

CHAPTER – 5

REVISED ANNUAL REVENUE REQUIREMENT FOR FY19

5.0 Revised Annual Revenue Requirement (ARR) for FY19:

GESCOM's Application:

The GESCOM in its application dated 30th November, 2016, has sought the approval of the Commission for the revised ARR and retail supply tariff for FY19. The summary of the proposed revised ARR for FY19 is as follows:

TABLE – 5.1

Revised ARR for FY18-GESCOM's Submission

Sl. No	Particulars	Rs. Crores
		FY19
1	Energy at Gen Bus	8891.27
2	Transmission Losses in %	3.40%
3	Energy at Interface in MU	8588.97
4	Distribution Losses in %	16.50%
5	Sales in MU	
	Sales to other than IP & BJ/KJ installations	3621.01
	Sales to BJ/KJ installations	130.85
	Sales to IP-sets	3419.93
	Total Sales	7171.79
6	Revenue at existing tariff in Rs. Crores	
	Revenue from tariff and Miscellaneous Charges	2602.31
	Tariff Subsidy to BJ/KJ installations	82.31
	Tariff Subsidy to IP-sets	1884.38
	Total Existing Revenue	4569.00
	Expenditure in Rs. Crores	
7	Power Purchase Cost	3251.45
	Transmission charges of KPTCL	410.88
	SLDC Charges	3.30
	Power Purchase Cost including cost of transmission	3665.63
8	Employee Cost	684.61
	Repairs & Maintenance	44.64
	Admin & General Expenses	102.40
	Total O&M Expenses	831.65
9	Depreciation	165.66
10	Interest & Finance charges	
11	Interest on Capital Loans	133.38
12	Interest on Working capital loans	117.60
13	Interest on belated payment on PP Cost	0.00
14	Interest on consumer security deposits	33.35
15	Other Interest & Finance charges	0.00
16	Less interest & other expenses capitalised	4.28
	Total Interest & Finance charges	280.05

17	Other Debits	109.29
18	Net Prior Period Debit/Credit	20.00
19	Return on Equity	45.81
20	Funds towards Consumer Relations/Consumer Education	0.00
21	Other Income	45.04
	ARR	5073.05
22	Deficit for FY19	-504.05
23	Surplus/Deficit for FY17 carried forward	-655.98
	Net ARR	5729.03

The GESCOM has requested the Commission to approve the revised Annual Revenue Requirement of Rs.5729.03 Crores for FY19. Considering the estimated revenue of Rs.4569 Crores based on the existing retail supply tariff, GESCOM has projected a revenue gap of Rs.1160.02 Crores for FY19 inclusive of the carried forward estimated revenue gap of Rs.655.98 Crores of FY17. In order to bridge this gap in revenue, GESCOM, in its application has proposed an increase in retail supply tariff by 162 paise per unit, in respect of all the categories of consumers including BJ/KJ and IP set consumers for FY19.

5.1 Annual Performance Review for FY17:

As discussed in the preceding chapter of this Order, the Commission has carried out the Annual Performance Review for FY17 as per the provisions of MYT Regulations based on the audited accounts furnished by GESCOM. Accordingly, a deficit of Rs.465.06 Crores of FY17 is carried forward in to the ARR of FY19.

5.2 Revised Annual Revenue Requirement for FY19:

The item-wise revenue and expenditure proposed by the GESCOM and as approved by the Commission for FY19 is discussed in this Chapter as follows:

5.2.1 Capital Investments for FY19:

GESCOM's submission:

The GESCOM has proposed a capex of Rs.911.15 Crores for the FY19 against Rs.954.6 Crores approved in the MYT order dated 30th March, 2016. The category-wise revised capex is shown in the table below:

Table –5.2
Capital expenditure proposed by the GESCOM for the FY19

SI No.	Categories pf works	Rs. Crores	
		MYT Approved. Capex For FY19	Revised Capex For FY19
1	33kV Sub-station, 33kV line works & Augmentation of 33kV S/S's	22	50
2	RGGVY works REC	70	2
3	RAPDRP Works		
	Part-A	2	0.00
	Part-B	5	0.00
	IPDS	33.1	133
4	Reconductoring works:		
	a) 33kV lines	2	0.00
	b) 11kV lines	13	10
	c) L.T Lines	0	20
5	5(a)DTC metering works (RAPDRP area)		0
	5(b) DTC metering for Non RAPDRP		5
6	Water supply works	4	15
7	Additional DTC's works:		
	a) New DTC's	4	5
	b) Enhancement of DTC's	2	10
8	Replacement failed 11 KV transformers	8	20
9	Replacement of Power transformers	1	5
10	Replacement of MNR meters	4	4
11	Providing ETV meters	1	0
12	Providing HT metering Cubicles for ring fencing	0.5	0.5
13	Service Connection works		
	a) General works	13	10
	b) IP set works (General Category)	1	3
14	a) SI works (33KV link line /Express feeders)	1	1
	b) SI works (11KV Link line /Express feeders,)	10	10
15	a) Nirantara Jyoti works	0	10
	b) Deen Dayal Upadhay Gram Jyothi Yojane	309	299
16	a) Major Replacements in S/S's & lines	0.5	2
	b) Replacement of Age old Equipment in existing S/S & Lines	4	4
17	Civil Engineer Works	6	10
18	IT initiatives and enumeration of IP sets	1	1
19	HVDS Works	60	0
20	Providing ABC, UG Cables & RMUs		
21	SCADA Works	0.5	0.5
22	SCP & TSP Works		
	a) Energization of IP Sets	0.5	0.5
	b) Electrification of HB's /JC's	0.5	0.5
	c) Kutir Jyoti	0.5	0.5
23	Ganga Kalyan scheme Works	20	50
24	T&P Articles	0.5	0.5
25	Replacing of Electro Magnetic Meters by Static Meters	0.5	0.5
26	Metering of IP/St. Lights / BJ&KJ Sets and Water supply	0.5	0.5

27	Providing Infrastructure to Regularization of Unauthorized IP Sets	25	25
28	R.E General Works		
	a)Kutir Jyoti	8	4
29	Prevention of electrical accident & safety	3	9
30	Electrification of Rehabilitation Villages	3	5
31	Replacement of Broken poles		10
32	Feeder Metering		
33	DDG		1
34	a) LT Line Conversion of 1 Phase 2 wire or 1 Ph 3 wire to 3Ph 5 Wire (Including providing ABC, UG cable etc.)		5
35	Providing SMC Box to DTCs		2
36	a) Energisation of IP Sets Under General category		
	b) Energization of IP Sets Under General category (Shigra Samparka Yojane)		2
37	Stations Augmentation		5
38	Providing meters to IP Sets above 10 HP		0.5
39	Distribution Automation System (DAS)		15.15
40	DSM		0.5
41	Safety Materials		2
42	SDP Works		40
43	HT Conductor by 11 kV AB Cable	305	10
44	Computers and Printers (T & P Materials)		5
45	Refurbishment of 11 kV lines		50
46	Providing OLP relapse to stations.		2
47	Shifting of meter from I to O		10
48	R&M to stations		25
49	DTC metering	10	
	Total	954.6	911.15

Commission's Analysis and decision:

It is observed from the above proposals that, the GESCOM has reduced its overall capex requirement of FY19 from the level of capex approved by the Commission. It is also noted that, the GESCOM has modified the capex in some of the categories of works as compared with the approved capex and some of the significant changes made by it are discussed below:

- i. In case of IPDS, the GESCOM has increased the capex from Rs.33.10 Crore to 133 Crores. It is to be noted here that, the GESCOM had proposed a capex Rs.183 Crores for the FY17, but, it has not achieved any progress during the FY17. The GESCOM, in its replies to the preliminary observations has stated that, due to non-response of the bidders during Fy17, the works have been awarded during FY18 and the likely expenditure during FY 18 would be around Rs.150 Crores and an amount of Rs.130 Crores is proposed for FY19.

