

## CHAPTER – 4

### ANNUAL PERFORMANCE REVIEW FOR FY17

#### 4.0 HESCOM's Application for APR for FY17:

In its Tariff application filed on 30<sup>th</sup> November, 2017, HESCOM has requested the Commission for Annual Performance Review (APR) for FY17 based on the Audited Accounts of FY17 and revision of Annual Revenue Requirement (ARR) along with revision of Retail Supply Tariff for FY19 in terms of the MYT Regulations.

The Commission in its letter dated 21<sup>st</sup> December, 2017, had communicated its preliminary observations on the application of HESCOM. In its letter 28<sup>th</sup> December, 2017, HESCOM has furnished the replies to the preliminary observations of the Commission. HESCOM in its subsequent replies has also furnished the additional information on IP sets consumption and RPO compliance.

The Commission in its Multi Year Tariff (MYT) Order 30<sup>th</sup> March, 2016, had approved HESCOM's Annual Revenue Requirement (ARR) for FY17 to FY19 along with retail supply tariff for FY17.

The Annual Performance Review of HESCOM for FY17, based on the audited accounts, is discussed in this Chapter.

#### 4.1 HESCOM's Submission:

HESCOM has submitted its proposals for revision of ARR as per APR for FY17 based on the Audited Accounts as follows:

**TABLE – 4.1**

**ARR for FY17 – HESCOM's Submission**

Sl. No	Particulars	Rs. Crores
		As Filed 30.11.2017
1	Energy at Generation Bus	12583.20
2	Transmission Losses in %	3.39%

3	Energy at Interface in MU	12156.67
4	Distribution Losses in %	15.56%
	<b>Sales in MU</b>	
5	Sales to other categories	4197.40
6	Sales to BJ/KJ	87.01
7	Sales to IP	5981.13
	<b>Total Sales</b>	<b>10265.54</b>
	<b>Revenue at existing tariff in Rs Crores</b>	
8	Revenue from tariff and Misc. Charges	2676.52
9	Tariff Subsidy for BJ/KJ	50.08
10	Tariff Subsidy for IP	3263.44
	<b>Total Existing Revenue</b>	<b>5990.04</b>
	<b>Expenditure in Rs Crores</b>	
11	Power Purchase Cost	5082.22
12	Transmission charges of KPTCL	611.37
13	SLDC Charges	2.00
	<b>Power Purchase Cost including cost of transmission</b>	<b>5695.59</b>
14	Employee Cost	525.43
15	Repairs & Maintenance	62.50
16	Admin & General Expenses	97.73
	<b>Total O&amp;M Expenses</b>	<b>685.66</b>
17	Depreciation	121.79
	<b>Interest &amp; Finance charges</b>	
18	Interest on Loans	220.54
19	Interest on Working capital	34.13
20	Interest on belated payment on PP Cost	226.49
21	Interest on consumer deposits	44.25
22	Other Interest & Finance charges	28.45
23	Less interest capitalised	0.00
	<b>Total Interest &amp; Finance charges</b>	<b>553.86</b>
24	Other Debits	9.06
25	Net Prior Period Debit/Credit	17.50
26	Extraordinary Items	83.12
27	Return on Equity	0.00
28	Provision for taxation	0.00
29	Funds towards Consumer Relations/Consumer Education	0.40
30	Other Income	233.57
	<b>Net ARR</b>	<b>6933.41</b>

Considering the revenue of Rs.5990.04 Crores against a net ARR of Rs.6933.41 Crores, HESCOM has reported a gap in revenue of Rs.943.37 Crores for FY17.

#### 4.2 HESCOM's Financial Performance as per Audited Accounts for FY17:

An overview of the financial performance of HESCOM for FY17 as per its Audited Accounts is given below:

**TABLE – 4.2**  
**Financial Performance of HESCOM for FY17**

		Rs. Crores
Sl. No.	Particulars	Amount
	<b>Receipts</b>	
1	Revenue from Tariff and miscellaneous charges	2676.54
2	Tariff Subsidy	3313.50
	<b>Total Revenue</b>	<b>5990.04</b>
	<b>Expenditure</b>	
3	Power Purchase Cost	5082.22
4	Transmission charges of KPTCL	611.37
5	SLDC Charges	2.00
	<b>Power Purchase Cost including cost of transmission</b>	<b>5695.59</b>
6	O&M Expenses	686.10
7	Depreciation	121.79
	<b>Interest &amp; Finance charges</b>	
8	Interest on Loans	127.91
9	Interest on Working capital	126.76
10	Interest on belated payment of power purchase	226.49
11	Interest on consumer deposits	44.25
12	Other Interest & Finance charges	28.45
	<b>Total Interest &amp; Finance charges</b>	<b>553.86</b>
13	Other Debits	9.05
14	Net Prior Period Debit/Credit	-76.89
15	Other income	139.18
16	Extraordinary Item	83.12
	<b>Total Expenditure</b>	<b>6933.45</b>

As per the Audited Accounts, HESCOM has incurred loss of Rs.943.41 Crores in FY17. The profits / losses reported by HESCOM in its audited accounts in the previous year including FY17 are as follows:

TABLE – 4.3

**HESCOM's Accumulated Profit / Losses**

Particulars	Amount in Rs. Crores
Accumulated losses as at the end of FY10	(659.08)
Losses incurred in FY11	(64.70)
Profits earned in FY12	39.75
Profits earned in FY13	40.69
Losses incurred in FY14	(576.25)
Profits earned in FY15	30.26
Losses incurred in FY16	(372.73)
Losses incurred in FY17	(943.41)
<b>Accumulated losses as at the end of FY17</b>	<b>(2505.48)</b>

As seen from the above table, the HESCOM has accumulated losses to an extent of Rs.2505.48 Crores as at the end of FY17.

**Commission's decision:**

The Commission has taken up the Annual Performance Review for duly considering the actual revenue and expenditure as per the Audited Accounts vis-à-vis the revenue and expenditure approved by the Commission in its Tariff Order dated 30<sup>th</sup> March, 2016. The item-wise review of revenue and expenditure and the decisions of the Commission thereon are discussed in the following paragraphs:

**4.2.1 Sales for FY17:****A. Sales -other than IP Sets:**

The Commission in its Tariff Order,2016 dated 31.03.2016, had approved total sales to various consumer categories at 10063.36 MU as against the HESCOM's proposal of 10800.79 MU, excluding sales to HRECS & SEZ. The actual sales of the HESCOM as per the current APR filing is 10265.54 MU, indicating an increase in sales to the extent of 202.18 MU as compared to the approved sales. The increase in sales is 398.38 MU in LT-categories and there is a reduction of 196.20 MU in sales to HT-categories. As against the approved sales [excluding HRECS sales and supply to SEZ] of 4352.70 MU to categories other than BJ/KJ and IP sets, the actual sales achieved by the HESCOM is 4197.40 MU, resulting in the reduction of sales to these categories by 155.30

MU. Further, the HESCOM has sold 6068.14 MU to BJ/KJ and IP categories against approved sales of 5710.66 MU, resulting in increased sales to these categories by 357.48 MU.

The category-wise sales approved by Commission and the actuals for the FY17 are indicated in the table below:

**TABLE-4.4**  
**Category-wise Sales for FY17**

Energy in Million Units			
Category	Approved	Actuals	Difference
(1)	(2)	(3)	(3-2)
LT-2a*	1473.94	1469.68	-4.26
LT-2b	15.35	16.81	1.46
LT-3	440.50	425.71	-14.79
LT-4b	17.47	16.01	-1.46
LT-4c	1.48	0.78	-0.70
LT-5	316.72	316.34	-0.38
LT-6	231.47	271.86	40.39
LT-6	137.51	146.73	9.22
LT-7	14.61	26.03	11.42
HT-1	229.75	215.44	-14.31
HT-2a	1013.41	843.88	-169.53
HT-2b	132.59	120.62	-11.97
HT-2c	83.14	66.32	-16.82
HT-3a & b	212.92	215.02	2.10
HT-4	14.01	14.50	0.49
HT-5	17.83	31.67	13.84
Sub total	4352.70	4197.40	-155.30
BJ/KJ	90.84	87.01	-3.83
IP	5619.82	5981.13	361.31
Sub total	5710.66	6068.14	357.48
<b>Grand total**</b>	<b>10063.36</b>	<b>10265.54</b>	<b>202.18</b>

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

\*\*Excludes sale to HRECS and SEZ.

The Commission had observed that the major Categories contributing to the increase in sales, as compared with the estimates are; IP sets (361.31 MU) and LT-6WS (40.39 MU), while the reduction in sales is mainly in HT-2a category (169.53 MU).

