

CHAPTER - 3

ANNUAL REVENUE REQUIREMENT FOR FY19

3.0 Annual Revenue Requirement for FY19:

The Hukeri Rural Electric Co-operative Society (HRECS), in its application dated 30th November, 2017, has sought approval of revised ARR and retail supply tariff for FY19. The summary of the proposed revised ARR for FY19 is as follows:

TABLE – 3.1

Revised ARR for FY19-HRECS's Submission

Particulars	Rs. Lakhs
	FY19
Energy at IF Point in MU	375.40
Sales in MU	
Sales to other than IP & BJ/KJ	103.02
Sales to BJ/KJ	3.26
Sales to IP Sets	212.58
Total Sales in MU	318.87
Distribution Loss (MU)	56.53
Distribution Loss in %	15.06%
Revenue in Rs. Lakhs	
Revenue from Sale of Power	6409.87
Subsidy from BJ/KJ	193.01
Subsidy from IP Sets	12308.59
Total Revenue	18911.47
Expenditure in Rs. Lakhs	
Power Purchase Cost	15723.62
O&M Expenses	1712.90
Depreciation	169.31
Interest on Capital Loan	88.24
Interest on Working Capital Loan	392.62
Interest on Consumers' Security Deposit	85.82
Return on Equity	145.72
Other Income	294.76
ARR	18023.47
Deficit of FY17 carried forward	-3204.79
Total ARR for FY19	21228.26

The HRECS has requested the Commission to approve the revised Annual Revenue Requirement of Rs.18023.47 lakhs for FY19 as stated above. Along with the gap claimed in revenue of Rs.3204.79 lakhs for FY17, the net ARR claimed for FY19 is Rs.21228.26 lakhs. Considering the revenue realization of Rs.18911.47 lakhs at the existing tariff, the overall gap in revenue for FY19 is projected at Rs.2316.80 lakhs and has claimed 75 paise per unit towards the increase in retail supply tariff

for all category of consumers. However, by considering the proposed revenue gap of Rs.2316.80 lakhs, the required increase in retail supply tariff works out to 73 paise per unit, for the proposed revenue from sales of Rs.6409.87 lakhs for FY19.

3.1 Annual Performance Review for FY17:

As discussed in the preceding Chapter of this Order, the Commission, as per the provision of the MYT Regulations, has carried out the Annual Performance Review for FY17 based on the audited accounts furnished by the HRECS. Pursuant to the same, revenue deficit of Rs.2560.68 lakhs shall have to be carried forward to the revised ARR of FY19.

3.1.1. Capital expenditure of HRECS for FY19:

A. HRECS's submission:

The HRECS has proposed a revised capex of Rs.1113.05 Lakhs for FY19, instead of the Commission approved capex of Rs.283.48 Lakhs for F19. The HRECS has stated that the increased proposal is due to increased outlay for the DDUGJY works to an amount of Rs.699.99 Lakhs in addition to some modifications to other categories of works proposed for FY19. The details of the capex program of HRECS is shown below:

Table -3.2
Proposed Capital expenditure of HRECS for FY19

Rs. Lakhs			
Sl. No	Particulars	MYT approved Capex for FY19	Capex Proposed for FY19
1	H.T Lines		
	a) 11 kV Lines	54.70	79.97
2	L.T Lines		
	b) 3 Phase 4 Wire	18.48	27.34
	c) 1 Phase 3 Wire	9.61	21.32
	d) 1 Phase 2 Wire	16.79	28.57
3	Transformer Centers		
	e) 100 kVA Transform Center	31.57	21.06
	f) 63/50 kVA Transform Center	27.57	49.38
	g) 25 kVA Transform Center	20.17	17.78
4	Service connection		
	c) Agriculture -LT	17.67	30.54
	d) Industrial -LT	2.61	3.33
	e) Domestic	14.69	19.52

	f) Commercial	1.23	2.01
5	Improvement Works		
	a) 11 kV Line	27.35	53.31
	b) 100 kVA Transform Center	22.55	31.59
	c) LT Line 3 Ph.4 Wire	18.48	27.34
5	DDUGJY Scheme		
	a) 11 kV Line Feeder Separation	-	200
	b) 11 kV Line System Strengthening	-	75.48
	c) 11 kV Line Reconductoring	-	124.51
	d) No of 1-ph Meter (5-30 A) replacement Electro Mechanical Energy Meter by Electro Static Energy Meter	-	281.1
	e) No of 3-ph Meter (5-30 A) replacement Electro Mechanical Energy Meter by Electro Static Energy Meter	-	18.9
	Grand Total	283.48	1113.05

Commission's analysis and decision:

From the above table it is noted that, the HRECS has proposed Rs.829.57 Lakhs in addition to the already approved capex of Rs.283.48 Lakhs, which is almost three times the approved capex and this addition along with the earlier approved capex is resulting in increase of capex by four times the overall capex approved for FY19. The HRECS stated that, the increased capex is due to inclusion of DDUGJY scheme for FY19, in which, the HRECS has proposed to include 11kV Line Feeder separation, 11kV line system strengthening and 11kV Line Re-conductoring at Rs.699.99 Lakhs.

