CHAPTER – 5

REVISED ANNUAL REVENUE REQUIREMENT FOR FY18

5.0 Revised Annual Revenue Requirement (ARR) for FY18:

GESCOM's Application:

The GESCOM in its application dated 30th November, 2016, has sought approval of the Commission for the revised ARR for FY18. The summary of the proposed revised ARR for FY18 is as follows:

TABLE – 5.1

Revised ARR for FY18-GESCOM's Submission

Amount in Rs. Crores

Sl.No.	Particulars	FY18
1	Energy at Gen Bus in MU	9059.54
2	Transmission Losses in %	3.37%
3	Energy at Interface in MU	8754.23
4	Distribution Losses in %	17.00%
	Sales in MU	
5	Sales to other than IP & BJ/KJ	3668.98
6	Sales to BJ/KJ	145.15
7	Sales to IP sets	3451.88
	Total Sales	**7266.01**
	Revenue at existing tariff in Rs Crs	
8	Revenue from tariff and Misc. Charges	2450.45
9	Tariff Subsidy from BJ/KJ	83.75
10	Tariff Subsidy from IP sets	1736.30
	Total Existing Revenue	**4270.50**
	Expenditure in Rs Crs	
11	Power Purchase Cost	3078.60
12	Transmission charges of KPTCL	388.58
13	SLDC Charges	3.16
	Power Purchase Cost including cost of transmission	**3470.34**
14	Employee Cost	499.47
15	Repairs & Maintenance	47.48
16	Admin & General Expenses	102.35
	Total O&M Expenses	**649.30**
17	Depreciation	164.94
	Interest & Finance charges	
18	Interest on Capital Loans	152.10
19	Interest on Working capital loans	108.14
20	Interest on belated payment on PP Cost	216.86
21	Interest on consumer security deposits	37.75

22	Other Interest & Finance charges	0.00
23	Less interest & other expenses capitalised	4.49
	Total Interest & Finance charges	**510.36**
24	Other Debits	37.66
25	Net Prior Period Debit/ Credit	20.00
26	Return on Equity	146.29
27	Funds towards Consumer Relations/Consumer Education	0.00
28	Provision for contribution to P&G Trust (GoK Liability)	262.49
29	Other Income	48.99
	ARR	**5212.39**
30	Surplus/ Deficit for FY16 carried forward	(133.44)
	Net ARR	**5345.83**

The GESCOM has requested the Commission to approve the revised Annual Revenue Requirement of Rs.5345.83 Crores for FY18. Considering the estimated revenue of Rs. 4270.50 Crores based on the existing retail supply tariff, GESCOM has projected a revenue gap of Rs. 1075.33 Crores for FY18 inclusive of the carried forward gap of revenue of Rs. 133.44 Crores of FY16. In order to bridge this gap in revenue, GESCOM, in its application has proposed anincrease in retail supply tariff by 148 paise per unit in respect of all the categories of consumers including BJ/KJ and IP set consumers for FY18.

5.1 Annual Performance Review for FY16:

As discussed in the preceding chapter of this Order, the Commission has carried out the Annual Performance Review for FY16 based on the audited accounts furnished by GESCOM. Accordingly, a deficit of Rs.490.97 Crores of FY16 is carried forward in to the ARR of FY18.

5.2 Revised Annual Revenue Requirement for FY18:

The item-wise expenditure proposed by the GESCOM and approved by the Commission for FY18 is discussed in this Chapter as follows:

5.2.1 Capital Investments for FY18:

GESCOM's Submission:

The GESCOM has indicated a capex of Rs.698 Crores for FY18 as against the approved capex of Rs.834 Crores for FY18 as per the MYT Order. The category -wise details of the capex submitted by GESCOM for FY18 is as shown below:

Table -5.2
Details of capex proposal of GESCOM for FY18 are as below

Amount in Rs. Crores

Sl. NO.	Categories of works	Approved Capex as per MYT for FY18	Revised Capes for of FY18
1	33kV Sub-station, 33kV line works & Augmentation of 33kV S/S's	10	10
2	RGGVY works REC	40	40
3	RAPDRP works		
	Part-A	3	3
	Part-B	20	20
	IPDS	100	100
4	**Reconductoring works:**		
	a) 33kV lines	2	2
	b) 11kV lines	4	4
	c) L.T Lines		4
5	DTC metering works (RAPDRP area)	20	2
6	Water supply works	3	3
7	Additional DTC's works:		
	a) New DTC's	4	4
	b) Enhancement of DTC's	2	2
8	Replacement failed 11 KV transformers	10	10
9	Replacement of Power transformers	1	1
10	Replacement of MNR meters	3	3
11	Providing ETV meters	0.5	0.5
12	Providing HT metering Cubicles for ring fencing	0.5	0.5
13	**Service Connection works**		
	a) General works	10	10

	b) IP set works	1	1
14	SI works (33KV link line /Express feeders)	1	1
	SI works (11KV Link line /Express feeders,)	10	10
15	a) Nirantara Jyoti works	80	80
	b) Deen Dayal Upadhay Gram Jyothi Yojane	138	138
16	a) Major Replacements in S/S's & lines	0.5	0.5
	b) Replacement of Age old Equipment in existing S/S & lines	4	4
17	Civil Engineering works	6	6
18	IT initiatives	2	2
19	HVDS Works	60	60
20	Providing ABC , UG Cables & RMUs	225	100
21	SCADA works	0.5	0.5
22	**SCP & TSP works:**		
	a) Energisation 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	20
24	T & P Articles	0.5	0.5
25	Replacing of Electro Magnetic meters by Static Meters	1	2
26	Metering of IP/St. Lights/BJ&KJ sets	1	1
27	Providing Infrastructure to Regularisation of Unauthorized IP sets	35	35
28	**R.E General works:**		
	a) Kutir Jyoti	8	8
29	Prevention of electrical accident & safety	3	3
30	Electrification of Rehabilitation villages	3	3
32	Feeder Metering	0	2
Total		**834**	**698**

Commission's analysis and decision:

The GESCOM, in its MYT application had proposed a capex of Rs.834 Crores. It was stated that though the GESCOM had planned a capex of Rs.1618 Crores for FY18, it was likely to achieve Rs.834. Taking into consideration the past capex performance of GESCOM and its own statement on capex achievements envisaged for FY18 at Rs.834 Crores, the Commission, at the time of passing the MYT order, had recognized the capex of Rs.834 Crores for FY18. Now, the GESCOM has proposed a capex of Rs.698 Crores (actual total of the categories though indicated in the table by GESCOM in its application for capex of FY18 as Rs.694 Crores works out to Rs.698 Crores) which is less than Rs.834 Crores, already approved in the MYT order. The Commission had sought to know the reason for reducing the capex further down from the approved figures. The GESCOM in its replies to the preliminary observations has stated that, it has reduced the capex in respect of DTC metering works and providing ABC, UG cables and RMUs works for FY18, due to which the overall capex is reduced to Rs.698 Crores.