The HESCOM in their tariff petition had stated that the decrease in sales to HT-2a category is due to consumers opting for Open Access (OA) and that in the FY17 under OA, they have drawn energy of 386.76 MU. The Commission has taken note of the facts as furnished by the HESCOM. However, in the case of LT-6 water supply installations, the HESCOM was directed to analyze the reasons for considerable increase in sales. HESCOM in its replies has not furnished any reasons for increase in sales to the water supply installations, with respect to approved figures. The Commission notes that the number of installations has increased by 1722 numbers in this category with respect to the approved figures and hence this could be obvious reason for increase in the sales.

Further to validate the sales, the HESCOM was directed to furnish the breakup of sales to the HT categories namely, HT2(a), HT2(b), HT 2(c) and HT-4 categories along with the consumption from open access / wheeling for the period 2015-16 to 2016-17 in the specified format. HESCOM has furnished this data.

#### **B. Sale to IP sets-FY17:**

- i) The Commission in its Tariff Order dated 30<sup>th</sup> March, 2016, had approved a specific consumption of IP-sets as 8,244 units/installation/annum for FY17, whereas, as per the data of IP-sets' sales reported in its Tariff filing by the HESCOM for FY17, the specific consumption works out to 9,195 units / installation / annum, which corresponds to an increase in the specific consumption by 951 units/installation / annum. The increase in specific consumption for FY17 by 951 units/installation/annum accounts for increase by 12 per cent increase, over the approved figures.
- ii) The total IP-sets' consumption reported for the FY17 is 5,981.13 MU, whereas the Commission approved IP-set consumption for the year was 5,619.82 MU. The difference in consumption between the approved quantum and actual consumption as reported for FY17 is 361.31 MU. Thus, the quantum of sales to the IP-sets' category has exceeded the approved quantum by around 6 per cent. Also, the overall sales to IP

sets have increased by 541.98 MU (10%) in FY 17 as compared to the actual sales of 5,439.15 MU, reported for FY16.

- iii) Further, the Commission had approved 7,14,611 as the number of IP-set installations for the FY17, but, the actual number of installations as reported by the HESCOM is 6,63,011. The difference in number of installations is 51,600 and this corresponds to a decrease in the number of installations by about 8 per cent, as against the approved number of installations for the FY17. The Commission notes that despite reduction in number of installations by around 8 percent when compared to the approved number of installations, the consumption has increased by 361.31 MU in FY17. Hence, it is clear that the increase in sales quantum for FY17 by 361.31 MU may be due to increase in number of hours of power supply, as against the scheduled number of hours of power supply to the agricultural feeders, fixed by the Government.
- iv) The Commission in its Tariff Order dated 30<sup>th</sup> March, 2016, had directed the HESCOM to furnish to the Commission, the month-wise feeder-wise IP-set consumption based on the specific consumption arrived at from the 11 kV feeders' energy meters' data, in respect of exclusive agricultural feeders segregated under NJY considering that the energy consumed by the IP-sets can be accurately measured at the 11 kV level at the substations after deducting the energy losses prevailing in the distribution system. The Commission has been following this methodology since the issue of Tariff Order for FY15 dated 12<sup>th</sup> May, 2014, considering the fact that the ESCOMs have bifurcated the 11 KV feeders into separate rural and agricultural feeders.
- v) Accordingly, the HESCOM was directed to furnish the details of IP-set consumption, month-wise and 11 kV feeder-wise meters' reading data in respect of agriculture feeders segregated under NJY, duly deducting the distribution system losses prevailing in 11 kV lines, distribution transformers and LT lines, to the Commission. However, the Commission notes that the HESCOM has not submitted the IP-set consumption data

based on the segregated agricultural feeders, regularly, to the Commission.

- vi) Further, the Commission, in its preliminary observations, had raised the issue of increase in both specific consumption and quantum of sales and had directed the HESCOM to furnish the required month-wise, 11 kV feeder-wise, IP sets' consumption data, as per the energy recorded in the segregated agricultural feeders, in support of its claims of IP-set consumption considered for the FY17, indicating the energy input to the feeders on the basis of energy meters reading data (initial reading-final reading x multiplying constant) in the prescribed format.
- vii) The HESCOM, in its reply to the preliminary observations, has submitted the month-wise, subdivision-wise, IP-set consumption data, in respect of the exclusive agricultural feeders segregated under the NJY, considering the initial, final readings and the multiplication factor to arrive at net consumption, as directed by the Commission. While furnishing the above data, the HESCOM has stated that, the consumption of IP-sets has increased as compared to the approved quantum due to servicing of around 25,000 number of new IP-sets during FY17 and also supplying of 7 hours of power to IP sets as per the direction of the Government. It is also stated that due to the presence of unauthorized IP sets in the same area, the consumption by IP sets has increased in FY17.
- viii) The Commission has observed certain data gaps in respect of the exclusive agricultural feeders particularly in the details of energy meters' initial & final readings and the net consumption arrived at on the basis of energy meter readings and hence had sought complete details of the meter readings' data of all the exclusive agricultural feeders to verify the claims of overall sales of 5,981.13 MU made towards IP consumption for FY17 in the Tariff application along with the number of defunct IP sets to be deducted from the account.
- ix) Further, the Commission notes that the IP consumption should not have increased more than the approved quantum, in view of the fact that



the number of IP sets serviced have come down by 51,600 than the approved numbers in FY17, which corresponds to decrease in number of installations by around 8 percent. Hence, the Commission is of the view that abnormal increase in both specific consumption and overall consumption in FY17 may be due to supplying of more than scheduled hours of power including supplying on single phase/open-delta system, to the exclusive agricultural feeders.

**The Commission is of the view that this should have to be stopped forthwith as any attempt to give supply to IP sets more than the scheduled hours of power supply will result in increased consumption, which in turn result in higher subsidy burden on the Government. Therefore, the HESCOM is directed to restrict the hours of power supply made to agricultural feeders segregated under NJY and also strictly adhere to the number of hours of scheduled power supply as fixed by the Government.**

- x) The HESCOM, in its subsequent email communications dated 18.1.2018, 2.2.2018 and 8.2.2018, has submitted the revised feeder-wise, month-wise IP-set consumption data in respect of the exclusive agricultural feeders segregated under NJY, indicating the details of initial & final readings and multiplying constants of the energy meters, as per the prescribed format. On detailed verification of such revised data furnished in respect of agriculture feeders, it is observed that the overall sales for FY17 is submitted as 5,924.50 MU. Therefore, the Commission notes that the revised IP-set consumption for FY17 is 5,924.50 MU based on segregated agricultural feeders, instead of 5,981.13 MU as claimed in D-2 Format of its Tariff application. The Commission notes that the revised quantum of sales furnished by the HESCOM will only result in a difference in consumption by 56.63 MU for which the HESCOM has not submitted its justification. Hence, the Commission decides to disallow the consumption of 56.63 MU from out of 5,981.13 MU claimed by the HESCOM in its Tariff filing for APR of FY17.

- xi) As regards deduction of defunct/dried up IP sets from its account on the basis of GPS Survey Report, the HESCOM has submitted that it had conducted the exercise of GPS survey IP sets and has found that 12,515 IP sets out of 6,63,011 are defunct in FY17. It is further submitted that the GPS survey is being continued and the results will be considered to arrive at net number of installations in FY18 onwards also. Accordingly, it has deducted 12,515 number of defunct IP sets from its account in the month of March 2017. Therefore, the Commission notes that due to deduction of defunct IP sets, the net number of live installations reckoned taking into account of 12,515 number of defunct IP sets for FY 17 is 6,50,496 (6,63,011-12,515).
- xii) **In the light of the above discussion, the Commission decides to approve 5,924.50 MU towards sales to IP-sets on the basis of the revised energy meter readings' data of the segregated agricultural feeders, submitted by the HESCOM for the FY17, as against 5,981.13 MU claimed by it in its Tariff application (which is as per the audited accounts), after disallowing sales to an extent of 56.63 MU in respect of sales to the IP sets.**

In the light of the above discussion, the Commission approves total sales of 10,208.92 MU for FY17 excluding sales to HRECS & SEZ and the category wise sales as indicated in the following table:

TABLE-4.5

## Approved category-wise Sales under APR for FY17

Million Units

Category	Approved in ARR	Actuals/ Approved in APR
LT-2a*	1473.94	1469.68
LT-2b	15.35	16.81
LT-3	440.50	425.71
LT-4b	17.47	16.01
LT-4c	1.48	0.78
LT-5	316.72	316.34
LT-6	231.47	271.86
LT-6	137.51	146.73
LT-7	14.61	26.03
HT-1	229.75	215.44
HT-2a	1013.41	843.88

