CHAPTER – 5

REVISED ANNUAL REVENUE REQUIREMENT FOR FY18

5.0 Revised Annual Revenue Requirement (ARR) for FY18

MESCOM's Application:

MESCOM 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-MESCOM's Submission

Amount in Rs. Crores

Sl. No.	Particulars	FY18
1	Energy at Gen Bus in MU	5585.97
2	Transmission Losses in %	3.37%
3	Energy at Interface in MU	5397.72
4	Distribution Losses in %	11.05%
	Sales in MU	
5	Sales to other than IP & BJ/KJ	3434.32
6	Sales to BJ/KJ	14.63
7	Sales to IP Sets	1352.32
8	**Total Sales**	**4801.27**
	Revenue at existing tariff in Rs Crs	
9	Revenue from Tariff and Misc Charges	2209.20
10	Tariff Subsidy from BJ/KJ	8.79
11	Tariff Subsidy from IP Sets	639.65
12	**Total Existing Revenue**	**2857.64**
	Expenditure in Rs Crs	
13	Power Purchase Cost	1863.68
14	Transmission charges of KPTCL	238.16
15	SLDC Charges	1.94
16	**Power Purchase Cost including cost of transmission**	**2103.78**
17	Employee Cost	327.75
18	Repairs & Maintenance	46.89
19	Admin & General Expenses	81.17
20	**Total O&M Expenses**	**455.81**
21	Depreciation	87.45
	Interest & Finance charges	
21	Interest on Loans	72.78
22	Interest on Working capital	64.83
23	Interest on belated payment on PP Cost	0.00

24	Interest on consumer deposits	40.79
25	Other Interest & Finance charges	1.21
26	Less interest & other expenses capitalised	1.30
27	**Total Interest & Finance charges**	**178.31**
27	Other Debits	5.03
29	Extraordinary items	-5.02
30	Net Prior Period Debit/Credit	-11.58
31	Return on Equity	95.53
32	Funds towards Consumer Relations/Consumer Education	0.50
33	Provision for contribution to P&G Trust (GoK Liability)	239.88
34	Other Income	45.12
35	**ARR**	**3104.57**
36	Deficit for FY16 carried forward	-453.52
	Net ARR	**3558.09**

The MESCOM has requested the Commission to approve the revised Annual Revenue Requirement of Rs.3558.09 Crores for FY18. Considering the estimated revenue of Rs. 2857.64 Crores based on the existing retail supply tariff, MESCOM has projected a revenue gap of Rs. 700.45 Crores for FY18 along with the carried forward gap of revenue of Rs. 453.52 Crores of FY16. In order to bridge this gap in revenue, MESCOM, in its application has proposed increase 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 MESCOM. Accordingly, a deficit of Rs.395.74 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 MESCOM and approved by the Commission is discussed in this Chapter as follows:

5.2.1 Capital Investments for FY18:

The MESCOM has proposed a capital investment of Rs.595.40 Crores for FY18, as against the approved capex of Rs.289.40 Crores in the MYT order dated

30th March, 2016. The details of Capital investment program of the MESCOM for the FY18 are as follows:

Table –5.2
Capital investment for FY18- MESCOM's Submission
Amount in Rs. Crores

Sl. No	Particulars	As approved in MYT filing for FY18	Proposed capex for FY18
1	Extension & Improvement (Addl. DTCs, Link-Lines, HT/LT Reconductoring, providing intermediate poles, HVDS, etc.)	100.00	100.00
2	DTC Metering	0.25	0.25
3	Replacement of MNR / DC & Electromagnetic meters by Static meters and providing SMC meter protection box wherever required.	5.00	5.00
4	Nirantara Jyothi Yojana	0.00	0.00
5	R-APDRP Programme	0.00	0.00
6	Replacement of faulty DTCs	4.00	40.00
7	Service Connections	40.00	40.00
8	Rural Electrification (General)	0.00	0.00
a.	RGGVY (DDG) Programme	0.00	0.00
b.	Electrification of Hamlets	2.00	2.00
c.	Energization of IP sets (including providing infrastructure of UA IP sets)	75.00	345.00
d.	Kutir Jyothi	0.25	0.25
9	Tribal Sub Plan	0.00	0.00
a.	Electrification of Tribal Colonies	1.50	1.50
b.	Energization of IP Sets	0.75	0.75
c.	Kutir Jyothi	0.05	0.05
10	Special Component Plan	0.00	0.00
a.	Electrification of S.C. Colonies	1.00	1.00
b.	Energization of IP sets	1.00	1.00
c.	Kutir Jyothi	0.10	0.10
11	Tools & Plants and Computers	5.00	5.00
12	Civil Engineering Works	16.00	16.00
13	33 kV Sub stations & Line works	37.50	37.50
	GRAND TOTAL:	**289.40**	**595.40**

Commission's analysis and decision:

The MESCOM has proposed a capex of Rs.595.40 Crores for the FY18 as against the approved capex of Rs.289.40 Crores in the MYT Order, which amounts to an additional capex of Rs.306 Crores. In the proposed capex, for "Energization of IP Sets, including providing infrastructure to regularized Un-authorized IP Sets", the MESCOM has proposed an amount of Rs.345 Crores as against Rs.75 Crores approved in the MYT Order. For "Replacement of faulty Distribution Transformers", Rs.40 Crores is indicated as against the MYT approved capex of Rs.5 Crores.

