



# **ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION**

4<sup>th</sup> Floor, Singareni Bhavan, Red Hills, Hyderabad 500 004

**Present**

**Justice G. Bhavani Prasad, Chairman**

**Dr. P. Raghu, Member**

**P. Rama Mohan, Member**

**FRIDAY, THE EIGHTH MARCH TWO THOUSAND AND NINETEEN**

**In the matter  
of**

## **Determination of Power Purchase Rate for RESCOs for FY2019-20**

**The Anakapalle Rural Electric Cooperative Society Ltd.**

**O.P.No. 32 of 2018**

**The Cheepurupalli Rural Electric Cooperative Society Ltd.**

**O.P.No. 33 of 2018**

**The Kuppam Rural Electric Cooperative Society Ltd.**

**O.P.No. 34 of 2018**

**..... Applicants**

The Tariff filings made by the Anakapalle Rural Electric Cooperative Society Ltd. (Anakapalle RESCO), the Cheepurupalli Rural Electric Cooperative Society Ltd. (Cheepurupalli RESCO) and the Kuppam Rural Electric Cooperative Society Ltd. (Kuppam 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 FY2019-20 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 (referred to as RESCOs henceforth) in Andhra Pradesh purchase electricity from distribution licensees for retail sale of electricity to the consumers connected to Low Tension (LT) network in their designated areas of supply<sup>1</sup>. 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 FY2019-20<sup>2</sup>. 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 FY2019-20 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;
  - a) Determines the ARR, Expenditure for each RESCO towards distribution and retail sale of electricity (excluding power purchase cost) in its area of supply for each financial year,

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<sup>1</sup> 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).

<sup>2</sup> The filing dates are: Kuppam RESCO, Anakapalle RESCO and Cheepurupalli RESCO- 30/11/2018, 28/11/2018 and 28/11/2018 respectively,

- 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 FY2019-20.

### **Return on Capital**

4. The RESCOs have filed the capital base details for FY2019-20 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 ₹1061.72 lakhs, Cheepurupalli RESCO claimed ₹21.57 lakhs for FY2019-20. The Commission after scrutiny approved the Return on Capital cost for Anakapalle RESCO at the same level filed by it. For Cheepurupalli RESCO, the Return on Capital Cost is approved at ₹17.31 Lakhs, after taking into account the loans in the negative elements in the statement of capital base which were not shown by the RESCO. In the case of Kuppam RESCO, the net capital base has become negative on account of contribution of huge loans, accumulated depreciation and consumer security deposit 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 FY2019-20 in accordance with the format issued for this purpose by the Commission. The Commission has approved the expenditure for FY2019-20 filed by RESCOs with the following modifications / additions / deletions;

**a) Anakapalle RESCO:**

**Administration & General Expenses, Repairs & Maintenance, Rents Rates & Taxes:** The Commission has modified the Administration & General expenses, Repairs & Maintenance charges and Rents, Rates & Taxes from ₹120 lakhs, ₹385 lakhs and ₹50 lakhs to ₹100 lakhs, ₹350 lakhs and ₹10 lakhs respectively considering the previous expenditure during FY2018-19.

**NTR Jalasiri:** The Commission has not considered the claim of ₹40 lakhs under this head as it is a burden on the finances of RESCO and also it can be claimed from the Government.

**Previous Losses:** The Commission has not considered the claim of previous losses ₹40 lakhs due to lack of sufficient data for the same.

**b) Cheepurupalli RESCO:**

**Administration & General Expenses and loan interest:** The Commission modified the administration & general expenses and Loan interest from ₹93.65 Lakhs and ₹52.46 Lakhs to ₹75.00 lakhs and ₹10 Lakhs respectively considering the provisional expenditure during FY2018-19.

**Other Expenses (Contribution to Solar Pump sets):** The Commission has not considered the claim of ₹92 lakhs under this head as it is a burden on the finances of RESCO and it can be claimed from the Government.

**c) Kuppam RESCO:**

**Repairs and Maintenance, Loan interest and depreciation:** The Commission modified the proposed expenditure of ₹304.56 Lakhs towards Repairs and Maintenance, ₹230 Lakhs towards Loan interest and ₹1103.99 Lakhs towards depreciation, to ₹200, ₹168 and ₹950 Lakhs respectively considering the provisional expenditure and actual loan repayment during FY2018-19.

**Building Construction:** The Commission has not considered the claim of ₹50 lakhs and the same can be met from their own funds.