In respect of the scheme for providing ABC, UG Cables & RMUs, the GESCOM has proposed a capex of Rs.100 Crores. But, the GESCOM has not furnished the present status such as planning of the works, preparation of DPRs, tendering process etc., to implement the scheme during FY18. The GESCOM should note that, while proposing any capital expenditure it should subject such proposal to rigorous planning to ensure that the likely benefits the project is going to accrue are evaluated properly before taking up any scheme and ensure its execution in a time bound and phased manner.

In respect of Prevention of electrical accident & safety, the GESCOM has proposed a capex of Rs.3 Crores only for FY18, whereas the it has incurred a huge expenditure of Rs.60.96 is FY16, indicating that the approved limits are not kept in mind while incurring the actual expenditure. The GESCOM should judiciously spread its capex year on year, on the schemes it proposes to take up and wherever the amounts to be incurred exceed the approved amounts, it should obtain prior approval of the Commission.

Though the GESCOM has proposed a revised capex for FY18, it has not indicated as to whether it has followed the "**Capital Expenditure Guidelines for ESCOMs"** issued by the Commission. If so, the GESCOM needs to project its capex commensurate with:

a) The network strengthening and expansion requirement,
b) Improvement of power supply reliability.
c) The target date for each of the project.
d) Loss reduction trajectory.

Further, the GESCOM should mandatorily follow the **"Capital Expenditure Guidelines for ESCOMs"** in which the capital investment planning process, prioritization and post-commissioning analysis to be adopted by the ESCOMs are elaborated. Further, the Commission has been directing the ESCOMs to conduct energy audit by listing out high loss making 11kV feeders and take up strengthening works to reduce losses. Prioritizing of such projects to be taken up for execution are to be based on payback period and benefit to cost ratio the GESCOM should also move in this direction and list the high loss making feeders based on the input energy to each of the feeders and sale of energy in that feeder. The GESCOM should mandatorily adhere to the guidelines and plan its capex carefully to reap the benefits.

With the above observations, the Commission decides to consider the proposed capex of Rs.698 Crores for FY18, **subject to prudence check** and directs that, the **GESCOM should meet any additional capex required during FY18, only through re-appropriation of approved amounts within the overall capex and should not to seek the approval of the Commission in the middle of the year for additional/higher capex.**

5.2.2 Sales Forecast for FY18:

I. Sales other than IP sets/BJ KJ:

GESCOM, in its filing has stated that the energy sales for the FY18 has been estimated on the basis of actual consumption available for FY15 to FY16 for metered categories and for LT4(a) on the basis of sample studies and for BJ/KJ installations based on 17 units per installation per month.

1. The observations of the Commission on sales forecast for FY18 and the replies of GESCOM are discussed below:

i. The Commission had observed that, the GESCOM had considered only one-year data for estimating the sales, which does not capture the trend in the category-wise sales. The Commission further observed that, while forecasting for the future period, a minimum period of three to five years past data need to be considered. The GESCOM had also not indicated the category-wise working details of estimates made for the number of installations and the sales along with their growth rates. Therefore, GESCOM was directed to furnish the same. Further, the Commission had also furnished data pertaining to the CAGR for the period 2010-11 to 2015-16 and 2012-13 to 2015-16 towards number of installations and sales, for reference of the GESCOM.

The GESCOM in its replies has furnished the category-wise growth rates considered for estimating the number of installations and sales. Further in its replies to the Rejoinder, the GESCOM has stated that the growth rates considered by them are more or less similar to the CAGR furnished by the Commission.

The Commission notes that the GESCOM has not furnished a satisfactory reply in the matter, as GESCOM did not furnish justifiable reasons for considering only one-year growth rate.

ii. The Commission had observed that growth rate considered for the number of installations for LT-6, HT-1, HT-3 and HT-4 categories is higher as compared to the normal growth rates and that the GESCOM may reconsider revising its estimates for these categories. The GESCOM has stated that growth rates considered by it are more or less similar to CAGR furnished by the Commission. The Commission notes that GESCOM has not furnished justifiable reasons.

iii. The Commission had observed that while the sales growth rate considered for LT-5, HT-2a, HT-3 and HT-4 categories is higher, it is lower for LT2a, LT2b and LT-3 categories compared to the normal growth rates indicated above. That GESCOM may reconsider revising its estimates for these categories.

The GESCOM has stated that growth rates considered by it are more or less similar to CAGR furnished by the Commission. The Commission notes that the GESCOM has not furnished justifiable reasons.

iv. To validate the sales, the Commission had requested the GESCOM to furnish category-wise information in the prescribed format both for number of installations and energy sales. The GESCOM has furnished the required details.

2. Commission's approach for estimating the number of installations and sales for FY18:

The methodology adopted by the Commission to estimate the number of installations and sales to categories other than BJ/KJ 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 FY17 is modified duly validating the revised estimate furnished by the GESCOM in the current filing and the data available as on 30.11.2016. The Commission has validated both the number of installations and sales to various categories considering the actuals as on 30.11.2016 and has estimated the number of installations and sales for the remaining period reasonably, keeping in view the number of installations and also sales as on 31.03.2016. Accordingly, the base year estimation has been revised which has an impact on the estimates on the number of installations and sales for the year FY18.

b. Wherever the number of installations estimated by the GESCOM for the FY18 is within the range of the estimates based on the CAGR for the period FY11 – FY16 and for the period FY13 - FY16, the estimates of the GESCOM are retained.

c. Wherever the number of installations estimated by the GESCOM for the FY18 is lower than the estimates based on the CAGRs for the period FY11 – FY16 and for the period FY13 - FY16, the estimates based on the lower of the CAGRs are considered.

d. Wherever the number of installations estimated by the GESCOM for FY18 is higher than the estimates based on the CAGRs for the period FY11 – FY16 and for the period FY13 - FY16, the estimates based on the higher of the CAGRs are considered.

e. For LT 4(b), 4(c), LT-6 WS, 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 and IP) estimated by the Commission for FY 18 is 2011919 as against 2015492 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 FY17 as estimated by GESCOM are validated duly considering the actual sales upto November, 2016 and modified suitably as stated earlier.

b. Wherever the sales estimated by GESCOM for the FY18 is within the range of the estimates based on the CAGR for the period FY11 – FY16 and for the period FY13 - FY16, the estimates of GESCOM are retained.

c. Wherever the sales estimated by GESCOM for the FY18 is lower than the estimates based on the CAGRs for the period FY11 – FY16 and for the period FY13- FY16, the estimates based on the lower of the CAGRs are considered.

d. Wherever sales estimated by GESCOM for the FY18 is higher than the estimates based on the CAGRs for the period FY11 – FY16 and for the period FY13 - FY16, the estimates based on the higher of the CAGRs are considered.

e. For LT4(b), LT 4(c), 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 HT2(a) category, the sales estimate based on the methodology specified at paras b, c and d above is not reasonable and therefore, the sales estimate based on the analysis of open access impact is considered for FY18.

