

CHAPTER – 4

ANNUAL PERFORMANCE REVIEW FOR FY16

4.0 BESCOM's Application for APR for FY16:

BESCOM has filed its application for Annual Performance Review (APR) for FY16 and Revision of ARR and retail supply tariff for FY18 on 30th November, 2016. BESCOM has sought approval of its revised ARR in the Annual Performance Review (APR) for FY16 based on the Audited Accounts.

The Commission in its letter dated 20th December, 2016 had communicated its preliminary observations to the application. BESCOM, in its letter dated 30th December, 2016 has furnished its replies to the preliminary observations of the Commission. Further, the Commission on validation of the applications had sought additional information/details in its letter dated 10th January, 2017. In reply, BESCOM vide its letter dated 16th January, 2017 has furnished additional information/details.

The Commission in its Multi Year Tariff (MYT) Order dated 6th May, 2013 had approved BESCOM's Annual Revenue Requirement (ARR) for FY14 – FY16. Further, in its Tariff Order dated 2nd March, 2015, the Commission had approved the APR for FY14 and had revised the ARR along with Retail Supply Tariff for FY16.

The revised Annual Revenue Requirement (ARR) of BESCOM for FY16, based on the audited accounts, is discussed in this Chapter.

4.1 BESCOM's Submission:

BESCOM has submitted its proposals for revision of ARR for FY16 based on the Audited Accounts as follows:

TABLE – 4.1
APR for FY16 – BESCOM's Submission

Amount in Rs. Crores		
Sl. No	Particulars	As Filed
1	Energy at Gen Bus in MU	29161.67
2	Energy at Interface in MU	27893.50
3	Distribution Losses in %	12.03
	Sales in MU	
4	Sales to other than IP & BJ/KJ	18276.96
5	Sales to BJ/KJ	71.31
6	Sales to IP	6189.90
	Total Sales	24538.17
	Revenue	
7	Revenue from tariff and Misc. Charges	12205.55
8	Tariff Subsidy to BJ/KJ	30.81
9	Tariff Subsidy to IP Sets	1585.26
	Total Revenue	13821.62
	Expenditure	
10	Power Purchase Cost	11364.09
11	Transmission charges of KPTCL	1225.91
12	SLDC Charges	10.53
	Power Purchase Cost including cost of transmission	12600.53
13	Employee Cost	912.76
14	Repairs & Maintenance	83.37
15	Admin. & General Expenses	223.21
	Total O&M Expenses	1219.34
16	Depreciation	290.60
	Interest & Finance charges	
17	Interest on Loans	266.02
18	Interest on Working capital	342.45
19	Interest on consumer deposits	245.24
20	Other Interest & Finance charges	23.53
21	Less interest & other expenses capitalised	146.85
	Total Interest & Finance charges	730.39
22	Other Debits	16.25
23	Net Prior Period Debit/Credit	-11.57
24	Return on Equity	108.00
25	Provision for taxation	24.51
26	Other Income	40.35
	ARR	14937.70
27	Incentives for performance on distribution loss reduction	190.92
	Net ARR	15128.62
	Carrying cost on Regulatory Asset to be recovered in FY17	117.40
	Net ARR for FY16	15246.02

BESCOM has reported a gap in revenue of Rs.1424.40 Crores for FY16, considering a revenue of Rs.13821.62 Crores against a net ARR of Rs.15246.02 Crores.

4.2 BESCOM's Financial Performance as per Audited Accounts for FY16:

An overview of the financial performance of BESCOM for FY16 as per its Audited Accounts is given below:

TABLE – 4.2
Financial Performance of BESCOM for FY16

Amount in Rs. Crores		
Sl. No.	Particulars	FY16
	Receipts	
1	Revenue from Tariff and misc. charges	12532.16
2	Tariff Subsidy including Truing up Subsidy	2158.04
	Total Revenue	14690.20
	Expenditure	
3	Power Purchase Cost	11364.57
4	Transmission charges of KPTCL	1225.91
5	SLDC Charges	10.53
	Power Purchase Cost including cost of transmission	12601.01
6	O&M Expenses	1167.38
7	Depreciation	290.60
	Interest & Finance charges	
8	Interest on Loans	266.03
9	Interest on Working capital	311.81
10	Interest on consumer deposits	245.24
11	Other Interest & Finance charges	23.52
12	Less Interest and other expenses capitalized	146.85
	Total Interest & Finance charges	699.75
13	Other Debits	9.34
14	Net Prior Period Debit/Credit	11.57
15	Exceptional items	(54.77)
16	Other income	(167.21)
17	Income tax	24.52
	Net ARR	14582.19

As per the Audited Accounts, BESCOM has earned a profit of Rs.108.01 Crores for FY16. The profits / losses reported by BESCOM in its audited accounts in the previous years are as follows:

TABLE – 4.3
BESCOM's Accumulated Profits / Losses

Particulars	Rs. Crores
Accumulated losses as at the end of FY10	(350.88)
Profit earned in FY11	0.20
Profit earned in FY12	118.14
Losses incurred in FY13	(432.77)
Profits earned in FY14	76.10
Profits earned in FY15	113.44
Profits earned in FY16	108.01
Accumulated losses as at the end of FY16	(367.76)

As seen from the above table, the accumulated losses are Rs.367.76 Crores as at the end of FY16.

The Commission has taken up the Annual Performance Review for FY16, duly considering the actual revenue and expenditure as per the Audited Accounts vis-à-vis the revenue/expenditure approved by the Commission in its Tariff Order dated 2nd March, 2015. The item-wise review of expenditure and the decisions of the Commission thereon are discussed in the following paragraphs:

4.2.1 Sales for FY16:

I. Energy Sales data for FY15:

The Commission, in its preliminary observations, had directed BESCOM to adopt the category-wise and total sales for FY15 as approved in the Tariff Order dated 30.03.2016 and accordingly revise the sales data in Table-1.4 and Table 1.6 of the Tariff Petition.

BESCOM, in its replies to the preliminary observations, has stated that there is no need to revise the data as it had compared two year's actual data as per the audited accounts. However, as directed by the Commission, BESCOM has revised the sales data in the Table-1.4 and Table- 1.6, vide its replies dated 16.01.2016,

II. Annual Performance Review for FY16

1. Sales-Other than IP sets:

The Commission in its Tariff Order dated 02.03.2015 had approved total sales to various consumer categories at 25341.90 MU as against the BESCOM proposal of 25787.19 MU. The Actual sales of BESCOM as per the current APR filing [D-2 FORMAT] is 24538.17 MU indicating a shortfall in sales to the extent of 803.73 MU when compared to the approved sales.

The category-wise sales approved by Commission in its Tariff Order dated 02.03.2015 and the actuals for FY16 are indicated in the following table:

TABLE- 4.4
Approved and Actual Sales for FY16

Category	(Energy in MU)		
	Approved	Actuals	Difference between Actuals & Approved
LT-2a*	5824.79	6056.05	231.26
LT-2b	43.07	42.59	-0.48
LT-3	1712.49	1754.07	41.58
LT-4b	3.71	3.44	-0.27
LT-4c	6.11	4.61	-1.50
LT-5	1167.20	1150.39	-16.81
LT-6	474.54	404.68	-69.86
LT-6	449.53	366.26	-83.27
LT-7	167.43	167.52	0.09
HT-1	743.65	672.75	-70.90
HT-2a	5804.90	4593.21	-1211.69
HT-2b	2969.56	2614.90	-354.66
HT-2c	89.68	232.53	142.85
HT-3a & b	18.98	57.11	38.13
HT-4	116.07	96.59	-19.48
HT-5	66.30	74.22	7.92
Sub total	19658.00	18290.92	-1367.08
BJ/KJ	58.64	57.45	-1.19
IP	5625.26	6189.80	564.54
Sub total	5683.90	6247.25	563.35
Grand total	25341.90	24538.17	-803.73

*Including BJ/KJ installations consuming more than 18 units/month

The major categories contributing to the reduction in sales as compared to the approved figures are LT Water Supply (69.86 MU), LT-Street Lighting (83.27 MU), HT Industries (1211.69 MU) and HT Commercial (354.66 MU). On the other hand, major categories contributing to the increase in sales in respect of the approved figures are LT 2(a) (231.26 MU), LT-3(41.58 MU), HT2(c) (142.85 MU), HT3 (38.13 MU) and IP Sets (564.54 MU).

The observations of the Commission with respect to sales for FY-16 and the replies of BESCOM are discussed below:

- a) BESCOM was directed to analyze the reasons for reduction in sales to HT categories.

BESCOM in its reply dated 20.12.2016, has stated that the HT-sales has reduced due to consumers opting out of the grid and that in FY-16, HT consumers had procured 2000 MU through wheeling and banking.

The Commission notes that in the table at page-19 of replies to preliminary observations in respect of APR for FY16, the energy under wheeling & banking is indicated as 1590 MU, whereas in the replies dated 16.01.2017, the same is indicated as 1329 MU. Thus the Commission notes that there is inconsistency in the data furnished about the energy accounted under Open Access/Wheeling and has therefore considered the data as per the replies dated 16.01.2017. Nevertheless, the Commission notes that the wheeled energy has grown by about 16% in FY16 as compared to the energy wheeled in FY15.

- b) The Commission had asked BESCOM to furnish the data of sales to HT2(a) and HT2(b) categories along with the consumption from open access / wheeling for the period 2011-12 to 2014-16.

BESCOM in its replies dated 20.12.2016, had replied that energy procured from generators in HT sales cannot be ascertained. However, BESCOM had furnished the cumulative sales to HT-2a, HT2b and HT2c categories along with the energy procured through open access/wheeling. Subsequently, in its replies dated 16.01.2017, BESCOM has furnished the

details of energy wheeled to HT-2a, HT-2b and HT-2c categories separately.

- c) Regarding reconciliation of the actual sales figures for FY16 indicated at page-8 and Table 2.3 with the figures indicated in D-2 format, BESCOM has replied that there is a difference of 0.23 MU owing to rounding off the data to two decimal points in the format. The Commission has taken note of the reply furnished.
- d) BESCOM was directed to confirm as to whether the category-wise sales indicated in D-2 format is excluding unbilled sales and if unbilled sales are included, to furnish category-wise break up of unbilled sales.

BESCOM in its replies has clarified that sales of 24538 MU for FY-16 does not include unbilled sales. It is noted here that in the Tariff Order-2016, the Commission had not allowed unbilled sales while truing up for FY-15, for the reasons stated in that order.

- e) BESCOM was directed to furnish the number of installations shifted from HT2a, HT2b and HT-4 categories to HT-2c category and the corresponding sales figures for FY14, FY15 and FY16, in order to estimate the impact of shifting of these installations.

BESCOM has replied that the above data is not available. The Commission would like to point out that BESCOM should be able to furnish the required data in view of computerization of the billing activity. **BESCOM is therefore directed to ensure that in future all the required details are furnished without any excuse.**

2. Sales to IP sets:

- i) The Commission in its Tariff Order dated 2nd March, 2015, had approved the specific consumption of IP-sets as 7,795 units/installation/annum for FY16, whereas as per the data of IP-set consumption reported by the

BESCOM in its tariff filing, the specific consumption works out to 7,846 units / installation / annum, which corresponds to an increase in the specific consumption by 51 units/installation / annum. The total IP-set consumption reported for the FY16 as per the Format D-2 filed by the BESCOM is 6,189.80 MU, whereas the IP-set consumption approved by the Commission was 5,625.26 MU. The difference in consumption between the approved and reported for FY16 is 564.54 MU. Thus, the quantum of sales to the IP-sets' category has exceeded the approved quantum by 564.54 MU and the specific consumption has increased by 51 units / installation / annum for the FY16.

