



ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

4th Floor, Singareni Bhavan, Red Hills, Hyderabad 500 004

Present

Sri Justice G. Bhavani Prasad, Chairman

Dr. P. Raghu, Member

Sri P. Rama Mohan, Member

Dated 6th April, 2018

In the matter of

POWER PURCHASE RATE DETERMINATION FOR RESCOs DURING FY2018-19

The Kuppam Rural Electric Cooperative Society Ltd. O.P.No. 64 of 2017

The Anakapalle Rural Electric Cooperative Society Ltd. O.P.No. 65 of 2017

The Cheepurupalli Rural Electric Cooperative Society Ltd. O.P.No. 02 of 2018

..... Applicants

The Tariff filings made by the Kuppam Rural Electric Cooperative Society Ltd. (Kuppam RESCO), the Anakapalle Rural Electric Cooperative Society Ltd. (Anakapalle RESCO) and the Cheepurupalli Rural Electric Cooperative Society Ltd. (Cheepurupalli RESCO) for determination of ARR (Aggregate Revenue Requirement), Expenditure and Power Purchase Rate to be paid to the distribution licensees (from whom the applicants purchase the power) in respect of their Distribution and Retail Supply businesses for FY2018-19 came up for consideration before the Commission. Upon careful consideration of the material available on record and additional information made available by the applicants, the Commission hereby passes the following:

COMMON ORDER

Introduction

1. The three Rural Electric Cooperative Societies (RESCOs henceforth) in Andhra Pradesh State purchase electricity from distribution licensees for retail sale of electricity to the consumers connected to Low Tension (LT) network in their designated areas of supply¹. Under the current regulatory provisions, the electricity purchased from the distribution licensees by RESCOs is sold to retail consumers in their designated areas of supply at the same retail tariff rates that are determined for the distribution licensees. The three RESCOs made filings before the Commission for determination of ARR (Aggregate Revenue Requirement), Expenditure and Power Purchase Rate to be paid to the distribution licensees (from whom the applicants purchase the power) in respect of their distribution and retail supply businesses for FY2018-19². The Commission took these filings on record and used the information provided in these filings and additional information made available by the applicants subsequently, in determination of ARR, Expenditure and the power purchase rate to be paid by each RESCO to distribution licensee (Anakapalle and Cheepurupalli RESCOs to APEPDCL and Kuppam RESCO to APSPDCL) from whom they draw the electricity during FY2018-19 as detailed hereunder:

Methodology

2. The methodology for determination of power purchase rate for each RESCO has been devised in such a manner that the RESCO after meeting its prudent expenses towards distribution and retail sale of electricity (excluding power purchase cost) from its revenues remits the remaining revenue towards power purchase cost to the Distribution licensee who supplies the electricity to the RESCO. In this framework, the Commission;

¹ Anakapalle RESCO has the designated area of supply in part of Visakhapatnam district and Cheepurupalli RESCO has the designated area of supply in part of Vizianagaram district, and these two RESCOs draw the electricity from Eastern Power Distribution Company of Andhra Pradesh Ltd. (APEPDCL). The Kuppam RESCO has the designated area of supply in part of Chittoor district and draws electricity from Southern Power Distribution Company of Andhra Pradesh Ltd.(APSPDCL).

² The filing dates are: Kuppam RESCO, Anakapalle RESCO and Cheepurupalli RESCO- 30/11/2017, 06/12/2017 and 29/12/2017 respectively,

- a) Determines the Expenditure/ARR for each RESCO towards distribution and retail sale of electricity (excluding power purchase cost) in its area of supply for each financial year,
- b) Determines the sales volume in the area of supply of each RESCO and computes the revenue from the sale of such electricity (at approved tariff for retail sale of electricity) for each financial year,
- c) Determines the power purchase requirement/quantity for each RESCO by grossing up the approved sales volume with the approved losses for each financial year,
- d) Computes the surplus amount available with each RESCO by deducting the expenditure from the revenue and considers this amount as available for power purchase from the distribution licensee and
- e) Computes the power purchase rate payable by each RESCO to the respective licensee by dividing the amount available for power purchase with the power purchase requirement/quantity determined for that RESCO.

Aggregate Revenue Requirement (ARR)

3. The gross ARR for each RESCO consists of a) Return on capital computed on net capital base and b) Expenditure towards distribution and retail supply activities excluding power purchase cost. The gross ARR thus reflects the total expenditure to be recovered from the consumers to meet the capital and operating cost of each RESCO. The net ARR for each RESCO is the gross ARR minus non-tariff income (which is mostly independent of tariff rates). The Commission has computed the net ARR for each RESCO for FY2018-19.