In respect of "Energization of IP Sets, including providing infrastructure to regularized Un-authorized IP Sets", MESCOM has achieved a capex of Rs.51.44 Crores for FY16 (approved amount-Rs.50 Crores) and Rs.46.55 Crores only during FY17 till the end of September, 2016 (approved amount-Rs.75 Crores). Keeping these facts in view, it is unlikely that, MESCOM would achieve a capex of Rs.345 Crores during FY18. Also it is observed that, the overall capex of MESCOM in any year has not crossed Rs.300 Crores. Despite this, MESCOM has proposed an ambitious capex of Rs.345 Crores in one category of work for FY18, which is unlikely to be achieved. Hence, MESCOM's proposal to incur Rs.345 Crores towards energization and providing infrastructure to IP sets is not justified and not acceptable.

Further, in the respect of "Replacement of faulty Distribution Transformers", it is noted that, MESCOM has indicated a capex of Rs.40 Crores as against the Commission approved capex of Rs.5 Crores for FY18. MESCOM should note that, only the failed transformers which are beyond repairs due to burning or total damage should be scraped and replaced by new transformers. The investment on such new transformers can be accounted as capital expenditure, but the charges incurred for the repairs of failed Transformers are to be met with Revenue Expenditure. Further, MESCOM should note that, the scrapped transformers are not large in numbers, as compared to the total number of failed transformers and may not cost more than Rs.5 Crores per year. Hence, the proposed increase of capex in this category is not justified.

In respect of DTC metering, the MESCOM has stated in the replies to the preliminary observations that, 66% of the DTC metering and replacing of electromechanical meters by electronic meters is completed. The MESCOM needs to focus on DTC-wise energy audit and identify and rectify the high loss making DTCs and feeders with a view to bring down the distribution loss below the target level.

The MESCOM in its replies to the preliminary observations, has not stated as to whether, it has followed the "Capital Expenditure Guidelines for ESCOMs" issued by the Commission. It should be noted that, the proposed capex for every year should be commensurate with:

a) The network expansion required,
b) Reliability of power to be improved
c) The target loss reduction trajectory

Also, the MESCOM 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. The Commission has been directing the ESCOMs to conduct energy audit and prepare a list of high loss making 11kV feeders and take up strengthening works to reduce energy losses. The MESCOM should also move in this direction and list the high loss making feeders based on the input energy to the feeders and sale of energy in that feeder for the financial year. The MESCOM should prepare the list of 11kV feeders having losses above the target level, in the descending order, prioritize such projects and take up execution in order to address the issue of high losses and reduce the distribution losses to the desired levels.

In light of the above discussions and keeping in view that, MESCOM may not be in a position to spend the proposed Rs.345 Crores for "Energization of IP Sets, including providing infrastructure to regularized Un-authorized IP Sets", and Rs.40 Crores for "Replacement of faulty Distribution Transformers", the Commission decides to allow a Capex of Rs.289.40 Crores, as already approved in the MYT Order, subject to prudence check and directs that, MESCOM should meet any additional **capex required during FY18, only through re-appropriation of approved amounts for the prioritized category within the overall capex and 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:

a) Sales- Other than IP Sets & BJ/KJ:

The MESCOM in its tariff application has stated that for the FY18, the estimates of installations and energy has been done based on CAGR method. It is stated that, the number of installations and energy sales projections in respect of LT-2, HT-2b, HT2(c)and HT-4 categories have been estimated on the basis of three year CAGR for the period from FY 14 to FY 16 and for LT-3, LT-5 and LT-6 on four year CAGR for the period FY13 to FY16. Further, it is stated that the number of installations in case of BJ/KJ and IP sets has been estimated based on three-year CAGR and sales to these categories is estimated based on the specific consumption of the FY-16. For HT-1 category, the MESCOM has estimated the number of installations and sales based on five-year CAGR. For HT-2a, the number of installations is estimated based on five year CAGR, whereas the sales are estimated based on the FY-16 growth over the FY-15, after excluding the sales of twelve EHT installations which had shown negative growth. For these installations, the MESCOM has retained the sales for the FY18 at the FY16 level. Also, wherever the CAGR is negative, the MESCOM has retained the number of installations and sales at the FY16 levels.

The preliminary observations of the Commission on sales forecast for FY18 and the replies of MESCOM are discussed below:

i. The MESCOM has not proposed any growth in the number of installations for HT-3 category even though the CAGR is positive and similarly, for HT-4 category, though the previous year's growth is positive. The MESCOM shall explain the reasons for the same.

   As per MESCOM's reply, the growth in these categories is inconsistent and therefore, the number of installations as at the end of FY16 is retained for FY18 also. The Commission has noted the replies furnished and the approach of the Commission in estimating the number of installations is discussed in the subsequent paragraphs.

ii. The sales growth rate considered for LT-2a and HT-1 categories appears to be slightly lower considering the past trends. MESCOM in its replies has stated that after analyzing the CAGRs for different years, it has considered 3-year CAGR as reasonable.

iii. The growth rate considered for HT-2a, HT-2b and HT-4 categories appears to be higher considering past trends. Since the number of installations for HT-4 categories has been retained at the FY-16 level, the sales to this category should also have been retained at the FY-16 level.

MESCOM in its replies has stated that after analyzing the CAGRs for different years, it has considered 3-year CAGR as reasonable for HT-2b and HT-4 categories. Regarding HT-2a, MESCOM has reiterated its explanation furnished in the filing.

iv. The Commission had directed MESCOM to furnish the number of installations and sales, category-wise in a specified format to validate the estimates for FY-18. MESCOM has furnished the same.

v. The Commission had observed that, the number of installations as on 31.03.2016 and as on 31.03.2015 furnished in the replies to preliminary observations did not tally with the data for the relevant years as per D-2 formats. Similarly, the sales for HT-2a category furnished in the replies for FY16, did not tally with the data as per D-2 format. Hence, the Commission had directed MESCOM to reconcile category wise data.

MESCOM has submitted the revised data in its replies to the rejoinder.