- ii) Further, the Commission had approved 7,29,150 as the number of IP-set installations for the FY16, but, the actual number of installations for which the electricity is being supplied, as reported by the BESCOM, is 8,09,178. The difference in the number of installations being 80,028 which corresponds to 11 percent increase in the number of installations, as against the approved number of installations for the FY16. The BESCOM has reported that the increase in the number of installations over the approved number of installations for the FY16 is due to the fact that, it has regularized a large number of un-authorized IP-sets in the field under the Regularization Scheme.
- iii) The Commission, in its Tariff Order dated 2nd March, 2015, had directed the BESCOM to compute IP-set consumption on the basis of meter readings of agricultural feeders segregated under NJY scheme, for the reason that the energy consumed by the IP-sets could be accurately measured at 11 kV level at the substations after allowing the losses prevailing in the distribution system, and to report the same in the following format, prescribed by the Commission.

TABLE-4.5

Format for IP set Consumption as per feeder-wise data

Month	Name of Sub-division	No. Segregated Agricultural Feeders in the subdivision	Monthly Consumption in MU as recorded in all the agricultural feeders at the substations pertaining to the 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 & LT) & any other loads if any	No. of IP sets connected to the agricultural feeders in the subdivision	Average consumption of IP / month (specific cons in units /IP/month)	Total no of IP sets in the subdivision (as per DCB)	Total sales of IP sets in MU
1	2	3	4	5	6=(4-5)	7	8	9	10=8*9
April to March	Subdivision-1 Subdivision-2 Subdivision								

iv) The Commission has been following this methodology since 2014 (Tariff Order dated 12th May, 2014, for FY15), considering the fact that the ESCOMs have bifurcated the 11 KV feeders into separate rural and agricultural feeders. Earlier to this, in the absence of meters to IP-set installations, the Commission had allowed the ESCOMs to assess the IP-set consumption, based on the readings of the sample meters fixed to the distribution transformer Centers (DTCs) predominantly feeding to IP-set loads. The sample was selected in such a manner that two to three DTCs feeding predominantly to IP-set loads per O&M section were covered so that in each subdivision about ten such DTCs were covered. As per this methodology, the overall IP-consumption for the Company was being assessed on the basis of metered consumption arrived at from such sample meters fixed to DTCs.

v) As per the IP-set data for FY13 submitted to the Commission by the BESCOM, 729 DTCs covering 7,825 IP-sets out of the total 6,52,054 IP-sets in its jurisdiction was considered for assessing the total IP-set consumption for the Company. It is noted that the sample IP-sets considered to assess the total IP-set consumption for FY13, based on the sample DTCs meter readings constituted only 1.2 per cent. This means a small sample of IP-sets was considered while arriving at the total consumption as compared to a large sample (55% in March, 2017) being considered

now after segregating the feeders under NJY. Therefore, for computing the overall IP-set consumption the latter method (consumption recorded in the meters fixed to segregated feeders) is a better representation in terms of metered consumption, as compared to the methodology followed earlier.

- vi) Accordingly, the BESCO was directed to furnish 11 kV feeder-wise IP-set consumption based on energy meters' reading data in respect of agriculture feeders segregated under NJY scheme, duly deducting the distribution losses prevailing in 11 kV lines, distribution transformers, and LT system, to the Commission, every month. However, the BESCO has not been submitting the IP-set consumption data based on the segregated agricultural feeders regularly, to the Commission.
- vii) The Commission, in its preliminary observations, had raised the issue of increase in both sales and number of installations as well as specific consumption of IP-set category and had also directed the BESCO to furnish necessary month-wise feeder-wise data as per the energy recorded in the segregated agricultural feeders, in support of its claims of IP-set consumption for the FY16.
- viii) The BESCO, in its reply to the preliminary observations, had submitted the consolidated month-wise IP-set consumption data in respect of the exclusive agricultural feeders segregated under NJY by deducting the uniform energy losses of 10 per cent prevailing in its 11 kV distribution system, for FY16, to the Commission. Further, it had stated that, the consumption of IP-sets has increased as compared to the approved quantum in view of servicing of a large number of IP-sets under the Regularization Scheme during the FY16. The Commission had observed that the data of IP-set consumption from the exclusive agricultural feeders considering a uniform loss at 10 per cent, had many inconsistencies in respect of total consumption, total number of IP-sets serviced and specific consumption arrived as compared with the data filed by the BESCO in the format D-2 of its Tariff filing and its replies to

the Commission's observations. Further, the Commission had observed that the increase in IP sales for the FY16 may be partly due to the fact that the BESCO has serviced a larger number of IP-sets under regularization scheme, than it had projected earlier.

- ix) Accordingly, the Commission's observations were communicated to the BESCO in the form of rejoinders, directing it to rectify the discrepancies pointed out duly computing the IP-set consumption on the basis of segregated agricultural feeders, reworking the energy losses as per the BESCO's energy flow diagram.
- x) In response, the BESCO has submitted details of IP-set consumption and has sought some more time to compute the revised IP-set consumption based on the meter reading data of agricultural feeders segregated under NJY, reworking the energy losses prevailing in the 11 kV distribution system, as directed. On verification of the IP-consumption data furnished in respect of agriculture feeders, it was observed that the distribution loss figures reckoned to compute the net IP-set consumption in the feeders, is not based on actual calculation considering the distribution network sketches.
- xi) The BESCO vide its letter No. BESCO/BC-26/F-2411/2009-10/1315, dated 30th January, 2017, has submitted the revised IP-set consumption for FY16 as 5777.77 MU, as against 6,189.80 MU indicated earlier, based on the segregated agricultural feeders, duly revising the energy losses to 13.22 per cent (instead of 10 per cent losses considered earlier in the format D2 of its Tariff filing). The Commission notes that considering the revised consumption of 5777.77 MU would result in a difference in consumption to an extent of 412.03 MU. The BESCO has not submitted its justification in support of it. Hence, the Commission decides to disallow a consumption of 412.03 MU from 6189.80 MU considered by BESCO in its tariff application.
- xii) **In view of the above discussion, the Commission decides to approve IP set consumption of 5777.77 MU based on the revised meter reading**

data of the segregated agricultural feeders for the FY16, as against 6,189.80 MU shown by the BESCOM, in its Tariff filing, by disallowing sales to an extent of 412.03 MU.

Accordingly, the Commission approves total sales of BESCOM as per actuals except in respect of IP sets for the reasons discussed above. The abstract of approved sales after APR of FY16 is as follows:

TABLE- 4.6

Approved sales for FY16 under APR

Category	Energy in MU's		
	Approved as per Tariff Order dated 02.03.2015	As filed by BESCOM	Approved as per APR
LT-2a*	5824.79	6056.05	6056.05
LT-2b	43.07	42.59	42.59
LT-3	1712.49	1754.07	1754.07
LT-4b	3.71	3.44	3.44
LT-4c	6.11	4.61	4.61
LT-5	1167.20	1150.39	1150.39
LT-6	474.54	404.68	404.68
LT-6	449.53	366.26	366.26
LT-7	167.43	167.52	167.52
HT-1	743.65	672.75	672.75
HT-2a	5804.90	4593.21	4593.21
HT-2b	2969.56	2614.90	2614.90
HT-2c	89.68	232.53	232.53
HT-3a & b	18.98	57.11	57.11
HT-4	116.07	96.59	96.59
HT-5	66.30	74.22	74.22
Sub total	19658.00	18290.92	18290.92
BJ/KJ	58.64	57.45	57.45
IP	5625.26	6189.80	5777.77
Sub total	5683.90	6247.25	5835.22
Grand total	25341.90	24538.17	24126.14

*Including BJ/KJ installations consuming more than 18 units/month

Thus, the Commission approves total sales of 24126.14 MU for FY16 after APR.

4.2.2 Distribution Losses for FY16:

BESCO's Submission:

BESCO, in its application as per the audited accounts has reported actual distribution losses of 12.03% as against distribution losses of 13.40% approved by the Commission for FY16. Accordingly, BESCO as per the provisions of the MYT Regulations has claimed an incentive of Rs.190.92 Crores.

Subsequently, BESCO has revised the sales to IP Sets for FY16 in its letter dated 30th January 2017, as discussed in the earlier paragraphs of this Order.

Commission's analysis and decisions:

The Commission in its Tariff Order dated 2nd March, 2015 had approved distribution losses for FY16 shown as under:

Range of Distribution losses	FY16
Upper limit	13.60%
Average	13.40%
Lower Limit	13.20%

BESCO, in the tariff application dated 30th November, 2016 had reported distribution losses of 12.03% based on the energy input at interface points and sales as per audited accounts for FY16. However, in its replies to the preliminary observations, BESCO has revised the sales to IP sets as 5777.77 MU by considering the metered data of segregated feeders under NJY, as against the consumption of 6189.80 MU considered in its tariff application, as per audited accounts for FY16. Based on this revised IP set consumption, the total sales works out to 24126.14 MU instead of 24538.17 MU as considered in its tariff application. Based on the energy input as stated earlier and the revised sales, the distribution loss works out to 13.51% as detailed below:

1	Energy at Interface Points in MU	27893.40
2	Total sales in MU	24126.14
3	Distribution losses as a percentage of input energy at IF points	13.51%

The Commission notes that, as the revised loss levels fall within the approved range of losses for FY16, the question of allowing any incentive would not arise. Also since the revised loss levels are within the bands prescribed by the Commission, the question of levy of any penalty for non-achievement of loss targets will also not arise.

4.2.3 Power Purchase for FY16:

BESCOM Submission:

The Commission in its Tariff order dated 2nd March, 2015, had approved source-wise quantum and cost of power purchase for FY16. BESCOM, in its application has submitted the details of actual power purchase for FY16 for the purpose of Annual Performance Review. The details of power purchase are as under:

TABLE – 4.7
Power Purchase for FY16- Approved and Actuals

Source of Generation	Actuals for FY16			Approved for FY16			Difference-between Actuals and Approved-for FY16			% increase (+)/decrease (-) over an approved figures	
	Energy in MUs	Cost in Rs Cr.	Rate in Rs per Unit	Energy in MUs	Cost in Rs Cr.	Rate in Rs per Unit	Energy in MUs	Cost in Rs Cr.	Rate in Rs per Unit	Energy	Cost
KPCL Hydel Stations	1949.26	175.85	0.90	3314.70	205.55	0.62	-1365.44	-29.70	0.28	-41.19	-14.45
KPCL-Thermal Stations	8693.14	3699.57	4.26	10793.62	4214.12	3.90	-2100.48	-514.55	0.35	-19.46	-12.21
CGS	8240.82	2577.84	3.13	7265.97	2229.28	3.07	974.85	348.56	0.06	13.42	15.64
Major IPPs	5104.06	2139.78	4.19	4992.75	2063.20	4.13	111.31	76.58	0.06	2.23	3.71
IPPs -Minor (NCE Projects)	2736.34	995.85	3.98	3277.10	1202.25	3.67	-560.76	-206.40	-0.03	-16.5	-17.17
Other States Projects	10.72	30.55	28.50	80.90	14.56	1.80	-70.18	15.99	26.70	-86.75	109.82
Short /Medium term	3599.55	1804.77	4.84	694.06	364.38	5.25	2905.49	1440.39	-0.24	418.62	395.30
UI Charges	319.74	94.87									
Section 11	1324.37	619.41									
Transmission Charges (KPTCL & PGCIL)		1717.07			1531.00			186.07			12.15
SLDC Charges (POSOOC & SLDC)		12.11			15.81			3.70			23.40