6. With these modifications to the filings made by the RESCOs, the Commission has computed the total expenditure at ₹4624.35 lakhs for Anakapalle RESCO, ₹1696.85 lakhs for Cheepurupalli RESCO and ₹3193.83 lakhs for Kuppam RESCO during FY2019-20. 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 ₹893.82 lakhs for Anakapalle RESCO, ₹369.93 lakhs for Cheepurupalli RESCO and ₹723.00 lakhs for Kuppam RESCO during FY2019-20.

#### **Aggregate Revenue Requirement (ARR)**

8. The Commission has computed the Net ARR for each RESCO by adding Return on Capital to the Expenditure and then deducting the non-tariff income, for FY2019-20, at ₹4432.25 lakhs for Anakapalle RESCO, ₹1344.23 lakhs for Cheepurupalli RESCO and ₹2435.83 lakhs for Kuppam RESCO and these details are given in the table below.

#### **Aggregate Revenue Requirement for RESCOs during FY2019-20 (₹ Lakhs)**

<b>S. No.</b>	<b>Item</b>	<b>Anakapalle</b>	<b>Cheepurupalli</b>	<b>Kuppam</b>
1	Return on Capital	1061.72	17.31	0.00
2	Expenditure (Excluding Power Purchase)	4264.35	1696.85	3190.83
3	Gross ARR (1)+(2)	5326.07	1714.16	3190.83
4	Non-Tariff Income	893.82	369.93	755.00
<b>5</b>	<b>Net ARR (3)-(4)</b>	<b>4432.25</b>	<b>1344.23</b>	<b>2435.83</b>

#### **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 248.99MU for Anakapalle RESCO, 91.51MU of Cheepurupalli RESCO and 370.92MU of Kuppam RESCO during FY2019-20, as

approved in the Retail Supply Tariff Order for FY2019-20 for the distribution licensees. The Commission has computed the power purchase requirement, by grossing up the sales with reasonable loss levels, at 278.83 MU for Anakapalle RESCO, 102.47 MU for Cheepurupalli RESCO and 415.36 MU for Kuppam RESCO during FY2019-20.

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 by the RESCOs are ₹7387.68 lakhs for Anakapalle RESCO, ₹2063.64 lakhs for Cheepurupalli RESCO and ₹4089.81 lakhs for Kuppam RESCO during FY2019-20 and the same have been approved by the Commission. The details are given in Annexure-03 and the summary is given in the table below.

**Sales, Power Purchase and Revenue from Tariffs during FY2019-20**

S. No.	Item	Anakapalle	Cheepurupalli	Kuppam
1	Sales, MU	248.99	91.51	370.92
2	Power Purchase Quantity, MU	278.83	102.47	415.36
3	Revenue from Tariff, ( ₹ Lakhs)	7387.68	2063.64	4089.81

**Excess draws by RESCOs during FY2019-20**

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 FY2019-20. 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 FY2019-20 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. 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. The RESCOs shall be vigilant on the sales volume to the agricultural category (covering only genuine consumers and preventing any unauthorized and unaccounted pilferage or theft of energy in any manner).

#### **Surplus Available with RESCOs and Power Purchase Rate for FY2019-20**

15. 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 ₹2955.43 lakhs for Anakapalle RESCO, ₹719.41 lakhs for Cheepurupalli RESCO and ₹1653.98 lakhs for Kuppam RESCO during FY2019-20. The power purchase price for each RESCO has been determined (dividing the available surplus by approved power purchase quantity) at ₹1.06/kWh for Anakapalle RESCO, ₹0.70/kWh for Cheepurupalli RESCO and ₹0.40/kWh for Kuppam RESCO during FY2019-20. The details are given in the table below:

#### **Power Purchase Price for FY2019-20**

<b>S. No.</b>	<b>Item</b>	<b>Anakapalle</b>	<b>Cheepurupalli</b>	<b>Kuppam</b>
1	Net ARR (₹ Lakhs)	<b>4,432.25</b>	<b>1,344.23</b>	<b>2,435.83</b>
2	Revenue (₹ Lakhs)	7387.68	2063.64	4089.81
3	Surplus Available for Power Purchase (2)-(1), (₹ Lakhs)	2,955.43	719.41	1,653.98
4	Power Purchase Quantity Approved (MU)	278.83	102.47	415.36
<b>5</b>	<b>Power Purchase Rate (03/04) (₹/kWh)</b>	<b>1.06</b>	<b>0.70</b>	<b>0.40</b>