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

i) No. of Installations:

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:

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 MESCOM 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 sales as on 31.03.2016 also. 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 MESCOM 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 MESCOM are retained.

c. Wherever the number of installations estimated by MESCOM 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 MESCOM 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), the number of installations for FY-18 is retained at FY-17 half-year data furnished by MESCOM, as the year end installations estimated by MESCOM for FY-17 is lower than the half-year figure.

f. For LT-7, HT-2(c) and HT-5 categories, the estimates of MESCOM 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 1806710 as against 1806971 proposed by MESCOM.

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 MESCOM are validated duly considering the actual sales up to November, 2016 and modified suitably as stated earlier.

b. Wherever the sales estimated by MESCOM 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 MESCOM are retained.

c. Wherever the sales estimated by MESCOM 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 MESCOM 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) and LT 4(c), the sales are worked out considering the specific consumption of FY-16.

f. For LT-7, HT-2(c) and HT-5 categories, the estimates of MESCOM are retained, as the growth rate for these categories is not consistent.

g. For HT2(a) category, the sales estimate based on the analysis of open access impact is considered. It is noted that based on methodology specified at paras b, c and d above, the sales growth would be negative, in spite of positive growth in the number of installations. Therefore, the sales estimate based on the analysis of open access impact is considered as reasonable for FY18.

h. For HT2(b) category, based on the Open Access transaction impact analysis, the sales growth would be lower indicating a negative growth. Therefore, estimates based on the methodology specified at paras b, c and d above, is considered as reasonable.

Based on the above approach, the sales (excluding BJ/KJ and IP) estimated and approved by the Commission for FY18 is 3317.33 MU, as against 3316.31 MU proposed by MESCOM.

b. Sales to BJ/KJ and IP sets:

i) Sales to BJ/KJ:

The electricity consumption to this category up to 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 MESCOM, the total sales estimated for this category for FY18 works out to 44.92 MU. Considering the total number of BJ/KJ installations of 209118 for FY18 as proposed by MESCOM, the specific consumption works out to 17.90 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 44.92 MU is considered for the purpose of estimating the subsidy for this category. However, the MESCOM while claiming the subsidy shall consider only such installation 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.

I. IP-set sales projections for FY18:

The Commission, in its Tariff Order dated 30th March, 2016, had approved the specific consumption of IP-sets as 4,597 units/installation/annum for the control period of FY17 to FY19. The MESCOM has reported total sales of 1,197.43 MU with 2,78,171 numbers of IP-set installations serviced during FY16, which translates into a specific consumption of 4,447 units / installation / annum, for the FY16. It is observed that the specific consumption worked out based on the sales reported by the MESCOM for the FY16 is less than the approved specific consumption by150 units /installation/annum. The approved sales quantity for the FY16 was 1,191.26 MU. This indicates an increase in sales to an extent of 6.17 MU to that of approved quantum for the FY16.

The Commission notes that the MESCOM has reported a specific consumption of 4,447 units/installation/annum on the basis of IP-sales reported by it for the FY16. Therefore, the Commission decides to continue the specific consumption at 4,447 units / installation / annum, as reported by the MESCOM during the FY16, for estimation of IP-set consumption for the FY18 also.

The Commission also notes that the MESCOM has projected the number of IP-set installations as 2,95,112 and 3,13,084 for FY17 and FY18 respectively in its Tariff filing. It is also noted that number IP-set installations serviced in FY17 from April, 2016, upto November, 2016, as reported by the MESCOM is 2,84,736 which is well within the estimated figures for FY17. Hence, it is reasonable to accept the number of installations reported by the MESCOM for FY18. Accordingly, the Commission has considered the number of IP-sets as furnished by the MESCOM for the FY18 without any modifications.

Hence, based on the estimated number of installations for FY17 and FY18, the mid-year number of installations is calculated and the sales to IP-set category of consumers for FY18 are indicated as below:

TABLE-5.3

Mid-year No. of IP set Installations

Particulars	As filed by the MESCOM		As approved by the Commission
	FY17	FY18	FY18
No of installations	2,95,112	3,13,084	3,13,084
Mid-Year no. of installations		3,04,098	3,04,098
Specific consumption in units/installation/annum		4,447	4,447
Sales in MU		**1,352.32**	**1,352.32**

Accordingly, the Commission approves 3,13,084 as the number of IP-set installations and energy sale of 1,352.32 MU for the FY18. This approved IP-set consumption 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 supply/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, it is noted here that the MESCOM 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 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 MESCOM has reported that this work is in progress and likely to take some more time to complete this exercise in its jurisdiction. In this regard, the MESCOM is directed to complete the GPS survey of IP-sets at the earliest and compliance thereon shall be submitted to the Commission, immediately thereafter. In view of pendency of the GPS survey of IP-sets by the MESCOM, the number of installations estimated for FY17 as well as for FY18 are subject to change, based on the GPS survey. Accordingly, on completion of the GPS survey, the MESCOM shall arrive at correct number of IP-sets in the field duly deducting from its account the number of defunct/dried up/not-in-use wells based on the GPS survey results. Therefore, on account of this, any variation in sales due to change in the number of installations in the FY18 would be trued up during the Annual Performance Review, for FY18.

Further, the MESCOM shall consider the actual meter readings of individual IP-set installations duly ascertaining the correct number of such meters working in the field and report the consumption of IP-sets on the basis of energy meter reading data from IP-set installations every month, to the Commission, as this would be an accurate measure of IP-set consumption compared to assessing the consumption based on the meter readings of sample DTCs feeding predominant IP-set loads.