Energy Balancing	-2816.33	-1269.73	4.51								
Others Charges		3.07									
TOTAL	29161.67	12601.01	4.32	30419.09	11840.15	3.89	-1257.42	760.39	0.43	-4.13	6.43

* Source : D1 format

Commission's analysis and decisions;

1. The actual power purchase for FY16, as filed by BESCOM for approval of Annual Performance Review is 29161.67MU amounting to Rs 12601.01 Crores, as against the approved quantum of 30419.09 MU amounting to Rs11840.15 Crores. This represents reduction in quantum of power purchased to an extent of 1257.42 MU and increase in the cost by Rs. 760.39 Crores. This is reflected in reduced sales (as reported by BESCOM) to an extent of 803.73 MU in FY16 with reference to the approved sales.
2. As against the approved quantum of 30419.10MU, the actual power purchased by BESCOM is 29161.67 MU for **FY16**, which is about **4.13%** less than the approved quantum.
3. On an analysis of the source-wise approved and actual power purchases, the following deviations in the quantum of energy purchased and its cost are observed:
 - i. There is shortfall in supply from sources of power from KPCL Hydel and KPCL Thermal projects as indicated below:

TABLE-4.8

Short-fall in supply from KPCL Stations

Source of Generation	Shortfall in energy compared with approved availability in MU	Cost Difference between actual and approved in Rs Crs.
KPCL Hydel	1365.44	29.70
KPCL Thermal	2100.48	514.55
Total	3465.92	544.25

The shortfall from the above sources, has been met by un-requisitioned surplus power from CGS & major IPP sources apart from purchases from

short-term & medium-term sources to a tune of 3599.55 MU at a cost of Rs.1804.77 Crores and power purchase under section 11 of the EA, 2003, to a tune of 1324.37 MU at a cost of Rs.619.41 Crores BESCO has incurred an additional cost Rs.760.39 Crores on account of overall deficit in the availability of power.

- ii. The change in the source-wise mix of supply, reconciliation of energy and its cost among ESCOMs has resulted in increase in average power purchase cost of BESCO to Rs.4.32 per KWh as against the approved rate of Rs.3.89 per KWh.
4. **In order to ensure proper accounting of energy and its cost by the ESCOMs, BESCO is directed to reconcile the inter-ESCOM energy exchanges and their costs every month and it shall collect/pay the amounts out of the tariff subsidy received from the Government of Karnataka.**
5. The Commission notes that, so far the SLDC has not implemented the intra-state ABT. As per the directions issued by the Government of Karnataka, vide its letter dated 28th January, 2016, intra-State ABT has to be implemented immediately by the KPTCL and ESCOMs. **The Commission therefore directs the SLDC, KPCL and the BESCO to take appropriate action immediately to implement intra-state ABT and to host the details thereof, on their respective websites.**
6. The power purchases made by the BESCO during FY16 from different sources of generation also include the energy purchased under Section 11 of the Electricity Act, 2003, in pursuance of a Government Order dated 16.09.2015. The Government, in the said order, had fixed a provisional tariff of Rs.5.08 Per unit subject to determination of final tariff by this Commission. The Commission in its order dated 18th August, 2016, has fixed the final tariff at Rs.4.79 per unit and has ordered recovery of the difference amount (Rs.5.08- 4.79) from the generators. However, some of the generators have filed petitions before the Hon'ble ATE, while a few other generators have filed review petitions before this Commission. The

Hon'ble ATE has ordered the ESCOMS not to recover the difference amount pending disposal of the petitions. Hence the power purchase cost allowed in this order is subject to the decisions of the Hon'ble ATE and also this Commission on such pending petitions.

Accordingly, the Commission decides to approve power purchases of 29161.67 MU at a cost of Rs. 12601.01 Crores for the purpose of Annual Performance Review for FY16.

4.2.4 Renewable Purchase Obligation (RPO) compliance by BESCOM for FY16:

1. BESCOM in its petition has filed the details of RPO compliance for solar and non-solar RPO for 2015-16 as indicated below:

TABLE-4.9

RPO Compliance as Reported by BESCOM

	Million Units
Energy Purchased	29161.67
Non-Solar energy to be procured at 10% target	2916.17
Non-Solar energy actually procured	3759.78
Non-Solar compliance as percentage of energy purchased	12.89
Solar energy to be procured at 0.25% target	72.90
Solar energy actually procured	131.86
Solar compliance as percentage of energy purchased	0.45

The Commission in its preliminary observations had noted that the quantum of renewable energy purchased is indicated as 4048.84 MU in table-2.7, whereas the same is indicated as 3891.63 MU in table 2.10. Therefore, BESCOM was directed to reconcile the figures and confirm the correct figures.

BESCOM in its replies to preliminary observations had stated that the figures indicated at Table-2.7 of the application are computed for different analysis and the same cannot be compared with figures of Table 2.10 of the application and hence, had requested to consider the data as per Table

2.10 of the application for the purpose of RPO. Subsequently, BESCO vide its letter dated 10.02.2017 has furnished reconciled data confirming 3891.63 MU as the renewable energy purchase.

The Commission has relied upon the subsequent reply furnished by BESCO confirming 3891.63 MU as the renewable energy purchase. For validating the RPO compliance, the Commission had directed BESCO to furnish the data as per the specified format, duly reconciling the data with the audited accounts. BESCO in its replies has furnished the following data:

a. Non-solar RPO:

TABLE-4.10
Non-Solar RPO Compliance by BESCO

No.	Particulars	Quantum in MU	Cost- Rs. Crores.
1	Total Power Purchase quantum from all sources	29161.67	12600.58
2	Non-solar Renewable energy purchased under PPA route at Generic tariff including Non-solar RE purchased from KPCL	2653.49	939.07
3	Non-solar Short-Term purchase from RE sources, excluding sec-11 purchase	552.80	280.82
4	Non-solar Short-Term purchase from RE sources under sec-11	553.49	281.17
5	Non-solar RE purchased at APPC	0	0
6	Non-solar RE pertaining to green energy sold to consumers under green tariff	0	0
7	Non-solar RE purchased from other ESCOMs	0	0
8	Non-solar RE sold to other ESCOMs	0	0
9	Non-solar RE purchased from any other source like banked energy purchased at 85% of Generic tariff	0	0
10	Total Non-Solar RE Energy Purchased [No 2+ No.3+No.4+No.5 +No.7+No.9]	3759.78	1501.06
11	Non-Solar RE accounted for the purpose of RPO [No.10- No.5-No.6-No.8]	3759.58	501.06
12	Non-solar RPO complied in % [No11/No1]*100	12.89	

b. Solar RPO:

TABLE-4.11
Solar RPO Compliance by BESCOM

No.	Particulars	Quantum in MU	Cost- Rs. Crores.
1	Total Power Purchase quantum from all sources	29161.67	12600.58
2	Solar energy purchased under PPA route at Generic tariff including solar energy purchased from KPCL	75.05	53.89
3	Solar energy purchased under Short-Term, excluding sec-11 purchase		0
4	Solar Short-Term purchase from RE under sec-11		0
5	Solar energy purchased under APPC		0
6	Solar energy pertaining to green energy sold to consumers under green tariff		0
7	Solar energy purchased from other ESCOMs		0
8	Solar energy sold to other ESCOMs		0
9	Solar energy purchased from NTPC (or others) as bundled power	56.80	60.26
10	Solar energy purchased from any other source like banked energy purchased at 85% of Generic tariff		0
11	Total Solar Energy Purchased [No.2+ No.3+No.4+No.5+No.7+No.9+No.10]	131.85	114.15
12	Solar energy accounted for the purpose of RPO [No.11- No.5-No.6-No.8]	131.85	114.15
13	Solar RPO complied in % [No.12/No.1]*100	0.45	

The Commission has perused the data furnished and the explanation submitted by BESCOM. The Commission notes that at sl.no.11 of the table relating to Non-solar RPO, the total cost is wrongly indicated as Rs. 501.06 Crs. instead of 1501.06 Crs.

The Commission has approved total input energy of 29161.67 MU for FY16 in its APR. Thus, BESCOM was required to purchase 2916.17 MU of Non-solar energy and 72.90 MU of solar energy to meet its RPO targets. The Commission notes that in non-solar energy of 2653.49 MU under PPA route, BESCOM has not considered 7.80 MU KPCL Wind Power and 6.10 MU of TBHE. The total non-solar energy purchased would be 3773.68MU. Thus, BESCOM has achieved 12.94% of non-solar and 0.45% of solar RPO for FY16. As a result, BESCOM has over-achieved its non-solar and solar RPO targets by 2.94% percentage points and 0.20 percentage points respectively.

4.2.5 Operation and Maintenance Expenses:

BESCOM's Submission:

BESCOM in its application has sought approval of O&M expenditure of Rs.1219.34 Crores for FY16. As per the audited accounts, BESCOM has incurred O & M expenses of Rs.1167.38 Crores as detailed below:

TABLE – 4.12

O&M Expenses of BESCOM as per Audited Accounts for FY16

Amount In Rs. Crores	
Repairs & Maintenance	83.37
Employee Expenses	860.80
A&G expenses	223.21
O&M expenses	1167.38

BESCOM has requested the Commission to consider indexation ratio of CPI: WPI at 74: 26 for working out the weighted inflation rate at 6.78% calculated on one-year CPI & WPI index from January- December, 2015 and has arrived at the normative O&M expenditure after factoring in the CAGR of growth in the number of consumers at 7.44% computed based on the consumer growth as per actuals of FY16 over FY15 (One year) with the base O & M expenses as per APR of FY15. BESCOM has projected the normative O&M expenses as follows:

TABLE – 4.13

Normative O & M Expenses – BESCOM's submission

Particulars	FY16
Consumer growth rate as per actual (CGI)	7.44%
Weighted Inflation Index (WII)	6.78%
O&M Cost of FY15 as per APR Rs.in Crs.	919.68
O&M Index= O&M (t-1)*(1+WII+CGI-X) Rs.in Crs.	1041.26

Further, BESCOM has claimed that it has incurred additional O&M Expenses of Rs.15.06 Crores on account of recruitment during FY16, which is to be treated as uncontrollable expenditure. Also, an amount of Rs.12.79 Crores is

claimed as uncontrollable expenditure on account of modification of 59000 Group Operating Switches (GOS) operating pipes provided for distribution transformers in BESCO. An amount of Rs.150.23 Crores has been claimed as uncontrollable expenditure towards Pension and Gratuity contribution. Thus, BESCO has claimed uncontrollable O&M expenditure of Rs.178.08 Crores in addition to the normative O&M expenses of Rs.1041.26 Crores. The total O&M expenses claimed by BESCO for FY16 are Rs.1219.34 Crores.

Commission's analysis and decisions:

The Commission in its Tariff Order dated 2nd March, 2015 had approved O&M expenses for FY16 as detailed below:

TABLE – 4.14

Approved O&M Expenses as per Tariff Order dated 02.03.2015

Particulars	FY16
No. of installations as per actuals as per Audited Accts	10099416
Weighted Inflation Index	6.69%
CGI based on 3 Year CAGR	6.73%
Actual O&M expenses for FY13-Rs.in Crores.	901.15
Total Approved O&M Expenses for FY16 – Rs.in Crores	1205.01

The Commission in its preliminary observations had sought the details of certain expenses booked under A&G expenses by BESCO during FY16. BESCO in its replies has stated that it has incurred expenses of Rs.118.07 Crores towards remuneration to contract agencies and that an amount of Rs.43.66 Crores has been incurred towards conveyance and travel expenses. Further, an amount of Rs.3.38 Crores is incurred on Legal, Professional and Consultancy charges. Though BESCO has furnished the Division-wise amount of expenditure incurred, it has not furnished the details of expenditure incurred against the above expenses.