- ii. In the case of Distribution Automation System (DAS), the GESCOM has indicated a capex of Rs.15.15 Crores. The GESCOM in its replies to the preliminary observations made by the Commission has stated that, it is not taking up the DAS project during FY19 and the capex will be deleted from the overall capex for FY19.
- iii. The GESCOM has proposed a capex of Rs.50 Crores for Refurbishment of 11 KV lines. The GESCOM needs to furnish the details of number of lines taken up for refurbishing, type of work taken up in refurbishing, alternatives considered etc., The GESCOM in its replies to the preliminary observations made by the Commission has stated that, it is deleting the proposal, as it is taking up the works under revenue head.

Taking note of the above points, the Commission decides to consider the total capex of Rs.846 Crores for FY19, after deducting Rs.50 Crores and Rs.15.15 Crores indicated for Refurbishment of 11kV lines and Distribution Automation System (DAS) respectively, as indicated by GESCOM in its preliminary Replies. This approval is subject to Prudence check during the APR of FY19.

5.2.2 Sales Forecast for FY19:

a) Sales -other than IP Sets:

GESCOM in their tariff filing have estimated 30,89,803 number of installations and energy sales of 7171.79 MU for FY19.

The observations of the Commission on sales forecast for FY19 and the replies of GESCOM are discussed below:

- i. The GESCOM in its filing has furnished a statement of estimates for the number of installations and sales for the FY18 as well as the FY19, indicating the Growth rates. The GESCOM had not explained how it had arrived at the growth rates for the FY18 & the FY19. Therefore, the Commission directed GESCOM to furnish the working details of estimates made for the FY18 & the FY19, explaining the methodology adopted for forecasting.

GESCOM in their replies have stated that CAGR method is adopted. The Commission notes that GESCOM has not furnished the working details. The approach of the Commission in estimating the sales for FY19 is discussed in the subsequent paragraphs.

ii. LT(1) – BJ/KJ category:

The GESCOM was directed to furnish, the breakup of installations consuming less than or equal 40 units/month and above 40 units/month for the FY18 [actuals up to September 17 and estimate for remaining period] and estimates for the FY19.

GESCOM in their replies have furnished the breakup of installations consuming less than or equal 40 units/month and above 40 units/month for the FY18 up to September 17 as per actuals and has stated that it has estimated the total sales for FY18 considering 18 units/month:

Particulars	No. of Installations as on 30.09.2017	Consumption in MU Upto 30.09.2017
Installations Consuming up to 40 Units	568588	96.57
Installations consuming more than 40 units and build under LT 2a	28627	28.14
Total	597215	124.71

Note: GESCOM has estimated total BJ/KJ sales of 256 MU for FY18 in its replies.

The Commission has considered the above data as on 30.09.2017, appropriately, for estimating the sales to this category.

iii. The Commission had observed that in case of estimation of number of installations the growth rate considered for LT-6 WS is higher, and is lower for HT-2b compared to normal growth rates.

GESCOM in their replies have stated that the estimates are based on average of 2-year's actual data for LT-WS and that there is no scope for HT industries in Hyderabad-Karnataka area.

The Commission has noted the above reply and the approach of the Commission is discussed in the subsequent paragraphs.

- iv. Regarding the energy sales estimate, the Commission had observed that while the growth rate considered for LT-2a, LT-3, LT-6WS and HT-2a, is higher, it is lower for LT2b, LT-5, HT-1, HT-2b and HT-3 categories compared to normal growth rates.

GESCOM in its replies has stated that they have adopted CAGR method from FY17 onwards and that the estimates submitted is correct.

The Commission notes that GESCOM has made the above statements without furnishing any working details. Henceforth, GESCOM shall furnish working details in support of the statements made by them.

- v. To validate the sales, category-wise information for number of installations and sales were requested in the specified format. GESCOM has furnished the above information.

The Commission's approach for estimating the number of installations and sales to categories other than BJ/KJ installations and IP sets is discussed below:

i) No. of Installations:

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

- a. The base year number of installations for FY18 is modified duly validating the revised estimate furnished by GESCOM in the current filing and the data available as on 30.11.2017. The Commission has validated both the number of installations and sales to various categories considering the actuals as on 30.11.2017 and has estimated the number of installations and sales for the remaining period reasonably, keeping in view the number of installations and

sales as on 31.03.2017 also. Accordingly, the base year estimation has been revised which has an impact on the estimates on number of installations and sales for the year FY19.

- b. Wherever the number of installations estimated by GESCOM 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 GESCOM are retained.
- c. Wherever the number of installations estimated by GESCOM 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 GESCOM for 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, HT-2(c) and HT-5 categories, the estimates of GESCOM are retained, as the growth rate for these categories is not consistent.

Based on the above approach, the total number of installations (excluding BJ/KJ installations consuming upto 40 units/installation/month and IP sets) estimated by the Commission for FY19 is 21,29,241 as against 21,01,722 proposed by GESCOM.

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 GESCOM are validated duly considering the actual sales upto November, 2017 and modified suitably as stated earlier.

- b. Wherever the sales estimated by GESCOM 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 GESCOM are retained.
- c. Wherever the sales estimated by GESCOM 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 GESCOM 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-5, LT-7, HT-2(c) and HT-5 categories, the estimates of GESCOM are retained, as the growth rate for these categories is not consistent.
- f. For LT-4b & 4c categories sales is estimated considering FY17 specific consumption.
- g. For HT-4 sales retained at FY17 level as there are no installations added.
- h. For HT2(a) category, the sales estimate based on the methodology specified at paras b, c and d above is reasonable and therefore, the sales estimate based on the analysis of open access impact is not considered for FY19.

Based on the above approach, the energy sales (excluding BJ/KJ installations consuming upto 40 units/installation/month and IP sets) estimated by the Commission for FY19 is 3455.85 MU as against 3621.14 MU proposed by GESCOM.