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 MESCOM is indicated as follows:

TABLE-5.4

Approved Sales for FY18

Category	FY18 MESCOM's estimate		FY18 Approved	
	Installations	Sales	Installations	Sales
	No.	MU	No.	MU
LT-2a	1509300	1417.4	1509300	1420.25
LT-2b	3424	17.48	3435	17.48
LT-3	207132	375.64	206424	375.65
LT-4 (b)	179	0.92	182	0.93
LT-4 (c)	3296	6.4	3727	7.24
LT-5	31878	142.6	31712	140.55
LT-6-WS	14175	122.74	14175	122.75
LT-6-PL	19123	68.7	19284	69.7
LT-7	16506	19.63	16506	19.63
HT-1	91	88.95	91	88.26
HT-2 (a)	829	601.21	829	614.81
HT-2 (b)	639	212.69	638	196.74
HT2C	309	204.34	309	204.34
HT-3(a)& (b)	24	8.61	32	11.25
HT-4	46	20.01	46	18.78
HT-5	20	8.99	20	8.99
Sub-Total other than BJ.KJ & IP sets	**1806971**	**3316.31**	**1806710**	**3317.33**
BJ/KJ	209118	44.93	209118	44.92
IP	313084	1352.32	313084	1352.32
Sub Total BJ/KJ & IP sets	**522202**	**1397.25**	**522202**	**1397.25**
Total	**2329173**	**4713.56**	**2328912**	**4714.57**

In addition to the above sales of 4714.57 MU, the Commission approves sales to KPCL at 9.59 MU and to MSEZ at interface point of 85.33 MU for FY18.

5.2.3 Distribution Losses for FY18:

MESCOM's Submission:

As per the audited accounts for FY16, the MESCOM has reported distribution losses of 11.50% as against an approved loss level of 11.25%. The Commission in its Tariff Order dated 30th March, 2016 had fixed the target level of losses for FY18 at 11.05%. MESCOM in its application has proposed to retain the loss levels of 11.05% for FY18.

Commission's Analysis and Decisions:

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

TABLE – 5.5

Approved & Actual Distribution Losses-FY11 to FY16

Figures in % Losses

Particulars	FY11	FY12	FY13	FY14	FY15	FY16
Approved Distribution losses	12.50	12.10	12.00	11.75	11.50	11.25
Actual distribution losses	13.07	12.09	11.88	11.93	11.56	11.50

The Commission has allowed the capex as proposed by MESCOM and capital expenditure is consistently being incurred by the MESCOM. Investments in improvements of the existing distribution system enable the MESCOM 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 for further reduction in the distribution loss levels proposed by the MESCOM, for FY18, duly considering the past and the present capex. However, the MESCOM has not proposed any changes to its proposed loss levels.

Hence, based on the achievement made by MESCOM in reduction of losses in the previous years and the current loss levels, besides considering the capex incurred so far along with the proposed capex for FY18, the Commission decides to fix the following distribution loss targets for FY18:

TABLE – 5.6
Approved Distribution Losses for FY18

Figures in % Losses

Particulars	FY18
Upper limit	11.25
Average	**11.05**
Lower limit	10.85

5.2.4 Power Purchase for FY18

MESCOM's Submission:

MESCOM has submitted the power purchase requirement along with its cost including the transmission charges and SLDC charges, in D-1 Format. MESCOM has sought approval of the Commission for purchase of power to an extent of 5585.97MU at Cost of Rs 2103.78Crores for the FY18, which includes transmission charges and SLDC charges

The cost of power purchase has been considered by the MESCOM 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-5.7

Power Purchase quantum and Cost as filed by MESCOM for FY18

Source of Power	Energy in MU	Cost in Rs. Crs	Cost in Rupees Per Unit
KPCL Hydel Energy	1487.56	103.28	0.69
KPCL Thermal Energy	864.32	380.34	4.40
CGS Energy	1629.04	579.14	3.55
IPP	598.39	253.73	4.24
NCE	897.20	388.16	4.32
Other State Hydel	2.47	4.30	17.38
Short Term/Medium term	106.99	48.15	4.50
KPTCL Transmission charges		240.1	
PGCIL Charges		106.30	
POSOCO Charges		0.28	
Total	**5585.97**	**2103.78**	**3.77**

Commission's Analysis and Decisions:

The energy requirement of the ESCOMs, including MESCOM is being met by 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 the 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 Kudagi plant of NTPC, has not been considered by the MESCOM, 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 the 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 MESCOM, 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 for 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 admitted 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 (of all ESCOMs) and its cost is as under:

TABLE-5.8

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 MESCOM is as under:

TABLE-5.9
Approved Power Purchase Cost of MESCOM for FY18

Source of Power	Power Purchase Cost as filed by MESCOM			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	1487.56	103.28	0.69	1500.33	105.04	0.70
KPCL Thermal Energy	864.32	380.34	4.40	1082.52	468.61	4.33
CGS Energy	1629.04	579.14	3.55	1724.17	611.32	3.55
UPCL	598.39	253.73	4.24	205.28	100.59	4.90
Renewable Energy	897.20	388.16	4.32	793.745	318.149	4.00
Other State Hydel	2.47	4.30	17.38	10.02	4.16	4.15
Short Term/Medium term	106.99	48.15	4.50	267.81	103.08	
PGCIL Charges		106.30			85.53	
KPTCL Charges		240.1			216.20	
SLDC & POSOCO Charges		0.28			2.22	
Total	**5585.97**	**2103.78**	**3.77**	**5583.87**	**2014.90**	**3.61**

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

5.2.5 RPO target for FY18:

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

   MESCOM in its revised replies dated 10.02.2017, has furnished the estimates as detailed below:

TABLE-5.10

Estimates of RPO for FY18

Estimated Energy Purchase-MU	5585.78
Estimated Non-Solar energy purchase –MU	551.04
Estimated Non-Solar compliance as percentage of energy purchase*	9.87%
Estimated Solar energy purchase –MU**	299.77
Estimated Solar compliance as percentage of energy purchase	5.37%

*** MESCOM in its replies dated 10.02.2017 has requested to adjust excess solar energy against Non-Solar RPO.**
****MESCOM in its replies dated 10.02.2017 has informed that, 299.77 MU includes 10.04 MU of solar out of the NTPC bundled power of 53.83 MU.**

2. Further, the Commission had directed MESCOM to furnish certain details, with respect to the renewable energy purchase estimates made for the FY18.