The HRECS, in its replies to the preliminary observations, has stated that, Under DDUGJY works, the Detailed Work Award has been issued for 11kV feeder separation, system strengthening and re-conductoring of lines and the works are under progress. The short term tendering for replacement of single phase & three phase Electro mechanical energy meters by static meters has also been invited and the works are likely to be completed in FY19.

Further, the HRECS has also stated that, it has complied with the “**Capital Expenditure Guidelines for ESCOMs**” issued by the Commission, while proposing

the capex for FY19. The HRECS has furnished the details of the works funded through grants/loans from the Gol, GoK and financial institutions that, under DDUGJY scheme, it has awarded a project costing Rs.700 Lakhs for which the loan amount would be Rs.280 Lakhs and the grants would be Rs.420 Lakhs.

The Commission, taking note of the nature of investment made by the HRECS year on year and the proposed investment for DDUGJY and other strengthening schemes for FY19, decides consider the proposed capex of Rs.1113.05 Lakhs for FY19, subject to prudence check of the investment on the categorized works of FY19, However, for the Commission has factored a sum of Rs.247.84Lakhs as capital loan for purpose of tariff computation for FY19.

3.1.2. Sales Forecast:

A. Sales- other than IP sets:

1. The HRECS, in its application, has stated that the estimate for FY18 is based on the actual data for April, 2017 to September, 2017 and the estimates for October, 2017 to March, 2018 is made on the basis of growth from September 16 to March 17 over April 16 to September 16.
2. Further, it is stated that for FY19, the number of installations and the energy sales is worked out considering the CAGR for the period FY14 to FY18 and that, while estimating the number of installations and sales, the negative growth rates are not considered.
3. The Commission had noted that the HRECS, while computing the CAGR, has included the year FY18 data also, which itself is an estimated figure. Therefore, the HRECS was advised to consider the actual data available up to November, 2017 and to arrive at the yearly consumption for FY18 and consider the same as the base figures for projecting the energy requirement for FY19.
4. HRECs in its replies has stated that in the future, it would consider the actual data only.

5. The Commission had noted that the growth rate considered for the number of installations for HT-1, HT-2a and HT-3 is higher and for LT-2b and HT-2c it is lower compared to the normal growth rates based on CAGR.

The HRECS, in its replies have stated that growth rate in the number of installations may not entirely reflect the growth in the energy sales and that any projections in the sales is subject to Annual Performance Review by the Commission.

The Commission has noted the reply furnished by the HRECs and the approach of the Commission in estimating the number of installations is discussed in the subsequent paragraphs.

6. Regarding the energy sales estimate for FY19 the Commission had noted that the growth rates considered for LT-2a, LT-3, LT-6WS & SL are lower and incase of LT-5, HT-1, HT-2a and HT-3, the growth rates are higher as compared to the normal growth rates. Further in the case of HT-2b & HT-2c, in spite of number of installations remaining same, the energy sales are decreasing in case of HT-2b and increasing in case of HT-2c. Also in case of LT-6 WS & SL, even though there is positive growth in number of installations, sales are decreasing.

While accepting the above observations made by the Commission, the HRECs has submitted that it would retain the sales forecast for FY19 as filed in the Tariff Petition. Further, it is stated that any projections in the sales is subject to Annual Performance Review by the Commission.

The Commission has noted the reply furnished by the HRECs and the approach of the Commission in estimating the energy sales is discussed in the subsequent paragraphs.

7. Sales to AEQUS: The energy sold to the AEQUS as per the HRECS filing and as filed by AEQUS is indicated below:

Year	Units in Lakhs	
	As filed by HRECS	As filed by AEQUS
FY17	117.39	133.39
FY18	202.49	173.90
FY19	293.96	207.80

The HRECS was directed to reconcile the data pertaining to AEQUS.

The HRECS has submitted that up to July, 2016, meter reading was recorded at the consumer end and thereafter, as per the Commission's direction the same was recorded at sending end. **However, it is stated that HRECS would reconcile the data with AEQUS.**

The consumption of AEQUS is appropriately discussed in the Tariff Order of AEQUS.

8. The HRECS was directed to furnish the details of BJ/KJ installations as on 30.11.2017 in the specified format.

HRECS has furnished the following details:

Particulars	No. of Installations	Consumption in MU
Installations Consuming up to 40 Units	11898	2.05
Installations consuming more than 40 units and build under LT-2a	548	0.33

9. To validate the sales, the Commission had requested category wise information in the specified format regarding the number of installations as well as energy sales.