The Commission in its Tariff Orders has been stressing the need to initiate adequate measures to control the O&M expenses so as to be within the approved figures.

BESCOM has again sought consideration of one-year data of WPI and CPI for determining the inflation index and consumer growth rate. The Commission reiterates its earlier view that, one-year data of WPI and CPI and consumer growth rate does not reflect the true indices due to situational variations, if any. Further, the Commission in its Order dated 7th January, 2016 in RP No.5/2014, has decided to allow O & M expenses as per the norms of the MYT Regulations. Thus, in accordance with the methodology adopted while approving the ARR for FY14-16 and subsequent APRs, the Commission proceeds with the determination of the normative O & M expenses based on the 12-year data of WPI and CPI and three year CAGR of consumers.

Considering the Wholesale Price Index (WPI) as per the data available from the Ministry of Commerce & Industry, Government of India and Consumer Price Index (CPI) as per the data available from the Labour Bureau, Government of India and adopting the methodology followed by the CERC, with CPI and WPI in a ratio of 80: 20, the allowable inflation for FY16 is computed as follows:

TABLE-4.15
Allowable Inflation for FY16

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2004	98.72	111.1	108.624				
2005	103.37	115.8	113.314	1.04	0.04	1	0.04
2006	109.59	122.9	120.238	1.11	0.10	2	0.20
2007	114.94	130.8	127.628	1.17	0.16	3	0.48
2008	124.92	141.7	138.344	1.27	0.24	4	0.97
2009	127.86	157.1	151.252	1.39	0.33	5	1.66
2010	140.08	175.9	168.736	1.55	0.44	6	2.64
2011	153.35	191.5	183.87	1.69	0.53	7	3.68
2012	164.93	209.3	200.426	1.85	0.61	8	4.90
2013	175.35	232.2	220.83	2.03	0.71	9	6.39
2014	182.00	246.90	233.92	2.15	0.77	10	7.67
2015	177.03	261.42	244.542	2.25	0.81	11	8.93
A= Sum of the product column							37.56
B= 6 Times of A							225.37
C= (n-1)*n*(2n-1) where n= No. of years of data=12							3036.00
D=B/C							0.07
g(Exponential factor)= Exponential (D)-1							0.0771
e=Annual Escalation Rate (%)=g*100							7.71

While determining the normative O & M expenses for FY16, the Commission has considered the following aspects:

- a) The actual O & M expenses allowed for FY13 excluding contribution to Pension and Gratuity Trust as base year data.
- b) The three year compounded annual growth rate (CAGR) 6.89% of the number of installations considering the actual number of installations as per the audited accounts up to FY16.
- c) The weighted inflation index (WII) at 7.71% as computed above.
- d) Efficiency factor at 1% as considered in the earlier two control periods.

Thus, the normative O & M expenses for FY16 will be as follows:

Particulars	FY16
No. of Installations As per actuals as per Audited Accts	10146965
Weighted Inflation Index	7.71%
Consumer Growth Index (CGI) based on 3 Year CAGR	6.89%
Actual O & M expenses for FY13 excluding P&G contribution (base figure for FY14-16)-Rs.in Crores.	737.09
O&M Index= O&M (t-1)*(1+WII+CGI-X)- Rs. Crores	1044.76

The above normative O & M expenses have been computed without considering the contribution to Pension and Gratuity Trust and additional employee cost on account of recruitment during FY16.

BESCOM, as per its audited accounts has incurred an amount of Rs.150.23 Crores towards contribution to Pension and Gratuity Trust for FY16. Further, BESCOM in its application has stated that it has incurred an amount of Rs.15.06 Crores as additional expenses on account of recruitment of personnel to fill up the existing vacancies during FY16. BESCOM has also requested to consider the work awarded amount of Rs.12.79 Crores towards modification of 59000 Group Operating Switches' (GOS) operating pipes provided for distribution transformers in BESCOM as uncontrollable expenditure.

The Commission decides to treat employee costs on account of recruitment and contribution to P&G Trust as uncontrollable O&M expenses. This component has been allowed in addition to the normative O&M expenses to enable BESCO to meet its actual employee costs. Considering the uncontrollable O & M expenses, the total allowable O & M expenses for FY16 works out to Rs.1210.05 Crores. The claims towards expenditure for modification of 59000 Group Operating Switches' (GOS) operating pipes provided for distribution transformers being the part of the R&M expenses, is already covered under R&M expenses of the audited accounts which falls under normative controllable O&M expenses. Hence the Commission has not allowed this expenditure separately. Nevertheless, the O&M expenses now allowed on normative basis are more than the actual O&M expenses incurred by BESCO for FY16.

The allowable O&M expenses for FY16 are as follows:

TABLE – 4.16
Allowable O & M Expenses for FY16

Amount in Rs. Crores		
Sl. No.	Particulars	FY16
1	Normative O & M expenses	1044.77
2	Additional employee cost (uncontrollable O & M expenses)	165.29
3	Allowable O & M expenses for FY16	1210.06

Thus, the Commission decides to allow an amount of Rs.1210.06 Crores as O&M expenses for FY16.

4.2.6 Depreciation:

BESCO's Submission:

BESCO in its applications has claimed an amount of Rs.290.60 Crores as depreciation worked out after deducting an amount of Rs.128.96 Crores being the depreciation amount withdrawn on account of assets created out of consumers' contributions / grants as per Accounting Standards (AS) – 12 as detailed below:

TABLE – 4.17

Depreciation for FY16 – BESCOM's Submission

Amount in Rs. Crores	
Particulars	FY16
Gross fixed assets at the beginning of the year	7074.36
Additions during the year	2025.28
Deductions during the year	198.90
Gross fixed assets at the end of the year	8900.74
Depreciation provided	419.55
Average rate of Depreciation	5.24%
Less: Depreciation withdrawn from contribution as per AS 12	128.95
Net Depreciation	290.60

The BESCOM has requested the Commission to allow depreciation amount of Rs.290.60 Crores for FY16.

Commission's analysis and decisions:

In accordance with the provisions of the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereon, the allowable depreciation for FY16 has been determined by the Commission duly considering the data of assets as per the audited accounts as follows:

TABLE – 4.18

Allowable Depreciation for FY16

Amount in Rs. Crores			
Particulars	Opening Balance of Asset as on 01.04.2015	Closing Balance of Asset as on 31.03.2016	Depreciation for FY16
Buildings	79.36	106.77	3.64
Civil	3.39	4.07	0.19
Other Civil	0.81	1.61	0.04
Plant & M/c	1499.28	1986.52	113.38
Line, Cable Network	5441.73	6742.16	299.91
Vehicles	18.68	24.46	1.19
Furniture	11.64	13.62	0.60
Office Equipment	11.92	13.97	0.60
Intangible Assets	4.88	7.72	
Sub Total	7071.69	8900.92	419.56
Less Depreciation on account of assets created out of consumer contribution / grants			128.96
Net allowable depreciation			290.60

Considering the opening and closing balance of gross blocks of fixed assets for FY16 and the depreciation as per annual accounts, the weighted average rate of depreciation works out to 5.25%.

As per the audited accounts for FY16, an amount of Rs.128.96 Crores on account of depreciation on assets created out of consumer's contribution and grants on actual basis is considered for computation of allowable depreciation for FY16.

Based on the above, the Commission decides to allow the actual net depreciation of Rs.290.60 Crores for FY16.

4.2.7 Capital Expenditure for FY16:

a) Capital Expenditure of BESCO:

BESCO's submission:

The BESCO has reported a capital expenditure of Rs.1374.31 Crores (pages 14 & 15 of the application) as against the Commission approved capex of Rs.627 Crores for FY16, Whereas, in Format D17, BESCO has shown a capital expenditure of Rs.1805.43 Crores. The details of the category wise Capital expenditure stated to have been incurred for FY 16, is shown below:

Table-4.19

Capital expenditure for FY16- BESCO's Submission

Sl. No	Schemes	Amount in Rs. Crores	
		Approved Capex	Expenditure incurred
1	E&I works		
A	11 KV Lines for New Stations	80	33.48
B	11 KV Other Work+ DTCs including dedicated DTCs for DWS Schemes.	70	22.23
C	Re- conducting of ACSR /Rabbit to Coyote in Bangalore Urban	30	18.53
D	Re-conductoring of LT line using Rabbit conductor	20	17.88
E	Re- conducting (Improvement works on 11 KV Rural Feeders)	20	-
F	Strengthening of 11 KV UG cable Network with RMUs	25	45.09

2	NJY		177.47
3	Providing infrastructure to Un authorized IP Sets	60	212.34
4	(A) DTC Metering Programme Non RAPDRP Area	30	18.81
	(B) Replacing Mechanical Meter By Electrostatic.	20	69.77
	(C) Smart Meter, HT- TOD Meter Replacing MNR etc.	30	
5	RAPDRP & DAS		121.97
6	Service connections	25	58.64
7	Replacement of failure DTCs by new ones	15	95.52
8	A)Civil Engineering works, DSM & Others	25	34.97
	B)Consumer Education	1	-
9	HVDS		255.77
10	Providing fault locators	1	
11	Electrification Hamlets /Villages	5	-
12	Energisation of IP Sets	20	-
13	T &P and Computers, IT initiative, TIC	10	36.94
14	Other works including Safety measures fund, Local Planning, Emergency restoration, TIC	20	67.43
15	Providing AB Cable	120	10.93
16	Ganga Kalyana		57.5
17	DDUGJY		1.24
18	IPDS		3.21
19	One Time Maintenance		13.00
20	RGGVY 12th plan		1.60
	Total	627	1374.31

BESCOM has clarified in the replies to preliminary observations that, the difference in Capital expenditure shown as Rs.1805.43 Crores and the category wise expenditure indicated at Rs.1374.31 Crores is due to the inclusion of capex under consumer contribution in Rs.1805.43 Crores shown in D17.

Commission's analysis and decision:

In the Tariff Order dated 2nd March, 2015, the Commission had approved an amount of Rs.627 Crores towards capital expenditure for FY16, against the BESCOM's proposed capex of Rs.2050 Crores, as BESCOM had indicated a loan amount of Rs.604 Crores for FY16.

From the above table, it is seen that, the capital expenditure incurred by BESCOM at Rs.1374.31 Crores is in excess of the approved capex to an

extent of Rs.747.31 Crores for FY16. The Commission notes that, the capex incurred beyond the approved amounts would necessitate incurring additional amounts towards interest and depreciation affecting the approved ARR and the retail supply tariff. In view of this, the Commission has been directing all the ESCOMs to plan their capex carefully so as to ensure that they do not exceed the capex achievement by a huge margin which will have a substantial impact on the tariff to the end consumers.

BESCO in its reply to the preliminary observations has stated that, out of Rs.1374.31 crores, it has utilized Rs.870.27 Crores for spill over works and Rs.504.02 Crores for meeting the new works of FY16. Also, BESCO in its replies to the rejoinder has stated that, a capex of Rs.627 Crores for FY16 has been approved by the Commission for new works and its capex for new works is well within the approved capex of Rs.627 Crores. It is to be noted here that, the Commission approves capex of ESCOMs for the financial years to facilitate execution of its new works as well as spill over works and the capex approval for the financial year will not be segregated as stated above. Also, there is no instance of any ESCOM separately seeking capex approval for the new works and spill over works, in any of the financial year in the past.

