CHAPTER – 2

ANNUAL PERFORMANCE REVIEW FOR FY19

2.0 HRECS's Application for APR of FY19:

The Hukeri Rural Electric Cooperative Society (HRECS) has filed its application dated 27th November, 2019 for Annual Performance Review (APR) for FY19, revision of ARR for the FY21 and retail supply tariff for FY21. HRECS has sought approval of its revised Annual Revenue Requirement (ARR) as per APR for FY19 based on the audited accounts.

The Commission, in its letter dated 20th December, 2019, had communicated its preliminary observations on the application filed by HRECS. Hukeri RECS, in the letter dated 27th December, 2019 has furnished its replies to the preliminary observations, to the Commission.

The Commission, in its Tariff Order dated 14th May, 2018, had approved the Revised Annual Revenue Requirement (ARR) of the Society for FY19 and retail supply tariff for FY19.

The revised Annual Revenue Requirement (ARR) of Hukeri RECS as per Annual Performance Review for FY19, based on the Audited Accounts of HRECS is discussed in this Chapter.

2.1 HRECS's Submission:

Hukeri RECS has submitted its proposal for revision of ARR as per the APR for FY19 based on the audited accounts as follows:

TABLE – 2.1
ARR for FY19-HRECS's Submission

Amount in Rs.Crores

Particulars	As Approved as per Tariff Order 14.05.2018	As filed on 27.11.2019
Power Purchase in MU	357.23	-
Energy @ IF Point in MU	346.22	346.63
Sales to Other than IP & BJ/KJ in MU	73.34	93.08
Sales to BJ/KJ in MU	3.50	3.85
Sales to IP in MU	202.00	183.49
Total Sales in MU	**278.84**	**280.42**
Distribution Loss (MU)	46.60	66.21
Distribution Loss in %	14.32%	19.10%
Revenue		
Revenue from other than IP & BJ/KJ	52.35	47.93
Subsidy to BJ/KJ	2.22	2.52
Subsidy to IP	122.21	123.48
Less: Earlier year (from 2008 to 2017) IP revenue now demanded	0.00	-12.50
Total Revenue	**176.78**	**161.43**
Expenditure		
Power Purchase Cost inclusive of transmission and SLDC Charges	146.27	193.90
Employee Expenses	15.14	8.67
R&M Expenses		3.21
A&G Expenses		1.21
Total O&M Expenses	**15.14**	**13.09**
Depreciation	1.40	1.61
Interest & Financing Charges:		
Interest on Capital Loan	0.47	0.25
Interest on Working Capital	3.30	3.30
Interest on Consumer Deposit	0.88	0.79
Less: Expenses Capitalized	0.00	-0.73
Other Debits/Ex. Items	0.00	0.00
Net Prior Period Credit	0.00	0.00
Return on Equity	0.00	1.40
Taxes	0.00	0.00
Less: Other Income	-16.27	-18.83
Deficit of FY17 carried forward	25.61	0.00
ARR	**176.786**	**194.77**
Gap in Revenue	**0.00**	**33.35**

The Hukeri RECS has requested the Commission to approve the revised ARR of Rs.194.77 Crores as per the APR for FY19. The HRECS has projected a revenue deficit of Rs.33.35 Crores by considering the revenue of Rs.161.42 Crores from the sale of power to consumers for FY19.

2.2 Hukeri RECS Financial Performance as per Audited Accounts:

An overview of the financial performance of Hukeri RECS for FY19, as per its Audited Accounts, is indicated in the following Table:

TABLE – 2.2

Financial Performance of Hukeri RECS for FY19

Amount Rs.in lakhs

Sl. No.	Particulars	Amount in Rs.
	INCOME	
1	Revenue from operations	18812.79
2	Other Income	462.34
3	Total Revenue (I + II)	19275.13
	EXPENSES	
4	Power Purchase (included Interest)	19389.68
5	Employee benefit expense	794.00
6	Financial Costs	103.83
7	Depreciation & amortization expenses	160.72
8	Other expenses	441.69
9	Total Expenses	20889.92
10	Loss for FY19	-1614.79

As per the Audited Accounts, Hukeri RECS has incurred loss of Rs.1614.79 lakhs for FY19.

The Commission, as per the provisions of MYT Regulations, has undertaken the Annual Performance Review for FY19 (APR), by considering the actual revenue and expenditure as per the audited accounts vis-à-vis the revenue and expenditure approved by the Commission, in its Tariff Order dated 14th May, 2018 and the data furnished by HRECS in its application and replies furnished to the preliminary observations. The item wise review of the revenue and expenditure and the decision of the Commission thereon are discussed in the following paragraphs:

2.2.1 Capital Investments:

A. Capital Expenditure for FY19:

The HRECS had not submitted any information nor details of capex incurred for FY19 against the approved capex of Rs.1113.05 Lakhs for FY19 in its Tariff filings. Hence, the Commission had directed HRECS to submit the comparison of capital expenditure incurred with reference to the amount of Capex approved by the Commission, under different items of capex for FY19, in the format approved by the Commission in the Tariff order 2018, with reasons for deviations in respect of each of the items of capex, if any.

The HRECS in its compliance has submitted the category wise capital expenditure approved by the Commission and actual expenditure incurred with reasons for deviations during FY-19 as below:

TABLE – 2.3

Capital Expenditure of HRECS for FY19 (Rs.in lakhs)

Sl. No.	Particulars	FY19 (Approved)	Actual Expenditure during FY19 Rs. Lakhs	% of Budget utilized	Remarks on deviations
1	**H.T Lines**				
	a) 11 KV Lines	79.97	62.7	78.40%	No deviation
2	**L.T Lines**				
	a) 3 Phase 5 wire	_	_		
	b) 3 Phase 4 Wire	27.34	108.33	396.23%	GoK scheme (SDP/SCSP & TSP) works carried out
	c) 1 Phase 3 Wire	21.32	17.29	81.10%	No deviation
	d) 1 Phase 2 Wire	28.57	10.65	37.28%	No deviation
3	**Transformer Centres**				
	a) 500 KVA Transform Centre	-	-	-	-
	b) 250 KVA Transform Centre	-	-	-	-
	c) 200 KVA Transformer	-		-	
	d) 150 KVA Transform Centre	-	-	-	-
	e) 100 KVA Transform Centre	21.06	26.14	124.12%	To reduce the load on existing transformer