HT-2b	132.59	120.62
HT-2c	83.14	66.32
HT-3a & b	212.92	215.02
HT-4	14.01	14.50
HT-5	17.83	31.67
<b>Sub total</b>	<b>4352.70</b>	<b>4197.41</b>
BJ/KJ	90.84	87.01
IP	5619.82	5924.50
<b>Sub total</b>	<b>5710.66</b>	<b>6011.51</b>
<b>Grand total**</b>	<b>10063.36</b>	<b>10208.92</b>

#### 4.2.2 Distribution Losses for FY17:

##### HESCOM's Submission:

The Commission in its Tariff Order dated 30<sup>th</sup>March,2016 had approved the distribution losses for FY17 as follows:

Range	FY17
Upper limit	16.50
Average	16.00
Lower Limit	15.50

The HESCOM, in its annual accounts, has reported the distribution losses at 15.56% for FY17:

1	Energy at Interface Points in MU	12,156.67
2	Total sales in MU including wheeled energy	10,265.54
3	<b>Distribution losses as a percentage of input energy at IF points</b>	<b>15.56%</b>

##### Commission's analysis and decisions:

The Commission notes that, the distribution loss of 15.56 per cent reported by the HESCOM as per the audited accounts is based on the total sale of 10265.54 MUs for FY17. However, as per the replies to the preliminary observation and the additional details furnished to the Commission, the IP Set sales has been revised to 5924.50 MU and as a result there is reduction of total sales to 10208.91MU, as discussed in the preceding paragraphs of this Chapter, the distribution losses work out to 16.02 per cent for FY17.

Accordingly, the Commission decides to approve the revised distribution loss of 16.02% for FY17 with the directions to reduce the distribution losses level in future below the lower limit fixed by the Commission for the respective years.

**Therefore, allowing any incentive or levy of any penalty for non-achievement of loss targets, does not arise and the Commission has not factored the same for FY17.**

#### 4.2.3 Power Purchase for FY17:

##### HESCOM Submission:

The Commission in its Tariff order dated 30<sup>th</sup> March, 2016, had approved source-wise quantum and cost of power purchase for FY17. HESCOM, in its application has submitted the details of actual power purchase for FY17 as per annual accounts, for the purpose of Annual Performance Review. The details of power purchase are as under:

**TABLE – 4.6**

#### Power Purchase for FY17- Approved and Actuals

Source of Generation	Actuals for FY17			Approved in Tariff Order 30.03.2016 for FY17			Difference-between Actuals and Approved-for FY17			% 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	1478.37	139.90	0.95	2389.11	209.60	0.88	-910.74	-69.70	0.07	-38.12	-33.26
KPCL-Thermal Stations	2893.25	1393.45	4.82	3127.44	1291.36	4.13	-234.19	102.09	0.69	-7.49	7.91
CGS	4449.12	1606.50	3.61	4188.28	1358.31	3.24	260.84	248.20	0.37	6.23	18.27
Major IPPs	1441.48	690.96	4.79	1452.06	601.95	4.15	-10.58	89.01	0.65	-0.73	14.79
IPPs -Minor (RE Projects)	1355.29	557.64	4.11	1321.53	550.13	4.16	33.76	7.51	-0.05	2.55	1.37
Other States Projects	25.77	9.56	3.71	28.04	13.18	4.70	-2.26	-3.62	-0.99	-8.08	-27.46
Short /Medium term ,UI & Sec-11	812.89	341.36	4.20	215.75	108.74	5.04	597.14	232.62	-0.84	276.78	213.93
Transmission Charges (KPTCL & PGCIL)		937.56			796.06			141.50			17.77

SLDC / POSOCO Charges		0.07			4.13						
Misc Energy	275.10	92.25	3.35								
Energy Balancing	164.17	67.75	4.13				164.17	67.75			
<b>TOTAL</b>	<b>12895.44</b>	<b>5837.00</b>	<b>4.53</b>	<b>12722.20</b>	<b>4933.47</b>	<b>3.88</b>	173.24	903.54	<b>0.65</b>	<b>1.36</b>	<b>18.31</b>
<b>Less HRECS</b>	<b>312.24</b>	<b>141.23</b>	<b>4.52</b>	<b>312.57</b>	<b>128121.21</b>	<b>3.88</b>	-0.33	20.02	<b>0.65</b>		
<b>Rebate</b>		<b>0.16</b>						0.16			
<b>Net Total</b>	<b>12583.20</b>	<b>5695.61</b>	<b>4.53</b>	<b>12409.63</b>	<b>4812.26</b>	<b>3.88</b>	173.57	883.35	<b>0.65</b>	<b>1.40</b>	<b>18.36</b>

### Commission's analysis and decisions;

1. The actual power purchase for FY17, as filed by HESCOM for approval of Annual Performance Review is 12583.20 MU amounting to Rs 5695.61 Crores, as against the approved quantum of 12409.63 MU amounting to Rs 4812.26 Crores. This represents increase in quantum of power purchased to an extent of 173.57 MU and increase in the cost by Rs. 883.35 Crores.
2. As against the approved energy of 12409.63 MU at the cost of energy amounting to Rs 4812.26 Crores, the actual power purchased by HESCOM is 12583.20 MU at the cost of Rs 5695.61 Crores for **FY17**, which is about 1.40% more than approved energy and **18.36%** more than the approved cost.
3. 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 generating stations as indicated below:

#### Short-fall in supply from KPCL Hydel Stations

Approved Energy	Actual Energy	Shortfall in energy compared with approved availability in MU	Cost of Shortfall Energy in Rs Crores.
10704.90	6563.74	4141.16	380.99

The shortfall from the above Hydel sources, which is the cheaper source of power, has been met by procuring power from the following sources by ESCOMs.

Short/Medium term purchases	3061.41 MU	Rs.1310.28 Crores
Un-requisitioned surplus power from CGS	357.85 MU	Rs.127.39 Crores
Imposition of Sec-11 on the State Embedded Generators (during April and May 2016)	721.90 MU	Rs. 346.33 Crores

Thus, the ESCOMs have met the deficit from hydro sources with other said sources such as Short/Medium term purchases, Un-requisitioned surplus power from CGS, and imposition of Section-11 on the State Embedded Generators (during April and May 2016) at the additional cost of Rs.1403.01 Crores.

The short fall in 917.52 MU energy compared with approved availability from the KPCL thermal sources also has been met by procuring Un-requisitioned surplus power from CGS, without any significant cost implications.

As a result of change in the source-wise mix of supply, reconciliation of energy and its cost among ESCOMs there is an increase in average power purchase cost of HESCOM to Rs.4.53 per KWh as against the approved rate of Rs.3.88 per KWh.

4. **In order to ensure proper accounting of energy and its cost by the ESCOMs, HESCOM 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 HESCOM 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 HESCOM during FY17 from different sources of generation also include the energy purchased during **April and May 2016**, 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 18<sup>th</sup> August, 2016, has fixed the final tariff at Rs.4.67 per unit and has ordered recovery of the excess amount paid, if any, from the generators. However, some of the generators have filed petitions before the Hon'ble High Court, which reminded the matter, back to the Commission for fresh disposal. However, the decision in writ petitions has been challenged by the ESCOMs and the Commission in writ appeals. Hence, the Power Purchase cost allowed for 2 months is subject to outcome of the writ appeals and any consequential proceedings thereafter.