**Conclusion**

16. 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 FY2019-20. The Power Purchase Rate determined for each RESCO in Para 15 above shall be the Rate to be paid by that RESCO for energy draws from the respective distribution licensee during FY2019-20.
17. The tariff for retail sale of electricity determined by the Commission for the DISCOMs for FY2019-20 in its Order dt. 22.02.2019 is also applicable to the RESCOs for retail sale of Electricity in their respective areas of supply.
18. The RESCOs shall take note of the simplification of the consumer categories in the Retail Supply Tariff Order for FY2019-20 and shall act accordingly.
19. The details of Revenues to the DISCOMs from the sale of energy to the RESCOs as per the Retail Supply Tariff Order for FY2019-20 and as per the rates determined now are tabulated below.

**Details of Revenues to the DISCOMs from the sale of energy to RESCOs for FY2019-20**

<b>Name of the RESCO</b>	<b>Located in</b>	<b>DISCOMs revenue from sale of energy to the RESCOs as per the Retail Supply Tariff Order for FY2019-20 (₹ Cr.)</b>	<b>DISCOMs revenue from sale of energy to the RESCOs as per the rates determined in this order (₹ Cr.)</b>	<b>Revenue Shortfall (-) / Gain (+) to the DISCOM (₹ Cr.)</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)=(4)-(3)</b>
Anakapalle	APEPDCL	39.68	36.74	(-) 2.94
Cheepurupalli				
Kuppam	APSPDCL	24.80	16.54	(-) 8.26

20. The licensees may include in their Retail Supply Tariff Filings for FY2020-21, the shortfall / gain in the revenues from the RESCOs during FY2019-20.

This Order is signed on 8<sup>th</sup> day of March, 2019.

**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 FY2019-20(₹ Lakhs)**

Capital Base Item	Anakapalle		Cheepurupalli		Kuppam	
	RESCO	APERC	RESCO	APERC	RESCO	APERC
<b>A: Positive Elements (01+02+03)</b>	<b>18023.71</b>	<b>18023.71</b>	<b>1751.33</b>	<b>1751.33</b>	<b>10070.23</b>	<b>10070.23</b>
01. Original Cost of Fixed Assets	17372.71	17372.71	1388.47	1388.47	8796.80	8796.80
02. Cost of works in progress	565.00	565.00	287.35	287.35	1126.93	1126.93
03. Working Capital	86.00	86.00	75.51	75.51	146.50	146.50
(i) Average Cost of Stores	50.00	50.00	13.34	13.34	26.50	26.50
(ii) Avg. Cash and Bank balance	36.00	36.00	62.17	62.17	120.00	120.00
<b>B: Negative Elements (06+...+11)</b>	<b>11387.96</b>	<b>11387.96</b>	<b>1616.52</b>	<b>1643.14</b>	<b>13519.40</b>	<b>13519.40</b>
06. Accumulated Depreciation	10242.36	10242.36	1372.85	1372.85	9549.00	9549.00
07. Approved Loans	0.00	0.00	0.00	26.62	3277.06	3277.06
08. Consumer Security Deposit	1060.00	1060.00	243.67	243.67	636.09	636.09
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	57.25	57.25
<b>C: Net Capital Base(A-B)</b>	<b>6635.75</b>	<b>6635.75</b>	<b>134.81</b>	<b>108.19</b>	<b>-3449.17</b>	<b>-3449.17</b>
<b>D: Return on Net Capital Base</b>	<b>1061.72</b>	<b>1061.72</b>	<b>21.57</b>	<b>17.31</b>	--	--