Sales to BJ/KJ and IP sets:

i) Sales to BJ/KJ:

The break-up of sales to BJ/KJ installations as furnished by GESCOM as on 30.09.2017 is as indicated below:

Particulars	No. of Installations	Consumption in MU	Specific consumption per installation per month (kWh)
Installations consuming less than or equal to 40 units	568588	96.57	28.31
Installations consuming more than 40 units and billed under LT2(a)	28627	28.14	163.83

The specific consumption works out to 28.31 units /installation/month for BJ/KJ installations consuming less than or equal to 40 units per month. Further, for BJ/KJ installations consuming more than 40 units and billed under LT2(a) the specific consumption would be 163.83 units/month. The above specific consumption is too high compared to other ESCOMs. **Therefore, the Commission has considered a moderate specific consumption of 20 units/installation/month for BJ/KJ consuming upto 40units/month and 80 units/installation/month for BJ/KJ consuming more than 40units/month.**

Considering the above specific consumption and the breakup of BJ/KJ installations as on 30.11.2017 and total BJ/KJ installations for FY19 as furnished by GESCOM, the sales is worked out as indicated below:

Particulars	No. of Installations	Sales -MU
Installations consuming less than or equal to 40 units	586584	140.78
Installations consuming more than 40 units and billed under LT2(a)	29533	28.35

b) IP set sales projections for FY19:

The Commission, in its Tariff Order dated 30th March, 2016, had approved a specific consumption of IP-sets as 9,503 units/installation/annum for FY17. As per its Tariff filing, the IP-set sales reported by the GESCOM was 3,122.71 MU, as against the approved sales quantity of 3,306.88 MU, for FY17. The Commission notes that the GESCOM has submitted the sales of 3,122.71 MU to IP-sets, based on the meter readings of segregated agricultural feeders by considering the initial & final readings and the multiplication factors of energy meters, to arrive at the net consumption. The Commission observes that this indicates a decrease in sales to an extent of 184.17 MU between the IP-set consumption reported in its Tariff

filing and the approved quantum. The decrease in consumption may be due to reduction in number of installations by 18,844 (5%) than the approved number of installations of 3,58,483 for FY17.

Further, it is noted that the specific consumption works out to 9,314 units/installation/annum based on the sales considered for FY17. In view of this, the Commission decides to approve the specific consumption of 9,314 units / installation / annum for the ARR of FY19 also.

The Commission notes that the GESCOM has estimated the number of IP-set installations as 3,71,965 for the FY19 in the current Tariff filing. In view of this, the Commission has considered the number of IP-sets as reported by the GESCOM for the ARR of FY19 without any modifications. Hence, based on the estimated number of installations for the FY18 and the FY19 as projected by the GESCOM, the mid-year number of installations is determined and the sales to IP-set consumers are indicated as below:

TABLE-5.3

Approved sales to IP set Installations

Particulars	As filed by the GESCOM		As approved by the Commission
	FY18	FY19	FY19
No of installations	3,54,786	3,71,965	3,71,965
Mid-Year no. of installations		3,63,376	3,63,376
Specific consumption in units/installation/annum		9,412	9,314
Sales in MU		3,419.93	3,384.48

Accordingly, the Commission approves 3,384.48 MU as energy sales to IP-sets for FY19 as against the approval sought for 3,419.93 MU by the GESCOM. The number of installations approved for FY19 is 3,71,965. This approved IP-set consumption for FY19 is with the assumption that the Government of Karnataka would release subsidy to fully cover the approved quantum of IP-sales. However, if there is any reduction in the subsidy allocation by the GoK, the quantum of sales to IP-set installations of 10 HP and below shall be proportionately regulated. The GESCOM

shall therefore regulate the numbers of hours of power supply to exclusive Agriculture feeders, accordingly.

Further, the GESCOM was directed to take up GPS survey of IP-sets in order to identify the defunct/dried up 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. In this regard, the GESCOM has stated that it is conducting GPS survey to identify defunct installations in the field and this exercise is not yet completed in its jurisdiction and hence not possible to consider the defunct installations for FY17. However, it has further stated that it will consider the GPS survey results after completion of the same, for FY18. The GESCOM is directed to complete the GPS survey of IP-sets and compliance thereon shall be submitted to the Commission. In view of GPS survey of IP-sets not completed, the number of installations estimated for FY18 as well as for FY19 are subject to change based on the GPS survey results. Hence, on completion of the GPS survey, the GESCOM shall arrive at correct number of IP-sets in the field duly deducting from its account the number of dried up/defunct wells based on the GPS survey results. Accordingly, any variation in sales due to change in number of installations would be trued up during the Annual Performance Review, for the FY19.

Further, it is noted that the GESCOM has already segregated 326 agriculture feeders **from** rural loads under NJY Phase1 & 2 and implementation of balance feeders' works under phase3 is in progress. Therefore, energy consumed by the IP-sets could 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 reiterates that the GESCOM shall report the total IP-set consumption on the basis of specific consumption arrived at from the data of energy meters in respect of agriculture feeders segregated under NJY **only**, duly considering the initial & final readings and

multiplication factor of the energy meter to arrive at net consumption, to the Commission, every month regularly, as per the following format:

TABLE-5.4**Format for furnishing IP set Consumption**

Month	Name of Sub-division	Name of Segregated Agriculture Feeders in the subdivision	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 substations pertaining to the Sub division	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 live IP sets (total-dried up) connected to the agri. feeders in the subdivision			Average consumption of IP / month (specific cons in units /IP/month)	Total no of IP sets in the subdivision			Total sales of IP sets in MU
									Beginning of the month	Serviced at the end of the month	Mid- month		Beginning of the month	Serviced at the end of the 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
Apr- 18 To Mar-19	Subdiv-1 Subdiv-2 Subdiv-3															
TOTAL																

Note:

- (1) If the agriculture feeders are not yet segregated under NJY in any sub-division, then the specific consumption of the division / circle / zone / company (where NJY is taken up) shall be considered to compute the IP consumption of such sub-division.
- (2) No. of defunct/dried up IP-set installations shall be deducted from the accounts, while arriving at the month-wise and subdivision-wise specific consumption and total sales.
- (3) The values under column 9b (number of installations) & column 10 (total sales) shall be considered for DCB of the subdivision.

Based on the above discussions, the category wise approved number of installations and sales for the year FY19 vis-à-vis the estimates made by GESCOM is indicated below:

TABLE-5.5
Approved Number of installations and Sales for FY19

Category	GESCOM's estimate for FY19		Approved Sales for FY19	
	Installations	Sales	Installations	Sales
	No.	MU	No.	MU
BJ/KJ-more than 40 units	0	0.00	29533	28.35
LT-2a	1691241	1183.74	1691241	1189.46
LT-2b	5092	11.98	5070	13.04
LT-3	271901	315.73	271817	317.25
LT-4 (b)	2921	2.32	2459	2.41

LT-4 (c)	538	1.41	520	1.66
LT-5	66211	167.88	66033	167.88
LT-6-WS	18573	243.51	18165	243.51
LT-6-PL	14641	239.24	13809	235.81
LT-7	27780	20.45	27780	20.45
HT-1	162	105.45	156	105.45
HT-2 (a)	1602	1096.09	1602	906.94
HT-2 (b)	405	79.69	398	79.36
HT2C	187	25.50	187	25.50
HT-3(a)& (b)	409	103.59	412	94.71
HT-4	30	13.47	30	13.07
HT-5	29	10.99	29	10.99
Sub-Total other than BJ/KJ and IP sets	2101722	3621.04	2129241	3455.84
BJ/KJ-upto 40 units	616117	130.85	586584	140.78
IP	371965	3419.93	371965	3384.48
Sub Total BJ/KJ and IP sets	988082	3550.78	958549	3525.26
Total	3089804	7171.82	3087790	6981.10

Therefore, the Commission approves 6981.10 MU as the sales for FY 19

5.2.3 Distribution Losses for FY19:

GESCOM's Submission:

The GESCOM has reported distribution losses of 17.33 per cent as against the approved upper limit loss level of 17.50 per cent, as per the audited accounts reported by it for FY17. The Commission, in its MYT Order dated 30th March, 2016, had fixed the target level of distribution losses for FY19 at 15.00 per cent. The GESCOM in its current Tariff application has proposed to achieve the loss levels of 16.50 per cent for FY19.