HRECS, in their replies, has furnished the above data.

10. **The Commission's approach for estimating the number of installations and sales for the FY19 for categories excluding BJ/KJ and IP sets is discussed below:**

i) No. of Installations:

While estimating the number of installations (excluding BJ/KJ installations and IP-sets), the following approach is adopted:

- a. The base year number of installations for FY18 is retained as proposed by the HRECS.
- b. Wherever the number of installations estimated by the HRECS for the FY19 is within the range of the estimates based on the CAGR for the period FY12 – FY17 and for the period FY14 - FY17, the estimates of HRECS are retained.
- c. Wherever the number of installations estimated by the HRECS for the FY19 is lower than the estimates based on the CAGRs for the period FY12 – FY17 and for the period FY14 - FY17, the estimate based on the lower of the CAGRs are considered.
- d. Wherever the number of installations estimated by the HRECS for the FY19 is higher than the estimates based on the CAGRs for the period FY12 – FY17 and for the period FY14 - FY17, the estimate based on the higher of the CAGRs are considered.
- e. For LT-7 and HT2C categories, the estimates of HRECS are retained as the growth rate is inconsistent.

Based on the above approach, the total number of installations (excluding BJ/KJ installations and IP-sets) estimated by the Commission for the for FY19 is 85481 same as that estimated by HRECS.

ii) Energy Sales:

For categories other than BJ/KJ and IP sets, generally the sales are estimated considering the following approach:

- a. The base year sales for FY18 as estimated by HRECS are validated duly considering the actual sales up to November, 2017 and modified suitably.
- b. Wherever the sales estimated by HRECS for the FY19 is within the range of the estimates based on the CAGR for the period FY12 – FY17 and for the period FY14 - FY17, the estimates of HRECS are retained.
- c. Wherever the sales estimated by the HRECS for the FY19 is lower than the estimates based on the CAGRs for the period FY12 – FY17 and for the

period FY14 - FY17, the estimate based on the lower of the CAGRs are considered.

- d. Wherever sales estimated by the HRECS for the FY19 is higher than the estimates based on the CAGRs for the period FY12 – FY17 and for the period FY14 - FY17, the estimate based on the higher of the CAGRs are considered.
- e. For LT-7 and HT-2(c) the sales estimate of the HRECS is retained due to inconsistency in growth rates.
- f. For LT-6 water supply and Street Lights and HT-3 category, estimate is based on specific consumption of FY17.

Based on the above approach, the sales (excluding BJ/KJ installations and IP-sets) estimated by the Commission for the FY19 is 733.36 lakh units as against the HRECS estimate of 736.27 lakh units.

11. Sales to BJ/KJ Installations:

i) Sales to BJ/KJ:

The break-up of sales to BJ/KJ installations as filed by the HRECS in their replies to preliminary observations, as on 30.11.2017 is as indicated below:

Particulars	No. of Installations as on 30.11.2017	Consumption in Lakh units as on 30.11.2017	Specific consumption per installation per month (kWh)
Installations consuming less than or equal to 40 units	11898	20.50	21.54
Installations consuming more than 40 units and billed under LT2(a)	548	3.30	75.27

Considering the number of installations as furnished by the HRECS for FY19 and the above specific consumption, the sales for the FY19 for BJ/KJ installations is as indicated below:

Particulars	No. of Installations	Consumption in Lakh units
Installations consuming less than or equal to 40 units	13536	34.99

Installations consuming more than 40 units and billed under LT2(a)	472	4.26
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B. Sales to IP sets for FY19:

The Commission, in its Tariff Order dated 11th April, 2017, had fixed a specific consumption of 7,341 units / installation/annum for FY18. However, the Hukeri RECS has projected a consumption of 212.58 MU by considering a specific consumption of 7,713 units/installation/annum, for FY19. It is noted that the specific consumption of 7,713 units/installation/annum, considered for projections for FY17 by the Hukeri RECS is on a higher side looking at the specific consumption of 7,329 units / installation /annum arrived at for FY17 which was based on the meter readings of 249 sample IP-sets. Therefore, it would be proper to continue the specific consumption at 7,329 units/installation/annum, instead of 7,713 units/installation/ annum, for FY19. Accordingly, the Commission decides to approve a specific consumption of 7,329units/installation/annum for FY19 also. Hence, by considering the number of installations proposed by the Hukeri RECS for FY18 and FY19, the sales to IP-sets' category for FY19 is worked out as follows:

TABLE-3.3

Approved specific consumption & IP sets Sales - for FY19

Particulars	As filed by the HRECS		As approved by the Commission
	FY18	FY19	FY19
Nos. of installations	27,052	28,070	28,070
Mid-year no. of installations		27,561	27,561
Specific consumption in units/installation/annum		7713	7,329
Sales in MU		212.58	202.00

Based on the above discussions, the Commission approves 202.00 MU as sales to IP-sets as against 212.58 MU projected by the Hukeri RECS for FY19. Further, the number of installations approved for FY19 is 25,788. This approved IP-set consumption for FY19 is with the assumption that the Government of Karnataka would release full subsidy to cover the approved quantum of IP-sales. However, if there is any reduction in the subsidy allocation by the Government of Karnataka,

the quantum of sales to IP-sets of 10 HP and below, shall be proportionately regulated.

