier years also, but actually no expenditure was incurred. Now the CSEZ, having been notified as an Authority under the relevant statute, insurance charges appear to be justifiable. The licensee has projected the A&G expenses in the same rate as the approved expenses for 2013-14 and there is no major increase in any items have been proposed. Hence, the projected A&G expense is approved for the year 2014-15. Thus the A&G expenses approved for 2014-15 is Rs.32.03 lakh.
- 25. **Return on Equity:** The licensee has claimed Rs.99.77 lakh as return estimated based on 14% of the 30% of the funds invested. The Commission in the truing up process in respect of licensee had considered the matter and allowed Rs.10 lakh per year as surplus which is transferred to the reserves. This has been continued in ARR&ERC for 2013-14 also. The Commission hence allows an amount of Rs.10 lakh as return for the licensee for 2014-15.
- 26. **Aggregate Revenue Requirements:** Based on the above, the Aggregate Revenue Requirements proposed and approved for 2014-15 are as given below.

Aggregate Revenue Requirements Approved for 2013-14

Particulars	2014-15	2014-15
	Projection	Approved
Expenses		
Purchase of Power	2,851.00	2,851.00
Repairs & Maintenance	24.00	18.15
Employee costs	135.00	135.00
A&G expenses	32.03	32.03
Depreciation	62.24	58.38
Interest & Finance Charges		
Revenue Return	99.77	10.00
Aggregate Revenue Requirements	3,204.04	3,104.56

- 27. Thus, the approved expenses (ARR) for the licensee for 2014-15 are Rs.3104.56 lakh. Of this, the distribution cost is Rs.253.56 lakh, which works out to about 46 paise per unit, as against 42 paise approved for 2013-14.
- 28. Revenue from Tariff: The licensee has originally projected Rs.3037.69 lakh towards revenue from sale of power. The licensee has estimated revenue based on the new classification and the average revenue/ realisation per unit is slightly higher than that of the current year. The details of revenue projection given by the licensee are shown below:

# Estimate of Revenue from tariffs for 2014-15

	2	012-13 (act	ual)	2	013-14 (pro	v)	20	2014-15(projected)		
Particulars	Energy sold MU	Revenue Rs.lakh	Average Realisation Rs / kwh	Energy sold MU	Revenue Rs.lakhs	Averag e Realisa tion Rs / kwh	Energ y sold MU	Revenu e Rs.lakh	Average Realisat ion Rs / kwh	
Consumer category wise										
HT - I (A)				37.54	2,116.68	5.64	38.49	2,185.95	5.68	
HT - I (B)				7.01	405.13	5.78	6.99	422.99	6.05	
HT - III (B)				1.62	43.64	2.69	1.65	41.35	2.51	
(I) H T Consumers (total)	44.63	2,128.58	4.77	46.17	2,565.45	5.56	47.13	2,650.29	5.62	
(ii) D H T Consumers	1.78	97.26	5.46	2.19	138.61	6.33	2.05	133.62	6.52	
(iv) LT - VII (A) (Commercial + Temp. For construction)	0.21	29.73	14.16	0.188	18.71	9.95	0.19	19.01	10.01	
LT - IV (A)				3.88	212.60	5.48	3.85	212.42	5.52	
LT - IV (B)				1.93	112.48	5.83	1.95	117.82	6.04	
LT - VI (A)				0.006	0.34	5.67	0.006	0.31	5.17	
LT - VI (B)				0.023	1.62	7.04	0.023	1.59	6.91	
LT - VI (D)				0.00016	0.0025	1.56	0.0001 2	0.0018	1.50	
LT - IX				0.033	1.07	3.24	0.02	0.61	3.05	
LT Consumers (IV, VI & IX)	6.58	281.44	4.28							
LT Consumers - Total	6.79	311.17	4.58	6.06	346.82	5.72	6.04	351.76	5.82	
Total	53.20	2,537.01	4.77	54.42	3,050.88	5.61	55.22	3,135.67	5.68	
Recovery of electricity duty and										
other State levies		79.37			105.29			92.01		
<ul> <li>a) Addl. Revenue from Excess over quota</li> </ul>		158.74			81.00					
b) Power factor penalty		22.05			(6.20)			-		
c) Meter rent		1.56			1.61			1.70		
d) Fuel surcharge		91.42						-		
Total of IV Gross Revenue from sale of power		353.14 2,890.15			76.41 3,232.58			1.70 3,229.38		
Less:		_,			2,=22.00			2,2.03		
(I) Electricity duty payable		79.37			105.29			105.29		
(iv) SMS Charges( communication)		2.26			5.12			5.40		
(vii)Addl.Revenue from Excess Over Quota		158.74			81.00			81.00		