Sl. No.	Particulars	FY19 (Approved)	Actual Expenditure during FY19 Rs. Lakhs	% of Budget utilized	Remarks on deviations
	f) 63/50 KVA Transform Centre	49.38	248.5	503.24%	-do-
	g) 25 KVA Transform Centre	17.78	26.03	146.40%	-do-
	h) Others (10 & 15 KVA)	_	_	-	-
4	**Service connection**			-	-
	a) Agriculture -HT	_	_	-	-
	b) Industrial -HT & others	_	_	-	-
	c) Agriculture -LT	30.54	2.56	8.38%	No deviation
	d) Industrial -LT	3.33	2.35	70.57%	No deviation
	e) Domestic	19.52	9.26	47.44%	No deviation
	f) Commercial	2.01	2.64	131.34%	For increase in material and extra line works
	g) Street Light Brackets	-	-		
5	**Improvement Works**				
	a) 11 KV Line	53.31	69.27	129.94%	To increase HT/LT ratio
	b) 100 KVA Transform Centre	31.59	27.73	87.78%	No deviation
	c) LT Line 3 Ph.4 Wire	27.34	28.53	104.35%	Deviation is negligible
6	**DDUGJY Scheme**				
	a) 11 KV Line feeder separation	200	-		
	b) 11KV Line system strengthening	75.48	-		
	c) 11KV Line reconductoring	124.51	-		
	c) Replacement of Single phase Electromechanical Energy meters by Electro-static Energy meters	281.1	-		
	d) Replacement of Three phase Electromechanical Energy meters by Electro-static Energy meters	18.9	-		
	Total	**1113.05**	**641.98**	**57.68%**	

Commission's Analysis and Decision:

The Commission notes the remarks submitted by HRECS in above table for the item-wise deviations in utilization of budget, as against the Commission approved capital budget. The HRECS should note that the deviation refers to both for underutilization of approved capex and exceeding the approved capex. The HRECS has highlighted its compliance only in respect of items of the work where it has over utilized and exceeded the approved amounts.

On the observations of the Commission regarding physical as well financial progress in respect of work carried out, HRECS has submitted that HRECS has maintained physical as well financial progress in respect of work carried out as per Capital works programme. The HRECS has submitted that in the prudence check conducted for FY17 and FY18, the PWC has not mentioned any of the works carried out by HRECS as non-prudent. It is endeavour of HRECS to carry out Capital works programme strictly confirming to the Guidelines issued by the Commission. It is taking concrete measures to complete and capitalize the works within the prescribed time frame so that benefits are accrued to the consumers. Further HRECS has submitted that it is taking measures to implement all the work in the same financial year except when the same is beyond the control of HRECS during flood, extreme rainy time etc. and HRECS has been taking up all the schemes with pre-defined objectives on priority basis.

From the details of physical and financial progress in respect of major schemes taken up by HRECS, the commission notes that, HRECS is implementing the capex without analyzing the financial feasibility and precise benefits derived from them. HRECS is spending considerable amounts on most of these schemes through loans and its own funds, as indicated in the following Table. Further, if the schemes are not implemented within the timeframe, it will result in time over run and cost overrun.

Name of the Scheme	Total Cost of the Scheme (Rs. in Crores)	Contribution borne by HRECS in the total capex of the scheme	Scheduled Date of Completion	Target Date of Completion	Cost to Benefit Ratio
DDUGJY	8.03	10%; Balance : Govt. of Grant: 60% and 30% Loan	Not indicated	Dec-2019	Not indicated
Saubhagya	11.54	10%; Balance : Govt. of Grant: 60% and 30% Loan	March-2019	Dec-2019	Not indicated
NJY	17.95	60%; Balance 40% grant from GOK	Not indicated	Dec-2019	Not indicated

Further, as against the objectives of these schemes, the objectives are indicated broadly without indicating specific objectives. HRECS needs to set the objectives for each work, in terms of technical and financial parameters viz. reduction in AT & C losses, category- wise increase in consumption in particular feeder, increase in revenue, reduction in interruptions, Improvement in voltage etc.

In the light of the above observations, HRECS is directed to analyze the financial feasibility of any scheme and precise benefits to be achieved from such schemes before taking up any such scheme. In future, HRECS shall submit the Capex request for any new work/scheme duly supported by the details of the benefits anticipated/ to be achieved so that the end consumers, who ultimately bear the burden of the cost of investment, are kept aware of the benefits of the schemes they are going to get.

The Commission, after reviewing the capex achieved by HRECS for FY19, decides to allow the actual capex of Rs.641.98 lakhs for FY19, subject to Prudence Check.

Prudence Check of Capital Expenditure incurred by HRECS during FY-17 and FY-18:

The Commission, in its Tariff Orders dated 30th March 2016 and 11th April 2017 had allowed Capital expenditure incurred by the HRECS for the period FY17 and FY18 respectively subject to carrying out the prudence check of the various works undertaken by HRECS. Accordingly, the Commission had entrusted conducting prudence check work of HRECS to M/s Price Waterhouse Coopers Private Limited (PWC), Bengaluru.

M/s PWC had submitted the report in the matter. As per their report, none of the works in respect of HRECS is categorized as imprudent. The Commission has forwarded a copy of the Report of the Consultant to HRECS for information.