Further, the Commission had directed the Hukeri RECS to take up GPS survey of all IP-sets for identifying the dried up/not-in-use installations in the field and to take further necessary action to arrive at correct number of IP-sets by deducting such IP-sets from its account, on the basis of GPS survey results. However, it is noted that the Hukeri RECS has not taken up the survey to identify the not-in-use installations. Therefore, the Hukeri RECS is directed to take up the GPS survey of IP-sets immediately and complete the same within three months from the date of issue this tariff Order and also submit compliance thereon to the Commission. In the absence of GPS survey reports, the Commission has considered the estimated number of installations for FY18 and FY19 as projected by the Hukeri RECS. However, after completion of the GPS survey, the Hukeri RECS shall arrive at correct number of IP-set installations in the field duly deducting the dried up/ not-in-use wells from its account, based on the GPS survey results. Therefore, any variation in sales due to change in number of installations on account of GPS Survey would be trued up during the Annual Performance Review, for the FY19.

Further, the Commission notes that the Hukeri RECS has already segregated 16 feeders out of 17 feeders taken up under NJY. Consequent to this, the energy consumed by the IP-sets can be more accurately measured at the 11 KV feeder level at the sub-stations after allowing for distribution system losses in 11 KV lines, distribution transformers and LT lines.

Hence, the Commission directs that the Hukeri RECS shall report the overall IP-set consumption on the basis of the specific consumption arrived at from the consumption recorded in the energy meters of exclusive agricultural feeders segregated under NJY, clearly indicating the energy input to the feeders on the basis of energy meters reading data (initial reading-final reading* multiplying constant) and also deducting the not-in-use installations in the field, as per the GPS survey, to the Commission, on or before 25th of every month, regularly, as per the following format:

Month	Name of section	Name of Segregated Agriculture Feeders in the section	Initial energy meter reading in the feeder	Final energy meter reading in the feeder	Meter constant	Monthly Consumption in MU as recorded in all the agricultural feeders at the section	Distribution loss(11kV line, DTCs & LT line) Plus sales to other consumers if any, in MU (losses in all the agri. feeders only to be considered)	Net consumption duly deducting the Distribution loss (11kV & LT) & any other loads if any	No. of IP sets (total-dried up) connected to the agri. feeders in section			Average consumption of IP / month (specific cons in subdivide./IP, load, etc.)	Total no of IP sets in the subdivision (as per DCB)			Total sales of IP sets in MU
									Beginning of the month	Serviced at the end of month	Mid- month		Beginning of the month	Serviced at the end of month	Mid- month	
1	2	3	3a	3b	3c	4 = (3b-3a) *3c	5	6=(4-5)	7a	7b	7c= (7a+7b)/2	8=6/7c	9a	9b	9c = (9a+9b)/2	10=8*9c
April 2018 To Mar-19	Section-1 section-23 section3....															
Total																

Based on the above discussions, the Commission approves 2788.35 lakh units as the sales for FY19, excluding sales to AEQUS SEZ. The category-wise sales is indicated in Annexure-1

3.1.3 Distribution Losses for FY19:

The Commission in its MYT Order dated 30th March, 2016 had fixed the distribution losses of 13.75 per cent for FY19. In its current Tariff application, the Hukeri RECS has projected the distribution losses of 15.06 per cent for FY19. The Hukeri RECS has reported the actual loss of 14.93 per cent as against the targeted losses of 14.25 per cent for FY17. As the Hukeri RECS has not achieved the target losses, the Commission has imposed a penalty of Rs.71.42 lakh in FY17. The Commission notes that the Hukeri RECS has already achieved the loss levels of 14.93 per cent in FY 17 and hence the loss levels of 15.06 per cent proposed by it is higher by 0.13 percentage points for two years' period from FY17 to FY19 is not acceptable.

Further, the Commission notes that, the Hukeri RECS is operating in a considerably smaller geographical area and it is possible to reduce the losses to further downwards. It is also noted that, the Hukeri RECS has invested substantially in improvement works of its distribution system and also taken up

feeder segregation works under NJY scheme. Therefore, it should institutionalise the process of energy accounting and energy auditing at distribution transformer and feeder levels for identification of loss pockets and reduce the current level of losses by taking suitable remedial measures.