Based on the above approach, the sales (excluding BJ/KJ and IP) estimated by the Commission for FY 18 is 3608.26 MU, as against 3668.99 MU proposed by GESCOM.

3. Sales to BJ/KJ and IP sets:

The electricity consumption to this category upto 18 units per installation per month hitherto was being subsidized by the Government of Karnataka and any installation under this category consuming more than 18 units per month was billed under relevant LT 2(a) category. However, the Government of Karnataka in its Budget for 2017-18 has announced that it would extend the subsidy to BJ/KJ installations consuming upto 40 units per installation per month. Therefore, the Commission has reckoned the above and has worked out the subsidy accordingly.

Considering the specific consumption and the number of installations, for FY16, for installations consuming upto 18 units and above 18 units as per the actual data furnished by GESCOM, the total sales estimated for this category for FY18 works out to 128.44 MU. Considering the total number of BJ/KJ installations of 618687 for FY18 as proposed by GESCOM, the specific consumption works out to 17.30 units per installation per month which is less than 40 units per installation per month announced by the Government for the purpose of subsidy.

Thus, the entire consumption of 128.44 MU is considered for the purpose of estimating the subsidy for this category. However, the GESCOM while claiming the subsidy shall consider only such installations which consume upto 40 units per installation per month and any installation under this category consuming more than 40 units shall be billed under the relevant LT 2(a) category.

II. IP set sales projections:

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 the control period FY17 to FY19. The IP-set sales reported as per the format D2 of its Tariff filing by the GESCOM was 3,224.55 MU, as against the approved sales quantity of 3,139.37 MU, for FY16. However, the GESCOM in its subsequent communication dated 30th January, 2017, to the Commission, has submitted the revised sales of IP-sets, based on the meter readings of segregated agricultural feeders as 3,167.91 MU for FY16 instead of 3,224.55 MU as claimed in the format D2 of its Tariff filing. However, on verification of the month-wise IP-set consumption based on the segregated agricultural feeders' meter readings reported by the GESCOM, it is found that the overall IP-set consumption is 3,167.01 MU and not 3,167.91 MU as reported subsequently. The Commission observes that this indicates a decrease in sales to an extent of 57.54 MU between the IP-set consumption reported in its Tariff filing and its subsequent reporting to the Commission. Also, it is noted that the GESCOM has already segregated significant number of feeders under NJY as exclusive agricultural feeders and rural feeders, which means that regulated power supply to IP-sets should have contributed to substantial reduction in the agricultural consumption during the FY16. However, in reality there is not much reduction in the IP-set consumption mentioned above.

Further, it is noted that during FY15, the GESCOM's specific consumption of IP sets was 9,503 units/installation/annum and the specific consumption worked out on the basis of the revised consumption of 3,167.01 MU for FY16 as reported by the GESCOM is 9,951 units/installation/annum. However, the specific consumption of 9,951 units / installation /annum based on the revised consumption of 3,167.01 MU for FY16, is rather high perhaps due to presence of number of dried-up/defunct/not-in-use installations, that are yet to be identified in the field and deleted from its account by the GESCOM. Therefore, till the GPS survey is completed to identify such installations, it is proper to consider the specific consumption of 9,743 units/installation/annum for projections of FY18 as proposed by the GESCOM. In view of this, the Commission decides to approve the specific consumption of 9,743 units / installation / annum for the ARR of FY18.

Further, it is noted that the GESCOM has estimated the number of IP-set installations as 3,62,821 for the FY18 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 FY18 without any modifications. Hence, based on the estimated number of installations for the FY17 and the FY18 as reported 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 Energy of IP sets Installations

Particulars	As filed by the GESCOM		As approved by the Commission
	FY17	FY18	FY18
No of installations	3,45,792	3,62,821	3,62,821
Mid-Year no. of installations		3,54,307	3,54,307
Specific consumption in units/installation/annum		9,743	9,743
Sales in MU		**3,451.88**	**3,451.88**

Accordingly, the Commission approves 3,451.88 MU as energy sales to IP-sets as proposed by the GESCOM for the FY18. The number of installations approved for FY18 is 3,62,821. This approved IP-set consumption for FY18 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-sets of 10 HP and below shall be proportionately regulated.

During the course of Public hearing held by the Commission, the representatives of certain Farmers' Association have suggested that the Government may consider paying the subsidy directly to the farmers against their IP Set consumption. They have also expressed that meters could be installed to their IP Sets, by the ESCOMs to whom energy charges would be paid by the farmers.

The Commission is of the view that implementing the suggestion of direct remittance of subsidy to the farmers would encourage metering of the IP Sets enabling proper accounting of energy and also facilitate accurate computation of losses in the distribution system. The Commission notes that the Government of Karnataka would have to formulate suitable policy in the matter.

Further, as discussed above, the GESCOM was directed to take up GPS survey of IP-sets in order to identify the defunct/dried up/not-in-use installations in the field and to take further necessary action to arrive at correct number of IP-sets by deducting such IP-sets from its account, on the basis of GPS survey report. The GESCOM has reported that it has completed GPS survey of one feeder covering 405 IP-sets in its Bidar division and has identified seven as not-in-use installations and two as unauthorized installations. It has sought time upto May 2017 to complete the survey of remaining IP-set installations, to enable it to arrive at correct number of dried up/defunct/not-in-use wells, and to take further action to deduct such IP-set installations from its accounts.

The GESCOM is directed to complete the GPS survey of IP-sets within the targeted time as agreed by it and compliance thereon shall be submitted to the Commission. In view of the pendency of GPS survey of IP-sets, the number of installations estimated for FY17 as well as for FY18 are subject to change based on the GPS survey. 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/not-in-use wells based on the GPS survey results. Therefore, Accordingly, any variation in sales due to change in number of installations would be trued up during the Annual Performance Review, for the FY18.

Further, it is noted that the GESCOM has already segregated 223 agriculture feeders from rural loads under NJY Phase1 & 2 and implementation of balance feeders' works 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, 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	No. of Segregated Agricultural Feeders in the subdivision	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 agricultural feeders only to be considered)	Net consumption duly deducting the Distribution loss (11kV line, DTCs &LT line) & any other loads if any	No. of IP sets (total-dried up) connected to the agricultural feeders in the subdivision			Average consumption of IP sets/ month (specific cons in units /IP/month)	Total no of IP sets(total-dried up) in the subdivision (as per DCB)			Total sales of IP sets in MU
						Beginning of the Month	Serviced during Month	Mid-Month		Beginning of the Month	Serviced during Month	Mid-Month	
1	2	3	4	5	6=(4-5)	7 a	7 b	7c = (7a+7b)/2	8=6/7c	9 a	9 b	9c = (9a+9b)/2	10= 8*9c
April to March	Subdivision-1 Subdivision-2 Subdivision....												