Return on Capital

4. The RESCOs have filed the capital base details for FY2018-19 in accordance with the format issued for this purpose by the Commission. The RESCOs are eligible to claim 16% return on the net capital as return on capital employed in the business. Of the three RESCOs, Anakapalle RESCO claimed the return on capital cost at ₹1176.41 lakhs, Cheepurupalli RESCO claimed ₹89.24 lakhs for FY2018-19. The Commission after scrutiny modified the above amounts to ₹1055.71 lakhs, ₹89.24 lakhs for Anakapalle, and Cheepurupalli RESCOs respectively. In the case of Kuppam RESCO, the net capital base

has become negative on account of huge loans contributions to the capital base and therefore the return on net capital base is considered as NIL. The details of net capital base and return on capital employed are given in Annexure-01.

Expenditure

5. The three RESCOs have filed the expenditure details for FY2018-19 in accordance with the format issued for this purpose by the Commission. The Commission has approved the expenditure for FY2018-19 as filed by RESCOs with the following modifications / additions /deletions;

a) Anakapalle RESCO:

Administration & General Expenses: The Commission modified the administration & general expenses from ₹300 lakhs to ₹100 lakhs as details of expenditure are not furnished and considering the provisional expenditure during FY2018-19.

NTR Jala Siri: The Commission has not considered the claim of ₹ 600 lakhs under this head as it is a burden on the finances of RESCO.

Previous Losses: The Commission has not considered the claim of previous losses ₹ 193 lakhs due to lack of sufficient data for the same.

b) Cheepurupalli RESCO:

Administration & General Expenses: The Commission modified the administration & general expenses from ₹ 74.3 to ₹ 50 lakhs considering the provisional expenditure during FY2018-19 and any further requirement may be met from surplus funds.

Income Tax: The Commission has not considered the claim towards income tax ₹ 38.50 lakhs as the same can be met from the profits.

Other Expenses (Contribution to Solar Pump sets): The Commission has not considered the claim of ₹ 51.88 lakhs under this head as it is a burden on the finances of RESCO.

c) Kuppam RESCO:

Wages and Salaries: The Commission modified the claims towards wages and salaries from ₹1454.31 to ₹1335.06 lakhs limiting the hike to 15 percent over previous year approval and any further requirement may be met from surplus funds.

Income Tax: The Commission has not considered the claim towards income tax ₹ 35 lakhs as the same can be met from the profits.

Other Expenses (Contribution to Solar Pump sets): The Commission has not considered the claim of ₹ 63.07 lakhs under this head as it is a burden on the finances of RESCO.

Building Construction: The Commission has not considered the claim of ₹60 lakhs under this head as the same can be met from the surplus funds.

Previous Losses: The Commission modified the claims towards previous losses from ₹ 264 lakhs to ₹ 205.06 lakhs after verification of the data submitted and duly adjusting the additional revenue accrued on account of higher non-agricultural sales. The said losses were on account of extension of supply for additional hours to Agriculture during FY2016-17.

6. With these modifications to the filings made by the RESCOs, the Commission has computed the total expenditure at ₹4265.77 lakhs for Anakapalle RESCO, ₹1449.30 lakhs for Cheepurupalli RESCO and ₹3295.02 lakhs for Kuppam RESCO during FY2018-19. The expenditure details are given in Annexure-02.

Non-Tariff Income

7. The RESCOs also earn non-tariff income other than tariff such as customer charges, penalties, interest on deposits etc. The Commission has approved the non-tariff income as estimated and filed by RESCOs in their respective ARR filings at ₹845.40 lakhs for Anakapalle RESCO, ₹274.61 lakhs for Cheepurupalli RESCO and ₹679.08 lakhs for Kuppam RESCO during FY2018-19.

Aggregate Revenue Requirement (ARR)

8. The Commission has computed the Net ARR for each RESCO by adding return on capital and expenditure and then deducting the non-tariff income for FY2018-19 at

₹4476.08 lakhs for Anakapalle RESCO, ₹1263.93 lakhs for Cheepurupalli RESCO and ₹2615.94 lakhs for Kuppam RESCO and these details are given in the table below.