Commission's Analysis and Decisions:

The performance of the GESCOM in terms of achieving the loss targets approved by the Commission in the previous six years is as follows:

TABLE -5.6**Approved & Actual Distribution Losses-FY12 to FY17**

Particulars	Figures in % Losses					
	FY12	FY13	FY14	FY15	FY16	FY17
Approved Distribution losses	21.00	19.50	20.00	18.50	16.50	17.00
Actual distribution losses	21.71	18.97	17.77	18.93	18.10	17.33

The Commission notes that except in FY13 and FY14, the GESCOM has not achieved the target losses in FY12, FY15, FY16 and for FY17, set by the Commission. It is also noted that the GESCOM has been incurring substantial capital expenditure to improve the infrastructure. Therefore, the Commission is of the view that any investments for improving the existing distribution system should enable the GESCOM to reduce the distribution losses substantially, besides increasing the reliability and quality of supply of electricity to consumers.

The Commission, in its preliminary observations had stressed on the need for further reduction in the distribution loss levels for FY19, duly considering the previous and the present capex. However, the GESCOM has not furnished the reasons for projecting the higher distribution losses for FY18 and FY19. The higher loss levels projected by GESCOM for FY19 is not acceptable. In view of the above discussion and based on the achievement made by the GESCOM in reduction of distribution losses in the previous years besides considering the capex incurred so far along with the proposed capex for FY19, the Commission decides to re-fix the distribution loss target levels for FY19 as under.

TABLE 5.7**Approved Distribution Losses for FY19**

Particulars	Figures in % Losses	
	FY19	
Upper limit	15.50	
Average	15.00	
Lower limit	14.50	

The Commission directs the GESCOM to strive hard in achieving the distribution loss as approved by the Commission for FY19.

5.2.4 Power Purchase for FY19

a. GESCOM's Proposal;

In its application for revision of ARR for FY19, the GESCOM has proposed power purchases of 8891.35MU a cost of Rs.3665.63 Crores (including Transmission and System Operation charges). The GESCOM has made the following source-wise projections to meet the power purchase requirement for FY19:

Table: 5..8

Energy Projection & Power Purchase Cost of GESCOM -FY19				
	Source	Energy in Mus	Cost in Rs Crs	Cost per Unit in Rs
1	KPCL Hydel Energy	2143.94	164.65	0.76
2	KPCL Thermal Energy	1456.70	635.56	4.36
3	CGS Energy	2851.00	1110.94	0.39
4	IPP	1021.12	472.98	4.63
5	RE	1463.04	619.57	4.23
6	Other State Hydel	18.11	6.87	3.79
7	Total Medium Term &Short Term	268.05	119.25	4.44
8	Allocation to Other ESCOMs	-330.61	-120.90	3.65
9	KPTCL Transmission Charges		410.88	
10	SLDC Charges		3.30	
11	PGCIL Charges		242.21	
12	POSOCO charges		0.31	
13	Grand Total	8891.35	3665.63	

The above estimates are based on the following assumptions made by GESCOM:

1. GESCOM has proposed to purchase power from different sources viz., KPCL Hydel, KPCL Thermal, Central Generating Stations, IPPs, NCE projects and other through short term purchases to meet the deficit.

2. The Energy availability of Hydel and Thermal stations of State Owned Power plants are considered as per the projections made by KPCL.
3. The energy projected by KPCL in respect of hydro stations is based on inflows anticipated as per moving average of the past ten years reduced by 1% towards auxiliary consumption in terms of the PPA. Energy availability in respect of Thermal Stations is as per the targeted availability defined in the PPA/ Regulations, wherever applicable and reduced by the applicable auxiliary consumption of each station
4. Though the KPCL has projected the Energy from Yermarus Thermal Station units I & II, BTPS Unit III and Yelahanka Combined Cycle thermal station, GESCOM has not considered the energy from these stations since these plants were commissioned after 2016 and there was minimal energy generation from these stations.
5. The rates considered by the KPCL are based on the Commission's Order dated 03.08.2009 for hydel stations except for Shivasamudram, Shimsha, Munirabad & MGHE
6. In respect of thermal stations viz RTPS units 1 to 7 and BTPS unit-1, the rates worked out by the KPCL are based on various parameters defined in the tariff orders.
7. In respect of Central Generating stations of NTPC, Neyveli Lignite Corporation(NLC), Nuclear power stations and other Joint Venture Projects, the ESCOMs have a share. The allocation of capacity entitlement from these stations includes both firm and unallocated share. The unallocated share would vary depending upon the allocation made by the Ministry of Power, Gol.
8. The actual generation of NCE projects for the year 2016-17 has been considered for 2018-19, including the Solar, Co-generation, Bio-mass, Wind Mills and Mini Hydel projects.

b. Commission's analysis and decisions;**Energy Availability:**

The energy requirement of the ESCOMs is being met from the following sources:

- i. Karnataka Power Corporation Limited (KPCL),
- ii. Central Generating Stations (CGS);
- iii. Major Independent Power producers (Major IPPs);
- iv. Renewable Energy sources (Minor IPPs- NCE Sources);
- v. Medium and short-term purchase on need basis through competitive bidding.

The available quantum of energy from these sources has been projected by the PCKL based on the data furnished by KPCL, SRPC and SLDC. The month wise availability of electricity in terms of Mega Watts and Million Units for FY19 has also been furnished by the PCKL.

While the availability in respect of all the existing KPCL thermal units has been considered as per the projections, the energy availability from unit 3 of the BTPS thermal station and from 2x800 MW units of Yeramaras has been considered partly, since these units are yet to stabilize.

The Energy availability from 1x800 MW of Kudgi plant of NTPC is considered at a lower quantum due to high variable cost as compared with all the other thermal generation plants.

Power Purchase Rates:

The rates for the long term sources and the renewable sources are considered at the rates considered by the ESCOMs as per the PPAs executed with the individual generators. The power procurement from the short term sources at the rates discovered by PCKL through competitive bidding has been considered. For the medium term power procurement from Co-generation plants, the tariff as determined by the Commission for the period from FY17 to 21 has been considered.