MESCOM in its replies has furnished the following details:

TABLE-5.11

Anticipated Additional RE Capacity for 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 capacity addition under PPA during FY18
Wind	149.35	0	0
Mini-hydel	168.58	0	0
Co-generation		0	0
Biomass		0	0
Waste to Energy		0	0
Solar	47	0	99

3. The Commission had directed MESCOM to furnish certain data on solar power projects. MESCOM has furnished the details as under:

TABLE-5.12

Anticipated Additional RE Energy for FY18

Type of Solar Plant	Capacity in MWp	Estimated Energy contribution and cost for FY17		Estimated Energy contribution and cost for FY18	
		Qty (MU)	Cost (Rs Crs)	Qty (MU)	Cost (Rs. Crs)
Solar Rooftop plants of < 500KW	11.50	3.91	3.74	13.36	10.56
Solar Rooftop plants of >500KW	4.26	0	0	4.14	2.15
1-3 MW Projects allotted to Farmers by KREDL.	9*	0	0	11.23	9.25
20 MW Projects Taluk wise issued by KREDL.	70	0	0	48.55	40.01
Other MW scale projects	67*	64.13	52.84	92.10	75.89
NTPC-VVNL bundled	0	9.92	9.92	9.92	8.17
Solar park- Pavagada	48*	0	46.60	46.60	38.40
Total	**209.76**	**77.96**	**225.90**	**225.90**	**184.43**

***Projects expected in FY18**

Commission's observations on MESCOM's RPO Submissions:

The Commission notes that:

a. As per D-1 format, the non-solar renewable energy is estimated as 551.04 MU.

b. Even though, MESCOM has not considered any addition of non-solar projects during FY17 and FY18, in D-1 format it has considered 28.91 MU under new Mini-Hydel Projects. MESCOM has stated that 5-Mini-hydel projects with capacity of 49.5 MW are pending for commission since long time and therefore, it has considered energy from these projects based on 20% CUF for FY18.

c. With the estimated energy of 5585.78 MU for FY18 and considering excess solar energy of 229.95 MU, MESCOM as per its filing would meet of Non-solar RPO of 13.98% as against target of 12% for FY18.

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

a. As per D-1 format, the solar energy is estimated as 299.77 MU.

b. With the estimated energy of 5585.78 MU, MESCOM would meet solar RPO of 5.37% as against target of 1.25% for FY18.

c. In replies to the preliminary observations, MESCOM has estimated solar energy as 225.90 MU, which is not in tune with the data furnished in D-1 format. Considering 225.90 MU, MESCOM would meet solar RPO of 4.04%.

Commission's Analysis:

The Commission has approved power purchase quantum of 5583.87 MU for FY18. The Non-solar RPO target at 12% would be 670.06 MU. The Commission has approved purchase of 657.72 MU from non-solar RE sources. Thus, MESCOM would be able to procure 657.72 MU as against an estimated RPO of 670.06 MU, resulting in shortfall of 12.34 MU, which could be met by the anticipated surplus of solar energy of 126.68 MU, as discussed later. Therefore, the need for purchasing RECs may not arise to meet MESCOM's non solar RPO.

However, in case there is a shortfall based on the actuals, MESCOM 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 5583.87 MU for FY18. The Solar RPO target at 1.25 % would be 69.80 MU. The Commission has approved purchase of 196.48 MU of Solar energy. Thus, MESCOM would exceed the solar RPO by 126.68 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:

MESCOM's Proposal:

The MESCOM, in its application, has considered actual O&M expenses for FY15 as the base value with the weighted average inflation index of 7.24%

and consumer growth index of 4.13% and efficiency factor of 1% as being considered by the Commission in its Tariff Order dated 30th March, 2016.

Accordingly, MESCOM has claimed the O&M expenses of Rs.567.63 Crores which includes normative plus additional employee cost of Rs.23.84 Crores on account of recruitment of 408 employees during FY18. Further, the MESCOM has considered an amount of Rs.239.88 Crores as MESCOM portion of liability towards pension and gratuity as per the instructions of the Energy Department, Government of Karnataka vide letter No. EN 26 PSR 2016/ P3 dated 16th September, 2016.

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

TABLE – 5.13

Revised O&M Expenses for FY18- MESCOM's Submission

Amount in Rs.Crores

Sl. No.	Particulars	FY18
1	Employee cost	303.91
2	Other Expenses (Administrative and General expenses)	81.17
3	Repairs and Maintenance expenses	46.89
4	Contribution to P&G Trust – MESCOM Portion of liability	239.88
5	Additional Employee Cost due to recruitment	23.84
	Total O & M Expenses	**695.69**

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. 432.40 Crores for FY18 based on the actual O&M expenses incurred in FY15, three years compounded annual growth rate (CAGR) of consumers of 4.13% and weighted inflation index of 7.24%. The approved O&M expenses for FY18 were as follows:

TABLE-5.14

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

Particulars	FY16	FY17	FY18
No. of Installations		2246171	2342309
CGI based on 3 Year CAGR		4.04%	4.13%
Weighted Inflation index		7.24%	7.24%
Base Year O&M expenses (as per actuals of FY15)-Rs. Crs.	355.27		
Total O&M Expenses-Rs. Crs		**391.78**	**432.40**

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 MESCOM has claimed additional O&M expenses of Rs.23.84 Crores for the proposed recruitment of employees during FY18.