**Accordingly, the Commission decides to approve power purchases of 12583.20MU at a cost of Rs. 5695.61Crores for the purpose of Annual Performance Review for FY17.**

#### **4.2.4 Renewable Purchase Obligation (RPO) compliance by HESCOM for FY17:**

1. HESCOM in their petition have filed the details of RPO compliance for **solar** and **non-solar RPO for 2016-17** as indicated below:

**TABLE-4.7**

##### **a. Non-Solar RPO Compliance by HESCOM:**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Quantum in MU</b>	<b>Cost- Rs. Crores</b>
1	Total Power Purchase Quantum	12887.45	5834.53
2	Non- Solar Renewable Energy Purchased under PPA route at Generic Tariff including Non-Solar RE purchased from KPCL	1262.16	481.20
3	Non- Solar Short - Term purchase from RE sources only	89.98	38.66

4	Non -solar Short-Term purchase from RE sources under sec-11	34.93	17.79
5	Non - Solar RE purchase under APPPC	150.71	53.82
6	Non - Solar RE purchase pertaining to green energy sold to consumers under green tariff	0.00	0.00
7	Non - Solar RE purchased from other ESCOMs	0.00	0.00
8	Non - Solar RE sold to other ESCOMs	0.00	0.00
9	Non - Solar RE purchased from any other source	<b>124.22</b>	<b>46.21</b>
10	<b>Total Non-Solar RE Energy Purchased [No 2+ No.3+No.4+No.6+No.8]</b>	<b>1662.00</b>	<b>637.68</b>
11	<b>Non-Solar RE accounted for the purpose of RPO [No 9- No.4-No.5- No.7]</b>	<b>967.94</b>	<b>376.31</b>
	<b>AS per GoK EN 43 PSR2017 dated 26.09.2017,HESCOM has transfer energy to BESCO 236.65Mu, 276.62MU MESCOM 30.08MU Transfer</b>	<b>543.35</b>	<b>207.55</b>
12	<b>Non-Solar RPO complied in % [No 10/No 1]*100</b>	<b>7.51</b>	<b>6.45</b>

TABLE-4.8

## b. Solar RPO Compliance by HESCOM

Sl. No	Particulars	Quantum in MU	Cost- Rs. Crores.
1	Total Power Purchase Quantum from all sources	12887.45	5834.53
2	Solar Energy Purchased under PPA route at Generic Tariff including Solar Energy purchased from KPCL	53.67	40.32
3	Solar energy purchased under Short-Term, excluding sec-11 purchase	0.00	0.00
4	Solar Short-Term purchase from RE under sec-11	0.00	0.00
5	Solar Energy Purchased under APPPC	0.00	0.00
6	Solar Energy pertaining to green energy sold to consumers under green tariff	0.00	0.00
7	Solar Energy purchase from other ESCOMs	0.00	0.00
8	Solar Energy sold to other ESCOMs	0.00	0.00
9	Solar Energy purchased from NTPC as bundled power	<b>23.33</b>	<b>0.00</b>
10	Solar energy purchased from any other source like banked energy purchased at 85% of Generic tariff	<b>0.00</b>	<b>0.00</b>
11	<b>Total Solar Energy Purchased [No 2+ No.3+No.4+No.6+No.8+No.9]</b>	<b>77.00</b>	<b>23.72</b>
12	<b>Solar Energy accounted for the purpose of RPO [No 10- No.4-No.5-No.7]</b>	<b>88.81</b>	<b>29.81</b>
	<b>AS per GoK EN 43 PSR2017 dated 26.09.2017,HESCOM has Received energy from 11.81 MU</b>	<b>11.81</b>	<b>6.09</b>



2. The Commission in its preliminary observations had noted that the HESCOM, as per the data submitted, had complied with Non-solar RPO and had not met solar RPO to an extent of 7.85 MU, even after considering allocation as per Government Order No. EN 43 PSR 2017 dated 26.09.2017. Therefore, HESCOM was directed to report the action taken to meet the shortfall in solar RPO and also to confirm that the power purchase cost indicated is according to the audited accounts. The HESCOM was also directed to furnish the break-up details of RE purchase under Section-11 of Electricity Act, 2003 and from other sources.

Also, the Commission had observed that, as per the power purchase details furnished for the FY17, the total solar purchased including NTPC VVNL is 73.03 MU [KPCL:3.53 MU, W & B KBJNL:0.37 MU, banked & infirm energy of Athavan solar:2.53 MU and at Sl.No.39 page-57, total solar including NTPC VVNL & farmers scheme:66.60 MU], whereas the HESCOM has indicated it as 77.00 MU. Similarly, the Non-solar energy purchased was noted to be 1517.93 MU [Wind mill 844 MU, banked energy 43.67 MU, infirm energy pg-55 - 74.19 MU, SLDC banked energy:3.47 MU, mini-hydel: 80.95 MU, co-gen: 254.96 MU, infirm energy share (page-56) -133.18 MU, ST RE purchase-47.13 MU, Sec11-36.38 MU], whereas the HESCOM has indicated it as 1511.29 MU [967.94 MU+543.35 MU]. Therefore, HESCOM was directed to reconcile the figures and resubmit the RPO statement.

3. HESCOM in their replies have submitted the following:
  - a. Due to delay in commissioning some of the Solar projects, solar RPO was not met and therefore, HESCOM has requested the Hon'ble Commission to carry forward the shortage for the next financial year.
  - b. Power purchase cost is as per audited accounts.
  - c. Break up details of RE purchase under section -11 & other sources.
  - d. The details of solar purchased and has confirmed that the solar purchased for FY-17 is 77.37 MU.
  - e. The details of Non-Solar power purchased and
  - f. The reconciled RPO Statement

4. The Commission has noted the replies furnished by the HESCOM. The Commission has relied upon the prevailing Regulations, the Government Order No. EN 43 PSR 2017 dated 26.09.2017 and the available data with the Commission, for ascertaining the RPO compliance for FY17.

The Commission notes that as per the GO dated 26.09.2017, the input energy for HESCOM is 12940.89 MU, whereas as per the APR, the Commission has approved 12583.20 MU, as per audited accounts.

Regarding the Non-Solar RPO, considering the input energy of 12583.20 MU, the Non-solar RPO target at 7.50% works out to 943.74 MU. In the GO, the Non-solar energy purchased is indicated as 1513.92 MU. As per the replies furnished by HESCOM to preliminary observations, the non-solar energy purchased works out to 1519.01 MU [as per Annexure-3 of replies, after excluding UI energy of 4.18 MU, which is not a source]. Thus, the Commission has considered 1519.01 MU as the Non-solar energy purchased for FY17. Further, deducting 543.35 MU of Non-solar energy allocated to BESCOM, MESCOM and CESC from HESCOM, and adding 6.05 MU of Shimshapura power plant [which is Small Hydro as per MNRE definition], and deducting 0.37 MU of Solar energy included in purchase from other sources, the total energy accounted for Non-solar RPO would be 981.34 MU [1519.01-543.35+6.05-0.37].

**Therefore, the Commission concludes that HESCOM has met its Non-Solar RPO target of 7.50% for FY17, in terms of the prevailing Regulations.**

Regarding the Solar RPO, considering the input energy of 12583.20 MU, the Solar RPO target at 0.75% works out to 94.37 MU. In the GO, the Solar energy purchased is indicated as 77.00 MU. HESCOM reconciling the data, in its replies to preliminary observations has submitted that the total solar energy purchased is 77.37 MU which is reckoned by the Commission. The Commission notes that GO has allocated 11.81 MU from GESCOM to HESCOM. However, as per actuals the surplus in GESCOM is only 8.28 MU, which is reckoned by the Commission. Thus, considering excess solar of 8.28 MU allocated by GoK from GESCOM, the total solar energy purchased by HESCOM works out to

85.65 MU, which results in a marginal shortfall in meeting the target by 8.72 MU. Since solar REC trading is stayed by the Hon'ble Supreme Court, **the Commission decides to allow carry forward of the shortfall in meeting the solar RPO of 8.72 MU to the next year.**

#### 4.2.5 Operation and Maintenance Expenses:

##### HESCOM's Submission:

In its application, HESCOM, as per its audited accounts has sought the approval of O&M expenditure of Rs.685.66 Crores for FY17. The break-up of O&M expenses are as follows:

**TABLE – 4.9**

##### O & M Expenses – HESCOM's submission

Particulars	Rs. Crores
	FY17
Employee cost	525.43
Administrative & General Expenses	97.73
Repairs and Maintenance	62.50
<b>Total O &amp; M Expenses</b>	<b>685.66</b>

##### Commission's analysis and decisions:

The Commission in its Tariff Order dated 30<sup>th</sup> March, 2016 had approved O&M expenses for FY17 as detailed below:

**TABLE – 4.10**

##### Approved O&M Expenses as per Tariff Order dated 30.03.2016

Particulars	FY17
No. of installations as per actuals as per Audited Accts	4448061
Weighted Inflation Index	7.24%
CGI based on 3 Year CAGR	4.14%
Actual O&M expenses for FY16 - in Rs.Crores.	633.66
<b>Total approved O&amp;M Expenses for FY17 – in Rs.Crores.</b>	<b>693.09</b>

The Commission, in its preliminary observations, made on the APR filing, had sought the details of the additional employees cost and certain other expenses, employees cost and A&G expenses during FY17. The Commission

has taken note of the replies furnished by HESCOM. The Commission directs that, the O&M expenses are controllable expenditure in nature, the HESCOM should take necessary action to minimize these expenditures in future to bring down the O&M expenses within the approved level.