**Annexure-02**

**Expenditure Items for RESCOs during FY2019-20 (₹ Lakhs)**

S. No.	Particulars	Anakapalle		Cheepurupalli		Kuppam	
		RESCO	APERC	RESCO	APERC	RESCO	APERC
1	Wages and Salaries	2522.62	2522.62	1219.70	1219.70	1393.85	1393.85
2	Admin & General Expenses	120.00	100.00	93.65	75.00	63.23	63.23
3	Repairs and Maintenance	385.00	350.00	127.85	127.85	304.56	200.00
4	Rent, Rates & Taxes	50.00	10.00	5.00	5.00	9.00	9.00
5	Approved Loan Interest	0.00	0.00	52.46	10.00	230.00	168.00
6	Depreciation	1532.94	1057.73	118.34	118.34	1103.99	950.00
7	Contrbn. to Employee Funds	80.00	80.00	105.00	105.00	340.00	340.00
8	Gratuity payments	120.00	120.00				
9	Interest on Security Deposit	0.00	0.00	12.90	12.90	57.25	57.25
10	Legal Charges	12.00	12.00	1.50	1.50	2.00	2.00
11	Auditors' Fees	12.00	12.00	2.00	2.00	7.50	7.50
12	Int. on Share Capital	0.00	0.00	17.72	17.72	0.00	0.00
13	NTR Jalsiri	40.00	0.00	-	-	0.00	0.00
14	Income Tax	0.00	0.00	0.00	0.00	0.00	0.00
15	Other Expenses (Contribution to Solar Pump Sets)	0.00	0.00	92.00	0.00	0.00	0.00
16	For building construction	0.00	0.00	0.00	0.00	50.00	0.00
17	Addl. quantity of purchase of power	0.00	0.00	0.00	0.00	0.00	0.00
18	Previous Losses	40.00	0.00	-	-	0.00	0.00
19	Other Expenses (DDUGJY Charges - society)	0.00	0.00	1.84	1.84	0.00	0.00
<b>Expenditure (Excl. PP Cost)</b>		<b>4914.56</b>	<b>4264.35</b>	<b>1849.96</b>	<b>1696.85</b>	<b>3561.38</b>	<b>3190.83</b>

**Annexure-03**

**Filings: Sales, Revenue and Power Purchase Quantity during FY2019-20**

S. No.	Category	Anakapalle		Cheepurupalli		Kuppam	
		Sales (MU)	Revenue (₹ Lakhs)	Sales (MU)	Revenue (₹ Lakhs)	Sales (MU)	Revenue (₹ Lakhs)
1	LT-I: Domestic	129.44	3361.51	35.13	1154.74	42.33	970.32
2	LT-II: Non-Domestic	15.42	1388.61	4.23	404.78	8.24	835.22
3	LT-III: Industry	30.65	1935.15	4.24	324.72	10.04	826.85
4	LT-IV: Cottage Industries	0.04	1.34	0.11	5.78	0.00	0.00
5	LT-V: Agriculture	60.57	0.00	44.86	0.88	440.61	0.00
6	LT-VI: Street Lighting	10.90	595.33	2.45	149.19	25.99	1388.77
7	LT-VII: General	1.37	87.77	0.34	23.55	0.62	52.68
8	LT-VIII: Temporary	0.17	17.97	0.00	0.00	0.13	15.97
<b>Total</b>		<b>248.56</b>	<b>7387.68</b>	<b>91.35</b>	<b>2063.64</b>	<b>527.95</b>	<b>4089.81</b>
<b>Power Purchase Requirement</b>		<b>278.34</b>		<b>105.00</b>		<b>614.11</b>	

**Annexure-04**

**Approved: Sales, Revenue and Power Purchase Quantity during FY2019-20**

Category	Consumer Category	Anakapalle		Cheepurupalli		Kuppam	
		Sales (MU)	Revenue (Rs. Lakhs)	Sales (MU)	Revenue (Rs. Lakhs)	Sales (MU)	Revenue (Rs. Lakhs)
I	Domestic	129.44	3361.51	35.13	1154.74	42.33	970.32
II	Commercial & Others	15.42	1388.61	4.23	404.78	8.24	835.22
III	Industry						
	(A): Industry General	30.65	1935.15	4.24	324.72	10.04	826.85
	(D): Cottage Industries upto 10HP*	0.04	1.34	0.11	5.78	0.00	0.00
* Dhobighats shall be extended free power supply as per G.O.Rt.No.75, dt:27-06-2018							
IV	Institutional						
	(A): Street Lighting	10.90	595.33	2.45	149.19	25.99	1388.77
	(D): General Purpose	1.37	87.77	0.34	23.55	0.62	52.68
V	Agriculture & Related (A): Corporate Farmers (B): Non-Corporate Farmers	61.18	17.97	45.02	0.88	283.71	15.97
<b>Total</b>		<b>248.99</b>	<b>7387.68</b>	<b>91.51</b>	<b>2063.64</b>	<b>370.92</b>	<b>4089.81</b>
<b>Power Purchase Requirement Considering loss @10.70%</b>		<b>278.82</b>		<b>102.47</b>		<b>415.36</b>	