Aggregate Revenue Requirement for RESCOs during FY2018-19 (₹ Lakhs)

Item	Anakapalle	Cheepurupalli	Kuppam
01. Return on Capital	1055.71	89.24	0.00
02. Expenditure	4265.77	1449.30	3295.02
03. Gross ARR(01+02)	5321.48	1538.54	3295.02
04. Non-Tariff Income	845.40	274.61	679.08
05. Net ARR (03-04)	4476.08	1263.93	2615.94

Sales, Power Purchase Quantity and Revenue from Sales

9. The Commission has determined the sales volume for the area of supply of each RESCO separately, after considering the historical sales volumes in the respective area of supply, distribution licensees' proposed sales volume to each RESCO and RESCOs' proposed sales volumes, at 232.69 MU for Anakapalle RESCO, 82.36 MU for Cheepurupalli RESCO and 343.08 MU for Kuppam RESCO during FY2018-19. The Commission has computed the power purchase requirement, by grossing up the sales with reasonable loss levels, at 260.86 MU for Anakapalle RESCO, 92.33 MU for Cheepurupalli RESCO and 384.62 MU for Kuppam RESCO during FY2018-19.
10. Since RESCOs sell electricity at the tariff determined for distribution licensees for retail sale of electricity, the revenue for sales by each RESCO has been estimated considering the same tariffs. The estimated revenues from sales are ₹7062.61 lakhs for Anakapalle RESCO, ₹1781.50 lakhs for Cheepurupalli RESCO and ₹3885.22 lakhs for Kuppam RESCO during FY2018-19 and these details are given in Annexure-03 and the summary is given in the table below.

Sales, Power Purchase and Revenue from Tariffs during FY2018-19

S.No.	Item	Anakapalle	Cheepurupalli	Kuppam
1	Sales, MU	232.69	82.36	343.08
2	Power Purchase Quantity, MU	260.86	92.33	384.62
3	Revenue from Tariff (₹ Lakhs)	7062.61	1781.50	3885.22

Excess Drawals by RESCOs during FY2018-19

11. The RESCOs may, without any restriction, draw the required additional quantum of energy to meet the requirement of additional sales to non-agricultural consumer categories from respective distribution licensees during FY2018-19. The additional revenue that accrues to RESCOs as a result of higher sales volume to non-agricultural consumer categories will be transferred to Distribution licensees after completion of FY2018-19 after netting off the cost of additional power purchases made by the RESCOs.
12. The RESCOs shall make all possible efforts not to exceed the agricultural sales volume approved in this Order and shall strictly implement the policies of distribution licensee (from whom the RESCOs draw the power) in the matter of agricultural supply.
13. For excess power purchases also i.e. the energy drawn by the RESCOs from the DISCOMs over and above the power purchase quantities approved in this Order, the RESCOs shall continue to pay at the same power purchase rates approved in this Order.
14. At para No.14 of RESCOs order for FY2017-18, the Commission directed all the RESCOs to submit category wise actual sales volume, power purchases and revenue for each category for FY2016-17 (month wise) to take an appropriate view on additional net revenue that accrues to RESCOs as a result of higher sales volume to non-agricultural consumer categories to transfer the same to the respective distribution licensees. Accordingly the RESCOs have submitted actual category wise sales and revenue. On verification of data, there is no net additional income in respect of Anakapalle RESCO. In respect of Cheepurupalli RESCO, there is an additional revenue of ₹ 286.42 lakhs and the same is not taken into account in this Order and carried forward for future adjustments. In respect of Kuppam RESCO, the additional net revenue is adjusted (as stated supra) in the additional power purchase expenditure incurred for supply of additional hours to Agriculture during FY2016-17.

15. While filing the applications before APERC seeking additional subsidy from the GoAP towards additional agricultural sales, the DISCOMs shall take into account the additional agricultural sales of RESCOs also in their jurisdiction. After receiving the additional subsidy from the GoAP, the DISCOMs shall reimburse to the respective RESCOs, the power purchase costs incurred by the RESCOs towards additional Agricultural sales net off any revenue from such additional Agricultural sales.

Surplus Available with RESCOs and Power Purchase Rate for FY2018-19

16. The Commission after having determined the net ARR and Revenue from sales as above, has estimated the surplus amounts available with RESCOs for power purchases at ₹2586.53 lakhs for Anakapalle RESCO, ₹ 517.57 lakhs for Cheepurupalli RESCO and ₹1269.28 lakhs for Kuppam RESCO during FY2018-19. The power purchase price for each RESCO has been determined (dividing the available surplus by approved power purchase quantity) at ₹0.99/kWh for Anakapalle RESCO, ₹0.56 /kWh for Cheepurupalli RESCO and ₹0.33/kWh for Kuppam RESCO during FY2018-19. The details are given in the table below:

Power Purchase Price for FY2018-19

S.No.	Item	Anakapalle	Cheepurupalli	Kuppam
1	Net ARR (₹ Lakhs)	4,476.08	1,263.93	2,615.94
2	Revenue (₹ Lakhs)	7062.61	1781.50	3885.22
3	Surplus Available for Power Purchase (₹ Lakhs) [(2)-(1)]	2,586.53	517.57	1,269.28
4	Power Purchase Quantity Approved	260.86	92.33	384.62
5	Power Purchase Rate (₹ /kWh) [(3)/(4)]	0.99	0.56	0.33

Conclusion

17. The Commission has not accepted the RESCOs' proposals to the extent modified in this Order and has recomputed the ARR, Expenditure, Power Purchase Requirement, Revenue from sales and the Surplus amounts available for power purchases for FY2018-19. The

Power Purchase Rate determined for each RESCO in Para 16 above shall be the Rate to be paid by that RESCO for energy drawals from the respective distribution licensee during FY2018-19.

18. The tariff for retail sale of electricity determined by the Commission for the DISCOMs for FY2018-19 in its Order dt.27.03.2018 is also applicable to the RESCOs for retail sale of Electricity in their respective areas of supply.
19. The details of Revenues to the DISCOMs from the sale of energy to the RESCOs as per the Retail Supply Tariff Order for FY2018-19 and as per the rates determined now are tabulated below.

Details of Revenues to the DISCOMs from the sale of energy to RESCOs for FY2018-19

Name of the RESCO	Located in	DISCOMs revenue from sale of energy to the RESCOs as per the Retail Supply Tariff Order for FY2018-19 (₹ Crs)	DISCOMs revenue from sale of energy to the RESCOs as per the rates determined in this order (₹ Crs)	Revenue Shortfall (-) /Gain (+) to the DISCOM (₹ Crs)
(1)	(2)	(3)	(4)	(5)=(4)-(3)
Anakapalle	APEPDCL	30.56	31.04	0.48
Cheepurupalli				
Kuppam	APSPDCL	14.03	12.70	-1.33

The licensees may include in their Retail Supply Tariff Filings for FY2019-20, the shortfall/gain in the revenues from the RESCOs during FY2018-19.

This Order is signed on 6th day of April, 2018.

Sd/-
P. RAMA MOHAN
MEMBER

Sd/-
Dr. P. RAGHU
MEMBER

Sd/-
JUSTICE G.BHAVANI PRASAD
CHAIRMAN

Annexure-01: Net Capital Base and Return on Capital during FY2018-19 (₹ Lakhs)

Capital Base Item	Anakapalle		Cheepurupalli		Kuppam	
	RESCO	APERC	RESCO	APERC	RESCO	APERC
A: Positive Elements (01+02+03)	17167.11	16412.71	2010.29	2010.29	9385.10	9385.10
01. Original Cost of Fixed Assets	16597.11	15842.71	1541.09	1541.09	7671.64	7671.64
02. Cost of works in progress	500.00	500.00	383.60	383.60	1515.00	1515.00
03. Working Capital	70.00	70.00	85.60	85.60	198.46	198.46
(i) Average Cost of Stores	50.00	50.00	31.97	31.97	39.00	39.00
(ii) Avg. Cash and Bank balance	20.00	20.00	53.63	53.63	159.46	159.46
B: Negative Elements (06+...+11)	9814.55	9814.55	1452.55	1452.55	12549.98	12549.98
06. Accumulated Depreciation	8263.55	8263.55	1251.99	1251.99	8140.18	8140.18
07. Approved Loans	1000.00	1000.00	0.00	0.00	3812.75	3812.75
08. Consumer Security Deposit	465.40	465.40	200.56	200.56	545.60	545.60
09. Grants, aids & Subsidies	0.00	0.00	0.00	0.00	0.00	0.00
10. Development/Tariff & Dividend Reserve	85.60	85.60	0.00	0.00	0.00	0.00
11. Consumer Contributions	0.00	0.00	0.00	0.00	51.45	51.45
C: Net Capital Base(A-B)	7352.56	6598.16	557.74	557.74	-3164.88	-3164.88
D: Return on Net Capital Base	1176.41	1055.71	89.24	89.24	---	---

Annexure-02: Expenditure Items for RESCOs during FY2018-19 (₹ Lakhs)