BESCO has stated that, a capex of Rs.870.27 Crores is used for spillover works. This clearly shows that, a large number of works were kept pending execution under the spillover/ongoing category every year. BESCO needs to monitor the works properly to complete them within the time frame and categorize them without undue delay.

From the above table it is seen that, the works like "**E&I of 11 kV Lines for New Substations, 11 kV Other Work and DTCs including dedicated DTCs for Drinking Water Schemes and Re- conductoring of ACSR /Rabbit to Coyote in Bangalore Urban**", are very essential for improvement of the ESCOM's network strengthening and loss reduction. But the BESCO has achieved progress of less than 50% of the approved capex on these works. The BESCO, in its response to the Commission's preliminary observations has not furnished a satisfactory reply on this aspect. BESCO should note that, the

E&I work would help to improve its distribution system network connectivity, reduce technical losses and improve reliability of the system. Therefore, BESCOM ought to have incurred approved capex in full for these works.

In respect of “**NJY programme**”, BESCOM has incurred a capex of Rs.177.47 Crores and the Commission had sought the details of the analysis it has carried out on the benefits earned. BESCOM in its replies to preliminary observations made by the Commission has stated that, pre and post implementation analysis of NJY has been carried out by a third party agency and has listed some of the benefits accrued as below:

- a) After implementation of NJY programme, BESCOM is providing 24X7 hours power to non-agricultural loads in rural areas and has achieved improvement in quality of power supply with improved standard of living,
- b) The metered consumptions in Rural areas has increased by 25%,
- c) The NJY has reduced the failure of Distribution transformers,
- d) NJY has resulted in better consumer satisfaction and encouragement of rural Industries.

In respect of “**Replacing Mechanical Meter by Electrostatic/Smart Meter, HT-ToD Meter, Replacing MNR etc.**”, BESCOM has incurred a capex of Rs.69.77 Crores as against the approved capex of Rs.50 Crores. BESCOM in its replies to the Commission's preliminary observations has stated that, the higher capex in this category is due to procurement of static meters which have advantages of higher accuracy, recording demand, registering of information on pilferages and also, to avoid consumer grievances on average billing and accuracy issues.

Under the item of “**Replacement of failed Distribution Transformers by new ones**”, the BESCOM has shown a capex of Rs.95.52 Crores which does not appear to be correct. The Commission had pointed out the discrepancy in the accounting practice in the previous year also and all ESCOMs had

agreed to set right the same. BESCO in its replies to preliminary observations has only furnished data on number of failed, repaired and new transformers used to replace failed ones. But, has not clarified the reasons sought for showing the capex of Rs.95.52 Crores. Moreover, the scrapped transformers being 879 in numbers, BESCO has procured 1236 numbers of new transformers and incurred only Rs.12.72 Crores. BESCO should note that, only the failed transformers which are beyond repairs due to burning / fully damaged are to be scrapped and could be replaced by new transformers and such transformers can be accounted under capex. The charges incurred for the repairs of failed Transformers are to be accounted under Revenue Expenditure.

In respect of **“Distribution Automation System (DAS) & Smart Grid (SG) programme”**, BESCO has indicated a capex of Rs.44.25 Crores. BESCO in its replies to the Commission's preliminary observations has submitted the details of progress of work of DAS programme, but, it has not indicated as to when the DAS programme will be completed and commissioned. **The Commission notes that this work has been going on since a long time and directs BESCO to ensure early completion of the work with a view to ensure that the intended benefits of the scheme are realised without any further delay.**

In respect of **“HVDS”**, works BESCO has achieved a capex of Rs.255.77 Crores. The Commission had sought the details of this scheme and its post-commissioning analysis. BESCO in its replies to preliminary observations has stated that, a third party analysis has been awarded and the outcome will be submitted to the Commission after receipt of the report.

A capex of Rs.13 Crores for **“One-time maintenance of distribution system”** has been incurred by BESCO. BESCO in its replies to preliminary observations made by the Commission has furnished the details of the works carried out in the O&M Divisions and stated that, the works are being inspected by a third party for analysis of the pre and post-commissioning scenarios. BESCO has stated that, the report will be submitted to the Commission after the third party submits the analysis.

In respect of works taken up under “**TENDER SURE projects**”, which are infrastructure projects of BBMP Bengaluru, it is stated that, the works are taken up as capital works of BESCOM, whereas, such works shall have to be treated as Deposit Contribution Works (DCW). Since this work is being executed by the BBMP, the amount incurred on its execution has to be recovered from BBMP, and it cannot form part of capex programme of BESCOM.

The BESCOM's explanation on this is not acceptable and the Commission directs BESCOM to collect an amount of Rs.44.30 Crores stated to have been incurred against TENDER SURE works from BBMP and report the same to the Commission separately. If the amount is not collected by BESCOM, the same would be disallowed during APR of FY17.

Further, it is noted that BESCOM has been incurring capex over and above the approved amounts from the past four years as indicated below:

Table-4.20

Approved and Actual Capex incurred –FY12 to FY16

Amount in Rs. Crores.

Particulars	FY12	FY13	FY14	FY15	FY16
Capital investment approved by the Commission	660.00	510.00	848.00	763.00	627.00
Actual capital investment incurred as per audited accounts	557.68	851	1052	1782.85	1805.43
Shortfall (-)/ Excess	-102.32	341	204	1019.85	1178.43
Percentage achievement	84.49	167%	124%	233.7%	287.94%

From, the above information, it is evident that, there is no proper planning of capital expenditure, budgetary control and monitoring to ensure that the capex amounts spent are well within the allotted funds. Further, the Commission had issued “**Capital Expenditure Guidelines for ESCOMs**” in which the capital investment planning process and prioritization and post commissioning analysis to be adopted by the ESCOMs, have been

emphasized. The Commission notes that BESCO is yet to implement the said guidelines issued by the Commission.

The BESCO, in its replies to the rejoinders, has explained that, the excess expenditure over and above the approved amount is due to, the inclusion of capex in respect of NJY works, HVDS works, consumer contribution works, IPDS and RAPDRP works which are being provided with grants from Government of India and Government of Karnataka.

The Commission, after reviewing the progress achieved in the capex for FY16 and considering the replies furnished by BESCO, decides to allow the capex of Rs.1374.31 Crores, subject to disallowance if any, as per the results of the prudence check of capital expenditure for FY16, as discussed below.

b) Prudence check of capital expenditure and material procurement of BESCO for FY16:

The Commission has got the Prudence checks of capital expenditure for FY16, done through third party verification of the capital works categorized and the material procurement of BESCO during FY16. This was taken up in two parts:

- i. Prudence check of execution of the capital works of FY16.
- ii. Prudence check of Material Procurement process of FY16.

i. Prudence check of execution of the capital works of FY16

The capital expenditure as proposed by BESCO is being allowed by the Commission as per the filing every year, subject to prudence check. Accordingly, the prudence check of the capital expenditure incurred by BESCO for the FY16 was got done by the Commission by engaging the services of **M/s. Power Research and Development Consultants Pvt. Ltd. (PRDCL) as consultant**, being the lowest bidder for the said job, through a transparent process of e-tendering to evaluate the works categorized during FY16, which includes the spill over works of earlier year's and the new works of FY16.

M/s PRDCL has stated that, it has received a list of 69,728 works costing Rs.1575.87 Crores from BESCOM, in which 26457 works were costing more than Rs.1 Lakh with a total cost of Rs.1353.06 Crores. M/s PRDCL has drawn the required sample size from the list provided as per the guideline issued and the terms of the reference prescribed in the bid document and the scope of the work issued by the Commission. The total works and selected samples for prudence check are shown below:

TABLE – 4.21**Total works and selected samples for Prudence check**

Particulars	As per List furnished		As per sample selected	
	No. of Works	Cost	No. of Works	Cost
Works costing more than Rs.6 lakhs	2230	971.52	125	227.47
Works costing between Rs.3 to Rs.6 lakhs	3383	98.78	52	2.26
Works costing less than Rs.6 lakhs	20844	282.76	42	1.10
Total	26457	1353.06	219	230.83

M/s PRDCL has stated that, they have verified the data received from the O&M divisions and examined the works by conducting the site visits. Various details like, energy savings, benefits derived and details regarding the execution of respective works were collected and reviewed. Further, in the grading of the works M/s PRDCL has observed that, out of 206 works evaluated (13 works were not evaluated), five works were found to be just qualified as prudent, 194 works were graded at 61-70 marks, seven works were found to be excelling by getting more than 71 marks, seven works were found to be conditionally prudent and one work is not meeting the prudence norms.

As per the report of the consultant, the following is the summary of Prudence check findings for FY16:

TABLE – 4.22

Summary of Prudence check findings for FY16

Particulars		Numbers	Cost in Rs. Crores
Works costing Rs.6 Lakhs and above considered as samples		125	227.47
Works costing between Rs.3 Lakhs and Rs.6 Lakhs considered as samples		52	2.26
Works costing below Rs.3 Lakhs considered as samples		42	1.1
Works not meeting the norms of prudence	Rs.6 Lakhs and above	Nil	-
	Rs.6 Lakhs and Rs.3 Lakhs	01	0.0348
	below Rs.3 Lakhs	Nil	-
Total works not meeting the norms of prudence as stipulated in the guidelines issued by this Commission		01	0.0348

M/s PRDCL has furnished the details of works not meeting prudence norms and the works which are conditionally prudent as follows:

TABLE – 4.23

Details of Not Prudent and Conditionally Prudent works

Division	Work nomenclature	Cost Rs. Lakhs
Non- Prudent work		
Rajajinagar	Enhancement of 100kva to 250kva Distribution Transformer of N3TC-319, S.C. Gangabyraiah TC in O & M-7 area, N3 S/D, Basaveshwaranagar, Rajajinagar Division, BESCOM on total turnkey basis	3.48L
Conditionally prudent works		
Chandapura	11 KV New Feeder/link line under RAPDRP scheme, from Attibele MUSS for bifurcation of F-15 feeder by using 3*400 Sq. mm UG Cable – Attributable to KPTCL	99.17
Hebbal	Evacuation of new feeder from Sahakaranagara MUSS to Agrahara layout to reduce the overload of existing F-14 feeder from Sahakaranagara MUSS in O & M Unit-20A, C8 sub-division (W.O. No T-4023 dated 03.11.2015),	153.95
Chitradurga	RAPDRP -B project at Chitradurga town	1487
Kanakapura	Arranging 62HP+960W power supply to concrete product industry in favor of Manjula w/o Sreekantha G T at Gollanadoddi in Harohalli section, Harohalli sub division	2.86
Tumkur	Conversion of existing LT distribution system into high voltage distribution system (HVDS) for MF-9 D.G. Hally feeder of Hebbur section in RSD2 sub-division	262.57

Tumkur	Conversion of existing LT distribution system into high voltage distribution system (HVDS) for MF-4 Mallasandra feeder of S. Nagara section in RSD2 sub-division	85.7
Tumkur	Conversion of existing LT distribution system into high voltage distribution system (HVDS) for MF-4 F2 Mulukunte feeder of Honnudike section in CSD3 sub-division	594.76
Tumkur	Conversion of existing LT distribution system into high voltage distribution system (HVDS) for MF-4 F-8 M Gollahalli feeder of Honnudike section in RSD1 sub-division	452.72
Total		3138.73