The Commission, in accordance with the provisions of MYT Regulations and the methodology adopted while approving the O & M expenses under MYT Regulations for FY17 and FY19 and for the previous control period and subsequent APRs, proceeds with the determination of normative O&M expenses based on the 12 Year data of WPI and CPI besides considering three year compounded annual growth rate (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 rate of inflation for FY16 is computed as follows:

**TABLE – 4.11**

**Computation of Rate of Inflation**

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2005	103.37	115.8	113.314				
2006	109.59	122.9	120.238	1.06	0.06	1	0.06
2007	114.94	130.8	127.628	1.13	0.12	2	0.24
2008	124.92	141.7	138.344	1.22	0.20	3	0.60
2009	127.86	157.1	151.252	1.33	0.29	4	1.16
2010	140.08	175.9	168.736	1.49	0.40	5	1.99
2011	153.35	191.5	183.87	1.62	0.48	6	2.90
2012	164.93	209.3	200.426	1.77	0.57	7	3.99
2013	175.35	232.2	220.83	1.95	0.67	8	5.34
2014	182.00	246.90	233.92	2.06	0.72	9	6.52
2015	177.03	261.42	244.542	2.16	0.77	10	7.69
2016	180.6	274.3	255.56	2.26	0.81	11	8.95
A= Sum of the product column							39.44
B= 6 Times of A							236.63
C= (n-1)*n*(2n-1) where n= No of years of data=12							3036.00
D=B/C							0.08
g(Exponential factor)= Exponential (D)-1							0.0811
e=Annual Escalation Rate (%)=g*100							<b>8.1059</b>

For the purpose of determining the normative O & M expenses for FY17, the Commission has considered the following:

- a) The actual O & M expenses for FY16 excluding contribution to the Pension and Gratuity Trust.
- b) The three year compounded annual growth rate (CAGR) of the number of installations at 3.85%, considering the actual number of installations as per the audited accounts up to FY17.
- c) The weighted inflation index (WII) at 8.1059% as computed above.
- d) Efficiency factor at 2 % as considered in the earlier two control periods.

Thus, the normative O & M expenses for FY17 are computed as follows:

**TABLE-4.12**

**Computation of O & M Expenses based on inflation**

Particulars	FY17
No. of Installations As per actuals as per Audited Accts	4411081
Weighted Inflation Index	8.1059%
Consumer Growth Index (CGI) based on 3 Year CAGR	3.85%
Base year O& M expenses for FY16 excluding P&G contribution – in Rs. Crores	533.15
<b>O&amp;M Index= O&amp;M (t-1)*(1+WII+CGI-X)- in Rs. Crores.</b>	<b>586.23</b>

The above normative O & M expenses have been computed without considering the contribution to the Pension and Gratuity Trust for FY 17.

The Commission as per the provision of MYT Regulations has treated the employee costs on account of contribution to the P&G Trust as uncontrollable O&M expenses. This component has been allowed beyond the normative O&M expenses to enable the ESCOMs to meet their actual employee costs.

HESCOM, as per the audited accounts has incurred an amount of Rs.102.40 Crores towards contribution to the Pension and Gratuity Trust for FY17. Considering the provisions under the prevailing MYT Regulations and the request of HESCOM to treat the pension and gratuity contribution as uncontrollable O & M expenses, the Commission computes the allowable O & M expenses for FY17 as follows:

TABLE – 4.13

## Allowable O &amp; M Expenses for FY17

Sl. No.	Particulars	Rs. Crores
		FY17
1	Normative O & M expenses	586.23
2	Additional employee cost (uncontrollable O & M expenses)	102.40
	<b>Allowable O &amp; M expenses for FY16</b>	<b>688.63</b>

Thus, the Commission decides to allow an amount of Rs.688.63 Crores as O&M expenses for FY17.

## 4.2.6 Depreciation:

## HESCOM's Submission:

HESCOM in its application as per the audited accounts has claimed an amount of Rs.121.79 Crores as net depreciation after deducting the depreciation on account of assets created out of consumers' contributions / grants as per Accounting Standards (AS) – 12 for FY17.

As per the audited accounts for FY 17, the asset-wise net depreciation is as follows:

TABLE – 4.14

## Depreciation for FY17

Particulars	Rs. Crores		
	Opening Balance of Asset as on 1.04.2016	Closing Balance of Asset as on 31.03.2017	Depreciation for FY17
Buildings	76.20	83.26	2.54
Civil	3.08	3.53	0.10
Other Civil	2.72	2.96	0.16
Plant & M/c	759.75	853.02	43.26
Line, Cable Network	3009.09	3489.15	75.17
Vehicles	5.65	6.14	0.12
Furniture	4.00	6.93	0.29
Office Equipment	4.68	4.71	0.15
Land	10.28	10.81	0.00
<b>Total</b>	<b>3875.46</b>	<b>4461.70</b>	<b>121.79</b>

### Commission's analysis and decisions:

In accordance with the provisions of the KERC (Terms and Conditions for Determination of Tariff for Distribution and Retail sale of electricity) Regulations, 2006 and amendments thereon, the depreciation for FY17 has been determined by the Commission. Based on the opening and closing balances of gross blocks of fixed assets for FY17 and the depreciation as per the audited accounts, the weighted average rate of depreciation works out to 4.47%.

Further, as per the audited accounts, an amount of Rs.64.21 Crores of depreciation on assets created out of consumer contribution / grants has been considered as in accounting standard AS-12 in allowing net depreciation for FY17.

**Based on the above, the Commission decides to allow the net depreciation of Rs.121.79 Crores for FY17.**

#### 4.2.7 Capital Expenditure for FY17:

##### A. HESCOM's submission:

The HESCOM has indicated an actual capital expenditure of Rs.942.39 Crores as against the Commission approved capex of Rs.806.05 Crores for FY17. The HESCOM has furnished the category wise capex expenditure of Rs.820.48 Crores for FY17. However, HESCOM, in its replies to the preliminary observations of the Commission has revised its capex expenditure on the replacement of failed transformers by new transformers and submitted the category wise expenditure of Rs.707.63 Crores for FY17 as shown in the table below:

**TABLE – 4.15**

#### Capital expenditure of HESCOM for the FY17

Sl. No	Scheme	Rs. Crores	
		Approved capex for FY17	Actual Achievement for FY 17
1	<b>Mandatory works- Government Schemes:</b>		
a	Gangakalyan IP sets	20.00	77.21
b	Special Development Plan for backward	20.00	9.60

	talukas under Nanjundappa scheme(SDP)		
c	Electrification of Hamlets(Not covered under RGGVY)	1.00	0.25
d	Electrification of HB/DB/JC/AC (Habitations) under SCP (Not covered under RGGVY)	1.00	5.39
e	Electrification of TC(Habitations) under TSP (Not covered under RGGVY)	0.50	2.55
f	Electrification of BPL Households (Not covered under RGGVY)	1.00	-
g	Water works	5.00	-
h	RGGVY	5.00	-
	DDGUVY	110.00	-
i	DDG (Phase-1 & Phase-2)	-	-
	Rehabilitation of flood affected villages(special programme).		0.26
	<b>Sub - total</b>	<b>163.50</b>	<b>95.26</b>
2	<b>Expansion of network and system improvement works.</b>		
a	E & I works.	25.00	44.81
b	Energisation of IP sets under general.		17.65
	Energisation of IP sets as per GOK	125.00	92.30
c	Service connections other than IP/BJ/KJ/Water works.	30.00	32.01
d	Construction of new 33 KV stations and lines.	4.00	0.24
e	Augmentation of 33 KV stations.	3.00	5.60
f	Construction of 11 KV lines for 33 KV / 110 KV sub-stations.	5.00	12.97
g	Nirantara Jyothi Yojana.	50.00	71.34
		50.00	
h	R- APDRP.	20.00	8.35
	R-APDRP exclusively for Modem and meters	1.00	-
	IPDS	46.00	-
ii	<b>Sub - total</b>	<b>359.00</b>	<b>285.27</b>
3	<b>Reduction of T &amp; D and ATC loss</b>		
a	Providing meters to un-metered IP sets.	0.05	0.28
b	Providing meters to un-metered BJ/KJ installations.	2.00	0.06
c	Replacement of faulty / MNR energy meters by static meters.	5	5.08
d	Replacement of more than 10 year old electromechanical energy meters by static meters.	50	-
e	DTC's metering ( Other than APDRP)	50.00	50.51
f	Replacement of 33 KV lines Rabbit conductor by Coyote conductor.	5.00	5.34
g	Replacement of 11 KV lines Weasel conductor by Rabbit conductor.	10.00	10.54
h	Replacement of age old LT conductor by	6.00	6.04