Hence, considering the actual loss levels in FY17 and the capex made so far and proposed capex for FY19, the Commission decides to refix the distribution loss level targets for FY19 as follows:

TABLE -3.4**Approved range of Distribution loss**

Range	FY19
Upper limit	14.57 %
Average	14.32 %
Lower Limit	14.07 %

3.1.4 Power Purchase:

Hukeri RECS has proposed to purchase 375.40 MU for FY19 at its interface points from HESCOM at a cost of Rs.15723.62 lakhs for FY19.

As per the data furnished in Format D-19, the HRECS has indicated the energy at interface points at 110/11kV and 33/11kV for FY19. Since the supply at 33/11kV is met by distribution system of HESCOM, the HRECS is required to bear the losses of handling the energy received at 33 kV. HESCOM in its application has projected the distribution losses at 33 kV level at 2.71% for FY19. Considering the same percentage on the estimated energy to be handled at 33kV to meet the requirement of the Hukeri RECS, the allowable energy at IF points and power purchase for FY19 are as follows:

TABLE-3.5**Allowable Energy at IF points and Power Purchase for FY19**

Particulars	FY19
Total Energy at IF of HESCOM in MU by considering the energy loss at 33kV of HESCOM including 20.78 MU of AEQUS SEZ energy	346.22
Approved Transmission Losses of KPTCL	3.083%
Approved power purchase for HRECS in MU including AEQUS SEZ energy in MU	357.23

The actual losses at 33kV level are already accounted along with the distribution loss computation of the HESCOM. However, the energy loss estimated at 33kV level of HESCOM is considered to cater to the requirement of the HRECS only for the purpose of payment of power purchase charges.

Based on the weighted average cost of power supply inclusive of transmission charges as approved for the HESCOM for FY19, the Commission decides to allow power purchase cost of HRECS for FY19 as follows:

TABLE-3.6
Approved Power Purchase for FY19

Particulars	FY19
Approved power purchase quantum in MU including AEQUS SEZ	357.23
Approved rate of power purchase of HESCOM in Rs/Unit	4.044
Trading margin in Rs. per unit	0.05
Approved rate of power purchase from HESCOM in Rs. per Unit including trading margin	4.09444
Approved Power Purchase Cost in Rs. Lakhs	14626.54

Since the cost of power purchase indicated above is inclusive of transmission charges, the Commission has not allowed transmission charges payable to KPTCL separately. Since the energy supplied to the Hukeri RECS by the HESCOM is measured and billed at interface points of the Hukeri RECS, the HRECS shall pay the power purchase cost at Rs.4.22464 Paise per unit for the energy purchased at interface points.

3.1.5 O & M Expenses:

The HRECS in its application has claimed Rs.1712.90 lakhs as O & M expenses for FY19 as shown below: -

TABLE – 3.7
O&M Expenses for FY19 –HRECS’s Proposal

Sl. No.	Particulars	Rs. lakhs FY19
1	O&M Expenses as approved by the Commission for FY19	1527.90
4	Additional Employee Cost	185.00
Total O&M expenses in Rs. lakhs		1712.90

The Hukeri RECS has stated that the above claims include an amount of Rs.185 Lakhs additional Employee Cost owing to proposed recruitment of 104 men and to accord permanency benefit during FY19.

Commission's views and decisions:

The Commission computes the O & M expenses for FY19 duly considering the actual O & M expenses of FY16 as base year at Rs.1118.07 Lakhs as the O & M expenses for base year. Considering the Wholesale Price Index (WPI) as per the data available from the Ministry of Commerce & Industry, Government of India and Consumer Price Index (CPI) as per the data available from the Labour Bureau, Government of India and adopting the methodology followed by CERC with CPI and WPI in a ratio of 80: 20, the allowable weighted inflation rate for FY19 is 8.1059% as shown below:

TABLE- 3.8
Details of Allowable Inflation

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2005	103.37	115.8	113.314				
2006	109.59	122.9	120.238	1.06	0.06	1	0.06
2007	114.94	130.8	127.628	1.13	0.12	2	0.24
2008	124.92	141.7	138.344	1.22	0.20	3	0.60
2009	127.86	157.1	151.252	1.33	0.29	4	1.16
2010	140.08	175.9	168.736	1.49	0.40	5	1.99
2011	153.35	191.5	183.87	1.62	0.48	6	2.90
2012	164.93	209.3	200.426	1.77	0.57	7	3.99
2013	175.35	232.2	220.83	1.95	0.67	8	5.34
2014	182.00	246.90	233.92	2.06	0.72	9	6.52
2015	177.03	261.42	244.542	2.16	0.77	10	7.69
2016	180.6	274.3	255.56	2.26	0.81	11	8.95
A= Sum of the product column							39.44
B= 6 Times of A							236.63
C= (n-1)*n*(2n-1) where n= No of years of data=12							3036.00
D=B/C							0.08
g(Exponential factor)= Exponential (D)-1							0.0811
e=Annual Escalation Rate (%)=g*100							8.1059
As per CERC Notification dated 30.03.2017 with weightage of 80% on CPI and 20% on WPI							