HRECS is directed to note the following issue and challenges vis-à-vis mitigation measures suggested in the report on prudence check for both FY17 and FY18 and take suitable actions/measures in future while implementing a scheme / project:

Particulars	Issues and challenges	Mitigation Measures
Data collection	There is a significant delay in furnishing the information by HREC for the capital works. No centralized database is designed to capture the detailed information pertaining to capital works. There is no system developed for monitoring and review of projects resulting in inconsistent information maintained in multiple worksheets.	A web based central database needs to be created for maintaining the detailed information pertaining to the capital works. In this regard, the various parameters mentioned in capex prudence guidelines shall be included while designing the database. The database should generate periodic reports for each capital work and trigger alerts to the management if any project is not progressing in line with the intended benefits.
Project data format	The project data format for some of the sample projects are incomplete when it is handed over to consultant. Lack of awareness and understanding on capturing the requisite parameters for the works.	Capacity building workshops may be conducted to familiarize the capex prudence guidelines. Awareness must be created within the employees for furnishing the required information to facilitate during the evaluation process.
Project objectives	Primary and secondary objectives are not clearly defined with measurable benefits.	Primary and secondary objectives shall be clearly defined with measurable benefits including but not limited to load growth/ load relief and new load/ loss reduction/ quality of supply/ reduction in interruptions/ as defined in the specific works.
Secondary objectives	Secondary objective are not defined for most of the projects.	Secondary objectives need to be defined wherever applicable with measurable benefits.
Time overrun	Reasons for time overrun are not captured for most of the projects.	Reasons for time overrun need to be captured in writing by the concerned authorities. Also, the documentary proof must be furnished for such projects in which Liquidated Damages (LD) is applicable. In cases of any wave off on LD clauses, it shall be justified with reasons in writing. During evaluation of the works, the time overrun should be linked to percentage in lieu of the no. of years. This will ensure a more practical approach in evaluating

Particulars	Issues and challenges	Mitigation Measures
		the works.
Cost overrun	Reasons for cost over-run are not captured for most of the works.	Reasons for cost over-run need to be captured in writing by the concerned authorities.
Cost benefit ratio/ Payback period	The cost benefit ratio and payback period are not calculated for many projects in the estimation copy.	Benefit cost ratio shall be more than 1 and payback period shall be less than 10 years before taking up any capital work. The reasons need to be provided in writing in case of any deviation.
Post project completion review	There is no system for conducting the post implementation review of the works for which it becomes difficult to measure the actual achievement against the envisaged benefits for the project.	It is recommended to carry out ex-post analysis for all capex projects after completion of projects to see achievements of benefits against the objectives.
Project monitoring department	There is no separate project monitoring department.	There is a need of project monitoring department to monitor all the works to take corrective actions as needed. Also, monthly meeting needs to be arranged with contractors for review of works.
Quality	Guarding is not provided for most of the works for the overhead 11 kV feeder at the road crossing. Unauthorized electrical connections are observed in some feeders. Sagging of the feeders is observed in some cases. No safety board or fencing provided when the tapping point can be reached by living being.	The quality of execution of capital works shall be given priority considering the safety aspect into account. For instance, the safety boards and a fencing can be placed to avoid any accident. Also, identification of the asset at the site is required to be done to ascertain the authenticity of the projects during site visits. For instance, the name plates can be put at the site location to identify a particular work.

2.2.2 Sales- APR for FY19

A. Sales Other than IP sets:

I. Data Inconsistency:

The Commission in the Tariff Order-2019, in the APR for FY18 has approved energy sales of 1898.40 Lakh Units for LT-4a category, Zero for LT 4 c category and 189.87 Lakh units at interface point for SEZ. However, in D-2 format & at page -74 of the filing, HRECS had indicated the same as 1941.91234 Lakh

Units for LT-4a category, (-) 0.03635 Lakh units for LT 4 c category and 184.344 Lakh units for SEZ. Thus, HRECS was directed to rectify the data for FY18 accordingly.

HRECS in its replies to the preliminary observations has filed the revised statement, rectifying the data for FY18.

II. Annual Performance Review for FY19

The Commission in its Tariff Order dated 14.05.2018, had approved total sales to various consumer categories at 2788.35 Lakh units for FY19, as against HRECS proposal of 2894.71 lakh units [excluding sales to AEQUS]. The actual sales of HRECS as per the current APR filing (D-2 Format) is 2575.43 Lakh units indicating a decrease in sales to an extent of 212.92 Lakh units as compared with the approved sales.

The Commission had observed that, as against approved sales of 733.36 Lakh units to categories other than BJ/KJ and IP sets, the actual sales achieved by HRECS was 702.05 Lakh units, resulting in a reduced sale to these categories by 31.31 Lakh units. It was observed that this decrease was mainly in LT-2a domestic category to an extent of 21.30 lakh units and HT-2a to an extent of 41.67 Lakh units. Further, the sales to HT-1 water supply had increased by 16.23 lakh units and to HT-3 category by 24.63 lakh units. On the other hand, HRECS had sold 1873.38 Lakh units to BJ/KJ and IP category against approved sales of 2054.99 Lakh units resulting in decreased sales to these categories by 181.61 Lakh units. The decrease was mainly in IP sets to an extent of 185.88 lakh units. The Commission's analysis on IP set consumption is dealt in the subsequent paragraphs.

In view of the above, HRECS was directed to analyze and report the reasons for decrease in sales to LT-2a and HT-2a categories and increase in sales to HT-1 and HT-3 categories.

The HRECS in its replies has submitted the following reasons:

a. Reduction in sales to LT-2a category is attributed to the replacement of incandescent lamps by LED bulbs by consumers and insisting new consumers serviced during the year to install star rated appliances.

   The Commission notes that, the above statement made by HRECS, is not supported by any statistics to indicate as to how much energy savings have been achieved due to the above Demand Side Management (DSM) measures. Henceforth, HRECS is directed to quantify the energy savings achieved backed by data regarding use of LED bulbs, use of star rated equipment etc. which has resulted in energy savings due to implementation of DSM measures.

b. The reduction in sales to HT-2a is attributed to reduction of CD by one of the consumers from 1250 kVA to 900 kVA and reduction of consumption in another installation.

   The Commission again notes that, HRECS has not quantified the reduction in energy consumption backed by the actual data.

c. In case of HT-1 category, the increase in sales is attributed to addition of five new installations in October, 2017 and in HT-3 category due to servicing of a 1500 HP lift irrigation installation.

   The Commission once again notes that, HRECS has not quantified the energy increase on account of above measures.