Further the consultant, who has carried out the prudence check of KPTCL has stated that, one project not meeting the norms of Prudence in KPTCL needs to be attributed to BESCOM for the following reasons:

- ❖ It is observed that the 66/11 kV Sriganadakavalu Substation, in Bengaluru transmission zone remains unutilized in spite of it being ready in all respect as BESCOM has not connected required load through 11kV feeders to the station. In this case KPTCL may not be penalized for the project not meeting prudence norms. The **responsibility should be fixed on the BESCOM for its failure to execute the required number of 11kV feeders from this substation.**

The summary of works which are having cost overrun as well as time overrun are shown as follows:

TABLE – 4.24
Summary of Works having Cost overrun

Particulars	Within 10%	10-25%	Above 25%
Rs.6 Lakhs and above	19	14	08
Rs.6 Lakhs and Rs.3 Lakhs	06	04	03
below Rs.3 Lakhs	07	01	00

TABLE – 4.25
Summary of Works having Time overrun

Particulars	Within Year	Between one and two Years	Above 2 Years
Rs.6 Lakhs and above	26	03	05
Rs.6 Lakhs and Rs.3 Lakhs	06	02	02
below Rs.3 Lakhs	06	00	01

M/s PRDCL has made some important observations as follows:

- a) In case of a few NJY works, field works are completed, but the assets are not categorized due to various reasons, primarily because of noncompliance of conditions and bills not submitted by the contractors. In general, the categorization of assets has been delayed by a few months for majority of the projects.
- b) Some of the works were yet to be categorized or are partly categorized as the contractors reportedly have failed to submit the bills and joint inventory statements.
- c) In a few other cases there have been delays in categorization, due to delay in submission of completion reports of works from the field officials.

The Commission had forwarded the copy of the Prudence check Report submitted by the Consultant to BESCOM along with the report in respect of KPTCL for its views/comments and justification if any on the non-prudent works for being treated as meeting to norms of prudence to reach the Commission on or before 20th March, 2017.

BESCOM in its letter dated 20th March, 2017 has stated that, the project in which the 250kVA transformer was shifted has been brought back to its original place on 7.2.2017. But, the consultant has clearly mentioned that, even during the writing of the draft report which was subsequently submitted to the Commission on 21st February 2017, it had contacted the officials of BESCOM and confirmed that, the transformer has not been put back into its original place. The extract of the annexure to the prudence check report is shown below:

“Even till this day of writing this report, 250kVA transformer had not been reinstalled and the present load is fed by 100kVA transformer itself”

Further, BESCOM, in respect of the conditionally prudent works, has furnished very general replies.

The Commission has verified the reply by BESCOM and the views /comments and the justifications for the works to be treated as meeting prudence norms though treated as not meeting the prudence norms by the consultants. The Commission has decided that, the interest and depreciation pertaining to the cost of works termed as not meeting prudence norms are to be disallowed as shown below:

TABLE – 4.26
Details of Amounts disallowed in APR FY16

SI No	Particulars	Amount in Rs. Crores
1	Total cost of categorized works eligible for prudence check	1353.06
2	Total cost of the sample works	230.83
3	Cost of sample works not meeting prudence norms (01 work with cost of Rs.3.48Lakh against a sample basket of 24 works with Rs.1.22 Crore in the category of additional transformers 2648 Nos. and total cost of Rs.41.78Crores)	0.0348
4	Percentage of cost not meeting prudence norms with respect to the total samples considered in the category (Rs.3.48 Lakh against a sample basket of 24 works with Rs.1.22 Crore)	2.852
5	Overall cost of capex in the category not meeting prudence norms compared with the cost of the total cost of the category of Additional transformers (2.852% of sample basket escalated to total capex under the respective category of works of Rs.41.78Crores)	1.19
6	The cost of KPTCL works not meeting the norms of Prudence attributable to BESCOM	3.98
7	Total amount of capex not meeting the norms of prudence (=5+6)	5.17
8	Amount to be disallowed towards works not meeting prudence norms calculated on the basis of weighted average interest & weighted average depreciation on the capex to be disallowed.	0.564

Thus, the Commission decides to deduct an amount of Rs.0.564 Crores towards disallowance of interest and depreciation on the imprudent capital works for FY16 in the revised approved ARR for FY18 as discussed in the subsequent chapter of this Order.

ii. Prudence check of Material Procurement process of FY16:

The BESCOM is carrying out the Capital works through total turnkey as well as partial turnkey. In some cases, the agency or the contractor assigned with the partial turnkey would also invest in some of the smaller materials whenever it is necessary. While procuring the materials at large quantities, it is very essential for BESCOM to see that, no stock is kept idle for a longer period and the material procurement and distribution is carried out in a prudent manner. The Commission has been instructing the consultants to also carry out prudence check of the material procurement process in all the ESCOMs along with the prudence check of execution of works.

M/s PRDC has stated that, BESCOM has considered all the aspects related to procurement and has procured the materials as per the requirement after due process of "e-tendering" duly following the Transparency Act. However, the Government of Karnataka has exempted the utilities from the Transparency Act, in respect of purchase of materials directly from certain firms like KAVIKA without calling for tenders. Some materials for works are also directly purchased through rate contract basis from the firms, with whom BESCOM has entered into agreement after necessary bidding processes.

Some of the observations made on the procurement are:

- a) The materials are procured through the process of e-tendering duly following the regulations as per KTPP Act.
- b) Procurement of Distribution Transformers is exempted from the KTPP Act.
- c) There were 4397 nos. of 25 kVA capacity transformers in stock at the beginning of the year. 9,320 transformers were procured during the year against 32,220 transformers ordered and 12,994 were utilized for works. Only 1,046 transformers remained in stock at the end of the year. These are proposed to be utilized for NJY works, HVDS works, UNIP regularization works etc.
- d) Opening balance of 63 kVA transformers at the beginning of the year was 436 nos. Orders were placed for procurement of 4,440 transformers of this rating, against which 2,306 were supplied. 2,318 transformers were

utilized for works were utilized and remaining 326 (including O.B) were in stock as on 31.3.2016.

- e) Opening balance of 100 kVA transformers was 155nos. at the beginning of the year. Procurement orders were placed for 2,730 transformers out of which 1,042 transformers were received. A total of 1,091 transformers were utilized for works and remaining 11 only was held in stock at the end of the year.
- f) In respect of 250 kVA transformers, 267 were received during the year, to add to the opening stock of 45 nos whereas, 301 transformers were utilized for works, balance 11 only remained in stock at the end of the year. Orders had been placed on firms to supply 680 transformers of this capacity.
- g) No new transformers of 500 kVA were ordered 14 of the 15 transformers that were available in stock and were utilized for works and at the end of the year only one transformer remained in stock.
- h) In respect of HT aerial bunched cables, opening balance was 8.456 km, no procurement was made in FY16, 7.5 km of conductor was issued for works and remaining 0.9km was in stock as on 31.3.2016
- i) LT, AB cable opening balance was 33.7 km, 100 km was procured, 47.3 km was issued and remaining 94.36 km was available in stock at the end of the year.

Further, considering the size of BESCOM's jurisdiction and consumer base of 101.46 lakhs, handling an energy consumption of 29,161.67 MU with a network of HT lines of 89,297.69 ckt kms and LT network of 16,3045.47 ckt kms, and 2,36,672 number of transformers, the stock of various materials quantity stated above is acceptable.

The Commission after noting the above observations of the consultant:

- i. Directs BESCOM to take action to make the conditionally prudent works to meet the norms of prudence and furnish compliance, failing which the applicable weighted average interest and depreciation cost of the conditionally prudent works will be disallowed during APR of FY17.**
- ii. Directs BESCOM to take action to rectify the work termed as not meeting prudence check and report.**

- iii. Directs BESCOM to Monitor the works, complete and categorize the works within the target time.
- iv. Directs BESCOM to monitor the stock position continuously to see that, no material is kept as idle stock.

4. 2.8 Interest and Finance Charges

a) Interest on Capital loan:

BESCOM's Submission:

BESCOM in its application has claimed an amount of Rs.266.03 Crores towards interest on long term loans drawn from banks / financial institutions. The details of interest on loans claimed by BESCOM are as follows:

TABLE – 4.27

Interest on Capital Loans- BESCOM's Submission

Particulars	Amount in Rs. Crores	
	FY16	
Long term Loan outstanding as on 31.03.2015	2663.74	
Less repayments	159.30	
Long term Loan outstanding as on 31.03.2016	2504.44	
Average loan for the year	2584.09	
New Loans availed during the year	845.35	
Interest on long term loans	266.03	

Considering the opening balance of loans, fresh borrowings and the repayment of loans during FY16, the weighted average rate of interest on the average loan amount works is stated to be 7.76%. BESCOM has requested the Commission to allow an amount of Rs.266.03 Crores for FY16 towards interest on long term loans.

Commission's analysis and decisions:

The Commission has considered the opening and closing balances of long term loans as per the audited accounts for FY16 and repayments/new loans as per format D9 of the application as shown below:

TABLE – 4.28

Allowable Interest on Capital Loans – FY16

Amount in Rs. Crores

Particulars	FY16
Opening Balance Secured Loans	2628.66
Opening Balance Un-secured Loans	40.07
Total opening balance of loans	2668.73
Add new Loans	851.82
Less Repayments	159.30
Total loan at the end of the year	3361.25
Average Loan	3014.99
Interest on long term loans as per audited accounts for FY16	266.03

Considering the average loan of Rs.3014.99 Crores and an amount of Rs.266.03 Crores incurred towards interest on long term loans, the weighted average of interest works out to 8.82% which is lesser than the prevailing interest rates.

Thus, the Commission decides to allow an amount of Rs.266.03 Crores towards interest on loan for FY16.

b) Interest on Working Capital:**BESCOM's Submission:**

BESCOM has furnished the details of short term loans/overdraft borrowed during the year FY16 to meet its day to day expenditure (working capital). BESCOM has indicated the opening and closing balances of short term loans/overdraft at Rs.2819.99 Crores and Rs.3674.54 Crores respectively for FY16. The interest on short term loan/overdraft is indicated at Rs.311.81 Crores. The weighted average rate of interest is 9.60% p.a.

In accordance with the provisions of the MYT Regulations, BESCOM has computed the normative interest on working capital of Rs.342.45 Crores based on short term prime lending rate of SBI of 14.75% p.a. for FY16 limited to the actual expenditure plus 50% of the difference between the actual expenditure and the amount calculated on normative basis as detailed below:

TABLE – 4.29

Interest on Working Capital - BESCOM's Submission

Amount in Rs. Crores	
Particulars	FY16
One-twelfth of the amount of O&M Expenses	100.59
Opening GFA as per Audited Accounts	7074.76
Stores, materials and supplies at 1% of Opening balance of GFA	70.75
One-sixth of the Revenue	2358.04
Total Working Capital	2529.38
Rate of Interest (% p.a.)	14.75%
Interest on Working Capital	373.08
Actual Interest incurred for FY-16	311.81
50% of the difference of interest incurred and interest on normative basis	30.64
Normative Interest on Working capital	342.45

Commission's analysis and decisions:

As per the audited accounts, BESCOM has incurred interest on working capital of Rs.311.81 Crores on short term borrowings/overdrafts during FY16.