While approving the cost of power purchase, the Commission has determined the quantum of power from various sources in accordance with the principles of merit order schedule and dispatch based on the ranking of all approved sources of supply according to the merit order of the variable cost.

The fixed charges and the variable charges for the Central Generating Stations, UPCL Stations and the DVC Stations have been considered based on the Tariff determined by the CERC as per the CERC norms.

In respect of new stations, only variable charge has been considered. The variable costs of State thermal stations and UPCL, are considered based on the recent power purchase bills passed by the BESCO.

The Commission is yet to approve the tariff and the Power Purchase agreements in respect of the new KPCL thermal stations/ units and hence the rates now allowed are only provisional and subject to determination of tariff and approval the PPAs.

Based on the energy sales and the approved transmission and distribution losses in the system, the consolidated power purchase requirement of the state is enclosed in Annexure-1.

Considering the ESCOMs' approved energy sales, the available energy from individual sources is assigned to each of the ESCOMs, as per the allocation made by the Government of Karnataka. Any variations in actual quantum of energy and its cost against the quantum allocated as per the Government Order will be reviewed at the time of Annual Performance Review for FY19.

Based on the allocation of available power from KPCL Hydro and Thermal stations, Central Generating Stations, Major IPPs, Minor IPPs, and Medium term sources for FY19, the approved Power Purchase quantum and cost of GESCOM for FY19 is as follows:

Table-5.9

GESCOM's Approved Power Purchase for FY19

Source of power	Allowed Energy in MUs	Cost of Energy Rs Cr	Cost per unit in Rs.
KPCL THERMAL	1018.78	439.01	4.31
CGS Energy	2476.93	931.81	3.76
IPPs	724.22	344.73	4.76
KPCL Hydel Stations	2498.04	215.26	0.86
Other Hydro	30.11	11.35	3.77
RE Sources	1064.55	511.66	4.80
NTPC Bundled power	405.32	134.52	3.32
Power purchase from Co-gen - Medium Term	132.85	64.09	4.82
Short term power purchase	123.53	50.40	4.08
PGCIL CHARGES		206.44	
KPTCL CHARGES		354.27	
SLDC		2.89	
POSOCO CHARGES		0.31	
TOTAL INCLUDING TRANSMISSION & LDC CHARGES	8474.33	3266.75	3.85

Thus the Commission approves 8474.33MU at cost of Rs3266.75 Crores towards purchase of GESCOM for FY19.

The breakup of source-wise availability and the cost thereon, is shown in Annexure-2 of this Order.

5.2.5 GESCOM RPO target for FY19:

The Commission has approved power purchase quantum of 6145.55 MU for FY19, net of hydro power. The Non-solar RPO target at 7% would be 430.19 MU. The Commission has approved purchase of 495.07 MU from non-solar RE sources, excluding captive RE sources. Thus, GESCOM would exceed the Non-solar RPO target by 64.88 MU in FY19.

The Commission has approved power purchase quantum of 6145.55 MU for FY19. The Solar RPO target at 6.00 % would be 368.73 MU. The Commission has

approved purchase of 689.17 MU of Solar energy. Thus, GESCOM would exceed the solar RPO by 320.44 MU in FY19.

5.2.6 O & M Expenses for FY19:

GESCOM's Proposal:

The GESCOM, in its application, has claimed the O&M expenses with base year as FY16 as per the audited accounts at Rs.831.65 Crores for FY19 which includes contribution to the P&G Trust, additional employee cost of Rs.38.75 Crores on account of recruitment of new employees.

Further, the GESCOM in its letter dated 3rd April, 2018 has submitted that the pay scale of the employees/officers of KPTCL/ESCOMs has been revised with effect from 1st April, 2017. Hence, the liability on account of the payment of pay revision arrears of Rs.36.96 Crores for FY 18 and the additional employee expenditure on pay revision of Rs.45.93 Crores for FY 19 may be included as additional employee cost in computation of O & M expenditure for FY 19. The Commission notes that the additional employee cost projected by the GESCOM for FY 18 and FY 19 on account of revision of pay scales is on ad-hoc basis without taking in to account the retirement of employee/officers during FY18 and FY19. Thus the Commission decides that the additional employee cost due to revision of pay scale during FY19 could be factored and considered only at the time of approving APR for FY19, when the actual impact of revision of pay scales is reported in detail by GESCOM as per its audited accounts.

GESCOM has projected the O&M expenses based on the actual expenses incurred in the past three years, by increasing with 2.5% in basic pay, 15% increase on account of revision of pay scales, 2-4% increase in terminal benefit and other allowances by 15% besides considering the increase in O&M expenses and A&G expenses for FY19.

Based on the above, the GESCOM has sought the O & M expenses for FY19 as detailed below:

TABLE – 5.10**Revised O&M Expenses for FY19- GESCOM's Proposal**

Sl. No.	Particulars	Rs. Crores
		Amount
1	Employee cost	684.61
2	Administrative and General expenses	102.40
3	Repairs and Maintenance expenses	44.64
	Total O & M Expenses	831.65

Commission's analysis & decision:

The Commission in its MYT Order dated 30th March, 2016, while deciding the ARR for each year of the control period FY17-19, had approved O&M expenses of Rs.531.07 Crores for FY19 based on the base year FY16 O&M expenses which was determined on the basis of actual O&M expenses inclusive of contribution to P&G trust as per the audited accounts of FY15 (being the latest available audited accounts), three years compounded annual growth rate (CAGR) of consumers of 4.44% and weighted inflation index of 7.24%. The approved O&M expenses for FY19 were as follows:

TABLE-5.11**Approved O&M Expenses for FY19 as per Tariff Order dated 30th March, 2016**

Particulars	FY16	FY17	FY18	FY19
No. Of Installations		2858887	2976522	3103473
CGI based on 3 Year CAGR		4.61%	4.69%	4.44%
Inflation index		7.24%	7.24%	7.24%
Base Year FY16 O&M Cost (as per actuals as per the audited accounts for FY15)	400.99			
Approved O&M Expenses		440.47	484.22	531.07

As per the norms specified under the MYT Regulations, the O & M expenses are controllable expenses and the GESCOM is required to incur these expenses within the approved limits.

The Commission notes that, the GESCOM has claimed additional O&M expenses of Rs.32.76 Crores and Rs.38.75 Crores for the proposed recruitment of employees during FY18 and FY19 respectively.

The Commission is of the view that additional employee cost due to recruitment and the revision of pay scale for FY19 could be factored only after being incurred by the distribution licensee in filing the APR application for the relevant years.

In view of the above discussion, the Commission has computed the O & M expenses for FY19 duly considering the actual O & M expenses of FY17 as per the audited accounts (being the latest data available as per the audited accounts) to arrive at the O & M expenses for the base year i.e. FY16. The actual O& M expense for FY16 is Rs.422.65 Crores inclusive of contribution to P&G Trust. 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, the allowable annual escalation rate for FY19 is 8.1059%.