The Commission is of the view that additional employee cost due to recruitment during 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.350.82 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 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 the number of installations considering the actual number of installations as per the audited accounts up to FY16 and as projected by the Commission for FY17 and FY18.
c) The weighted inflation index (WII) at 7.71%.
d) Efficiency factor at 1% 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. The MESCOM's claim of liability of Rs.239.88 Crores towards pensions and gratuity is dealt in later portion of this chapter.

Accordingly, the normative O & M expenses for FY18 are as follows:

TABLE – 5.15

Approved O & M expenses for FY18

Particulars	FY16	FY17	FY18
No. of Installations		2237494	2328912
CGI based on 3 Year CAGR		3.90%	3.93%
Weighted Inflation index		7.71%	7.71%
Base Year O&M expenses (as per actuals of FY16)-Rs. Crs.	350.82		
Total allowable O&M Expenses-Rs. Crs			**429.30**

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.429.30 Crores for FY18.

5.2.7 Depreciation:

MESCOM's Proposal:

The MESCOM, in its application has claimed the depreciation of Rs.87.45 Crores for FY18 after deducting deprecation on assets created out of grants and consumer contribution as detailed below:

TABLE – 5.16

Depreciation-FY18- MESCOM's Submission

Amount in Rs.Crores

Particulars	FY18
Buildings	1.46
Civil	0.15
Other Civil	0.03
Plant & M/c	17.44
Line, Cable Network	67.99
Vehicles	0.12
Furniture	0.22
Office Equipment	0.04
Total	**87.45**

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 fixed assets projected by MESCOM, 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 MESCOM, at the weighted average rate of depreciation as per actuals in FY16.

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

TABLE – 5.17

Approved Depreciation for FY18

Amount in Rs. Crores

Particulars	FY18
Buildings	1.51
Civil	0.17
Other Civil	0.15
Plant & M/c	15.92
Line, Cable Network	61.44
Vehicles	0.15
Furniture	0.21
Office Equipments	0.04
Total	**79.60**

Thus, the Commission decides to approve an amount of Rs.79.60 Crores towards depreciation for FY18.

5.2.8 Interest and Finance Charges:

a) Interest on Capital Loans:

MESCOM's proposal:

MESCOM in its application has stated that, based on the approved capex of Rs.289.40 Crores for FY18 in the Tariff Order dated 30th March,2016, the capital loan requirement is projected at normative levels of 70% of the capex amounting to Rs. 202.58 Crores and it has claimed interest on capital loan of Rs.72.78 Crores at 11.75% rate of interest for FY18.

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

TABLE – 5.18

Interest on Capital Loan– MESCOM's Submission

Amount in Rs. Crores

Particulars	FY18
Opening Balance of Capital Loans	575.27
Add: New Loans	202.58
Less: Repayments	114.33
Total Loan at the end of the year	663.52
Average Loan for the year	619.40
Rate of Interest	11.75%
Total Interest on Capital Loans	**72.78**

Commission's analysis and decision:

The Commission in its Order dated 30th March, 2016 had approved capex of Rs.289.40 Crores for FY18. MESCOM in its present application has not revised its capex proposal.

As per the audited accounts and as per the APR of FY16, the MESCOM had incurred interest on capital loan at a weighted average rate of interest of 10.96% 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, in compliance of the debt equity ratio of 70:30 as in MYT Regulations.

The Commission notes that, the present interest rates by commercial banks and financial institutions are charged mainly on the basis of Marginal Cost of fund based Lending Rates (MCLR). These rates are comparatively lower than the base rates considered earlier. Further, in view of the changing economic situation, it is observed that there is a considerable reduction in the MCLR and also downward trend is evident in the interest rates. Hence, in such a situation, the Commission is of the view that, the ESCOMs can avail Capital loans at competitive interest rates which would be less than the proposed rates of 11.75% by MESCOM. The Commission notes that, the present SBI MCLR rate for capital loans with tenure of 3 years is 8.15%. Considering the present MCLR, the Commission decides to allow an interest rate of 11.00% 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 for FY18.

Accordingly, the approved interest on loans for FY18 is as follows:

TABLE – 5.19

Approved Interest on Loans for FY18

Amount in Rs. Crores

Particulars	FY18
Opening Balance long term loans	**575.28**
Add new Loans	202.58
Less: Repayments	114.33
Total loan at the end of the year	663.53
Average Loan	**619.40**
Weighted average rate of interest in %	11.09%
Interest on long term loans	**68.71**

Thus, the Commission decides to approve interest of Rs.68.71 Crores on Capital loans for FY18.

b) Interest on Working Capital:

MESCOM's proposal:

MESCOM has claimed interest on working capital based on the norms prescribed in the MYT Regulations and considering the rate of interest of 11.75% p.a. The interest on working capital computed by MESCOM are as follows:

TABLE – 5.20

Interest on Working Capital – MESCOM's Submission

Amount in Rs. Crores

Particulars	FY18
1/12th Operation and Maintenance	57.97
Opening GFA	1751.44
1% of Gross fixed assets at the beginning of the year	17.51
2 months Receivables	476.27
Estimated Working Capital	551.75
Rate of Interest	11.75%
Interest on working capital	**64.83**

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 at Rs. 59.25 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 current interest regime is based on MCLR. The present MCLR for loans with tenure of one year is 8.00%. Therefore, the Commission decides to consider interest on working capital at 11% p.a. for FY18.