Note:

(1) If the agricultural 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 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.

Based on the above discussions, the category- wise approved number of installations and sales for the year FY 18 vis-à-vis the estimates made by GESCOM are indicated as follows:

TABLE-5.5

GESCOM's Approved Energy for FY18

Category	GESCOM's estimate		Approved by the Commission	
	Installations	Sales	Installations	Sales
	No.	MU	No.	MU
LT-2a	1622293	1191.35	1618948	1205.26
LT-2b	4510	11.15	4512	11.54
LT-3	255312	321.25	255348	321.72
LT-4 (b)	3304	3.61	3304	3.61
LT-4 (c)	548	1.51	548	1.51
LT-5	62099	170.38	62376	168.67
LT-6-WS	17181	221.47	17181	227.63
LT-6-PL	14476	245.39	13938	245.39
LT-7	33155	21.12	33155	21.12
HT-1	160	93.37	148	93.86
HT-2 (a)	1502	1183.31	1502	1106.17
HT-2 (b)	392	83.21	392	83.31
HT2C	138	16.06	138	16.06
HT-3(a)& (b)	356	87.11	366	83.82
HT-4	34	13.27	32	13.16
HT-5	32	5.43	32	5.43
Sub-total other than BJ/KJ and IP sets	**2015492**	**3668.98**	**2011919**	**3608.26**
BJ/KJ	618687	145.15	618687	128.44
IP Sets	362821	3451.88	362821	3451.88
Sub-total BJ/KJ and IP sets	**981508**	**3597.03**	**981508**	**3580.32**
Total	**2997000**	**7266.02**	**2993427**	**7188.58**

Thus, the Commission approves 7188.58 MU as sales for FY18.

5.2.3 Distribution Losses for FY18:

GESCOM's Submission:

As per the audited accounts for FY16, the GESCOM has reported distribution losses of 18.10% as against an approved loss level of 16.50%. However, as discussed in the previous chapter of this Order, based on the revised consumption of IP Sets, furnished by the GESCOM in its replies to the preliminary observations of the Commission on the filing, the distribution losses for FY16 is 18.71%. The Commission in its Tariff Order dated 30th March, 2016 had fixed the target level of distribution losses for FY18 at 16.00%. GESCOM in its application has proposed to achieve the loss levels of 17.00% for FY18.

Commission's Analysis and Decisions:

The performance of GESCOM in achieving the loss targets set by the Commission in the past six years is as follows:

TABLE – 5.6

Approved & Actual Distribution Losses-FY11 to FY16

Figures in % Losses

Particulars	FY11	FY12	FY13	FY14	FY15	FY16
Approved Distribution losses	23.00	21.00	19.50	20.00	18.50	16.50
Actual distribution losses	22.03	21.71	18.97	17.77	18.93	18.10

****Actual losses for FY16 are reported as 18.10%. As per APR the losses for FY16 is 18.71% after validation of sales.***

The Commission has allowed the capex as proposed by GESCOM and substantial capital expenditure is consistently being incurred by the GESCOM. Investments in improvements of the existing distribution system should enable the GESCOM to reduce the distribution losses besides increasing the reliability and quality of power supply to end consumers.

The Commission, in its preliminary observations had stressed on the need of further reduction in the distribution loss levels proposed by the GESCOM, for

FY18, duly considering the past and the present capex. However, the GESCOM has not proposed any changes to its proposed loss levels.

Based on the achievement made by the GESCOM in reduction of losses in the previous years besides considering the capex incurred so far along with the proposed capex for FY18, the Commission decides to retain the distribution loss targets levels as approved in the Tariff Order dated 30th March, 2016 for FY18.

TABLE – 5.7
Approved Distribution Losses for FY18

Figures in % Losses

Particulars	FY18
Upper limit	16.50
Average	**16.00**
Lower limit	15.50

5.2.4 Power Purchase for FY18

GESCOM's Submission:

The GESCOM has submitted the power purchase requirement along with its cost including the transmission charges and SLDC charges, in D-1 Format. The GESCOM has sought approval of the Commission for purchase of power to an extent of 9059.54 MU at Cost of Rs 3470.34 Crores for the FY18, which includes transmission charges and SLDC charges

The cost of power purchase has been considered by the GESCOM as per the norms defined in the contracts (PPAs)/Regulations and based on the Tariff indicated by the KPCL, for its Stations. In respect of Central Generating Stations, DVC Stations and UPCL Stations, the cost is considered as per the tariff determined by the CERC.

Table-5.8

Power Purchase Cost as filed by GESCOM for FY18

Source of Power	Power Purchase Cost as filed by GESCOM		
	Energy in MU	Cost in Rs. Crs	Cost Per Unit in Rupees
KPCL Hydel Energy	2487.87	174	0.69
KPCL Thermal Energy	1669.90	732.37	4.38
CGS Energy	2779.87	988.26	4.20
IPP	1021.12	432.98	4.24
NCE	913.98	479.62	5.24
Other State Hydel	4.22	7.34	17.38
Short Term/Medium term	182.58	82.16	
KPTCL Transmission charges		391.74	
PGCIL Charges		181.39	
POSOCO Charges		0.48	
Total	**9059.54**	**3470.34**	**3.83**

Commission's Analysis and Decisions:

The energy requirement of the ESCOMs, including GESCOM is being met by The Karnataka Power Corporation Limited (KPCL) Generating Stations, Central Generating Stations(CGS), Major Independent Power Producers(IPPs) and Minor Independent Power Producers (RE sources) through long term Power Purchase Agreements.

The Commission has considered the availability of energy as furnished by KPCL for its generation and by SRPC/CEA in respect of Central Generating Stations (CGS). The availability of CGS stations is based on the share of Karnataka, as notified by MoP from time to time. However, the availability of energy from CGS thermal Generating units has been considered duly limiting the quantum of energy as per the requirement of ESCOMs, to meet the sales target on the basis of merit Order dispatch.

The energy availability for FY18 from the upcoming thermal projects of 750MW unit#3 of BTPS, 2X800 MW units of YTPS and 1X800MW of Kudagiplant of NTPC, has not been considered by the GESCOM, since these units are under trial Operation and are yet to stabilize.