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 as per the audited accounts inclusive of contribution to the Pension and Gratuity Trust to determine the O & M expenses for the base year FY16.
- b) The three year compounded annual growth rate (CAGR) of 3.88% of the number of installations considering the actual number of installations as per the audited accounts up to FY17 and as projected by the Commission for FY18 and FY19.
- c) The weighted inflation index (WII) at 8.1059%.
- d) Efficiency factor at 2% as considered in the MYT Order.

The above said parameters are computed duly considering the same methodology as being followed in the earlier Tariff Orders of the Commission and the relevant Orders issued by the Commission on Review Petitions. Accordingly, the normative O & M expenses for FY19 are as follows:

TABLE – 5.12

Approved O & M expenses for FY19

Particulars	FY16	FY17	FY18	FY19
No. Of Installations	2754376	2842454	2955908	3087790
CGI based on 3 Year CAGR		4.40%	4.45%	3.88%
Inflation index		8.1059%	8.1059%	8.1059%
Base Year O&M Cost (FY16 as per actuals) inclusive of P&G contribution	422.56			
O&M Index= O&M (t-1)*(1+WII+CGI-X)		400.25		
P&G Contributions		58.18		
Total allowable O&M Expenses		458.43	506.82	557.44

Since, the base year data includes the O & M expenses inclusive of contribution to the P & G Trust, the Commission has not considered allowing contribution to the P & G Trust separately.

Thus, the Commission decides to approve O&M expenses of Rs.557.44 Crores for FY19.

5.2.7 Depreciation:

GESCOM's Proposal:

The GESCOM, in its application has claimed the net depreciation of Rs.165.66 Crores for FY19 after deducting the depreciation of Rs.39.54 Crores on the assets created out of consumer contribution and grants as detailed below:

TABLE – 5.13

Depreciation-FY19- GESCOM's Submission

Particulars	Rs. Crores
Buildings	2.57
Civil	0.00
Other Civil	0.00
Plant & M/c	33.62
Line, Cable Network	167.56
Vehicles	0.63
Furniture	0.38
Office Equipment	0.44
Gross depreciation	205.20
Less: Deprecation on assets created out of grants and consumer contribution	39.54
Net depreciation	165.66

Commission's analysis and decision:

The Commission, in accordance with the provisions of the MYT Regulations and amendments issued thereon, 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 duly factoring the retirement of assets value for FY18 and 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 proposed by the GESCOM, at the weighted average rate of depreciation as per actuals in FY17.

Accordingly, the depreciation for FY19 is arrived at as follows:

TABLE – 5.14
Approved Depreciation for FY19

Rs. Crores	
Particulars	Amount
Buildings	2.57
Civil	0.00
Other Civil	0.14
Plant & M/c	34.76
Line, Cable Network	152.78
Vehicles	0.27
Furniture	0.30
Office Equipment	0.41
Gross Depreciation	191.44
Less: Deprecation on assets created out of grants and consumer contribution	36.22
Net Depreciation	155.22

Thus, the Commission decides to approve an amount of Rs.155.22 Crores towards depreciation for FY19.

5.2.8 Interest on Capital Loans:

GESCOM's proposal:

The GESCOM in its application has proposed revised capex of Rs.911.15 Crores for FY19 as against Rs.954.6 Crores proposed earlier in its MYT filing and by considering the amount of Government capital grants, consumer contribution and internal resources, the capital loan requirement is projected at Rs.256.33 Crores. Considering the existing loans, new loans and projected repayments, the GESCOM has claimed interest on capital loan of Rs.133.38 Crores at weighted average rate of interest of 9.14% for FY19.

The GESCOM has requested to approve interest on capital loan for FY19 as under:

TABLE – 5.15

Interest on Capital Loan– GESCOM's Submission

Particulars	Rs. Crores
	Amount
Opening balance of capital loans	1369.66
Add: new capital Loans	511.8
Less: Repayments	333.93
Total capital loan at the end of the year	1547.53
Average capital Loan	1458.60
Rate of Interest	9.14%
Total Interest on capital loans	133.38

Commission's analysis and decision:

The Commission in its Order dated 30th March, 2016 had reckoned capex of Rs.500.00 Crores as against the GESCOM proposed capex of Rs.954.00 Crores for FY19. The Commission notes that the GESCOM has revised the earlier capex proposal of Rs.954.00 Crores to Rs.911.14 Crores and has factored the same for computation of interest on capital loan and depreciation for FY19.

The Commission further notes that, the revised capex proposed by GESCOM includes State/ Central Government sponsored scheme works to a larger extent provided with grants. Considering this and the achievement made in

capex by GESCOM in the previous years, the Commission decides to factor Rs.640Crores at 70% of the proposed capex for computation of capital loan requirement and the interest on loan and depreciation for FY19.

As per the audited accounts and as per the APR of FY17, the GESCOM had incurred interest on capital loan at a weighted average rate of interest of 11.31% p.a. The Commission also noted the gradual reduction in the weighted average rate of interest on capital loans of GESCOM for FY14to FY17. Hence, the Commission has considered the actual weighted rate of interest of 13.31% for the existing loan balances and the new loans at 11.50%for which interest has to be factored during FY18. Further, for the year FY19, the weighted average rate of interest of the preceding year has been considered on the existing loan balances. The Commission has considered new loan, the special debt equity ratio of 70:30 as in the MYT Regulations.

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 the current economic conditions favorable for investments, it is observed that there is a downward trend in the MCLR and also interest rates of Commercial Banks /Financial institutions. Hence, in such a situation, the Commission is of the view that, the ESCOMs can avail Capital loans at competitive interest rates. The Commission notes that, the present SBI MCLR rate for capital loans with tenure of 3 years is 8.35%. Considering the present rate of interest on the new loan availed during FY17 and FY18 on the basis of MCLR, the Commission decides to allow an interest rate of 11.50% for FY19 for new Capital loans. It shall be noted that, the rate of interest now considered by the Commission on the new capital loans is subject to review during APR. Accordingly, the approved interest on loans for FY19 is as follows:

TABLE – 5.16**Approved Interest on Loans for FY19**

Particulars	Rs. Crores
	Amount
Opening Balance long term loans	1027.51
Add new Loans	320.00
Less: Repayments	130.10
Total loan at the end of the year	1217.41
Average Loan	1122.46
Weighted average rate of interest in %	11.36%
Interest on long term loans	127.53

Thus, the Commission decides to approve an interest of Rs.127.53 Crores on Capital loans for FY19.

5.2.9 Interest on Working Capital:**GESCOM's proposal:**

GESCOM in its applications has claimed interest on working capital of Rs.117.60 Crores for FY19, without furnishing the basis for computation.

Commission's analysis and decision:

The Commission in its MYT Order dated 30th March, 2016, while deciding the ARR for each year of the control period FY17-19, had approved Interest on working capital of Rs.92.49 Crores for FY19.

The Commission has been computing the interest on working capital as per the norms specified under the MYT Regulations and amendments thereon, which consists of one month's O & M expenses, 1% of opening GFA and two months' revenue. As discussed earlier, the interest regime is based on MCLR. The Commission notes that, as per the audited accounts of FY17 and for the previous years, the GESCOM has availed a small amount of working capital loans and incurred interest thereon as against the working capital loans and interest allowed as per the provision of the MYT Regulations by the Commission in the ARR.