Accordingly, the approved interest on working capital for FY18 is as follows:

TABLE – 5.21

Approved Interest on Working Capital for FY18

Amount in Rs. Crs

Particulars	FY 18
One-twelfth of the amount of O&M Expenses	35.77
Opening Gross Fixed Assets (GFA)	2266.61
Stores, materials and supplies 1% of Opening balance of GFA	22.67
One-sixth of the Revenue	474.41
Total Working Capital	532.85
Rate of Interest (% p.a.)	11.00%
Interest on Working Capital	**58.61**

Thus, the Commission hereby approves interest of Rs. 58.61 Crores on working capital for FY18.

c) Interest on Consumer Security Deposit:

MESCOM's proposal:

MESCOM in its application has claimed interest on consumer security deposit of Rs.40.79 Crores for FY18 duly considering the addition of deposits for FY18 based on Bank rate of 7.75 %. MESCOM has requested to consider average of the opening and closing balances of consumer deposits in the respective year for computation of interest on consumer security deposits. The interest on consumer deposit projected for FY18 is as follows:

TABLE – 5.22

Interest on Consumer Security Deposits – MESCOM's Submission

Amount in Rs. Crores

Particulars	FY18
Opening Balance of Consumer Security Deposit	505.63
Add: Deposits collected during the year	41.31
Closing Balance of Consumer Security Deposit	546.94
Average Consumer Security Deposit	526.29
Rate of Interest	7.75%
Interest on consumer security deposit	**40.79**

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 consumer deposits of the relevant year. Accordingly, the interest on consumer deposits for FY18 is as follows:

TABLE – 5.23

Approved Interest on Consumer Security Deposits for FY18

Amount in Rs. Crores

Particulars	FY18
Opening balance of consumer security deposits	509.44
Addition of deposits during FY18	46.00
Closing balance of consumer security deposits	555.44
Average Consumer Security Deposits for FY18	532.44
Bank rate to be allowed as per Regulations	6.75%
Approved Interest on average Consumer Security Deposit	**35.94**

Thus, the Commission decides to approve interest of Rs.35.94 Crores on consumer security deposits for FY18.

d) Other Interest and Finance Charges:

MESCOM has claimed an amount of Rs.1.21 Crores towards other interest and finance charges for FY18. Considering, the expenditure on this item in the earlier years, the Commission decides to allow an amount of Rs.1.21 Crores towards interest and finance charges for FY18.

e) Interest and other expenses Capitalized:

MESCOM has claimed an amount of Rs.1.30 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.1.30 Crores as proposed by MESCOM for FY18.

The abstract of approved interest and finance charges for FY18 are as follows:

TABLE – 5.24

Approved Interest and finance charges for FY18

Amount in Rs. Crores

Particulars	FY18
Interest on Loan Capital	68.71
Interest on Working Capital	58.61
Interest on Consumers Security Deposit	35.94
Other Interest & Finance Charges	1.21
Less Interest & other expenses capitalized	(1.30)
Total Interest & Finance Charges	**163.18**

5.2.9 Other Debits, Prior period charges and extraordinary item:

MESCOM, in its application has claimed an amount of Rs.5.03 Crores towards other debits, net prior period debit / credit of Rs.11.58 Crores and extraordinary items of expenditure of Rs.5.02 Crores for FY18.

Commission's analysis and decision:

The Commission notes that, MESCOM has claimed expenditure towards Other Debits, Prior period debit/credit and extraordinary item. It is to be noted that, these items of expenditures/income cannot be estimated upfront and included in the proposed ARR for FY18. But, 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.

5.2.10 Return on Equity:

MESCOM's proposal:

MESCOM in its application has claimed RoE of Rs. 95.53 Crores for FY18 based on the Share Capital, share deposits, accumulated balance of surplus/deficit under Reserves and surplus account as detailed below:

TABLE-5.25

Return on Equity- MESCOM Submission

Amount in Rs. Crores

Particulars	FY18
Opening balance of share capital	266.36
Share deposit	14.00
Reserves and Surplus	204.41
Total Equity	484.77
Return on Equity @ 15.50% with MAT	**95.53**

Commission's analysis and decision:

The Commission has considered the actual amount of share capital, share deposits and reserves & surplus 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, 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, the Return on Equity is to be computed based on the opening balances of share capital, share deposits and reserves and surplus. Further, an amount of Rs.26.00 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 – 5.26
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	2266.61	575.28	405.45				
	Closing Balance	2444.45	663.53	468.29	1711.12	733.34	27.14	19.16

From the above table it is seen that the amounts of debt equity are within the normative debt equity amounts ratio of 70:30 on 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 – 5.27

Approved Return on Equity for FY18

Amount in Rs. Crores

Particulars	FY18
Opening Balance of Paid Up Share Capital	266.36
Share Deposit	14.00
Reserves and Surplus	151.09
Less Recapitalised Security Deposit	(26.00)
Total Equity	**405.45**
Approved Return on Equity with MAT	**79.90**

Thus, the Commission decides to approve Return on Equity of Rs.79.90 Crores, for FY18.

5.2.11 Other Income:

MESCOM's proposal:

MESCOM has claimed an amount of Rs.45.12 Crores as other income for the FY18.

Commission's analysis and decision:

The other income received by the MESCOM 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.47.75 Crores.

The Commission notes that, the other income earned by the MESCOM in the past three years. Further, MESCOM would receive income from sale of power to MSEZ which needs to be factored as non-tariff income. As per the approved power purchase for MSEZ, the income available to MESCOM will be Rs.49.49 Crores. **Accordingly, the Commission decides to approve other income of Rs.89.36 Crores for FY18.**

5.2.12 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.