The Commission has decided to consider the energy availability from these units in line with the LGBR furnished by the NTPC for the 1X800 MW unit of Kudagi Power Plant for the FY18. However, the energy has been considered from these units by limiting the quantum of energy as per the requirement of ESCOMs, to meet the sales target on the basis of merit order despatch. It is expected that any surplus energy available from tied up sources of energy would be traded by the ESCOMs through PCKL on commercial principles. Similarly, any requirement over and above the quantum approved in this Tariff Order shall be procured from the tied up sources only.

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 despatch based on the ranking of all approved sources of supply, according to the merit order of the variable cost.

After a detailed Analysis of the rates claimed by the GESCOM, the Commission has arrived at the power purchase cost to be allowed in the ARR for the FY18.

The fixed charges and the variable charges for the Central Generating Stations, UPCL Stations and the DVC Stations are reckoned based on the Tariff determined by the CERC and the CERC norms. The transmission charges payable to PGCIL are arrived at with 5% annual escalation on the base figure of FY16.

The fixed charges and the variable charges for the State owned Thermal and Hydel Power Stations are based on the tariff approved by the Commission and the norms in the PPAs wherever the tariff is regulated as per the PPAs. In respect of upcoming 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 BESCOM duly keeping in view the substantial increase in the fuel costs. This is subject to adjustment in the FAC exercise/Annual Performance Review of FY18.

The ESCOM-wise share of the quantum of power from different sources of generation is as per the allocation given by the Government of Karnataka.

The Source-wise approved power purchase quantum for the State (all ESCOMs) and its cost is as under:

TABLE-5.9

Approved Power Purchase Quantum & Cost- For the State

Source of Power	Power Purchase		
	Energy (MU)	Amount in Rs. Crores	Cost/Unit in Rs.
KPCL Thermal Energy	16071.68	6963.89	4.33
CGS Energy	20542.91	7283.67	3.55
IPP	6712.00	3288.88	4.90
KPCL Hydel Energy	11668.46	926.33	0.79
OTHER HYDRO	119.37	49.54	4.15
NCE	7165.41	2980.86	4.16
NTPC Bundled power	582.21	258.46	4.44
Power purchase from Co gen	1300.00	451.10	3.47
Short term Power Purchase	1120.00	467.04	4.17
Short term Purchase from MSEDCL	294.00	106.43	3.62
TRANSMISSION CHARGES			
PGCIL CHARGES		1066.00	
KPTCL CHARGES		2753.70	
SLDC		24.77	
POSOCO CHARGES		3.48	
TOTAL INCLUDING TRANSMISSION & SLDC CHARGES	**65576.04**	**26624.15**	**4.06**

The Source-wise approved Power Purchase quantum and cost of GESCOM is as follows:

TABLE-5.10
Approved Power Purchase Cost of GESCOM for FY18

Source of Power	Power Purchase Cost as filed by GESCOM			Power Purchase Cost as approved by the Commission		
	Energy in MU	Cost in Rs Cr	Per Unit Cost in RS	Energy in MU	Cost in Rs Cr	Per Unit Cost in RS
KPCL Hydel Energy	2487.87	174	0.69	2852.9	175.86	0.62
KPCL Thermal Energy	1669.90	732.37	4.38	1522.1	658.43	4.33
CGS Energy	2779.87	988.26	4.20	2774.94	983.88	3.55
UPCL	1021.12	432.98	4.24	606.05	296.96	4.9
Renewable Energy	913.98	479.62	5.24	726.07	354.64	4.88
Other State Hydel	4.22	7.34	17.38	16.12	6.69	4.15
Short Term/Medium term	182.58	82.16		358.11	134.67	
PGCIL Charges		391.74			153.42	
KPTCL Charges		181.39			352.75	
SLDC & POSOCO Charges		0.48			3.45	
Total	**9059.54**	**3470.34**	**3.83**	**8856.29**	**3120.75**	**3.524**

The details of station wise / Source wise power purchased quantum & cost for the State and GESCOM are shown in Annexure-I & Annexure-II respectively.

5.2.5 GESCOM RPO target for FY18:

1. The Commission had directed GESCOM to submit the estimates for complying with solar and non-solar RPO for 2017-18, including cost implication for purchasing RECs, if any.

   In its replies to the Rejoinders, the GESCOM has stated that it has estimated purchase of 354.19 MU from non-solar projects and that it would achieve 3.91% of non-solar RPO against the target of 6% for FY18. Further, it is stated that the short fall in non-solar RPO would be met with excess of solar energy. Regarding solar RPO, the GESCOM has estimated purchase of 516.93 MU from solar projects and stated that it would achieve 5.71% solar RPO against the target of 1.25% for FY18.

2. Further, the Commission had directed the GESCOM to furnish certain details, with respect to the renewable energy purchase estimates for the FY18. GESCOM in its replies has furnished the following details:

TABLE-5.11

Anticipated RE Capacity in FY17 & FY18

Source	Capacity under PPA in MW as on 30.11.2016	Anticipated MW capacity addition under PPA during the remaining period of FY17	Anticipated MW capacity addition under PPA during FY18
Wind	95.15	60	0
Mini-hydel	75.04	0	0
Co-generation	57	0	0
Biomass	27.50	0	0
Waste to Energy	0	0	0
Solar	29	109	183

3. The Commission had directed GESCOM to furnish certain additional data on solar power projects. GESCOM has not furnished the details.

Commission's observations on GESCOM 's RPO Submissions:

As regards Non-Solar RPO, the Commission notes that:

a. As per D-1 Format, the non-solar renewable energy is estimated as 356.19 MU.

b. The GESCOM has considered addition of wind projects to the extent of 60MW by 2017-18, which should generate around 142 MU at 27% CUF, whereas the GESCOM has considered only 38.26 MU in its D-1 format.

c. With the estimated total energy purchase of 9059.54 MU for FY18 and considering excess solar energy of 416.99 MU, the GESCOM as per its filing would meet 8.53% of Non-solar RPO against target of 6% for FY18.

As far as solar RPO is concerned, the Commission notes that:

a. As per D-1 format, the solar renewable energy is estimated as 530.24 MU including 16.28 MU solar power out of NTPC bundled power of 33.10 MU.
b. With its estimated total energy power of 9059.54 MU, the GESCOM would meet 5.85% of solar RPO against target of 1.25% for FY18.

Commission's Analysis:

The Commission has approved power purchase quantum of 8856.29 MU for FY18. The Non-solar RPO target at 6% would be 531.38 MU. The Commission has approved purchase of 507.77 MU from non-solar RE sources. Thus, the GESCOM would be able to procure 507.77 MU as against an estimated RPO of 531.38 MU, resulting in shortfall of 23.61 MU, which could be met by the anticipated surplus of solar energy of 268.57 MU, as discussed in this Chapter. Therefore, the need for purchasing RECs may not arise. Thus, in case there is a shortfall based on the actuals, the GESCOM may purchase RECs at the market rates, which would be considered by the Commission in the APR of FY18.