B. Sales to IP sets – APR for FY19:

1. In its Tariff Order dated 14th May, 2018, the Commission had approved the specific consumption of IP sets as 7,329 units / IP / annum for the FY19, whereas, the specific consumption as reported by the HRECS, in its Tariff filing for APR for FY19, works out to 6,573 units / IP / annum, which indicates a decrease in the specific consumption by 756 units / IP / annum amounting to 10.31%.

2. The total sale to IP sets, approved by the Commission for FY19 in the Tariff Order, is 202.00 MU. As reported by HRECS in the tariff application, the actual consumption is 183.49 MU, indicating a decrease of 18.51 MU, i.e., the sales have decreased by 9.16%.

3. As reported by HRECS, the number of IP set installations in service at the end of FY19 are 28,485 as against the approved numbers of 28,070, which corresponds to an increase of 415 i.e., accounting for an increase by 1.47%.

   The details of sales to IP sets for FY19 as approved by the Commission, in its Tariff Order 2018 and the actual sales as furnished by HRECS, in its APR application for FY19 are as follows;

Particulars	As approved by the Commission	As submitted by HRECS
Number of installations	28,070	28,485
Mid-year number of installations	27,561	27,916
Specific consumption in units / installation / annum	7,329	6,573
Sales in MU	**202.00**	**183.49**

4. HRECS has submitted the month-wise data in the Commission's prescribed format for FY19 and has adopted the method of assessing sales to IP sets based on the connected load of the IP sets in HP, whereas the Commission had issued directions to assess the sales to IP sets on the per IP set basis in the absence of the actual connected load of the IP sets. The HRECS, vide its letter No. HRECS/RE/2018-19/5741 dated 28.03.2019, has submitted a copy of the IP set census report and has submitted that the average connected load per IP installation works out to 5.38 HP and against 27,945 live installations existing at the time of conducting the census and the total connected load works out to 1,50,344 HP.

5. HRECS, in its earlier Tariff application, had informed that it has taken up segregation of nineteen number of agriculture feeders and has since commissioned seventeen feeders and the remaining two feeders will be

charged during December 2018 and the readings of all the nineteen feeders will be considered for assessment of IP sets from January 2019. Whereas, as per the data submitted in the current Tariff Filing, HRECS has obtained the readings of only five feeders from April 2018 to November 2018 and ten feeders from December 2018 to March 2019. It has not furnished the data for the remaining nine feeders. In the present Tariff filing, it has informed that the remaining two feeders will be commissioned in the month of December 2019. HRECS was directed to furnish adequate reasons for delay in charging the two feeders and not furnishing the readings of all the feeders for FY19. In its replies to preliminary observations, HRECS has informed that the delay in commissioning the remaining two feeders is due to delay in commissioning 110 kV / 11 kV Is Islampur Substation, getting forest clearance and the devastating floods in its operational area and submitted that it will charge the remaining two feeders by December 2019.

6. The Commission observed a discrepancy in the readings of Hebbal feeder in the months of December 2018 and January 2019. HRECS was directed to furnish the reasons for the same. In its replies to the preliminary observations, HERCS has stated that, the discrepancy was only due to shifting of load on a different feeder for balancing the load on the existing power transformer.

7. As per the data furnished in the tariff application, the reported energy sale to IP sets is 183.49 MU and on per IP set basis it is 164.29 MU and on per HP basis it is 176.54 MU. HRECS was directed to furnish the reasons for the difference in calculations and to submit the revised calculations substantiating its claim of sale to IP installations for FY19 by analyzing the data properly. In its replies to preliminary observations, HRECS has only informed that it will abide by the decision taken by the Commission in this regard.

Subsequently, HRECS submitted the month wise sales summary and requested the Commission to consider the sales reported as per the submissions and the data furnished in accounts i.e., 183.49 MU for FY19. The month wise details furnished by HRECS subsequently is as detailed in the table below:

Month	Total feeder wise assessed consumption	Consumption per HP as per kVA-kM method	Total IP load in HRECS as per DCB	Total IP sales based on HP in MU
1	2	5	6	7
Apr-18	2.0535	138	148571	20.50
May-18	1.8972	120	148959	17.88
Jun-18	1.484	93	148959	13.85
Jul-18	1.1476	74	149940	11.10
Aug-18	1.3806	82	150995	12.38
Sep-18	1.7069	104	152089	15.82
Oct-18	1.6315	99	152770	15.12
Nov-18	1.873	117	153062	17.91
Dec-18	2.55198	92	153801	14.15
Jan-19	2.51115	91	154317	14.04
Feb-19	2.47002	90	154773	13.93
Mar-19	2.9475	108	155640	16.81
Total				**183.49**

8. Since, HRECS has furnished the data of connected load in the census report as detailed in para (4) above, the Commission decided to consider the data as per the submissions made subsequently on the per HP basis. In the light of the above discussion, the details of sales to IP installations for FY19 as per the actual calculations are as follows;

Particulars	As submitted by HRECS	As approved by the Commission
Number of installations	28,485	28,485
Mid-year number of installations	27,916	27,916
Specific consumption in units / installation / annum	6,573	6,573
Sales in MU	**183.49**	**183.49**

Based on the above computation, the Commission hereby approves 183.4887 MU of energy, as sales to the IP sets for FY19.

Thus, the Commission approves IP Set sales of 183.4887 MU for FY19.

In the light of the above discussions, the sales approved for FY19 is as indicated below:

TABLE - 2.4

Approved Sales of HERCS for FY19 as per APR

Tariff Category	Consumer Category	In MU
LT-1	BJ/KJ less than or equal to 40 units	3.8491
LT-1	BJ/KJ -more than 40 units	0.3374
LT-2a	Domestic (All Electric home & domestic lighting)	27.1089
LT-2b	Private professional institutions	0.1927
LT-3	Commercial and Non residential	7.4969
LT-4 (a)	Irrigation pump sets	183.4887
LT-4 (b & c)	Irrigation pump sets above 10 HP and nurseries &Horticultue	0.0345
LT-5	Industry	5.7075
LT-6	Public Water Supply	5.4837
LT-6	Public Lighting	2.2860
LT-7	Temporary Supply	0.1164
LT TOTAL		**236.1018**
HT - 1	Public Water Supply	7.1705
HT - 2(a)	Industrial Non-commercial and Non industrial including railways	8.5808
HT 2(b)	Commercial	0.5913
HT2c	Hospitals and Educational Institutions	0.4444
HT 3	Irrigation & Agricultural farms, includes societies etc.	4.6545
HT 4	Private residential apartments	0.0000
HT Total		**21.4415**
Total (LT + HT)		**257.5433**

In addition to the above, the Commission also approves 23.149 MU of energy sold to AEQUS at IF point.