Further, the Commission directs MESCOM 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.

5.2.13 Contribution towards Pension and Gratuity Trust

MESCOM in its application has claimed under O&M expenses an amount of Rs.239.88 Crores being the arrears of contribution to P&G Trust not released by the Government of Karnataka.

The Commission in its preliminary observations had asked MESCOM 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, MESCOM has stated that it has included an amount of Rs. 239.88 Crores towards MESCOM 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.

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.'

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, MESCOM has claimed this liability (in the proposed ARR for FY18) which 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 the Government Order No. DE 15 PSR 2002 Dated 19.12.2002, the amount in question is liable to be borne only by the Government of Karnataka and cannot be passed on to the consumers, through tariff.

In view of the above, the Commission is unable to accept the claim of MESCOM to allow an amount of Rs.239.88 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 – 5.28

Approved revised ARR for FY18

Amount in Rs. Crores

Sl. No	Particulars	FY18		
		As Appd 30.03.2016	As Filed 30.11.2016	As Revised Approved
	Revenue at existing tariff in Rs Crs			
1	Revenue from tariff and Miscellaneous Charges		2209.20	2179.80
2	Tariff Subsidy to BJ/KJ		8.79	27.00
3	Tariff Subsidy to IP		639.65	639.65
4	**Total Existing Revenue**	**0.00**	**2857.64**	**2846.44**
5	**Expenditure in Rs Crs**			
6	Power Purchase Cost	2003.82	1863.68	1796.76
7	Transmission charges of KPTCL	238.16	238.16	216.20
8	SLDC Charges	1.94	1.94	1.94
9	**Power Purchase Cost including cost of transmission**	**2243.92**	**2103.78**	**2014.90**
10	Employee Cost		327.75	
11	Repairs & Maintenance		46.89	
12	Admin & General Expenses		81.17	
13	**Total O&M Expenses**	**432.40**	**455.81**	**429.30**
14	Depreciation	86.12	87.45	79.60
	Interest & Finance charges			
15	Interest on Capital Loans	70.33	72.78	68.71
16	Interest on Working capital loans	59.25	64.83	58.61
17	Interest on belated payment on PP Cost	0.00	0.00	0.00
18	Interest on consumer security deposits	41.55	40.79	35.94
19	Other Interest & Finance charges	2.19	1.21	1.21
20	Less interest & other expenses capitalised	2.39	1.30	1.30
21	**Total Interest & Finance charges**	**170.93**	**178.31**	**163.18**
22	Other Debits	0.00	5.03	0.00
23	Extraordinary items		-5.02	0.00
24	Net Prior Period Debit/Credit	0.00	-11.58	0.00
25	Return on Equity	82.71	95.53	79.90

26	Funds towards Consumer Relations/Consumer Education	0.50	0.50	0.50
27	Provision for contribution to P&G Trust (GoK Liability)		239.88	0.00
28	Other Income (Including income from sale of power to MSEZ)	80.54	45.12	89.36
29	Disallowance of Interest and Depreciation on imprudent investments in FY16			0.40
	ARR	**2936.03**	**3104.57**	**2677.61**
30	Surplus/Deficit for FY16 carried forward		-453.52	-395.74
	Net ARR	**2936.03**	**3558.09**	**3073.36**

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

MESCOM 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 – 5.29

Approved Segregation of ARR – FY18

Particulars	Distribution Business	Retail Supply Business
O&M	39%	61%
Depreciation	84%	16%
Interest on Loans	100%	0%
Interest on Consumer Deposits	0%	100%
RoE	78%	22%
GFA	84%	16%
Non-Tariff Income	7%	93%

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

TABLE – 5.30

APPROVED REVISED ARR FOR DISTRIBUTION BUSINESS – FY18

Amount in Rs. Crores

Sl. No	Particulars	FY18
1	R&M Expenses	
2	Employee Expenses	
3	A&G Expenses	167.43
4	Depreciation	66.86
5	**Interest & Finance Charges**	
6	Interest on Capital Loans	68.31
7	Interest on Working capital loans	7.28
8	Other Interest & Finance charges	1.21
9	Less interest & other expenses capitalised	1.30
	Total	**309.79**
10	ROE	62.32
11	Other Income	6.25
	NET ARR	**365.86**

TABLE – 5.31

APPROVED ARR FOR RETAIL SUPPLY BUSINESS – FY18

Amount in Rs.Crores

Sl. No	Particulars	FY18
1	Power Purchase	1796.76
2	Transmission Charges	218.13
3	R&M Expenses	
4	Employee Expenses	
5	A&G Expenses	261.87
6	Depreciation	12.74
	Interest & Finance Charges	
7	Interest on Working capital loans	51.33
8	Interest on consumer security deposits	35.94
	Total	**2376.78**
9	ROE	17.58
10	Other Income	83.10
11	Fund towards Consumer Relations / Consumer Education	0.50
	NET ARR	**2311.75**

5.5. Gap in Revenue for FY18:

As discussed above, the Commission decides to approve the revised Annual Revenue Requirement (ARR) of MESCOM for its operations in FY18 at Rs.3073.36 Crores as against MESCOM's application proposing the revised ARR of Rs.3558.09 Crores by including the revenue deficit of Rs.453.52 Crores for FY16. This approved revised ARR includes an amount of Rs.395.74 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.2846.44Crores which is Rs.226.91 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 – 5.32
Revenue gap for FY18

Particulars	FY18
Net ARR including carry forward gap of FY16 (in Rs. Crores)	3073.36
Approved sales (in MU)	4724.16
Average cost of supply (in Rs./unit)	6.51
Revenue at existing tariff (in Rs. Crores)	2846.44
Gap in revenue (in Rs. Crores)	**(226.91)**

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