The Commission has approved power purchase quantum of 8856.29 MU for FY18. The Solar RPO target at 1.25 % would be 110.70 MU. The Commission has approved purchase of 379.27 MU of Solar energy. Thus, GESCOM would exceed the solar RPO by 268.57 MU, which shall be utilized to meet the shortfall in non-solar RPO. In case, there is any need to buy Solar RECs to fully meet the solar RPO, the cost thereon would be factored in the APR of FY18.

5.2.6 O & M Expenses for FY18:

GESCOM's Proposal:

The GESCOM, in its application, has claimed the O&M expenses of Rs.649.30 Crores for FY18 which includes contribution to the P&G Trust, additional employee cost of Rs.32.76 Crores on account of recruitment of employees and increase in employee cost due to pay scale revision. 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 pay revision, 2.4% increase in terminal benefit and other allowances by 15% for FY18.

Based on the above, the GESCOM has sought the O & M expenses for FY18 as detailed below:

TABLE – 5.12

Revised O&M Expenses for FY18- GESCOM's Proposal

Amount in Rs.Crores

Sl. No.	Particulars	FY18
1	Employee cost	499.47
2	Administrative and General expenses	102.35
3	Repairs and Maintenance expenses	47.48
	Total O & M Expenses	**649.30**

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. 484.22 Crores for FY18 based on the base year 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. , three years compounded annual growth rate (CAGR) of consumers of 4.69% and weighted inflation index of 7.24%. The approved O&M expenses for FY18 were as follows:

TABLE-5.13

Approved O&M Expenses for FY18 as per Tariff Order dated 30th March, 2016

Particulars	FY16	FY17	FY18
No. of Installations		2858887	2976522
CGI based on 3 Year CAGR		4.61%	4.69%
Weighted Inflation index		7.24%	7.24%
Base Year O&M expenses (as per actuals of FY15)-Rs.Crs	400.99		
Total O&M Expenses-Rs.Crs		**440.47**	**484.22**

As per the norms specified under the MYT Regulations, the O & M expenses are controllable expenses and the distribution licensee 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 for the proposed recruitment of employees during FY18.

The Commission is of the view that additional employee cost due to recruitment and the revision of pay scale for FY18 could be factored only after being incurred by the distribution licensee.

In view of the above discussion, the Commission has computed the O & M expenses for FY18 duly considering the actual O & M expenses of FY16 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 FY18 is 7.71%.

For the purpose of determining the normative O & M expenses for FY18, 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 4.89% of the number of installations considering the actual number of installations as per the audited accounts upto FY16 and as projected by the Commission for FY17 and FY18.
c) The weighted inflation index (WII) at 7.71%.
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 FY18 are as follows:

TABLE – 5.14

Approved O & M expenses for FY18

Particulars	FY16	FY17	FY18
No. of Installations		2868856	2993427
CGI based on 3 Year CAGR		4.73%	4.89%
Weighted Inflation index		7.71%	7.71%
Base Year O&M expenses (as per actuals of FY16)-Rs. Crs	422.65		
Total allowable O&M Expenses-Rs. Crs			**516.20**

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.516.20 Crores for FY18.

5.2.7 Depreciation:

GESCOM's Proposal:

The GESCOM, in its application has claimed the net depreciation of Rs.164.94 Crores for FY18 after deducting the depreciation of Rs. 26.45 Crores on assets created out of consumer contribution and grants as detailed below:

TABLE – 5.15

Depreciation-FY18- GESCOM's Submission

Amount in Rs. Crores

Particulars	FY18
Buildings	2.22
Civil	0.00
Other Civil	0.00
Plant & M/c	32.21
Line, Cable Network	155.51
Vehicles	0.64
Furniture	0.38
Office Equipments	0.44
Less: Deprecation on assets created out of grants and consumer contribution	26.45
Total	**164.94**

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 FY18 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 FY16.

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 by GESCOM, duly factoring the retirement of assets value in its application for FY18.

c) The depreciation on account of assets created out of consumers 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 FY16.

Accordingly, the depreciation for FY18 is arrived at as follows:

TABLE – 5.16
Approved Depreciation for FY18

Amount in Rs. Crores

Particulars	FY18
Buildings	2.22
Civil	0.00
Other Civil	0.07
Plant & M/c	28.62
Line, Cable Network	141.81
Vehicles	0.25
Furniture	0.27
Office Equipments	0.35
Less: Deprecation on assets created out of grants and consumer contribution	26.15
Total	**147.43**

Thus, the Commission decides to approve an amount of Rs.147.43 Crores towards depreciation for FY18.

5.2.8 Interest on Capital Loans:

GESCOM's proposal:

The GESCOM in its application has proposed revised capex of Rs.694.00 Crores for FY18 as against Rs.834.00 Crores proposed earlier in its MYT filing and the capital loan requirement is projected at Rs.439.90 Crores. Considering the existing loans, new loans and projected repayments, the GESCOM has claimed interest on capital loan of Rs.152.10 Crores at weighted average rate of interest of 13.32% for FY18.

The GESCOM has requested to approve interest on capital loan for FY18 as follows:

TABLE – 5.17
Interest on Capital Loan– GESCOM's Submission
Amount in Rs. Crores

Particulars	FY18
Opening Balance of Capital Loans	992.58
Add New Loans	439.90
Less Repayments	140.77
Total Loan at the end of the year	1291.71
Average Loan for the year	1142.15
Rate of Interest	13.32%
Total Interest on Capital Loans	**152.10**

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 proposed capex of Rs.834.00 Crores made by GESCOM for FY18. The Commission notes that the GESCOM has revised capex proposal of Rs.694.00 Crores for FY18 and has factored the same for computation of interest on capital loan and depreciation for FY18.

As per the audited accounts and as per the APR of FY16, the GESCOM had incurred interest on capital loan at a weighted average rate of interest of 12.32% p.a. This rate of interest is considered for the existing loan balances for which interest has to be factored during FY17. Further, for the year FY18, 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 view of the changing economic situation, it is observed that there is a considerable reduction in the MCLR and also downward trend is evident in the interest rates. Hence, in such a situation, the Commission is of the view that, the 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 8.15%. Considering the present rate of interest on the new loan availed during FY17 MCLR, the Commission decides to allow an interest rate of 12.00% for FY18 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 FY18 is as follows:

TABLE – 5.18

Approved Interest on Loans for FY18

Amount in Rs. Crores

Particulars	FY18
Opening Balance long term loans	**984.78**
Add new Loans	350.00
Less: Repayments	140.77
Total loan at the end of the year	1194.01
Average Loan	**1089.40**
Weighted average rate of interest in %	12.22%
Interest on long term loans	**133.09**

Thus, the Commission decides to approve an interest of Rs.133.09 Crores on Capital loans for FY18.