The Commission further notes the present rate of interest on short term loans offered by the Commercial Banks/Financial Institutions as made out in pre paras. The present MCLR for loans with tenure of one year is 8.15%. Therefore, the Commission on the basis of present working capital loans availed by GESCOM decides to considered interest on working capital at 11.50% p.a. for FY19. Accordingly, the approved interest on working capital for FY19 is as follows:

TABLE – 5.17
Approved Interest on Working Capital for FY19

Particulars	Rs. Crores
	Amount
One-twelfth of the amount of O&M Expenses	46.45
Opening Gross Fixed Assets (GFA)	4021.62
Stores, materials and supplies 1% of Opening balance of GFA	40.22
One-sixth of the Revenue	749.61
Total Working Capital	836.28
Rate of Interest (% p.a.)	11.50%
Interest on Working Capital	96.17

Thus, the Commission hereby approves interest on working capital of Rs.96.17 Crores for FY19.

5.2.10 Interest on Consumer Security Deposit:

GESCOM's proposal:

The GESCOM in its application has claimed interest on consumer security deposit of Rs.33.35 Crores on the opening balance of consumer security deposit for FY19 based on Bank rate of 6.75 % for FY19.

Commission's analysis and decision:

In accordance with the KERC (Interest on Security Deposit) Regulations 2005, the interest rate on consumer security deposit to be allowed is the bank rate prevailing on the 1st of April of the financial year for which interest is due. As per the Reserve Bank of India Notification dated 2nd August, 2017, the applicable 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 the audited accounts of FY17 for onward projection for FY19. Also, the Commission is considering the average of the opening and closing balances of consumers' deposits of the relevant year. Accordingly, the interest on consumer deposits that could be approved for FY19 works out as follows:

TABLE – 5.18**Approved Interest on Consumer Security Deposits for FY19**

Particulars	Rs. Crores
	Amount
Opening balance of consumer security deposits	479.92
Addition of deposits during FY19	30.00
Closing balance of consumer security deposits	509.92
Average Consumer Security Deposits for FY18	494.92
Bank rate to be allowed as per Regulations	6.25%
Interest on Consumer Security Deposit	30.93

Thus, the Commission decides to approve interest on the consumer security deposits at Rs.30.93 Crores for FY19.

5.2.11 Interest and other expenses Capitalized:

The GESCOM has claimed an amount of Rs.4.28 Crores towards capitalization of interest and other expenses during FY19. Considering, the capital expenditure incurred and capitalized in the previous years, the Commission decides to allow capitalization of interest and other expenses of Rs.4.28 Crores as proposed by the GESCOM for FY19. The abstract of approved interest and finance charges for FY19 are as follows:

TABLE – 5.19**Approved Interest and finance charges for FY19**

Particulars	Rs. Crores
	Amount
Interest on Loan Capital	127.53
Interest on Working Capital	96.17
Interest on Consumers Security Deposit	30.93
Less Interest & other expenses capitalized	(4.28)
Total Interest & Finance Charges	250.36

5.2.12 Other Debits and Prior Period Debit (charges) / Credit (Income):

GESCOM, in its application has claimed an amount of Rs.109.29 Crores towards other debits and Rs.20 Crores towards net prior period debit / credit for FY19.

Commission's analysis and decision:

The Commission notes that, GESCOM has claimed expenditure of Rs.109.29 Crores towards Other Debits and Rs.20.00 Crores towards Prior period debit/credit for FY19. It is to be noted that, these items of expenditures/income cannot be estimated upfront and included in the proposed ARR for FY19. However, as per the provisions of the MYT Regulations, the Commission would consider the same based on the actual expenses incurred/ written off, as per the audited accounts while approving APR for FY19.

5.2.13 Return on Equity:**GESCOM's proposal:**

GESCOM in its application has claimed RoE of Rs.45.81 Crores for FY19 based on the Share Capital and accumulated balance of deficit under Reserves and surplus account as detailed below:

TABLE-5.20
Return on Equity- GESCOM Submission

Particulars	Rs. Crores
	Amount
Opening balance of share capital	1090.72
Reserves and Surplus	(854.31)
Total Equity	236.41
Return on Equity @ 19.377%	45.81

Commission's analysis and decision:

The Commission has considered the actual amount of share capital, share deposits and accumulated balance of surplus / deficit under reserves & surplus account as per the audited accounts for FY17 and also the additional

equity of Rs.191.50 Crores released by GoK in various notifications during FY18 for arriving at the allowable equity base for the control period FY19.

The Commission, in accordance with the provisions of the MYT Regulations and amendments there on, has considered Return on Equity of 15.5%, duly grossed up with the applicable Minimum Alternate Tax (MAT) of 21.342%. This works out to 19.706% per annum. Further, as per the decision of the Commission in the Review Petition No.6/2013 and Review Petition 5/2014 and the provisions of amended MYT Regulations, the Return on Equity shall be computed based on the opening balances of share capital, share deposits and accumulated surplus / deficit under reserve and surplus account. also, an amount of Rs.22.00 Crores of recapitalized consumer security deposit as net-worth, is considered as per the orders of the Hon'ble Appellate Tribunal for Electricity in Appeal No.46/2014.

Further, in compliance with the Orders of the Hon'ble ATE in Appeal No.46/2014, wherein it is directed to indicate the opening and closing balances of gross fixed assets along with break-up of equity and loan component in the Tariff Order henceforth, the details of projected GFA, debt and equity (net-worth) for FY19 are indicated as follows:

TABLE – 5.21
Status of Debt Equity Ratio for FY19

Rs. Crores								
Year	Particulars	GFA	Debt	Equity (Net-worth)	Normative Debt @ 70% of GFA	Normative Equity @ 30% of GFA	%age of actual debt on GFA	%age of actual equity on GFA
FY19	Opening Balance	3252.46	1027.51	291.79	2276.72	975.74	31.59%	8.97%
	Closing Balance	3612.50	1217.41	333.50	2528.75	1083.75	33.70%	9.23%

From the above table it is seen that the amounts of debt and equity are within the normative levels with reference to the estimated closing balances of GFA for FY19. Further, the Commission would review the same during the Annual Performance Review, for FY19, based on the actual data, as per the

audited accounts. Accordingly, the Return on Equity that could be approved for FY19, works out as follows:

TABLE – 5.22
Approved Return on Equity for FY19

Particulars	Rs. Crores
	Amount
Opening Balance of Paid Up Share Capital	776.77
Share Deposit	385.45
Reserves and Surplus	(851.95)
Less Recapitalised Security Deposit	(22.00)
Total Equity	288.27
Approved Return on Equity with MAT	56.80

Thus, the Commission decides to approve a Return on Equity of Rs.56.80 Crores, for FY19.

5.2.14 Other Income:

GESCOM's proposal:

GESCOM in its application has claimed an amount of Rs.45.04 Crores as other income for the FY19.