The concept of charging interest on the basis of prime lending rate of SBI no more exists as the interest rates by commercial banks and financial institutions are governed by the base rate of interest declared by RBI during FY16. At present, the interest rates are based on Marginal Cost of fund based Lending Rates (MCLR) effective from 1st July, 2017. As per the BESCOM's application, it is stated that short term loans for FY16 have been availed at a weighted average rate of interest of 9.60%. However, for computation of normative interest on working capital, the Commission decides to consider the base rate of interest of 9.25% with spread of 250 basis points and to allow short term loans at a normative interest of 11.75% for FY16.

As per the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereon, the Commission has computed the allowable interest on working capital for FY16 as follows:

TABLE – 4.30

Allowable Interest on Working Capital for FY16

Amount in Rs. Crores	
Particulars	FY16
One-twelfth of the amount of O&M Expenses	100.84
Opening GFA	7079.23
Stores, materials and supplies 1% of Opening balance of GFA	70.79
One-sixth of the Revenue	2341.69
Total Working Capital	2513.32
Rate of Interest (% p.a.)	11.75%
Normative Interest on Working Capital	295.32
Actual interest on WC as per audited accounts for FY16	311.81
Allowable Interest on Working Capital	295.32

Since the actual interest on working capital is more than the normative interest on working capital, the Commission, as per the provisions of the MYT Regulations decides to limit the allowable interest on working capital to the normative levels.

Thus, the Commission decides to allow an amount of Rs.295.32 Crores towards interest on working capital for FY16.

c) Interest on Consumer Deposits:

BESCOM's Submission:

BESCOM in its application has claimed an amount of Rs.245.24 Crores towards payment of interest on consumer security deposits for FY16.

TABLE – 4.31

Interest on consumer security deposits for FY16 – BESCOM's Submission

Amount in Rs. Crores	
Particulars	FY16
Opening balance of Consumer Deposits	2831.86
Closing balance of consumer deposits.	3233.34
Average Consumer deposit for FY16	3032.60
Interest on consumer deposits	257.77
Bank Rate of Interest -%	8.50%
Actual interest provision made for FY16	245.24

Commission's analysis and decisions:

The Commission notes that, the interest on consumer security deposits amounting to Rs.245.24 Crores claimed by BESCOM as per the audited accounts for FY16 works out to a weighted average rate of interest of 8.09%. As per the KERC (Interest on Security Deposit) Regulations, 2005, the interest on consumer deposits is to be allowed as per the bank rate prevailing as on the 1st of April of the relevant year. The bank rate as on 1st April, 2015 was 8.50%. The actual weighted average rate of interest is below the applicable bank rate.

Thus, the Commission decides to allow an amount of Rs.245.24 Crores towards interest on consumer security deposits for FY16.

d) Other Interest and Finance charges:

BESCOM has claimed an amount of Rs.23.52 Crores towards other interest and finance charges for FY16 which includes charges payable to banks / financial institutions and guarantee commission payable to GoK and also stamp duty. The Commission notes that as per the audited accounts an amount of Rs.12.74 Crores is incurred towards Bank charges and an amount of Rs.9.73 Crores is paid to GoK as guarantee commission besides payment of Rs.1.05 Crores for stamp duty on availment of loans. **Hence, the Commission decides to allow an amount of Rs.23.52 Crores as other interest and finance charges for FY16.**

e) Capitalization of Interest and other expenses:

BESCOM in its application has claimed, as per the audited accounts, an amount of Rs.146.85 Crores towards capitalization of interest on loan and other operation and maintenance expenses for FY16. The same has been considered for computation of APR for FY16.

Thus the allowable interest and finance charges for FY16 are as follows:

TABLE – 4.32

Allowable Interest and Finance Charges

Amount in Rs. Crores		
Sl. No.	Particulars	FY16
1.	Interest on Loan capital	266.03
2.	Interest on working capital	295.32
3.	Interest on consumer deposits	245.24
4.	Other interest and finance charges	23.52
5.	Less Interest and other expenses capitalized	146.85
6.	Total interest and finance charges	683.26

4.2.9 Other Debits:**BESCOM's Submission:**

BESCOM, in its application has claimed an amount of Rs.16.25 Crores towards other debits as detailed below:

TABLE – 4.33

Other Debits-BESCOM's Submission

Amount in Rs. Crores		
Sl No	Particulars	FY16
1	Small and Low value items written off	0.16
2	Losses/gains relating to Fixed assets	6.91
3	Assets decommissioning cost	(0.11)
4	Bad debts written off	0.22
5	Miscellaneous losses and write offs	10.89
6	Material cost variance	(1.82)
	Total	16.25

Commission's analysis and decisions:

The Commission notes that as per the audited accounts for FY16, an amount of Rs.16.26 Crores has been factored as other debits as stated by BESCOM in its application.

Therefore, the Commission decides to consider an amount of Rs.16.26 Crores as other debits for FY16.

4.2.10 Net Prior Period Charges:

BESCOM's Submission:

BESCOM in its application, as per the audited accounts, has claimed an amount of Rs.11.57 Crores towards Prior Period Expenses as detailed below:

TABLE – 4.34

Net Prior Period Charges-BESCOM's Submission

Particulars	Amount in Rs. Crores	
	FY16	
Prior period Credits	(9.99)	
Prior period expenses	21.56	
Net prior period Expenses	11.57	

Commission's analysis and decisions:

As per the Audited Accounts for FY16, the prior period debit is Rs.21.56 Crores on account of employee costs, A&G expenses and under provided depreciation and other expenses of earlier years. Further, the prior period credit of Rs.9.99 Crores is on account of excess provision for depreciation and other income related to prior period. **Hence, the Commission decides to allow net prior period expenses of Rs.11.57 Crores for FY16.**

4.2.11 Return on Equity:

BESCOM's Submission:

BESCOM in its application has claimed Return on Equity of Rs.107.12 Crores for FY16 as detailed below:

TABLE – 4.35

Return on Equity – BESCOM's Submission

Particulars	Amount in Rs. Crores	
	FY16	
Opening Equity	697.99	
Less: Consumer meter security deposit capitalized	54.81	
Equity addition during the year	97.02	
Closing equity for the year	740.20	
Average Equity for FY16	691.09	
Return on equity @ 15.50%	107.12	

However, BESCOM in its application under revenue requirement format has considered RoE of Rs.108.00 Crores for FY18. BESCOM has requested to allow Rs.108.00 Crores as RoE considering only the equity without taking into account the accumulated losses.

Commission's analysis and decisions:

The closing balances of gross fixed assets along with break-up of equity and loan component and the details of GFA, debt and equity (net-worth) for FY16 as per actual data as per the audited accounts are indicated as follows:

TABLE – 4.36
Status of Debt Equity Ratio for FY16

Amount in Rs. Crores

GFA (Closing Balance)	Debt (Closing Balance)	Equity (Net-worth) (Closing Balance)	Normative Debt @ 70% of GFA	Normative Equity @ 30% of GFA	%age of actual debt on GFA	%age of actual equity on GFA
8908.47	3361.26	327.26	6235.93	2672.54	37.73	3.67

From the above table it is evident that the debt and equity amounts lie within the normative amounts (in the debt equity ratio of 70:30) on the closing balances of GFA for FY16.

As per the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereon, the Commission has computed the allowable Return on Equity at 15.5% on equity plus the accumulated balance of profit/loss as per audited accounts as at the beginning of the year and also factoring recapitalization of security deposit of Rs.100.00 Crores in compliance with the Orders of the Hon'ble ATE in appeal No.46/2014. The allowable RoE for FY16 is determined as follows:

As per the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereon, the Commission has computed the allowable Return on Equity at 15.5% on equity plus accumulated balance of surplus/deficit as at the beginning of the year besides allowing taxes as per actuals. Considering the status of equity as per the audited accounts for FY16, the allowable RoE is determined as follows:

TABLE – 4.37
Allowable Return on Equity

Amount in Rs. Crores	
Particulars	FY16
Paid Up Share Capital	546.92
Share deposit	151.08
Reserves and Surplus as on 01.04.2016	(475.77)
Recapitalization of security deposit	(100.00)
Total Equity	122.23
Return on equity @ 15.50%	18.95

Considering the total equity of Rs.222.23 Crores as at the beginning of the FY16 and factoring the recapitalization of security deposit of Rs.100.00 Crores in compliance with the Orders of the Hon'ble ATE in appeal No.46/2014, BESCOM has a net worth of Rs.122.23 Crores.

Further, as reported by BESCOM, an additional equity of Rs.97.02 Crores has been received from Government of Karnataka during the year. Considering the actual date of receipt of this additional equity, the Commission as per provisions of the MYT Regulations, has determined the allowable return on additional equity as detailed below:

TABLE-4.38

Return on equity for the additional equity received during FY16

Additional Equity received during FY16	Amount in Crs	Received on	No. of Months	RoE allowed
EN 56 PSR 2014 P dated 26.03.2015	2.2	4.4.2015	11	0.31
EN 16 PSR 2015 dated 26.06.2015	2.25	10.7.2015	8	0.23
EN 16 PSR 2015 dated 26.06.2015	0.5	10.7.2015	8	0.05
EN 11 PSR 2015 dated 25.08.2015	12	8.9.2015	6	0.93
EN 16 PSR 2015 dated 01.09.2015	20	8.9.2015	6	1.55
EN 10 PSR 2015 P1 dated 9.11.2015	4.5	14.12.2015	3	0.17
EN 10 PSR 2015 P1 dated 9.11.2015	1	14.12.2015	3	0.04
EN 16 PSR 2015 P1 dated 3.12.2015	20	14.12.2015	3	0.78
EN 11 PSR 2015 dated 30.12.2015	5.57	7.1.2016	2	0.14
EN 16 PSR 2015 P1 dated 10.2.2016	2.3	23.02.2016	1	0.03
EN 16 PSR 2015 P1 dated 10.2.2016	0.49	23.02.2016	1	0.01
EN 11 PSR 2015 P1 dated 18.2.2016	6.21	5.3.2016	0	0.00
EN 16 PSR 2015 dated 29.02.2016	20	5.3.2016	0	0.00
TOTAL	97.02			4.24
Return on Equity allowed on Additional Equity Infusion in FY16				4.24

Thus, the Commission decides to allow Return on Equity of Rs.23.19 Crores for FY16.

4.2.12 Income Tax:

As per the audited accounts, the BESCOM has incurred an expenditure of Rs.24.51 Crores towards payment of Income Tax for FY16. In accordance with the provisions of the MYT Regulations, **the Commission decides to allow the actual Income Tax of Rs.24.51 Crores paid for FY16.**

4.2.13 Other Income:

BESCOM's Submission:

The BESCOM in its application has claimed an amount of Rs.40.35 Crores as other income for FY16 as against the actual other income of Rs.167.21 Crores as per the audited accounts for FY16. The BESCOM, in its claims has requested to allow retaining the interest of Rs. 5.45 Crores earned on bank fixed deposits, incentive of Rs.116.78 Crores earned for prompt payment of power purchase bills and miscellaneous income of Rs.5.00 Crores earned in the process of recruitment of employees.

The details of the other income indicated by the BESCOM for FY16 are as under:

TABLE – 4.39
Other Income – BESCOM's Submission

Amount in Rs. Crores	
Particulars	FY16
Rent	3.56
Miscellaneous	30.93
Rebate at 0.5% for collection of Electricity Duty	3.04
Interest on Bank Deposits	2.82
Total other income	40.35

Commission's analysis and decisions:

As per the audited accounts, an amount of Rs.167.21 Crores is indicated as other income for FY16. The Commission notes that any income earned during the course of business on account of prompt payments to the Generators, interest earned on fixed deposits and miscellaneous income

etc., has to be passed on to the consumers as they bear the entire cost of operation of the distribution company including return on the equity. Hence there is no justification for claiming other income as Rs. 40.35 Crores even though an amount of Rs.167.21 Crores has been accounted as other income in the audited accounts for FY16.