For the purpose of determining the normative O & M expenses for FY19, the Commission has considered the following:

- a) The actual O & M expenses incurred for FY16 as per audited accounts as the base year O&M expenses.
- b) The three year compounded annual growth rate (CAGR) of 2.81% of the number of installations considering the actual number of installations as per audited accounts up to FY17 and as projected by the Commission for FY18 and FY19.
- c) The weighted inflation index (WII) at 8.1059% as computed above.
- d) Efficiency factor at 0.50% as considered in the earlier two control periods.

The above said parameters are computed duly considering the same methodology as followed in the earlier Tariff Orders of the Commission.

Accordingly, the normative O & M expenses for FY19 are as follows:

TABLE – 3.9
Approved O & M expenses for FY19

Particulars	Rs. lakhs			
	FY16	FY17	FY18	FY19
No. of Installations	116958	120179	123072	127087
CGI based on 3 Year CAGR		3.29%	2.96%	2.81%
Weighted Inflation index		8.1059%	8.1059%	8.1059%
Base Year O&M Cost (as per actuals of FY16)	1118.077			
Approved O&M Expenses		1239.94	1370.93	1513.69

The Commission is of the view that additional employee cost due to recruitment for FY19 could be factored and claimed, only after being incurred by the distribution licensee during the APR filings.

Thus, the Commission decides to approve the O&M expenses of Rs.1513.69 lakhs for FY19.

3.1.6 Depreciation:

The HRECS has claimed depreciation of Rs.169.31 Lakhs as allowed by the Commission in its Tariff Order dated 30th March, 2016 for FY19 as follows:

TABLE- 3.10
Depreciation for FY19 – HRECs Proposal

Particulars	Rs. lakhs
	FY19
Buildings	0.94
Civil	1.35
Other Civil	0.01
Plant & Machinery	78.57
Line Cable Network etc.	174.48
Vehicles	3.57
Furniture	0.52
Office Equipment	6.06
Total	265.50
Less: Depreciation on Assets created out of Contribution & Grants	96.19
Total	169.31

In accordance with the provisions of the MYT Regulations, the Commission has determined the depreciation for FY19 considering the following:

- a) The actual rate of depreciation of category-wise assets has been determined considering the depreciation and gross-block of opening and closing balance of fixed assets, as per the audited accounts for FY17.
- b) The actual rate of depreciation, so arrived at, is considered to allow the depreciation on the gross block of opening and closing balances of fixed assets projected for FY19.
- c) The depreciation on account of assets created out of consumer contribution/grants are deducted, based on the opening and closing balance of such assets duly considering the addition of assets as projected by the Commission, at the weighted average rate of depreciation as per actuals in FY17.
- d) Accordingly, the depreciation for FY19 are as follows:

TABLE – 3.11
Approved Depreciation for FY19

Particulars	Rs. lakhs
	FY19
Buildings	0.94
Civil	1.38
Other Civil	0.01
Plant & Machinery	88.68

Line, Cable Network etc.,	139.65
Vehicles	3.57
Furniture	0.57
Office Equipment	1.23
Total	236.03
Less Depreciation on assets created out of Contribution / Grants	96.19
Approved Depreciation	139.84

Thus, the Commission decides to approve depreciation of Rs.139.84 lakhs for FY19.

3.1.7 Interest & Finance Charges:

a) Interest on Capital Loans:

The HRECS has claimed an amount of Rs.88.24 lakhs towards interest on loan capital at the rate of interest of 11.75% for the existing loans and at 13% for the new capital loans for FY19.

The Commission has considered the capex of Rs.1113.05 Lakhs as discussed in the earlier paragraphs of this Chapter. However, the Commission notes that, as per the statement of the Hukeri RECS, the capex proposed includes Rs.669.99 lakhs of DDUGJY scheme works provided with grants by Government of India. Out of the balance amount of capex, the Commission after having considered the capital grants for the remaining proposed works and the consumer contribution amounts has reckoned Rs.247.84 lakhs as capital loan for FY19.