5.2.9 Interest on Working Capital:

GESCOM's proposal:

GESCOM has claimed interest on working capital of Rs.108.14 Crores for FY18.

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. 86.67 Crores for FY18.

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 present MCLR for loans with tenure of one year is 8.00%. Therefore, the Commission decides to considered interest on working capital at 11% p.a. for FY18. Accordingly, the approved interest on working capital for FY18 is as follows:

TABLE – 5.19

Approved Interest on Working Capital for FY18

Amount in Rs. Crs

Particulars	FY 18
One-twelfth of the amount of O&M Expenses	43.02
Opening Gross Fixed Assets (GFA)	3503.03
Stores, materials and supplies 1% of Opening balance of GFA	35.03
One-sixth of the Revenue	696.33
Total Working Capital	774.38
Rate of Interest (% p.a.)	11.00%
Interest on Working Capital	**85.18**

Thus, the Commission hereby approves interest on working capital of Rs.85.18 Crores for FY18.

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.37.75 Crores on the opening balance of consumer security deposit for FY18 based on Bank rate of 8.00 %.

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 4th October, 2016, the applicable bank rate is 6.75%. The Commission has considered the same, for computation of interest on consumer security deposits for FY18.

The Commission has considered the consumer security deposits as per the audited accounts of FY16 for onward projection for FY18. 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 for FY18 is as follows:

TABLE – 5.20

Approved Interest on Consumer Security Deposits for FY18

Amount in Rs. Crores

Particulars	FY18
Opening balance of consumer security deposits	453.65
Addition of deposits during FY18	27.00
Closing balance of consumer security deposits	480.65
Average Consumer Security Deposits for FY18	467.15
Bank rate to be allowed as per Regulations	6.75%
Interest on Consumer Security Deposit	**31.53**

Thus, the Commission decides to approve interest on the consumer security deposits of Rs.31.53 for FY18.

5.2.11 Interest and other expenses Capitalized:

The GESCOM has claimed an amount of Rs.4.49 Crores towards capitalization of interest and other expenses during FY18. Considering, the capital expenditure incurred and capitalized in the previous years, the Commission decides to allow capitalization of interest and other expenses of Rs.4.49 Crores as proposed by the GESCOM for FY18. The abstract of approved interest and finance charges for FY18 are as follows:

TABLE – 5.21

Approved Interest and finance charges for FY18

Amount in Rs. Crores

Particulars	FY18
Interest on Loan Capital	133.09
Interest on Working Capital	85.18
Interest on Consumers Security Deposit	31.53
Less Interest & other expenses capitalized	(4.49)
Total Interest & Finance Charges	**245.31**

5.2.12 Other Debits and Prior period charges:

GESCOM, in its application has claimed an amount of Rs.37.66 Crores towards other debits and Rs.20 Crores towards net prior period debit / credit for FY18.

Commission's analysis and decision:

The Commission notes that, GESCOM has claimed expenditure of Rs.37.66 Crores towards Other Debits and Rs.20.00 Crores towards Prior period debit/credit for FY18. It is to be noted that, these items of expenditures/income cannot be estimated upfront and included in the proposed ARR for FY18. However, as per the provisions of the MYT Regulations, the Commission would consider the same based on the actuals as per the audited accounts while approving APR for FY18.

5.2.13 Return on Equity:

GESCOM's proposal:

GESCOM in its application has claimed RoE of Rs. 146.29 Crores for FY18 based on the Share Capital, Share Deposit, accumulated balance of surplus/deficit under Reserves and surplus account as detailed below:

TABLE-5.22

Return on Equity- GESCOM Submission

Amount in Rs. Crores

Particulars	FY18
Opening balance of share capital	896.77
Reserves and Surplus	(141.81)
Total Equity	754.96
Return on Equity @ 19.377%	**146.29**

Commission's analysis and decision:

The Commission has considered the actual amount of share capital, share deposits and accumulated surplus / deficit under reserves & surplus account as per the audited accounts for FY16 for arriving at the allowable equity base for the control period FY18.

The Commission, in accordance with the provisions of the MYT Regulations and amendments there on, has considered 15.5% of Return on Equity 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 is to be computed based on the opening balances of share capital, share deposits and accumulated surplus / deficit under reserve and surplus account. Further, 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 GFA, debt and equity (net-worth) for FY18 are indicated as follows:

TABLE – 5.23

Status of Debt Equity Ratio for FY18

Amount in 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
FY18	Opening Balance	3503.03	984.78	234.08				
	Closing Balance	3928.91	1194.01	270.36	2750.24	1178.67	30.39%	6.88%

From the above table it is seen that the amounts of debt and equity are within the normative levels with reference to the closing balances of GFA for FY18. Further, the Commission would review the same during the Annual Performance Review, for FY18, based on the actual data, as per the audited accounts. Accordingly, the Return on Equity that could be approved for FY18, works out as follows:

TABLE – 5.24

Approved Return on Equity for FY18

Amount in Rs. Crores

Particulars	FY18
Opening Balance of Paid Up Share Capital	305.14
Share Deposit	471.63
Reserves and Surplus	(520.69)
Less Recapitalised Security Deposit	(22.00)
Total Equity	**234.08**
Approved Return on Equity with MAT	**46.13**

Thus, the Commission decides to approve a Return on Equity of Rs.46.13 Crores, for FY18.

5.2.14 Other Income:

GESCOM's proposal:

GESCOM has claimed an amount of Rs.48.99 Crores as other income for the FY18.

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 on bank deposits, rent from staff quarters and sale of scrap, profit on sale of stores besides incentives for timely payment of power purchase bills. The actual 'other income' as per the audited accounts for FY16 is Rs.39.31 Crores.

Considering the other income earned by the GESCOM in the past three years, **the Commission decides to approve other income of Rs.43.66 Crores for FY18.**

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 FY18, 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 and also maintain a separate account of these funds and furnish the same at the time of APR.

5.2.16 Contribution towards Pension and Gratuity Trust :

GESCOM in its application has claimed under O&M expenses an amount of Rs.262.49 Crores being the arrears of contribution to P&G Trust not released by the Government of Karnataka.

The Commission in its preliminary observations had requested the GESCOM to furnish reasons /justifications for inclusion of this amount in the proposed ARR for FY18 to be recovered from the consumers as part of the retail supply tariff during FY18 in contravention to the Commission's decision in Tariff Order 2016.

In its replies to the Commission's preliminary observations, the GESCOM has stated that it has included an amount of Rs. 262.49 Crores towards GESCOM portion of arrears of contribution to P&G Trust not released by the Government of Karnataka, in accordance to the instructions issued by the Energy Department, GoK vide Letter No. EN 26 PSR 2016/P3 dated 16.09.2016.