Commission's analysis and decision:

The Commission notes that, the other income received by the GESCOM mainly includes rebate from collection of electricity duty, income from miscellaneous recoveries, interest from bank deposits, rent from staff quarters and profit on sale of scrap besides incentives for timely payment of power purchase bills. The actual 'other income' as per the audited accounts for FY17 is Rs.85.19 Crores.

Considering the other income earned by the GESCOM in the past three years, **the Commission decides to approve other income of Rs.45.04 Crores for FY19.**

5.2.15 Fund towards Consumer Relations / Consumer Education:

The Commission has been allowing an amount of Rs.0.50 Crore per year towards consumer relations / consumer education. This amount is earmarked to conduct consumer awareness and grievance redressal meetings periodically and institutionalize a mechanism for addressing common problems of the consumers. The Commission has already issued guidelines for consumer education and grievance redressal activities.

The Commission decides to continue providing an amount of Rs.0.50 Crore for FY19, towards meeting the expenditure on consumer relations / consumer education.

The Commission directs GESCOM to furnish a detailed plan of action for utilization of this amount within a month of this Order and also maintain a separate account of these funds and furnish the details of actual expenditure made during the year at the time of filing of APR application.

5.3 Abstract of revised ARR for FY19:

In the light of the above analysis and decisions of the Commission, the following is the approved revised ARR for the control period FY19:

TABLE – 5.23
Approved Revised ARR for FY19

Sl. No.	Particulars	Rs. Crores		
		As Appd 30.03.2016	As Filed 30.11.2017	Approved Revised ARR
1	Energy at Gen Bus	9485.77	8891.27	8474.32
2	Transmission Losses in %	3.37%	3.40%	3.08%
3	Energy at Interface in MU	9175.59	8588.97	8213.06
4	Distribution Losses in %	16.00%	16.50%	15.00%
5	Sales in MU			
	Sales to other than IP-sets & BJ/KJ installations	3952.63	3621.01	3455.84
	Sales to BJ/KJ installation	121.61	130.85	140.78
	Sales to IP-sets	3725.01	3419.93	3384.48
	Total Sales	7799.25	7171.79	6981.10
6	Revenue at existing tariff in Rs. Crores			

	Revenue from tariff and Misc. Charges		2602.31	2544.25
	Tariff Subsidy to BJ/KJ installations		82.31	88.55
	Tariff Subsidy to IP-sets		1884.38	1864.85
	Total Existing Revenue	0.00	4569.00	4497.65
	Expenditure in Rs. Crores			
7	Power Purchase Cost	3431.06	3251.45	2909.59
	Transmission charges of KPTCL	410.88	410.88	354.27
	SLDC	3.30	3.30	2.89
	Power Purchase Cost including cost of transmission	3845.24	3665.63	3266.75
8	Employee Cost		684.61	
	Repairs & Maintenance		44.64	
	Admin & General Expenses		102.4	
	Total O&M Expenses	531.07	831.65	557.44
9	Depreciation	159.22	165.66	155.22
10	Interest & Finance charges			
11	Interest on Capital Loans	169.78	133.38	127.53
12	Interest on Working capital loans	92.49	117.60	96.17
13	Interest on belated payment on PP Cost	0	0	0
14	Interest on consumer security deposits	41.07	33.35	30.93
15	Other Interest & Finance charges	0	0	0
16	Less interest & other expenses capitalised	4.28	4.28	4.28
	Total Interest & Finance charges	299.06	280.05	250.36
17	Other Debits	0	109.29	0
18	Net Prior Period Debit/Credit	0	20	0
19	Return on Equity	71.14	45.81	56.80
20	Funds towards Consumer Relations/Consumer Education	0.50	0	0.50
21	Other Income	50.00	45.04	45.04
	ARR	4856.22	5073.05	4242.02
22	Surplus /deficit of FY19		-504.05	255.63
23	Deficit for FY17 carried forward		-655.98	-465.06
	Net ARR	4856.22	5729.03	4707.08

Thus the Commission approves an ARR of Rs. 4707.08 Crores for FY19 which includes deficit for FY17.

5.4 Segregation of ARR into ARR for Distribution Business and ARR for Retail Supply Business:

GESCOM in its application has proposed the segregation of ARR into ARR for Distribution Business and ARR for Retail Supply Business as approved by the Commission in its Tariff Order dated 30th March, 2016. The Commission decides to continue with the same ratio of segregation of ARR as detailed below:

TABLE – 5.24
Approved Segregation of ARR – FY19

Particulars	Distribution Business	Retail Supply Business
O&M Expenses	70%	30%
Depreciation	84%	16%
Interest on Loans	100%	0%
Interest on Consumer Deposits	0%	100%
RoE	84%	16%
GFA	84%	16%
Non-Tariff Income	0%	100%

Accordingly, the following is the approved ARR for Distribution Business and Retail supply business:

TABLE – 5.25
APPROVED REVISED ARR FOR DISTRIBUTION BUSINESS – FY19

Rs. Crores		
Sl. No	Particulars	Amount
1	R&M Expenses	390.21
2	Employee Expenses	
3	A&G Expenses	
4	Depreciation	130.38
5	Interest & Finance Charges	
6	Interest on Capital Loans	127.53
7	Interest on Working capital loans	7.62
8	Less interest & other expenses capitalised	4.28
9	Total	651.47
10	ROE	47.71
11	NET ARR	699.18

TABLE – 5.26**APPROVED ARR FOR RETAIL SUPPLY BUSINESS – FY19**

Rs. Crores

Sl. No	Particulars	Amount
1	Power Purchase	2909.59
2	Transmission Charges	357.16
3	R&M Expenses	167.23
4	Employee Expenses	
5	A&G Expenses	
6	Depreciation	24.84
	Interest & Finance Charges	
7	Interest on Capital Loans	0
8	Interest on Working capital loans	88.53
9	Interest on consumer security deposits	30.93
	Total	3578.28
11	ROE	9.09
12	Other Income	45.04
13	Fund towards Consumer Relations / Consumer Education	0.5
14	NET ARR	3542.82

5.5 Gap in Revenue for FY19:

As discussed above, the Commission decides to approve the revised Annual Revenue Requirement (ARR) of GESCOM for its operations in FY19 at Rs.4707.08 Crores as against GESCOM's application proposing the revised ARR of Rs.5729.03 Crores which included a revenue deficit of Rs.655.98 Crores for FY17. This approved revised ARR of Rs.4707.08 Crores includes an amount of Rs.465.06 Crores which is determined as the deficit in FY17 as discussed in Chapter-4. Based on the existing retail supply tariff, the total realization of revenue will be Rs.4497.65 Crores which is Rs.209.43 Crores less than the projected revenue requirement for FY19.

The net ARR and the gap in revenue for FY19 are shown in the following table:

TABLE – 5.27
Revenue Gap for FY19

Particulars	FY 19
Net ARR including carry forward gap of FY17 (in Rs. Crores)	4707.08
Approved sales (in MU)	6981.10
Average cost of supply (in Rs./unit)	6.74
Revenue at existing tariff (in Rs. Crores)	4497.65
Gap in revenue (in Rs. Crores)	(209.43)

The determination of revised retail supply tariff on the basis of the above approved ARR is detailed in the following Chapter.