2.2.3 Distribution Losses:

The Hukeri RECS, in its application has reported the actual distribution loss of 19.10% as per the audited accounts, as against the distribution losses of 14.32%

approved by the Commission for FY19, which is 4.78% more than the approved loss level.

Commission's analysis and decisions:

The Commission, in its Tariff Order dated 14th May, 2018 had approved the distribution losses for FY19 shown as under:

(Loss in Percentage)

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

The Hukeri RECS, in its annual accounts, has reported the distribution losses of 19.10% for FY19 is shown below:

1	Energy at Interface Points in MU(excluding HESCOM's 33 KV loss)	346.63
2	Total sales in MU including wheeled energy to AEQUS SEZ	280.42
3	**Distribution losses as a percentage of input energy at IF points**	**19.10%**

The Commission in its preliminary observations had directed HRECS to furnish the reasons for huge increase in losses in FY19 against the actual loss of 14.48 % in FY18.

HRECS, in its replies, has submitted that the unauthorized IP sets existing in the system was the main reason. It is further stated that, if 1900 unauthorized IP sets are reckoned, the losses in FY19 would come down to 15.57%.

While the Commission notes the above replies furnished by HRECS, the actual distribution losses of 19.10% reported as per the audited accounts of HRECS is by considering the energy of 346.63 MU at IF point and the sales of 280.42 MU for FY19. The Commission, as per the AEQUS SEZ audited accounts for FY19 has reckoned 23.149 MU as the energy purchased from Hukeri RECS. Accordingly, the Commission after considering 23.149 Mu being the energy sold to AEQUS SEZ as against the sale of 22.8792 MU considered by Hukeri RECS, has decided to approve the total sales (inclusive of energy sold to AEQUS SEZ at IF points) of 280.6923 MU for FY19. The Commission decides to consider the HRECs distribution loss at 19.022% for FY19, which is in excess by 4.452% over the upper ceiling limit of the distribution loss of 14.57%. Hence the penalty for exceeding the upper limit of the distribution loss levels, has been worked out and factored in the revised ARR as per APR for FY19 as detailed below:

TABLE - 2.5

Penalty for exceeding targeted loss levels in FY19

Particulars	FY19
Actual input at IF points in MU	346.63
Approved retail sales in MU	280.6923
Distribution losses in Percentage	19.022%
Target Upper limit of distribution loss	14.57%
Increase in percentage loss	4.452%
Input at target loss for actual sales in MU	328.56
Increase in input due to increase in distribution losses in MU	18.07
Average cost of power purchase without trading margin in Rs./unit	4.68112
Increase in power purchase cost due to increasing of losses (in Rs.Crores)	8.457
Penalty for excess losses in FY19 (Rs. in Crores)	**8.457**

Thus, the Penalty for excess loss works out to Rs.8.457 Crores. As per the MYT Regulations, the Commission decides to approve the actual distribution losses of HRECS at 19.022%, besides levying the penalty of Rs.8.457 Crores for exceeding the distribution loss levels targeted for FY19.

2.2.4 Power Purchase for FY19:

The Hukeri RECS has received the energy of 346.63 MU at the interface points of HESCOM during FY19. The cost of the power purchase is indicated as Rs.193.90 Crores. The Commission in its Tariff Order dated 14th May, 2018, had approved the power purchase quantum of 346.22 MU at IF points and 357.23 MU at generating bus at a cost of Rs.146.27 Crores for FY19.

The Commission in its preliminary observations had noted that Hukeri RECS had claimed Rs.193.90 Crores as the power purchase cost, as against the actual amount of Rs.147.507 Crores for FY19. The Commission has observed from D-I Format and as per the audited accounts that, the HRECS has included the interest on belated payment of power purchase cost of Rs.19.86 Crores and also Rs.26.53 Crores being the difference in power purchase cost on account of the revision of power purchase rate by the Commission, as per approved APR for FY17. As the difference in power purchase cost of FY17 had already been added to the ARR of FY19 and allowed to be recovered in the retail supply tariff approved for FY19, the question of claiming the said difference amount, once again in the APR for FY19, does not arise. Therefore, Hukeri RECS was directed to re-examine the same and revise the power purchase cost.

The Commission has taken note of the replies submitted by the HRECS. The Commission, in its Tariff Order dated 14th May, 2018, while approving the APR of HRECS for FY17, had allowed the difference in power purchase cost of Rs.27.06 Crores and carried forward the net gap in revenue of Rs.25.6075 Crores to the ARR of FY19 and had allowed it to be recovered in the retail supply tariff for FY19. Hence, the question of claiming the said difference of power purchase amount, once again in the APR for FY19, does not arise. Also, in view of the fact that the Commission is not allowing interest on belated payment of power purchase for the reasons that for payment of power purchase bills in time as per the MYT norms, interest on working capital has been allowed in the approved ARR / APR of HRECS. Therefore, as is being followed consistently in all its earlier Orders, the Commission decides not to allow interest of Rs.19.8624 Crores on belated payment of power purchase cost, which is included by HRECS in claiming the power purchase cost for FY19.

As per the Format D-19 (Energy Flow Diagram) of the application, the HRECS has received energy of 309.76 MU at 110/11 kV and 36.87 MU at 33/11 kV. Since supply at 33/11 kV is met by the distribution system of the HESCOM, the HRECS is required to bear the losses for handling 36.87 MU at 33/11 kV. The HESCOM in its filing under Format D-19, has indicated distribution losses of 2.5097% at 33 kV for FY19. Hence, the losses at 33/11 kV would be 0.925 MU and the energy at interface point with the transmission system would be 347.5553 MU. Based on the actual transmission losses of KPTCL at 3.161% for FY19, the allowable quantum of power purchase (at the generation bus) will be 358.9002 MU.