It is to be noted that, the Commission in its Order dated 30th March, 2016 has already dealt with this issue and has observed that,

"a) As per Rule 4(13) of the Karnataka Electricity Reforms (Transfer of Undertakings of KPTCL and its Personnel to Electricity Distribution and Retail Supply Companies) Rules, 2002, notified by the Government on 31.05.2002, the State Government is liable for funding the pension and gratuity liability of existing pensioners as on the effective date of Second Transfer Scheme.

b) *The Government, as per its order dated 19.12.2002, has adopted "pay as you go" approach to meet the pension and gratuity requirements of existing pensioners on the effective date of second transfer Scheme. With this arrangement, the GoK is liable to meet the pension and gratuity requirement of existing pensioners."*

In the above context, as per the provisions of the prevailing Rules and Government Orders issued thereon, the Commission had earlier decided that this liability cannot be passed on to the consumers, through tariff.

In spite of this Order of the Commission, GESCOM has gone ahead to claim this liability (in the proposed ARR for FY18) that should have been borne by the Government of Karnataka.

The Commission reiterates its earlier decision that, as per Rule 4(13) of the Karnataka Electricity Reforms (Transfer of Undertakings of KPTCL and its Personnel to Electricity Distribution and Retail Supply Companies) Rules, 2002, notified by the Government on 31.05.2002 and Government Order No. DE 15 PSR 2002 Dated 19.12.2002, the amount in question is liable to be borne by the Government of Karnataka only and cannot be passed on to the consumers, through tariff.

In view of the above, the Commission is unable to accept the claims of GESCOM to allow an amount of Rs.262.49 Crores being the GoK liability towards arrears of contribution to P&G Trust in the ARR for FY18.

5.3 Abstract of revised ARR for FY18:

In the light of the above analysis and decisions of the Commission, the following is the approved revised ARR for the control period FY18:

TABLE – 5.25

Approved Revised ARR for FY18

Amount in Rs. Crores

Sl. No.	Particulars	FY18		
		As Appd. in Tariff Order dated 30.03.2016	As per revised filing on 30.11.2016	As Revised and Approved
	Revenue at existing Tariff in Rs Crs			
1	Revenue from Tariff and Misc. Charges		2450.45	2376.94
2	Tariff Subsidy from BJ/KJ		83.75	64.77
3	Tariff Subsidy from IP Sets		1736.30	1736.30
4	**Total Existing Revenue**		**4270.50**	**4178.00**
	Expenditure in Rs Crs			
5	Power Purchase Cost	3190.79	3078.60	2765.03
6	Transmission charges of KPTCL	388.58	388.58	352.75
7	SLDC Charges	3.16	3.16	2.97
8	**Power Purchase Cost including cost of transmission**	**3582.53**	**3470.34**	**3120.75**
9	Employee Cost		499.47	
10	Repairs & Maintenance		47.48	
11	Admin & General Expenses		102.35	
12	**Total O&M Expenses**	**484.22**	**649.30**	**516.20**
13	Depreciation	143.35	164.94	147.43
	Interest & Finance charges			
14	Interest on Capital Loans	143.91	152.10	133.09
15	Interest on Working Capital Loans	86.67	108.14	85.18
16	Interest on belated payment on PP Cost	0.00	216.86	0.00
16	Interest on consumer security deposits	38.08	37.75	31.53
17	Other Interest & Finance charges	0.00	0.00	0.00
18	Less interest & other expenses capitalised	4.49	4.49	4.49
19	**Total Interest & Finance charges**	**264.17**	**510.36**	**245.31**
20	Other Debits	0.00	37.66	0.00
21	Net Prior Period Debit/Credit	0.00	20.00	0.00
22	Return on Equity	61.60	146.29	46.13
23	Funds towards Consumer Relations/Consumer Education	0.50	0.00	0.50
24	Other Income	48.00	48.99	43.66
25	P&G Trust (GoK Liability)		262.49	0.00
	Disallowance of Interest and Depreciation on imprudent investments in FY16			0.34
26	**ARR**	**4488.36**	**5212.39**	**4032.32**
27	Surplus/Deficit for FY16 carried forward		-133.44	-490.97
28	**Net ARR**	**4488.36**	**5345.83**	**4523.29**

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 – 5.26

Approved Segregation of ARR – FY18

Particulars	Distribution Business	Retail Supply Business
O&M	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 – 5.27

APPROVED REVISED ARR FOR DISTRIBUTION BUSINESS – FY18

Amount in Rs. Crores

Sl. No	Particulars	FY18
1	R&M Expenses	361.34
2	Employee Expenses	
3	A&G Expenses	
4	Depreciation	123.84
5	**Interest & Finance Charges**	
6	Interest on Capital Loans	132.74
7	Interest on Working capital loans	20.59
8	Less interest & other expenses capitalised	4.49
9	**Total**	**634.03**
10	ROE	38.75
11	**NET ARR**	**672.78**

TABLE – 5.28

APPROVED ARR FOR RETAIL SUPPLY BUSINESS – FY18

Amount in Rs. Crores

Sl. No	Particulars	FY18
1	Power Purchase	2765.03
2	Transmission Charges	355.72
3	R&M Expenses	154.86
4	Employee Expenses	
5	A&G Expenses	
6	Depreciation	23.59
	Interest & Finance Charges	
7	Interest on Capital Loans	0.00
8	Interest on Working capital loans	64.59
9	Interest on consumer security deposits	31.53
	Total	**3395.32**
11	ROE	7.38
12	Other Income	43.66
13	Fund towards Consumer Relations / Consumer Education	0.50
14	**NET ARR**	**3359.54**

5.5 Gap in Revenue for FY18:

As discussed above, the Commission decides to approve the revised Annual Revenue Requirement (ARR) of GESCOM for its operations in FY18 at Rs.4523.29 Crores as against GESCOM's application proposing the revised ARR of Rs.5345.83 Crores which included a revenue deficit of Rs.133.44 Crores for FY16. This approved revised ARR includes an amount of Rs.490.97 Crores which is determined as the deficit in FY16 as discussed in Chapter-4. Based on the existing retail supply tariff, the total realization of revenue will be Rs.4178.00 Crores which is Rs.345.29 Crores less than the projected revenue requirement for FY18.

The net ARR and the gap in revenue for FY18 are shown in the following table:

TABLE – 5.29
Revenue gap for FY18

Particulars	FY18
Net ARR including carry forward gap of FY16 (in Rs. Crores)	4523.29
Approved sales (in MU)	7188.58
Average cost of supply (in Rs./unit)	6.29
Revenue at existing tariff (in Rs. Crores)	4178.00
Gap in revenue (in Rs. Crores)	**(345.29)**

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