	Rabbit conductor.		
i	HVDS (Pilot project for 1 district/year)	1	
j	NEF (REC) for replacing 11 KV OH feeders by UG Cables in Hubli and Belgaum cities.	100	88.85
iii	<b>Sub - total</b>	<b>229.05</b>	<b>166.70</b>
4	<b>New initiatives works</b>		
a	IT initiatives, automation and call centre	1.00	4.09
c	Smart grid/sprinkler/drip irrigation system	0.5	
d	Providing solar roof tops to the HESCOM office buildings	5	8.33
e	Establishing ALDC & SCADA.	1.00	0.16
f	Thermal Imaging and GIS Mapping of DTCs	5	
g	Special pilot project for Strategic Business Centre at Shiggaon sub-Division	1	
iv	<b>Sub - total</b>	<b>13.50</b>	<b>12.58</b>
5	<b>Replacement and other miscellaneous works</b>		
a	Replacement of failed distribution transformers.	5.00	0.00
b	Replacement of Power Transformers.	2.00	0.42
c	Replacement of old and failed equipment and other works of existing 33 KV stations and lines.	3.00	5.05
d	Preventive measures to reduce the accidents. (Providing intermediate poles replacement of deteriorated conductor, DTC earthing etc.)	5.00	15.50
e	T&P materials.	1.00	0.83
f	Creating infrastructure to UAIP Sets	20.00	126.00
g	Civil Engineering works.	5.00	0.02
	Reserve		
v	<b>Sub - total</b>	<b>41.00</b>	<b>147.82</b>
	<b>Total</b>	<b>806.05</b>	<b>707.63</b>

#### Commission's analysis and decision:

The Commission notes that, the HESCOM has rectified its misclassification while indicating the capex in respect of Replacement of failed distribution

transformers by new ones and submitted a capex expenditure of Rs.707.63 Crores which is well within the overall capex for FY17, approved by the Commission. However, in respect of some of the categories of works, the capex has been exceeded by HESCOM as indicated below:

- a. In the case of "E & I work and Energization of IP sets under general category" the HESCOM has achieved an outlay of Rs.62.46 Crores capex which is Rs.37.46 Crores in excess of the approved capex of Rs.25 Crores. The HESCOM, in its replies to the preliminary observations has stated that, essential works such as

Additional DTCs, Re-conductoring and link line works etc. are carried out in some specific areas where the energy loss is found to be significantly very high. The emphasis has been given to these works, where significant saving can be achieved which has slightly increased capex as compared to the provision made in MYT. In case of IP Sets under General category, creating infrastructure to UNIP and General IP Sets were carried out as per the Govt. Of Karnataka directions. The HESCOM has taken steps to create infrastructure to the UNIP so that the distribution network would be as per the standards.

- b. In respect of "creating infrastructure to UAIP Sets" the HESCOM has incurred an amount of Rs.126 Crores as against approved capex of Rs.20 Crores. The HESCOM in its replies to the preliminary observations has stated that, due to overwhelming response from the farmers, the applications registered for regularization of IP Sets were very high resulting in HESCOM creating huge infrastructure to the registered farmers. Also, it is felt that construction of more LT line will lead to low voltage problem as well as mismatch in LT /HT ratio and the HESCOM, in order to have better network stability, has included more additional transformers to these IP Sets and has drawn proportionate HT lines. This has resulted in exceeding the capital investment as against the approved amount.
- c. The HESCOM has stated that, the NJYIII phase, IPDS, DDUGJY and RGGVY capex works are in progress and in its replies to the preliminary observations it has furnished the status of these works as follows:
  - i. In case of NJY 3<sup>rd</sup> Phase: 54 feeders out of 92 have been commissioned and remaining 38 feeders are to be completed and the cost incurred up to September, 2017 is at Rs.55 Crores.
  - ii. In case of IPDS: HESCOM has stated that, the total project cost is Rs.170.35 Crores and the expenditure up to 18<sup>th</sup> December is Rs.13.52 crores and furnished the progress of works as follows:

TABLE – 4.16

## Physical Progress of IPDS Works

Sl. No.	Sanctioned Project DPR item	Unit	PO/Award Quantity	Erected Quantity
1	33/11 KV S/S : New	MVA/ Nos.	5	0
2	New 33 KV new feeders/Bifurcation of feeders:	Kms	5	3
3	11 KV Bay Extension	Nos	4	0
4	11 kV Line : New Feeder/ Feeder Bifurcation	Kms	224	20
5	11 kV Line : Augmentation/Reconductoring	Kms	238	35
6	Arial Bunched Cable	Kms	203	15
7	UG Cable	Kms	39	2
8	Installation of New Distribution Transformer	MVA	42	7
9	Capacity enhancement of LT sub-station	MVA	10	2
10	LT Line : New Feeder/ Feeder Bifurcation	Kms	100	7
11	LT Line : Augmentation/Reconductoring	Kms	1509	225
12	Others	Rs. Lakhs	757	0
13	Boundary meters	Nos.	15	0
14	Metering	Nos.	210843	0
15	Solar Rooftop Panel	kWp	1820	565

- iii. In respect of DDUGJY scheme, the HESCOM has stated that, the progress of completion of various works ranges from 1.26% to 16.8% and the cost allocated is Rs.331.85 crores and the expenditure incurred up to December, 2017 is Rs.19.41 Crores.

**The Commission, after reviewing the capex achieved by HESCOM for FY17, and the explanation furnished above, decides to allow the capex of Rs.707.63 Crores, subject to disallowance of the imprudent capex if any, as per the results of Prudence Check of capital expenditure for FY17 to be taken up during APR of FY18.**

**B. Post Commissioning analysis of the capital expenditure of categorised works for FY17 by HESCOM:**

The HESCOM was required to submit the post-commissioning analysis of the categorized works of the FY17, as per the directions issued by the Commission,

within the extended date up to the end of 28<sup>th</sup> December, 2017. The HESCOM, in its replies to the preliminary observations has stated that, the report would be submitted within a short time to the Commission. The HESCOM is directed to submit the report immediately.

**The Commission hereby decides to take up the Prudence Check of the post commissioning analysis conducted on the categorised works of FY17 along with works of FY18 while approving the APR for FY18, through a third party by selecting the random sample of the works in different categories for deciding any disallowance.**

#### **4.2.8 Interest and Finance Charges:**

##### **Interest on Capital loan:**

##### **HESCOM's Submission:**

HESCOM in its application has claimed an amount of Rs.220.54 Crores towards interest on capital loans drawn from Banks/Financial Institutions for FY17. The claims of HESCOM also include the interest on short-term loans/overdrafts. Considering the average amounts of loans during FY17, the weighted average rate of interest on long term capital loans works out to 21.46%.

##### **Commission's analysis and decisions:**

The Commission has taken note of the opening and closing balances of capital loans as per the audited accounts for FY17 and the data in Format D-9 of the filings and the additional information furnished by HESCOM to the Commission. The loan details and the interest amount indicated under Format D-9 by the HESCOM are not tallied to the figures as per audited accounts. The HESCOM in its filing under Format D-9 has clubbed both the long term capital loans and the short term loans availed for working capital amount and the interest thereon. The HESCOM, in its replies to the preliminary observations, has furnished the bifurcated figures for the capital loans and interest amount towards long term and short term loans as per the audited accounts. Accordingly, on the average long term capital loan is Rs.1227.72 Crores, the

weighted average interest rate works out to 10.42% for the interest of Rs.127.91 Crores for FY17 as indicated below:

**TABLE – 4.17**  
**Allowable Interest on Loans – FY17**

Particulars	Rs. Crores
	FY17
<b>Opening balance of capital loans</b>	<b>927.79</b>
Add: New Loans	728.33
Less: Repayments	128.47
Total loan at the end of the year	1527.65
Average Loan	1227.72
<b>Allowable Interest on Capital Loans</b>	<b>127.91</b>

As per the audited accounts of HESCOM for FY17, the actual interest on capital loans is Rs.127.91 Crores. Considering the average loan of Rs.1027.83 Crores and an amount of Rs.127.91 Crores incurred towards interest on capital loans, the weighted average of interest works out to 10.42%. The actual weighted average rate of interest is comparable with the prevailing rate of interest for long term loans.

**Thus, the Commission decides to allow an amount of Rs.127.91 Crores towards interest on capital loans for FY17.**

#### **4.2.9 Interest on Working Capital:**

##### **HESCOM's Submission:**

HESCOM in its application has stated that it has raised short term loans and overdrafts from commercial Banks and financial institutions to meet its day to day expenditure (working capital) and claimed Rs.34.13 Crores as the interest on working capital without considering the actual amount of interest for FY17.