The Commission notes that, the present interest rates by commercial banks and financial institutions are charged mainly on the basis of Marginal Cost of fund based Lending Rates (MCLR). These rates are comparatively lower than the base rates considered earlier. Further, in view of the changing economic situation, it is observed that there is a considerable reduction in the MCLR and also downward trend is evident in the interest rates. Hence, in such a situation, the Commission is of the view that, the Hukeri RECS being the Society can avail Capital loans at competitive interest rates from the Commercial Banks/ Financial Institutions. The Commission notes that, the present SBI MCLR rate for capital loans with a tenure of 3 years is 8.35%.

Considering the present MCLR, the Commission decides to allow an interest rate of 11.00% for FY19 for new Capital loans. However, the interest liability on existing loan balances from REC are computed at the prevailing rate of 11.75% as per the audited accounts of FY17.

It shall be noted that, the amount of interest and the rate of interest now considered by the Commission on the capital loans for FY19 are subject to review during APR.

Accordingly, the interest on capital loan for FY19 is as follows:

TABLE – 3.12
Approved Interest on Capital Loans for FY19

Particulars	Rs. Lakhs
	FY19
Opening Balance long term loans	324.01
Add: New Loans	247.84
Less: Repayments	52.50
Total loan at the end of the year	519.35
Average Loan	421.68
Weighted Interest Rate allowed	11.07%
Approved Interest on capital loans	46.69

Thus, the Commission decides to approve the interest on capital loans of Rs.46.69 Lakhs for FY19.

b) Interest on working Capital:

The HRECS in its applications has claimed an amount of Rs.392.62 lakhs at the rate of 11.75% p.a. for FY19 towards interest on working capital based on the norms under MYT Regulations.

The Commission has been computing the interest on working capital as per the norms specified under the MYT Regulations, which consists of one month's O & M expenses, 1% of opening GFA and two months' revenue. The Banks / Financial institutions have switched over from PLR to base rate and now from base rate to MCLR. As discussed earlier, the MCLR for loans with tenure of one year is 8.15%. The Commission notes that, the Hukeri RECS has not availed any working capital loan during the preceding years. As such, the

Commission decides to considered interest on working capital at 11% p.a. for FY19.

Accordingly, the approved interest on working capital loans for FY19 is as follows:

TABLE – 3.13

Approved Interest on Working Capital loans for FY19

Particulars	Rs. Lakhs
	FY 19
One-twelfth of the amount of O&M Exp.	126.14
Opening GFA as per Audited Accts	7913.56
Stores, materials and supplies 1% of Opening balance of GFA	79.14
One-sixth of the Revenue	2791.85
Total Working Capital	2997.13
Rate of Interest (% p.a.)	11.00%
Interest on Working Capital	329.68

Thus, the Commission approves the interest on working capital loans of Rs.329.68 lakhs for FY19.

c) Interest on Consumer Security Deposit:

The Hukeri RECS has claimed an amount of Rs.85.82 lakhs for FY19 towards interest on consumers' deposits on the opening balance of Rs.1373.12 Lakhs at the bank rate of 6.25%.

In accordance with the KERC (Interest on Security Deposit) Regulations 2005, the interest rate to be allowed is the bank rate prevailing on the 1st of April of the financial year for which the interest is due. As per the Reserve Bank of India's notification dated 2nd August, 2017, the bank rate is 6.25%. The Commission has considered the same, for computation of interest on consumer security deposits for FY19.

The Commission has considered the consumer security deposits as per audited accounts of FY17 for onward projection for FY19. Also, the Commission is considering the average of the opening and closing balances

of consumer deposits of the relevant year. The interest on consumer deposits for FY19 is as follows:

TABLE – 3.14**Approved Interest on Consumer Security Deposits for FY19**

Particulars	Rs. Lakhs
	FY19
Opening balance of consumer security deposits	1382.68
Addition of consumer security deposits during FY19	50.00
Closing balance of consumer security deposits	1432.68
Average balance of consumer security deposits	1407.68
Bank rate to be allowed as per regulations	6.25%
Approved Interest on Consumer Security Deposits	87.98

Thus, the Commission decides to approve the interest on consumer security deposits of Rs.87.98 lakhs for FY19.

The abstract of the approved Interest and Finance charges is indicated below: -

TABLE – 3.15**Approved Interest & Finance Charges for FY19**

Particulars	Rs. Lakhs
	FY19
Interest on Loan	46.69
Interest on Working Capital	329.68
Interest on Consumer Deposit	87.98
Total	464.35

3.1.8 Return on Equity:

The Hukeri RECS, in its application has claimed an amount of Rs.145.72 lakhs for FY19 towards Return on Equity by considering the closing balance of share capital of Rs.630 lakhs without factoring accumulated deficit grossed up with income tax at 23.13% (Normative tax rate of 30% and 10% surcharges).