The Commission has approved the APR for HESCOM for FY19, wherein Commission has approved the power purchase cost and accordingly the average power purchase cost is Rs.4.68112 per unit. By considering the average power purchase cost of HESCOM along with the inclusion of trading margin of 5 paise per unit, the average power purchase cost to HRECS works out to Rs.4.73112 per unit at generating bus (Rs.4.8855 per unit at IF Point). Based on this average cost of power purchase, the allowable cost of power purchase payable to HESCOM for FY19 works out to Rs.169.80 Crores.

Thus, the Commission decides to approve the Power Purchase cost of Rs.169.80 Crores for FY19.

2.2.5 RPO Compliance for FY19

i. The Commission in its preliminary observations had directed HRECS to furnish the details of RPO complied for FY19 and the action plan for meeting RPO of FY20 and FY21.

ii. HRECS in their replies have submitted that the RPO compliance of HESCOM was examined to verify HRECS compliance, as HRECS is procuring power from HESCOM at the weighted average cost of HESCOM's power purchase cost. Thus, HRECS has stated that, if HESCOM has complied with RPO, HRECS is deemed to have complied RPO. HRECS has also stated that it is planning to put up a Solar Power Plant to meet its RPO.

iii. The Commission notes that as per the prevailing Regulations HRECS and deemed licensees procuring bulk power supply from ESCOMs are deemed to have complied with RPO to the extent of such procurement from ESCOMs. Further, the Regulations also specify that in case of non-compliance, the onus of meeting the RPO lies with HRECS or the deemed licensees, as the case maybe.

iv. The Commission notes that HESCOM from whom HRECS is procuring power, has met Non-Solar RPO for FY19 and therefore, HRECS is deemed to have met Non-Solar RPO. HESCOM has also met the solar RPO and therefore, HRECS is deemed to have met solar RPO for FY19.

2.2.6 O & M Expenses:

HRECS in its application has claimed the actual O & M expenditure of Rs.13.09 Crores as per the audited accounts for F19 as follows:

TABLE – 2.6
O & M Expenses – Hukeri RECS submission

Amount in Rs. Crores

Particulars	FY19
Employees cost	8.67
Repair and Maintenance	3.21
A&G Expenses	1.21
Total O & M Expenses	**13.09**

Commission analysis and decisions:

The Commission in its Tariff Order dated 14th May, 2018 had approved the O&M expenses of Rs.15.14 Crores for FY19 as detailed in the following Table:

TABLE - 2.7
Approved O&M expenses for FY19

Amount in Rs. Crores

Particulars	FY19
No. of Installations	127087
CGI based on 3 Year CAGR	2.81%
Inflation index	8.1059%
Base Year O&M Cost (as per actuals of FY16)	11.18
Approved O&M Expenses	**15.14**

The Commission, in its preliminary observations had observed that the O & M expenses are controllable expenses and that the distribution licensee need to control the expenditure. HRECS was directed to furnish the reasons with break up details for such a huge expenditure incurred under A & G expenses for FY19.

HRECS in its reply has submitted that the expenditure towards consultation fees, Tariff filing fees and legal expenses due to GST is the main reason for having incurred the higher amount of expenditure under A&G for FY19.

The Commission, noted the HRECS reply and in accordance with the methodology adopted while approving the ARRs for FY19 and subsequent APRs, proceeds with the determination of the normative O&M expenses based on the 12-year data of WPI and CPI and 3 years CAGR of consumers.

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 the CERC, with CPI and WPI in a ratio of 80: 20 and as per the provisions of MYT Regulations, the allowable inflation for FY19 is computed as follows:

TABLE - 2.8

Allowable Inflation for FY19

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2007	73.6	130.8	119.36				
2008	80.0	141.7	129.36	1.08	0.08	1	0.08
2009	81.9	157.1	142.06	1.19	0.17	2	0.35
2010	89.7	175.9	158.66	1.33	0.28	3	0.85
2011	98.2	191.5	172.84	1.45	0.37	4	1.48
2012	105.7	209.3	188.58	1.58	0.46	5	2.29
2013	111.1	232.2	207.98	1.74	0.56	6	3.33
2014	114.8	246.9	220.48	1.85	0.61	7	4.30
2015	110.3	261.4	231.196	1.94	0.66	8	5.29
2016	110.3	274.3	241.5	2.02	0.70	9	6.34
2017	114.1	281.2	247.78	2.08	0.73	10	7.30
2018	118.9	294.8	259.62	2.18	0.78	11	8.55
A= Sum of the product column							40.16
B= 6 Times of A							240.97
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							0.0826
e=Annual Escalation Rate (%)=g*100							**8.2604**
As per CERC Notification No.Eco T I / 2019-CERC dated 02.04.2019 with weightage of 80% on CPI and 20% on WPI							

While determining the normative O & M expenses for FY19, the Commission has considered the following aspects:

a) The actual O & M expenses as per the audited accounts for FY16, as the base year expenses and the approved O & M expenses for FY17 and FY18.
b) The three-year compounded annual growth rate (CAGR) of the number of installations considering the actual number of installations as per the audited accounts up to FY19 at 2.60%.
c) The weighted inflation index (WII) at 8.2604% as computed above.
d) Efficiency factor at 0.5% as considered in the earlier two control periods.

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

TABLE - 2.9
Allowable O & M expenses for FY19

Amount in Rs. Crores

Particulars	FY19
No. of Installations	126324
CGI based on 3 Year CAGR	2.60%
Inflation index in %	8.2604%
Base Year O&M Cost (as per actuals of FY16)	11.18
Allowable O&M Expenses for FY19 (O&M index = O&M (t-1) x (1+W11+CGI-X)	**13.90**

Note: The efficiency factor is 0.5%.