Sl. No.	Particulars	Anakapalle		Cheepurupalli		Kuppam	
		RESCO	APERC	RESCO	APERC	RESCO	APERC
1	Wages and Salaries	2182.25	2182.25	1031.05	1031.05	1454.31	1335.06
2	Admin & General Expenses	300.00	100.00	74.33	50.00	31.20	31.20
3	Repairs and Maintenance	350.00	350.00	108.17	108.17	278.90	278.90
4	Rent, Rates & Taxes	10.00	10.00	3.72	3.72	7.50	7.50
5	Approved Loan Interest	0.00	0.00	15.89	15.89	168.00	168.00
6	Depreciation	1433.02	1433.02	76.23	76.23	972.75	972.75
7	Contbn. to Employee Funds	48.50	48.50	75.47	75.47	239.00	239.00
8	Gratuity payments	120.00	120.00	60.00	60.00	0.00	0.00
9	Interest on Security Deposit	0.00	0.00	10.91	10.91	51.45	51.45
10	Legal Charges	10.00	10.00	0.15	0.15	0.80	0.80
11	Auditors' Fees	12.00	12.00	1.53	1.53	5.30	5.30
12	Int. on Share Capital	0.00	0.00	16.18	16.18	0.00	0.00
13	NTR Jala Siri	600.00	0.00	0.00	0.00	0.00	0.00
14	Income Tax	0.00	0.00	38.50	0.00	35.00	0.00
15	Other Expenses (Contribution to Solar Pump Sets)	0.00	0.00	51.88	0.00	63.07	0.00
16	For building construction	0.00	0.00	0.00	0.00	60.00	0.00
17	Addl quantity of purchase of power	0.00	0.00	0.00	0.00	0.00	0.00
18	Previous Losses	193.00	0.00	0.00	0.00	264.00	205.06
Expenditure (Excl. PP Cost)		5258.77	4265.77	1564.01	1449.30	3631.28	3295.02

Annexure-03: Sales, Revenue and Purchase Quantity during FY2018-19

Sales and Revenue - Anakapalli					
S.No.	Category	RESCO		APERC	
		Sales (MU)	Revenue (₹ Lakhs)	Sales (MU)	Revenue (₹ Lakhs)
1	LT-I: Domestic	121.00	3157.59	121.00	3157.59
2	LT-II: Non-Domestic	14.89	1343.24	14.89	1343.24
3	LT-III: Industry	29.83	1883.38	29.83	1883.38
4	LT-IV: Cottage Industries	0.04	1.47	0.04	1.47
5	LT-V: Agriculture	59.38	0.00	55.00	0.00
6	LT-VI: Street Lighting	10.67	592.33	10.67	592.33
7	LT-VII: General	1.23	80.34	1.23	80.34
8	LT-VIII: Temporary	0.04	4.26	0.04	4.26
Total		237.07	7062.61	232.69	7062.61
Power Purchase Requirement		265.77	-	260.86	-

Sales and Revenue - Cheepurupalli					
S.No.	Category	RESCO		APERC	
		Sales (MU)	Revenue (₹ Lakhs)	Sales (MU)	Revenue (₹ Lakhs)
1	LT-I: Domestic	31.67	952.32	31.67	952.32
2	LT-II: Non-Domestic	4.11	389.09	4.11	389.09
3	LT-III: Industry	3.73	284.57	3.73	284.57
4	LT-IV: Cottage Industries	0.05	3.60	0.05	3.60
5	LT-V: Agriculture	41.92	0.73	40.38	0.70
6	LT-VI: Street Lighting	2.11	130.06	2.11	130.06
7	LT-VII: General	0.31	21.16	0.31	21.16
8	LT-VIII: Temporary	0.00	0.00	0.00	0.00
Total		83.90	1781.53	82.36	1781.50
Power Purchase Requirement		97.00	-	92.33	-

Sales and Revenue - Kuppam					
S. No.	Category	RESCO		APERC	
		Sales (MU)	Revenue (₹ Lakhs)	Sales (MU)	Revenue (₹ Lakhs)
1	LT-I: Domestic	39.87	905.60	39.87	905.60
2	LT-II: Non-Domestic	8.81	886.04	8.81	886.04
3	LT-III: Industry	8.87	743.97	8.87	743.97
4	LT-IV: Cottage Industries	0.00	0.00	0.00	0.00
5	LT-V: Agriculture	348.77	0.00	260.67	0.00
6	LT-VI: Street Lighting	24.06	1278.48	24.06	1278.48
7	LT-VII: General	0.59	46.29	0.59	46.29
8	LT-VIII: Temporary	0.21	24.84	0.21	24.84
Total		431.18	3885.22	343.08	3885.22
Power Purchase Requirement		501.48	-	384.62	-