The Commission notes that, considering the amount of closing balance of share capital accumulated deficit as per the audited accounts of Hukeri RECS for FY17, there will be negative net worth of Rs.6372.90 lakhs. The Commission by considering the additional equity amount of Rs.503 lakhs infused by the GoK during FY18, the net equity at the beginning of FY19 is Rs.5869.90 lakhs. accordingly, the Commission computes the RoE for FY19 as under:

TABLE – 3.16

Approved Return on Equity for FY19

Particulars	Rs. Lakhs
	FY19
Opening balance of Paid Up Share Capital	1132.59
Accumulated losses under Reserves and Surplus	-7002.49
Total Equity	-5869.90
Approved Return on Equity	0.00

Since the net-worth of HRECS is negative for FY19, the Commission decides not to factor any amount of return on equity.

3.1.9 Other Income

The HRECS, in its application has indicated an amount of Rs.294.76 lakhs as other income, without considering the recoveries for the sale of power to AQUES SEZ for FY19.

The Commission notes that, the Hukeri RECS has included the power purchase cost to be recovered for the sale of energy to the AEQUES SEZ as under the Revenue from sale of power as against accounting under Other Income item. The other income received by the HRECS mainly includes income from rebate for collection of electricity duty, interest bank deposits and miscellaneous recoveries. The Commission notes that on HRECS also receives power purchase cost for sale of power to the AEQUS SEZ which needs to be factored under other income.

Based on the average other income earned by the HRECS in the previous years and considering the sale of power of 21.44 MU to the AEQUS SEZ at the rate of Rs.6.07 per unit, the expected income of Rs.1301.41 lakhs, the Commission decides to approve the Other Income of Rs.1626.58lakhs for FY19.

3.2 Abstract of Approved ARR for FY19

An Abstract of the approved consolidated Revised Annual Revenue Requirement of the Hukeri RECS for FY19 is as follows:

TABLE – 3.17
Approved Revised ARR for F19

Sl. No	Particulars	Rs. Lakhs
		As Approved
1	Power Purchase (MU) (Including AEQUS SEZ)	357.23
2	Energy at IF Point including AEQUS SEZ	346.22
3	Sales to other than IP & BJ/KJ	73.34
4	Sales to BJ/KJ	3.50
5	Sales to IP	202.00
6	Total Sales of HRECS	278.84
7	Distribution Loss (MU) of HRECS	46.60
8	Distribution Loss in %	14.32%
	Revenue	
9	Revenue from Sale to other than IP & BJ/KJ	4829.60
10	Revenue from Sale to BJ/KJ	221.90
11	Revenue from Sale to IP	11699.60
12	Total Revenue	16751.10
	Expenditure	
13	Power Purchase Cost	14626.55
14	O&M Expenses	1513.69
15	Depreciation	139.84
16	Interest on Loan Capital	46.69
17	Interest on Working Capital	329.68
18	Interest on Consumers' Deposit	87.98
19	Return on Equity	0.00
20	Other Income	1626.58
21	ARR	15118.85
22	Surplus of FY19	1633.25
22	Deficit of FY17 carried forward	-2560.75
23	Net ARR	17678.60

The Commission decides to approve a revised ARR of Rs.17678.60 Lakhs for FY19.

3.3 Average Cost of Supply for FY19:

Based on the approved ARR, the average cost of supply of the Hukeri RECS for FY19 is as follows:

TABLE – 3.18
Average Cost of Supply for FY19

Sl. No	Particulars	FY19
1	ARR in Rs. lakhs	17768.60
2	Approved Sales in MU	278.84
3	Average Cost of Supply (Rs. per unit)	6.34

3.4 Gap in Revenue for FY19:

As discussed above, the Commission decides to approve the Revised Annual Revenue Requirement (ARR) of the Hukeri RECS for its operations in FY19 at Rs.17678.60 lakhs which includes an amount of Rs. 2560.60 lakhs being the approved deficit of FY17, as against the HRECS's application proposing a Revised ARR of Rs.21228.26 lakhs, Considering the estimated revenue for FY19 at the existing retail supply tariff, the total realisation of revenue will be Rs.16751.10 lakhs which results in the deficit of Rs.927.50 lakhs for FY19.

The Commission decides to bridge this gap in revenue of Rs.927.50 lakhs for FY19 by revision of retail supply tariff to consumers of HRECS as discussed in the subsequent Chapter of this Order.

3.5 Subsidy payable by GoK:

On the basis of the revised average cost and the revised CDT, the total subsidy payable by GoK, to HRECS for FY19 is as follows:

TABLE – 3.19
Subsidy Payable by GoK – FY19

Sl. No.	Particulars	Amount in Rs. Lakhs
1	Subsidy at average cost of supply on estimated sales to BJ/KJ during FY19	238.00
2	Subsidy at Commission determined tariff on estimated sales to IP sets during FY19	12221.00
	TOTAL	12459.00