The Commission notes that, as per the audited accounts, the actual O&M expenditure incurred by Hukeri RECS is Rs.13.0869 Crores in the current year FY19, which is less than the normative allowable O&M expenses of Rs.13.90 Crores by Rs.0.81 Crores. The Commission also notes the actual revenue from sale of power, the various items of revenue expenditure claimed by HRECS and allowable as per the provisions of MYT Regulations and the resultant revenue gap for FY19. Since the O&M expense being the controllable expenditure and the Commission has in its earlier orders stressing the need to control the controllable O & M expenses, the Commission, by considering the revenue gap and the actual amount of O&M expenses as per the audited accounts, decides to allow the actual O&M expenditure incurred by HRECS of Rs.13.0869 Crores for FY19.

Thus, the Commission decides to allow the actual O&M expenses of Rs.13.0869 Crores as O & M expenses for FY19.

2.2.7 Depreciation

The HRECS, in its application, has claimed an amount of Rs.1.61 Crores towards depreciation for FY19, as per the audited accounts, after deducting the depreciation on assets created out of consumers' contribution/grants.

The Commission, in its Tariff Order dated 14th May, 2018, had approved an amount of Rs.1.3984 Crores towards depreciation for FY19. Against this, the HRECS has claimed depreciation of Rs.1.61 Crores for FY19.

Considering the depreciation on the basis of actual category- wise assets, as per the Audited Accounts, as detailed below, the Commission for the purpose of APR for FY19 has worked out the depreciation as under:

TABLE – 2.10
Allowable Depreciation for FY19

Amount in Rs. Crores

Particulars	Opening Balance of Asset as on 01.04.2018	Depreciation	Closing Balance of Asset as on 31.03.2019
Buildings	0.5448	0.0098	0.5448
Civil	0.7667	0.0136	0.7667
Other Civil	0.0434	0.0001	0.0434
Plant & M/c	27.3700	0.9371	30.7000
Line, Cable Network including plant/Machinery	50.4600	1.5370	53.7300
Vehicles	0.3828	0.0439	0.3828
Furniture	0.1900	0.0059	0.1900
Office Equipment	1.0714	0.0458	1.1734
Total	**80.8382**	**2.5932**	**87.5388**
Land	**0.0016**	**0.00**	**0.0016**
Total GFA	**80.8398**		**87.5404**
Less: Depreciation on Assets created on Consumer Contribution / Grants		0.9860	
Net Depreciation		**1.6072**	

Thus, the Commission decides to allow a depreciation of Rs.1.6072 Crores for FY19.

2.2.8 Interest & Finance Charges

i. Interest on Loan Capital:

The Hukeri RECS, in its application as per the audited accounts has claimed an amount of Rs.0.2478 Crores as interest and finance charges for FY19.

The Commission notes the portfolio of capital loans and interest on capital loan of Rs.0.2478 Crores incurred as per the audited account for FY19.

Thus, the Commission decides to allow the net interest on capital loan of Rs.0.2478 Crores for FY19.

ii. Interest on working Capital:

The HRECS, in its filings for APR for FY19 has claimed an amount of Rs.3.2968 Crores as interest on working capital. As per the audited accounts, the HRECS has not incurred any amount towards interest on working capital.

The Commission, as per the norms under MYT Regulations, determines the allowable interest on working capital as under:

TABLE – 2.11
Allowable Interest on Working Capital for FY19

Amount in Rs. Crores

Particulars	FY 19
One-twelfth of the amount of O&M Exp.	1.09
Opening GFA	80.84
Stores, materials and supplies 1% of Opening balance of GFA	0.81
One-sixth of the Revenue	26.90
Total Working Capital	28.80
Rate of Interest (% p.a.)	11.00%
Interest on Working Capital	**3.168**
Actual WC as per accts	0.00
Allowable interest on working capital (actual plus 50% of difference between actual and normative interest on WC)	**1.5841**

Thus, the Commission decides to allow an amount of Rs.1.5841 Crores towards interest on working capital for FY19.

iii. Interest on Consumers' Security Deposit:

The Hukeri RECS, as per the audited accounts has claimed an amount of Rs.0.79 Crores towards Interest on consumer security deposits for FY19. The Commission notes the opening and closing balance of consumers' security deposits as per the audited accounts for FY19. As per KERC (Interest on Security Deposit) Regulations, 2005, the interest on consumer security deposits shall be allowed as per the bank rate prevailing on the 1st day of April of the financial year for which the interest is due. The bank rate as on 1st April 2018 was 6.25%. The actual interest on consumer security deposit amount of Rs.79.05 lakhs claimed by Hukeri RECS is well within the allowable rate.

Thus, the Commission decides to allow an amount of Rs.0.7905 Crores towards interest on consumers' security deposits for FY19.

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

TABLE – 2.12
Abstract of Interest & Finance Charges for FY19

Amount in Rs. lakhs

Particulars	FY19
Interest on Capital Loan	0.2478
Interest on Working Capital Loan	1.5841
Interest on Consumers' Security Deposit	0.7905
Total	**2.6224**

2.2.9 Return on Equity:

The Hukeri REC Society has claimed an amount of Rs.1.40 Crores towards RoE for FY19. The Commission notes that, as per the Audited Accounts, the HRECS has the negative equity of Rs.54.68 Crores as at the beginning of FY19.

As per the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 as amended, the Commission has to compute the allowable Return on

Equity at 15.5% on equity plus accumulated profit / losses as at the beginning of the year, besides allowing taxes as per actuals. Considering the status of opening balance of equity as per audited accounts for FY19, the allowable RoE is computed as follows:

TABLE – 2.13
Approved RoE for FY19

Amount in Rs. Crores

Particulars	FY19
Opening Balance of Paid Up Share Capital	6.64
Opening Balance of Share Deposit	0.00
Opening Balance Accumulated loss	-61.32
Opening Balance of Total Equity	-54.68
Approved RoE by the Commission	**0.00**

The Hukeri RECS has a negative opening balance of net worth for FY19 and as per the provision of MYT Regulations, it is not entitled to any RoE for FY19. Further, as per the audited accounts, the HRECS has not paid any Income Tax for FY19. Thus, the Commission has not allowed RoE and Income Tax for FY19.