##### **Commission's analysis and decisions:**

As per the audited accounts, HESCOM has incurred Rs.126.76 Crores as interest on short term loans/over drafts for FY17. The commission notes that HESCOM has wrongly considered the entire amount of interest on working capital under interest on capital loan head. As per the replies to the preliminary observations of the Commission and the additional information submitted by the HESCOM, the short term loans are availed at the interest

rate of 11.35% to 13.00%. The Commission in its Tariff Order dated 30<sup>th</sup> March, 2016, while approving the ARR for the control period of FY17 to FY19, had considered the rate of working capital interest at 11.75%, based on the interest rate prevailing at that time. The Commission notes that, the rate of interest at which the short term loans and overdrafts were availed by the HESCOM, during FY17, is on the higher side when compared to the interest rate at which the other ESCOMs have borrowed the working capital. The HESCOM has not taken advantage of the reduction in the rate of interest in the Banking sector, while vailing its requirement of working capital. Thus the Commission decides to allow the working capital loan at a normative interest rate of 11.75 % for FY17.

The Commission directs the HESCOM that the working capital loans shall be availed at lower rates in view of the reduction of interest rates by the Bankers/financial institutions, in order to minimise the interest burden on the consumers.

As per the KERC (Terms and Conditions for Determination of Tariff for Distribution and Retail sale of electricity) Regulations, 2006 and amendments thereto, the Commission has computed the allowable interest on working capital for FY17 as follows:

**TABLE – 4.18****Allowable Interest on Working Capital for FY17**

Particulars	Rs. Crores
	FY17
One-twelfth of the amount of O&M Expenses	57.39
Opening GFA	3875.46
Stores, materials and supplies- 1% of Opening balance of GFA	38.75
One-sixth of the Revenue	993.09
Total Working Capital	1089.23
Rate of Interest (% p.a.)	11.75%
Normative Interest on Working Capital	127.98
Actual interest on WC as per audited accounts for FY17	126.76
<b>Allowable Interest on Working Capital</b>	<b>127.37</b>

**Thus, in accordance with the provisions of the MYT Regulations and amendments thereto the Commission decides to allow the allowable interest on working capital at the normative amount of Rs.127.37 Crores for FY17.**

#### **4.2.10 Interest on Consumer Deposits:**

##### **HESCOM's Submission:**

HESCOM, in its application, has claimed an amount of Rs.44.25 Crores towards payment of interest on consumers' security deposits for FY17, as per the audited accounts.

##### **Commission's analysis and decisions:**

The Commission notes that, based on the average amount of consumer security deposits, the interest on consumer security deposits of Rs.44.25 Crores as claimed by HESCOM, as per the audited accounts for FY17 works out to a weighted average rate of interest of 6.81%. As per the KERC (Interest on Security Deposit) Regulations, 2005, the interest on consumer deposits shall be allowed as per the bank rate prevailing on the 1<sup>st</sup> of April of the relevant year. The bank rate as on 1<sup>st</sup> April, 2015 was 7.75%. The weighted average rate of interest claimed by HESCOM as per the audited accounts is within the applicable bank rate.

**Hence, the Commission decides to allow an amount of Rs.44.25 Crores towards interest on consumer security deposits for FY17.**

#### **4.2.11 Other Interest and Finance charges:**

HESCOM, has claimed an amount of Rs.28.45 Crores towards other interest and finance charges for FY17, paid to banks / financial institutions.

**Commission's analysis and decisions:** The Commission notes that, the HESCOM has claimed Rs.28.45 Crores towards other interest and finance charges as per the audited accounts for FY17. As per the replies to the preliminary observations, this amount includes an amount of Rs.22.99 Crores being the interest on delayed payment of Electricity tax from 2004 to 2014. As the electricity tax being collected by HESCOM has to be paid to the Government on time, for the delay in payment of tax already collected, the

interest levied by the government and charged in the books of account and claimed by HESCOM in its filing, is not acceptable.

**Thus, the Commission decides to allow Rs.5.46 Crores being the other interest and finance charges for availing the loans during FY17.**

#### **4.2.12 Interest on belated payment of Power Purchase Cost:**

HESCOM, in its application, has claimed an amount of Rs.226.49 Crores towards Interest on belated payment of Power Purchase Cost for FY17. As per the audited accounts, an amount of Rs.226.49 Crores is indicated as interest on power purchase dues. This also includes an amount of Rs.94.39 Crores relating to prior period income, which is included in the audited accounts, as other income, has been factored under prior period debit/credit and Rs.94.71 Crores being the interest on power purchase of KPCL levied and accounted in the books of KPTCL and transferred to HESCOM as per the GoK Order dated 31.07.2017. The Commission has been consistently allowing the interest on working capital as per the norms under MYT Regulations to meet the day to day expenses of the ESCOMs. Thus, there is no justification for claiming interest on belated power purchase dues separately. Hence, the Commission decides not to allow any interest on power purchase dues in the APR for FY17.

The allowable interest and finance charges for FY17 are as follows:

**TABLE – 4.19**

#### **Allowable Interest and Finance Charges**

Sl. No.	Particulars	Rs. Crores
		FY17
1.	Interest on capital Loans	127.91
2.	Interest on working capital	127.37
3.	Interest on consumer deposits	44.25
5.	Other interest and finance charges	5.46
	<b>Total interest and finance charges</b>	<b>304.99</b>



**4.2.13 Other Debits:****HESCOM's Submission:**

HESCOM, in its application, has claimed a net amount of Rs.9.06 Crores towards other debits for FY17, as per its audited accounts.

**Commission's analysis and decisions:**

The Commission notes that as per the audited accounts, the allowable other debits excluding the provision for bad and doubtful debts for FY17. The allowable bad & doubtful debts are works out as under:

**TABLE – 4.20****Allowable Other Debits**

SI No	Particulars	Rs. Crores
		FY17
1	Gain/Losses relating to fixed assets	1.05
2	Assets decommissioning cost	0.53
3	Miscellaneous losses and write offs	6.98
4	Material cost variance	1.11
5	Gain on sale of assets	(-)0.01
	<b>Total</b>	<b>9.66</b>

Thus, the Commission decides to consider an amount of Rs.9.66 Crores as other debits for FY17.

**4.2.14 Prior Period Charges(Debit)/income(credit):****HESCOM's Submission:**

HESCOM in its application has claimed Prior Period charges of Rs.17.50 Crores for FY17.

**Commission's analysis and decisions:**

The Commission notes that, as per the Audited Accounts for FY17, the prior period expenses (debit) are indicated as Rs.17.50 Crores which are towards employee costs, under provision of depreciation in the previous years, A&G expenses, interest and finance charges and expenses relating to earlier years. HESCOM, in its filing, has shown the prior period income of Rs.94.39 Crores under other income head. However, as per the provisions of the MYT

Regulations and as per the audited accounts, the Commission has considered the prior period credit of Rs.94.39 Crores which is on account of excess provision for depreciation, interest and finance charges, other miscellaneous receipts from trading and other income relating to prior period under this head.

**Thus, the Commission decides to allow a net prior period income (credit) of Rs.76.89 Crores for FY17.**

#### 4.2.15 Return on Equity:

##### HESCOM's Submission:

HESCOM in its application has not claimed any Return on Equity for FY17.

##### 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 FY17 as per actual data as per the audited accounts are indicated as follows:

**TABLE – 4.21**

**Status of Debt Equity Ratio for FY17**

Rs. Crores

	GFA (Actuals)	Debt (Actuals)	Equity (Net- worth) (Actuals)	Normative Debt @ 70% of GFA	Normative Equity @ 30% of GFA	%age of actual debt on GFA	%age of actual equity on GFA
Opening Balance	3875.46	927.79	-614.17	2712.82	1162.63	23.94	-15.85%
Closing Balance	4461.70	1527.65	1301.85	3123.19	1338.51	33.24	29.17%

From the above table it is evident that the amounts of debt & equity are within the normative amounts as per the debt equity ratio of 70: 30 on the closing balances of GFA for FY17.