Total of VI	349.00		191.41		191.69	
Net Revenue from sale of						
power (V - VI)	2,541.15		3,041.17		3,037.69	

- 29. The licensee has erroneously deducted Rs.81 lakh as additional revenue from excess quota. Thus the total estimated revenue from sale of power for the year 2014-15 is Rs.3118.69 lakh.
- 30. **Non-Tariff Revenue:** : The licensee has projected Rs.129.96 lakh towards non-tariff income as follows:

Interest on KSEB security Rs. 9.14 lakh Interest on Bank Deposit Rs. 120.00 lakh Commission for electricity duty Rs 0.82 lakh Total Rs.129.96 lakh

- 31. The Commission approves the non-tariff income projected by the license for the year 2014-15.
- 32. **Revenue Surplus/Gap:** The revenue gap proposed by the licensee is Rs. 36.69 lakh with return on equity. After considering the materials and explanation by the licensee, the Commission has arrived at a revenue surplus of Rs.144.09 lakh for the year 2014-15 as follows:

# Approved ARR&ERC for 2014-15

Particulars	2014-15	2014-15		
	Projection (Rs.lakh)	Approved (Rs.lakh)		
Expenses				
Purchase of Power	2,851.00	2,851.00		
Repairs & Maintenance	24.00	18.15		
Employee costs	135.00	135.00		
A&G expenses	32.03	32.03		
Depreciation	62.24	58.38		
Interest & Finance Charges				
Revenue Return	99.77	10.00		
Aggregate Revenue Requirements	3,204.04	3,104.56		
Revenue from sale of power	3,037.69	3,118.69		
Non-Tariff Revenue	129.96	129.96		
Total Revenue	3,167.65	3,248.65		
Revenue Gap/Surplus	-36.39	144.09		

- **33.** Capital expenditure: The licensee has proposed following capital expenditure during the financial year:
  - 1. Setting up of 200kWp grid interactive solar power plant. The investment proposed for the solar plant is Rs.295 lakh. Of which Rs.95 lakh is expected to spent in 2013-14 and remaining Rs.200 lakh in 2014-15.
  - 2. Built-in ducts for 11kV cables: At present in some areas built in cable ducts are provided. The licensee proposed to extend the same to all areas. The cost of which is proposed as Rs.60 lakh. In the previous year the estimate was shown as Rs.50 lakh.
  - 3. In order to cater the need of new multi-storeyed building new HT 11kV switch board is being planned and Rs.15 lakh is estimated for this.
  - 4. Spare 11kV RMU panels are being proposed as the present LT consumers are planning to upgrade to HT. Rs.15 lakh being proposed for the work.

The total capital works proposed for the year is Rs.290 lakhs. It is proposed that the expenditure will be met from revenue of the power distribution. Some of the items are of routine nature. The Licensee may carry out the capital expenditure as proposed and report the funding arrangements in due course.

#### **Orders of the Commission**

- **34.** After an analysis of the ARR&ERC and the clarifications thereon submitted by the Licensee, the Commission approves an ARR of Rs.3104.56 lakhs and estimated revenue at Rs. 3248.65 lakhs, leaving a revenue surplus of Rs.144.09 lakh for the year 2014-15 for M/s CSEZA as stated above. The Licensee shall limit the expenses at the approved level
- **35.** The petition is disposed of. Ordered accordingly.

Sd/-P. Parameswaran Member Sd/-Mathew George Member

Sd/-T.M. Manoharan Chairman

Approved for Issue

Secretary