2.2.10 Other Income:

The Hukeri RECS, in its filings, as per the audited accounts, has claimed an amount of Rs.18.8266 Crores as Other Income for FY19. This amount includes income from sale of power to AEQUS SEZ of Rs.14.2032 Crores and Rs.4.6234 Crores towards other Income such as interest on bank deposits, rent from staff quarters, rebate on electricity duty and miscellaneous recoveries / income.

The Commission has reckoned Rs.18.8266 Crores as the total other income earned by Hukeri RECS for FY19 which is also includes the amount of Rs.14.20 Crores received from AEQUS SEZ on the sale of 22.8792 MU for FY19. Further, consequent to the revision of power purchase cost for FY19, the difference in power purchase cost of Rs.0.637 Crores to be collected from the AEQUS SEZ has been factored under other income. Thus, the total allowable other income of HRECS is Rs.19.4635 Crores for FY19.

2.2.11 Revenue Demand for FY19:

The Hukeri RECS, in its application, as per the audited accounts has indicated the net amount of Rs.161.42 Crores, as revenue from sale of power and miscellaneous charges as against the Commission approved total revenue of Rs.176.78 Crores for FY19.

The Commission notes that, as per the audited accounts for FY19, the revenue from sale of power is Rs.175.63 Crores, which also includes the revenue received from sale of power to AEQUS SEZ for Rs.14.20 Crores. The Commission has reckoned the amount of Rs.14.20 Crores received for the sale of power to AEQUS SEZ under other income for FY19. Thus, the total revenue from sale of power and miscellaneous charges is Rs.161.4207 Crores for the purpose of approval of revised ARR as per APR forFY19.

Thus, the Commission decides to consider the total amount of revenue from sale of power and miscellaneous charges of Rs.161.4207 Crores for FY19.

2.2.12 Subsidy for FY19:

The Commission in its Tariff Order dated 11.04.2017 has approved tariff subsidy of Rs.2.22 Crores and Rs.122.21 Crores towards the sale of power to BJ/KJ installations and IP sets installations for FY19 respectively, in accordance with the prevailing Policy of the Government of Karnataka in the matter of free power supply to BJ/KJ installations and IP sets installations of 10 HP & below. The HRECS has claimed an amount of Rs.2.52 Crores and Rs.110.98 Crores towards Tariff subsidy for BJ/KJ and IP set installations for FY19.

The Commission notes that, as per the audited accounts and replies furnished to the preliminary observations, Rs.2.5158 Crores and Rs.110.9727 Crores (Net) respectively has been factored in as tariff subsidy for BJ/KJ and IP Set installations for FY19. Thus, the Commission, while computing the revised ARR as per APR for FY19, has considered tariff subsidy of Rs.113.4885 Crores, towards sale of power to BJ/KJ installations and IP sets for FY19, to be received from the Government.

Thus, the Commission decides to approve the total tariff subsidy of Rs.113.4885 Crores for FY19.

2.3 Abstract of Allowable ARR for FY19:

The Abstract of the allowable consolidated Annual Revenue Requirement for FY19 is as follows:

TABLE - 2.14

Approved revised ARR as per the APR for FY19

Amount in Rs. Crores

Sl. No.	Particulars	As Approved as per T.O 14.05.2018	As per filing	As per APR
1	Power Purchase at generating bus in MU	357.23	-	357.94
2	Energy @ IF Point in MU	346.22	346.63	346.63
3	Sales to Other than IP & BJ/KJ in MU	73.34	93.08	93.35
4	Sales to BJ/KJ in MU	3.50	3.85	3.85
5	Sales to IP in MU	202.00	183.49	183.49
6	**Total Sales in MU**	**278.84**	**280.42**	**280.69**
7	Distribution Loss in %	14.32%	19.10%	19.022%
	Revenue:			
8	Revenue from other than IP & BJ/KJ	52.35	47.93	47.9322
9	Subsidy to BJ/KJ	2.22	2.52	2.5158
10	Subsidy to IP	122.21	123.48	123.4767
11	LESS: Earlier year (from 2008 to 2017) IP revenue now demanded		-12.504	-12.5040
12	**Total Revenue**	**176.78**	**161.42**	**161.4207**
	Expenditure:			
13	Power Purchase Cost inclusive of transmission and SLDC Charges	146.27	193.90	169.7999
14	Employee Expenses	15.14	8.67	13.0869
15	R&M Expenses		3.21	
16	A&G Expenses		1.21	
17	Depreciation	1.40	1.61	1.6072
18	Interest on Capital Loan	0.47	0.25	0.2478
19	Interest on Working Capital	3.30	3.30	1.5841
20	Interest on Consumer Deposit	0.88	0.79	0.7905
21	(Less) Expenses Capitalised	0.00	-0.73	-0.7300
22	Other Debits/Extraordinary items	0.00	0.00	0.00

Sl. No.	Particulars	As Approved as per T.O 14.05.2018	As per filing	As per APR
23	Net Prior Period Credit	0.00	0.00	0.00
24	RoE	0.00	1.40	0.00
25	Taxes	0.00	0.00	0.00
26	**Less:** Other Income	-16.27	-18.83	-19.4635
27	Deficit of FY17 carried forward	25.61	0.00	0.00
28	Less: Penalty for excess distribution losses	0.00	0.00	-8.4568
29	**ARR**	**176.786**	**194.77**	**158.4661**
30	**Surplus/Deficit in Revenue**	**0.00**	**-33.349**	**2.9546**

2.4 Gap in revenue for FY19:

The Commission after the Annual Performance Review for FY19 decides to allow the revised ARR of Rs.158.4661 Crores as against the approved ARR of Rs.176.786 Crores for FY19. Considering the revised revenue of Rs.161.4207 Crores, the surplus in revenue of Rs.2.9546 Crores is determined for FY19.

The Commission decides to carry forward the revenue surplus of Rs.2.9546 Crores of FY19 to the revised ARR for FY21, as discussed in the subsequent Chapter of this Order.