As per the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereto, 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.34.00 Crores in compliance with the Orders of the Hon'ble ATE in appeal No.46/2014. The allowable RoE for FY17 is determined as follows:

**TABLE – 4.22**  
**Allowable Return on Equity**

Particulars	Rs. Crores
	FY17
Paid Up Share Capital	934.49
Share deposit	47.41
Reserves and Surplus as on 01.04.2015	(1562.07)
Recapitalization of Consumers' security deposit	(34.00)
Total Equity	(614.17)
<b>Allowable RoE @ 15.50%</b>	<b>0.00</b>

Further, as per the audited accounts and as reported by the HESCOM, an additional equity of Rs.229.17 Crores has been received during the year from Government of Karnataka. Even after considering the additional equity infused during FY17, the negative net worth remains and hence the Commission is unable to allow any return on equity for FY17.

#### **4.2.16 Other Income:**

##### **HESCOM's Submission:**

HESCOM in its application has claimed an amount of Rs.233.57 Crores as Other Income by including sundry creditor's balance written back and prior period incomes (Credit) for FY17.

##### **Commission's analysis and decisions:**

As per the audited accounts, the other income is Rs.233.57 Crores for FY17. This includes income from sale of scrap, income from rent, interest on Bank deposit, receipts, processing fees, reactive energy charges, rebate on collection of electricity charges and other recoveries. Further, an amount of Rs.94.39 Crores relating to prior period income, which is included in the audited accounts, as other income, has been factored under prior period debit/credit and Rs.94.71 Crores being the interest on power purchase of KPCL levied and accounted in the books of KPTCL and transferred to HESCOM as

per the GoK Order dated 31.07.2017. This is not considered as an item of expenditure earlier in approval of ARR/APR. As decided in the earlier Tariff Orders, to encourage and bring in financial discipline in timely payment of monthly power purchase bills, the Commission continues to allow 10% of the total incentive amounting to Rs.0.02 Crores on account of timely payment of power purchase bills, to be retained by HESCOM for FY17.

**Thus, the Commission decides to allow an amount of Rs.44.45 Crores as other income for FY17.**

#### **4.2.17 Fund towards Consumer Relations / Consumer Education:**

The Commission has been allowing an amount of Rs.0.50 Crore per year towards consumer relations / consumer education. HESCOM in its filing has claimed an amount of Rs.0.40 Crores towards Consumer Relations / Consumer Education for FY17. The Commission decides to allow the same in the APR for FY17.

#### **4.2.18 Extraordinary Items**

HESCOM in its application has claimed an amount of Rs.8.12 Crores for FY17 towards the adjustment of excess subsidy received during FY09, as per the Order of the Commission in approval of APR for FY09 dated 23.04.2015 and subsequent GoK Order No. EN 38 PSR 2015 dated 31.03.2016.

#### **Commission Views / Decisions:**

The Commission notes that, the claims made by HESCOM in its application towards the exceptional items of adjustment of excess subsidy accounted and received during FY09. The Commission in its Order dated 23.04.2015, in approving the revised ARR as per APR had directed HESCOM to adjust the excess subsidy received during FY09 in five equal installments out of the subsidy amount receivable from FY16 onwards.

Accordingly, in compliance of the Order of the Commission and as per GoK order dated 31.03.2016, mere accounting the excess amount of subsidy received in previous years in the accounts of the subsequent years cannot be

treated as an item of expenditure in determination and approval of APR/ARR. In view of the above, **the Commission is unable to accept the claims made by HESCOM to allow an amount of Rs.83.12 Crores under exceptional items in the APR for FY17.**

#### **4.2.19 Revenue for FY17:**

HESCOM, in its application has considered Rs.5990.04 Crores as revenue from sale of power from tariff and miscellaneous charges.

As per the audited accounts for FY17, the revenue from sale of power is Rs.5990.04 Crores. **However, as discussed earlier, the sale to IP sets is reckoned as 5924.50 MU instead of 5981.13 MU, i.e. a reduction of 56.63 MU. Based on the approved CDT of Rs.5.56 per unit, revenue of Rs.31.48 Crores is deducted from revenue from sale to IP Sets.**

**Accordingly, the Commission decides to consider Rs.5958.56 Crores as revenue from sale of power to consumers in the approval of revised ARR as per APR of HESCOM for FY17.**

#### **4.2.20 Revenue and Subsidy for FY17:**

The Commission in its Tariff Order dated 30<sup>th</sup> March, 2016 has approved the total tariff subsidy of Rs.3178.94 Crores towards sale of power to BJ/KJ and IP sets for FY17 in accordance with the prevailing Government Order. The Commission while computing the revised ARR as per APR for FY17, has approved the revised tariff subsidy of Rs.50.07 Crores and Rs.3231.95 Crores respectively towards sale of power to BJ/KJ and IP Sets respectively, for FY17. Accordingly, the net difference in the tariff subsidy of Rs.103.08 Crores shall be payable by the government of Karnataka to HESCOM for FY17.

#### **4.3 Abstract of Approved ARR for FY17:**

As per the above item-wise decisions of the Commission, the consolidated Statement of revised ARR for FY17 is as follows:

TABLE – 4.23

## HESCOM's Approved revised ARR for FY17 as per APR

Sl. No	Particulars	FY17		
		As Appd 30.03.2016	As Filed 30.11.2017	As per APR
1	Energy at Gen Bus	12722.20	12583.20	12583.20
2	Transmission Losses in %	3.47%	3.39%	3.39%
3	Energy at Interface in MU	11980.18	12156.67	12156.67
4	Distribution Losses in %	16.00%	15.56%	16.02%
	<b>Sales in MU</b>			
5	Sales to other categories	4352.69	4197.40	4197.41
6	Sales to BJ/KJ installations	90.84	87.01	87.01
7	Sales to IP-sets	5619.82	5981.13	5924.50
	<b>Total Sales</b>	<b>10063.35</b>	<b>10265.54</b>	<b>10208.92</b>
	<b>Revenue at existing tariff in Rs Crores</b>			
8	Revenue from tariff and Misc. Charges	2839.03	2676.52	2676.54
9	Tariff Subsidy for BJ/KJ installations	54.32	50.08	50.07
10	Tariff Subsidy for IP-sets	3124.62	3263.44	3231.95
	<b>Total Existing Revenue</b>	<b>6017.97</b>	<b>5990.04</b>	<b>5958.56</b>
	<b>Expenditure in Rs Crores</b>			
11	Power Purchase Cost	4317.97	5082.22	5081.96
12	Transmission charges of KPTCL	611.37	611.37	611.37
13	SLDC Charges	4.13	2.00	2.28
	<b>Power Purchase Cost including cost of transmission</b>	<b>4933.46</b>	<b>5695.59</b>	<b>5695.61</b>
14	Employee Cost		525.43	
15	Repairs & Maintenance		62.50	
16	Admin & General Expenses		97.73	
	<b>Total O&amp;M Expenses</b>	<b>693.09</b>	<b>685.66</b>	<b>688.63</b>
17	Depreciation	113.85	121.79	121.79
	<b>Interest &amp; Finance charges</b>			
18	Interest on Loans	158.64	220.54	127.91
19	Interest on Working capital	122.02	34.13	127.37
20	Interest on belated payment on PP Cost	0.00	226.49	0.00
21	Interest on consumer deposits	52.36	44.25	44.25
22	Other Interest & Finance charges	0.00	28.45	5.46

23	Less interest capitalized	0.00	0.00	0.00
	<b>Total Interest &amp; Finance charges</b>	<b>333.01</b>	<b>553.86</b>	<b>304.99</b>
24	Other Debits	0.00	9.06	9.66
25	Net Prior Period Debit/Credit	0.00	17.50	-76.89
26	Extraordinary Items	0.00	83.12	0.00
27	Return on Equity	0.00	0.00	0.00
28	Provision for taxation	0.00	0.00	0.00
29	Funds towards Consumer Relations/Consumer Education	0.50	0.40	0.40
30	Other Income	148.49	233.57	44.45
	<b>ARR</b>	<b>5925.42</b>	<b>6933.41</b>	<b>6699.73</b>
31	Surplus for FY15 carried forward	105.14	0	0.00
32	Regulatory asset/Carrying Cost	197.69	0	0.00
	<b>Net ARR with RA and penalty for losses</b>	<b>6017.97</b>	<b>6933.41</b>	<b>6699.73</b>

#### 4.3.1 Gap in Revenue for FY17:

As against an approved ARR of Rs.6017.97 Crores, for FY17, the Commission, after the Annual Performance Review of HESCOM, decides to allow a revised ARR of Rs.6699.73 Crores for FY17. Considering the revenue of Rs.5958.56 Crores, the deficit in revenue of Rs.741.17 Crores is determined for the year FY17.

**The Commission decides to carry forward the deficit of Rs.741.17 Crores of FY17 to the proposed ARR for FY19 as discussed in the subsequent Chapter of this Order.**