However, Commission, as decided in the earlier Tariff Orders, in order to encourage and bring in financial discipline in timely payment of monthly power purchase bills, decides to continue to allow 10% of the total incentive amounting to Rs.11.68 Crores on account of timely payment of power purchase bills to be retained by the BESCOM for FY16. The Commission also decides that the entire amount of Rs.8.28 Crores earned by the BESCOM by way of interest on bank fixed deposits should be included in other income, since the BESCOM has deposited the funds available from the business. Further, the Commission considers the entire amount of Rs.35.94 Crores of miscellaneous income reported by the BESCOM in its audited accounts, as other income. Thus after deducting the incentive amount of Rs.11.68 Crores and considering the entire amount of interest earned on fixed deposits and the miscellaneous income, **the Commission decides to allow an amount of Rs.155.53 Crores as other income for FY16 as detailed below:**

TABLE – 4.40
Allowable Other Income for FY16

Amount in Rs. Crores

Particulars	FY16
Rent	3.56
Miscellaneous	35.94
Rebate at 0.5% for collection of Electricity Duty	3.04
Interest on Bank Deposits	8.28
90% of the incentives received on prompt payment of power purchase bills	105.10
Profit/Loss on sale of stores	(0.71)
Others	0.32
Total other income	155.53

4.2.14 Fund towards Consumer Relations / Consumer Education:

The Commission has been allowing an amount of Rs.1.00 Crore per year towards consumer relations / consumer education. BESCOM in its application had not reported any expenditure towards Consumer Relations/ Consumer Education incurred separately during FY16. The Commission in its

preliminary observations had sought the details of expenditure incurred, if any.

BESCOM in its replies to the Commission's preliminary observations has informed that an amount of Rs.3.83 Crores has been incurred towards consumer awareness programmes on safety measures, energy conservation and demand side management initiatives under a separate head of account. The Commission notes that these expenses have been factored in the audited accounts under A&G expenses. It is also observed that the majority of the expenditure reported is of repetitive nature, paid to a few firms for similar activities. The expenditure reported by BESCOM is inclusive of expenses towards activities other than those intended in Rs.1.00 Crores earmarked in the ARR. Hence, considering the overall expenditure reported by BESCOM, the Commission decides to limit the allowable expenses to Rs.1.00 Crores in the APR as expenses towards consumer relations / consumer education for FY16. The balance amount is already considered while computing the O & M expenses on normative basis as discussed in the earlier paragraphs of this Chapter.

4.2.15 Carrying cost on Regulatory asset:

BESCOM in its application has claimed an amount of Rs.117.40 Crores as carrying cost on Regulatory Asset (RA) of Rs.611 Crores of FY13 and Rs.367.33 Crores of FY14.

The Commission in its Tariff Order dated 12th May, 2014 had set aside an amount of Rs. 611 Crores as Regulatory Asset to be recovered equally in FY16 and FY17. The Commission had also decided to allow carrying cost at 12% per annum on the amount of RA, to be assessed at the time of APR of FY16 and FY17. It is to be noted that the Commission, in its Tariff Order dated 2nd March, 2015 has already factored an amount of Rs.305.50 Crores of Regulatory Asset (being 50% of the total RA of Rs.611 Crores) in the revised ARR of FY16 which was allowed to be recovered through the retail supply tariff determined for FY16. The Commission in its Tariff Order date 30th March, 2016 while approving the APR for FY15 has not allowed carrying cost on the

RA of Rs.611 Crores as the revenue earned was adequate to meet the expenditure incurred during FY15, that is the Regulatory Asset which was estimated earlier, did not materialize as the Revenue (in FY15) was adequate to meet the expenses. However, in the computation for APR of FY16 being taken up now, it is noted that the revenue earned during FY16 is insufficient to meet the expenditure and hence, the Commission decides to allow the carrying cost of Rs.36.66 Crores computed at 12% p.a on the 50% of the RA amount of Rs.305.50 Crores for FY16.

As regards the claims of carrying cost on the deficit amount of Rs.367.33 Crores on account of APR for FY14, it is to be noted that as per the Commission's Tariff Order dated 2nd March, 2015, this deficit has already been included in the revised ARR for FY16 and allowed to be recovered in the retail supply tariff for FY16, without treating the deficit as Regulatory Asset. The Commission has been conducting the APR annually based on Audited Accounts, which are compiled and audited during the following financial year. Hence the financial status (either surplus or deficit) is known only after the accounts are audited and certified. Any surplus/deficit in revenue, found in the audited accounts is factored in the ARR for the year for which revision of retail supply tariff is due. Hence, the question of allowing carrying cost on the deficit of Rs.367.33 Crores reckoned in the APR for 14, in the present APR for FY16 does not arise, as the said deficit is already included in the retail supply tariff of FY16.

It is to be further noted that the RA of Rs.611 Crores has already been included in the Tariff Order dated 30th March, 2016, (Para-5.3- Treatment of Regulatory Asset & Carrying cost). After considering the revenue deficit of FY14 and deficit in ARR of FY16, an amount of Rs. 541.97 Crores being the net amount of Regulatory Asset, has been included in the ARR of FY17 for tariff computations for FY17 and thus there is no RA to be carried forward after FY17.

4.2.16 Revenue Demand for FY16:

BESCOM in its application has considered Rs.13821.62 Crores as the revenue from sale of power and miscellaneous charges as against the revenue of Rs.

14148.23 Crore indicated in the audited accounts for FY16. It is observed that, BESCOM while computing the revenue has not considered an amount of Rs.326.62 Crore being the interest levied on belated payment of electricity bill from IP Set, Water Supply and Street Light installations. The reason stated by BESCOM is that, as the Government is releasing the subsidy amount on quarterly basis in advance, no interest is to be captured for IP sets demand. Further, BESCOM has stated that as the Govt. has paid the water supply and street light installations energy bills issued for the consumption during FY16, the interests charged on these installations towards the arrears pertaining to the previous year's cannot be factored as revenue demand.

The Commission, as per the audited accounts of BESCOM for FY16, has considered the total amount of revenue from sale of power and miscellaneous charges of Rs.14148.23 Crore. The Commission notes that an amount of Rs.326.62 Crore towards interest levied on belated payment of electricity bill amount from IP set, water supply and street light installations during FY16 has been included as revenue in the audited accounts for FY16. Therefore, the Commission is unable to accept the contentions of BESCOM to exclude the same while computing the revenue for APR. The Commission notes that any amount of revenue and miscellaneous charges raised and accounted in the consumers' accounts and included in the audited accounts of the BESCOM, has to be recognized as revenue to meet the approved ARR for FY16.

As discussed in the preceding section of this Chapter, the IP set consumption is reduced from 6189.80MU to 5777.77 MU, a reduction of 412.03 MU. Hence, the revenue from sales to IP Set consumers is Rs. 1487.20 Crores instead of Rs. 1585.26 Crores reported as per the audited accounts.

In view of the above, the total revenue considered for APR is Rs. 14050.17 Crores as against Rs.13821.62 Crores claimed by BESCOM for FY16.

4.2.17 Subsidy for FY16:

The Commission in its tariff order dated 2nd March, 2016 has approved tariff subsidy of Rs. 1371.60 Crores towards sale of power to BJ/KJ and IP sets for FY 16 in accordance with the prevailing Government Order. The Commission

in computation of APR for FY16 has approved the revised tariff subsidy of Rs.1518.01 Crores towards sale of power to BJ/KJ and IP sets for FY 16

4.3 Abstract of Approved ARR for FY16:

As per the above item-wise decisions of the Commission, the consolidated Statement of ARR for FY16 is as follows:

TABLE – 4.41
Approved ARR for FY16 as per APR

Amount in Rs. Crores

Sl. No	Particulars	APR FY16		
		As Approved	As Filed	As per APR
1	Energy at Gen Bus	30419.09	29161.67	29161.67
2	Energy at Interface in MU	29263.16	27893.50	27893.40
3	Distribution Losses in %	13.40%	12.03%	13.51%
4	Sales in MU			
5	Sales to other than IP & BJ/KJ	19658.00	18290.92	18290.92
6	Sales to BJ/KJ	58.64	57.45	57.45
7	Sales to IP	5625.26	6189.80	5777.77
8	Total Sales	25341.90	24538.17	24126.14
	Revenue in Rs Crs			
8	Revenue from tariff and Misc. Charges	12802.71	12205.55	12532.16
9	Tariff Subsidy to BJ/KJ	32.78	30.81	30.81
10	Tariff Subsidy to IP Sets	1338.82	1585.26	1487.20
11	Total Revenue	14174.31	13821.62	14050.17
	Expenditure in Rs Crs			
12	Power Purchase Cost	10608.94	11364.09	11364.57
13	Transmission charges of KPTCL	1216.91	1225.91	1225.91
14	SLDC Charges	14.29	10.53	10.53
15	Power Purchase Cost including cost of transmission	11840.14	12600.53	12601.01
16	Employee Cost		912.76	
17	Repairs & Maintenance		83.37	
18	Admin & General Expenses		223.21	
19	Total O&M Expenses	1205.01	1219.34	1210.06
20	Depreciation	167.31	290.60	290.60
	Interest & Finance charges			
21	Interest on Loans	261.59	266.02	266.03
22	Interest on Working capital	287.77	342.45	295.32
23	Interest on belated payment on PP Cost	0.00	0.00	0.00
24	Interest on consumer deposits	244.89	245.24	245.24
25	Other Interest & Finance charges	7.63	23.53	23.52
26	Less interest & other expenses capitalised	50.00	146.85	146.85
27	Total Interest & Finance charges	751.88	730.39	683.26

28	Other Debits	0.00	16.25	16.26
29	Net Prior Period Debit/Credit	0.00	-11.57	11.57
30	RoE	0.00	108.00	23.19
31	Provision for taxation	0.00	24.51	24.51
32	Funds towards Consumer Relations/Consumer Education	1.00	0.00	1.00
33	Other Income	219.44	40.35	155.53
34	ARR	13745.90	14937.70	14705.92
35	Deficit for FY14 carried forward	367.33		0.00
36	Penalty for increase in distribution losses and disallowance of imprudent capex as KERC Order dated 14.01.2016 in Case No 12/2013	7.96		
37	Incentives / penalties for performance on distribution losses		190.92	0.00
38	Net ARR	14105.27	15128.62	14705.92
39	Carrying Cost on RA of Rs.305.50 Crs. at 12% Regulatory asset to be recovered in FY16 & FY17	611.00	117.40	36.66
40	Net ARR for FY16	14716.27	15246.02	14742.58
41	Net Regulatory asset to be recovered in FY17	541.96	-	-
42	Net ARR after Regulatory Asset	14174.31	15246.02	14742.58
43	Gap in Revenue for FY16	0.00	1424.40	692.42

4.4 Gap in Revenue for FY16:

As against an approved ARR of Rs.14174.31 Crores, the Commission after the Annual Performance Review of BESCOM for FY16 decides to allow a net ARR of Rs.14742.58 Crores for FY16. Considering the revenue of Rs.14050.17 Crores, the deficit of Rs.692.42 Crores is determined for the year FY16.

The Commission decides to carry forward the deficit of Rs.692.42 Crores of FY16 to the proposed ARR for FY18 as discussed in the subsequent Chapter of this Order.